INDUSTRIAL RELATIONS
RESEARCH ASSOCIATION SERIES

Proceedings of the Forty-Third Annual Meeting

DECEMBER 28-30, 1990
WASHINGTON, D.C.

OFFICERS OF IRRA FOR 1991

PRESIDENT:

James L. Stern, University of Wisconsin-Madison

PRESIDENT-ELECT:

Ernest J. Savoie, Ford Motor Company

PAST PRESIDENT:

Robert B. McKersie, Sloan School of Management, MIT

SECRETARY-TREASURER:

David R. Zimmerman, University of Wisconsin-Madison

EDITOR-IN-CHIEF:

John F. Burton, Jr., Rutgers University

MANAGING EDITOR:

Elaine C. Moran, University of Wisconsin-Madison

NEWSLETTER EDITORS:

Charles T. Schmidt, Jr., University of Rhode Island

Rachel Grenier, AAUP, University of Rhode Island

Marjorie A. Lamb, IRRA National Office

EXECUTIVE BOARD MEMBERS:

Richard N. Block, Michigan State University
Francis X. Burkhardt, IBPAT
Sheldon Friedman, AFL-CIO
Walter J. Gershenfeld, Arbitrator
Michele M. Hoyman, University of Missouri-St. Louis
Magdalena Jacobsen, City/County San Francisco
Harry Katz, Cornell University
Benton F. Kunnecke, McDonnell Douglas Space Systems Co.
Leon E. Lunden, Bureau of Labor Management Relations and Cooperative Programs, USDL
F. Donal O'Brien, Metro Water Reclamation District, Chicago
Phillip E. Ray, Education Foundation of West Palm Beach County
Lamont Stallworth, Loyola University
Norman A. Weintraub, International Brotherhood of Teamsters
Hoyt N. Wheeler, University of South Carolina

EXECUTIVE ASSISTANT

Marion J. Leifer, National Office

Past Presidents of IRRA

1948 Edwin E. Witte
1949 Sumner H. Slichter
1950 George W. Taylor
1951 William M. Leiserson
1952 J. Douglas Brown
1953 Ewan Clague
1954 Clark Kerr
1955 Lloyd Reynolds
1956 Richard A. Lester
1957 Dale Yoder
1958 E. Wight Bakke
1959 William Haber
1960 John T. Dunlop
1961 Philip Taft
1962 Charles A. Myers
1963 William F. Whyte
1964 Solomon Barkin
1965 Edwin Young
1966 Arthur M. Ross
1967 Neil W. Chamberlain
1968 George P. Shultz
1969 Frederick H. Harbison
1970 Douglass V. Brown
1971 George H. Hildebrand
1972 Benjamin Aaron
1973 Douglas H. Soutar
1974 Nat Goldfinger
1975 Gerald G. Somers
1976 Irving Bernstein
1977 Ray Marshall
1978 Charles C. Killingsworth
1979 Jerome M. Rosow
1980 Jack Barbash
1981 Rudolph A. Oswald
1982 Milton Derber
1983 Jack Stieber
1984 Wayne L. Horvitz
1985 Everett M. Kassalow
1986 Lloyd Ulman
1987 Michael H. Moskow
1988 Phyllis A. Wallace
1989 Joyce D. Miller
1990 Robert B. McKersie

INDUSTRIAL RELATIONS RESEARCH ASSOCIATION SERIES

Proceedings of the Forty-Third Annual Meeting

December 28-30, 1990
Washington, D.C.

JOHN F. BURTON, JR., EDITOR

First edition

Library of Congress Catalog Card Number: 50-13564

ISBN 0-913447-51-X

PRICE $20.00

INDUSTRIAL RELATIONS RESEARCH ASSOCIATION SERIES
- Proceedings of the Annual Meeting (Summer publication)
- Proceedings of the Spring Meeting (Fall publication)
- Annual Research Volume
- Membership Directory (every third year)

IRRA Newsletter (published quarterly)

Inquiries and other communications regarding membership, meetings, publications, and the general affairs of the Association, as well as orders for publications, copyright requests, and notice of address changes should be addressed to the National IRRA Office.

INDUSTRIAL RELATIONS RESEARCH ASSOCIATION
7226 Social Science Building, University of Wisconsin,
1180 Observatory Drive, Madison, WI 53706-1393 U.S.A.
Telephone: 608/262-2762

PREFACE

The Annual Meeting of the Industrial Relations Research Association was held in Washington, D.C., from December 27 to 30, 1990.

The program reflected the wide range of interests of the IRRA members. Traditional labor relations topics were examined, including a session on "Strategic Options for Organized Labor in the 1990s." The long-standing interest of some IRRA members in labor economics was reflected in the sessions on "Priorities and Constraints in Improving Labor Market Information" and "Economic Consequences of Raising the Minimum Wage." The persistent panoramic perspective of the IRRA in international and comparative industrial relations matters was represented in the session on "Statutory Works Councils." The boundaries of industrial relations are expansive, which is a phenomenon evident in several of the IRRA sessions, including the examination of "Alternative Approaches to Employee Participation: Implications and Effects" and the session featuring contributed papers on "Human Resources and Organizational Behavior."

The blend of old and new topics portends well for the continuing vitality of the IRRA. Another program aspect designed to maintain the vigor of the Association was the continuation of the recent practice of opening sessions to more participants. The Dissertation session was based on a competition among recent recipients of the Ph.D. to have their results published, albeit in summary fashion. Three Contributed Papers sessions consisted of papers selected from entries in response to requests for submissions on either "Labor Economics," "Human Resources and Organizational Behavior" or "Collective Bargaining."

The Annual Meeting also included several special sessions that are included in this volume, including the IRRA Presidential Address by Robert B. McKersie.

The Annual Meeting was also enlightened by Workshops on several topics for which the Washington, D.C. IRRA Chapter was partially responsible, including an examination on "Health Care Issues in Collective Bargaining" and "The Occupational Health and Safety Act: A 20-year Appraisal." There were, in addition, two Poster Sessions at which papers on a variety of topics were available. Although the Workshops are not published, and the Poster Sessions are printed only in abstract form in the Proceedings, the sessions are a valuable component of IRRA Annual Meetings. (The table of contents lists the participants in the Workshops and the Poster Sessions, and several of the most outstanding papers from the Poster Sessions are available from the IRRA National Office as "IRRA Working Papers.")

The papers included in this year's Proceedings have been subject to a new screening procedure in order to insure high quality. In my capacity as IRRA Editor-in-Chief, I reviewed each paper for substance and, in several instances, the authors were required to revise their papers before they were published. In addition to this substantive review, the papers were carefully copy edited for style and form by Elaine Moran, the IRRA Managing Editor. The multi-stage review and editing process required more time than in previous years, which delayed somewhat the publication date for the 1990 Proceedings. I hope the improved overall quality of the papers is adequate recompense for the delay.

There are numerous individuals who were crucial to the success of the 1990 Annual Meeting and these Proceedings. The IRRA Program Committee, chaired by Robert B. McKersie, was responsible for the diverse and valuable sessions. The Washington, D.C. IRRA Chapter provided excellent assistance in making arrangements for social events and for various parts of the program, including the Workshops. On behalf of the Executive Board of the Association, I express our appreciation for this assistance.

I would also like to express the gratitude of the IRRA Executive Board to all staff members of the National Office. Elaine Moran, Managing Editor, did an excellent job of editing the proceedings, especially considering this was the first year of the new, multi-stage review process.

In particular, the IRRA Executive Board and the entire Association owe an enormous debt of gratitude to Marion J. Leifer, the IRRA Executive Assistant. Marion has served for nine years in that official capacity, during which time the elected officers have greatly benefitted from her knowledge, warmth and tact. I know that I could not have performed my duties without the enormous assistance provided by Marion. Marion is retiring in the fall of 1991 and all her friends in the IRRA wish Marion and Larry Leifer many happy years of retirement.

John F. Burton, Jr.
Editor-in-Chief

CONTENTS

Officers of the IRRA		Cover 2
Preface		iii
IRRA Membership Information		Cover 3
Alphabetical List of Authors		543

I

PRESIDENTIAL ADDRESS

James L. Stern, Presiding

Governance: A Framework for Our Field	ROBERT B. MCKERSIE	1

II

INNOVATIVE EMPLOYER PRACTICES IN RESPONSE TO LABOR AND SKILL SHORTAGES

Thomas Bailey, Presiding

Managing a Changing Labor Force: A New Look at Human Resources Management	JEFFREY ZORNITZKY	11
Workplace Family Benefits	ADAM SEITCHIK	23
Basic Skills Development at Motorola	SUSAN HOOKER	33
Discussion	CAROL D. MILLER	43

III

DISSERTATIONS

Trevor Bain, Presiding

Improving Employee Attitude Toward Employee Assistance Programs	MELINDA J. LAUBSCHER	46

Bilateral Monopoly in the Shipbuilding Industry: A Study of Wage Rate Determination — GREGORY WOODHEAD — 55

The Effect of Demographic Change on Firms' Human Resource Policies — LISA REAVLIN — 65

Discussion — ELLEN ERNST KOSSEK — 71

THOMAS REED — 74

IV

STRATEGIC OPTIONS FOR ORGANIZED LABOR IN THE 1990S

Richard Hurd, Presiding

Union Strategies for Organizing and Representing the New Service Workforce — DOROTHY SUE COBBLE — 76

Strategic Implications of Union Corporate Campaigns — PAUL JARLEY AND CHERYL MARANTO — 85

Employee Involvement within an Adversarial Structure: A Bargaining Model of Worker Participation — JACK METZGAR — 96

Discussion — JOSEPH B. UEHLEIN — 103

V

CONTRIBUTED PAPERS—LABOR ECONOMICS

Robert Gitter, Presiding

Male and Female Quitting: The Case of Professionals and Managers — LOREN M. SOLNICK — 106

The Relative Effects of Employer-provided OJT and Apprenticeship Training — ROBERT F. COOK — 115

The Effect of Collective Bargaining on Faculty Salaries at Public Colleges — JAVED ASHRAF — 123

Discussion — KATHARINE G. ABRAHAM — 129

STEPHEN A. WOODBURY — 132

ROBERT GITTER — 135

VI

EMPLOYEE REPRESENTATION RIGHTS: CHARTING A NEW PATH

Charles J. Morris, Presiding

Mandating Employee Information and Consultation Rights	JANICE R. BELLACE	137
Redressing the Imbalance in the Law of Union Representation Elections: The Principle of Workplace Neutrality	RICHARD N. BLOCK	145
Unions without Majorities: The Potentials of the NLRA	CLYDE W. SUMMERS	154

VII

DISTINGUISHED PANEL CEOS AND INTERNATIONAL LEADERS: NEW POLICY STATEMENTS

Malcolm R. Lovell, Jr., Presiding

The Importance of the Collective Bargaining Forum	MORTON BAHR	163
A New Vision for Industrial Relations: A Report of the Work of the Collective Bargaining Forum	WILLIAM L. WEISS	167

VIII

PRIORITIES AND CONSTRAINTS IN IMPROVING LABOR MARKET INFORMATION

Paul A. Weinstein, Presiding

Conceptual Problems in Labor Market Statistics: Men not in the Labor Force	ALBERT REES	173
Establishment Surveys and Labor Market Analysis	CHARLES C. BROWN	177
Issues in the Use of Household Labor Statistics in Industrial Relations Research	LISA M. LYNCH	185
Discussion	JANET L. NORWOOD	193
	PAUL A. WEINSTEIN	196

IX

CONTRIBUTED PAPERS—HUMAN RESOURCES AND ORGANIZATIONAL BEHAVIOR

Paula B. Voos, Presiding

The Effects of IMPROSHARE on Productivity: Preliminary Results — ROGER T. KAUFMAN 199

Does Dual Commitment Underlie the Constructs of Company and Union Commitment? — RODERICK D. IVERSON AND SAROSH KURUVILLA 208

Information and Relevancy Factors as Predictors of Referents in a Tiered Setting — JAMES E. MARTIN AND RAYMOND T. LEE 218

Discussion — BARRY GERHART AND ALISON BARBER 230

X

ECONOMIC CONSEQUENCES OF RAISING THE MINIMUM WAGE

(Joint with the American Economic Association)

Francine D. Blau, Presiding

Minimum Wages and the Teenage Labor Market: A Case Study of California, 1987-89 — DAVID CARD 234

Minimum Wages in Puerto Rico: Textbook Case of a Wage Floor? — ALIDA CASTILLO-FREEMAN AND RICHARD B. FREEMAN 243

The Effect of the New Minimum Wage Law in a Low-Wage Labor Market — LAWRENCE F. KATZ AND ALAN B. KRUEGER 254

Minimum-Wage Youth: Training and Wage Growth — BRADLEY R. SCHILLER 266

Discussion — CHARLES C. BROWN 276

LISA M. LYNCH 280

XI

RESEARCH ON UNIONS: AGENDA FOR THE 1990S

Joyce D. Miller, Presiding

Union Growth and Decline: A Research Agenda for the 1990s	JACK FIORITO	284
Behavioral Studies: Union Research Agenda for the 1990s	MICHAEL E. GORDON AND DANIEL G. GALLAGHER	293
Union Research Agenda for the 1990s: International Comparisons	SAROSH KURUVILLA AND LOWELL TURNER	303
Structure: Union Research Agenda for the 1990s	GEORGE STRAUSS	310

XII

STATUTORY WORKS COUNCILS

George Strauss, Presiding

Universal Joint Regulation: A Moral Imperative	ROY J. ADAMS	319
Employee Councils, Worker Participation and Other Squishy Stuff	RICHARD B. FREEMAN	328
Universal Workers' Participation Via Works Councils: The West German Experience	OTTO JACOBI	338
Discussion	JOEL ROGERS	345

XIII

TRAINING POLICY: PUBLIC AND PRIVATE

Paul Osterman, Presiding

High-Cost Services: The Challenge for Welfare-to-Work Programs	DANIEL FRIEDLANDER	349
Role of the Federal Government in Training America's Workers	VICTOR J. TRUNZO	358
Internal Labor Markets and General Training	BERNARD ELBAUM	367

XIV

ALTERNATIVE APPROACHES TO EMPLOYEE PARTICIPATION: IMPLICATIONS AND EFFECTS

(Joint with the Academy of Management, Personnel/Human Resource Division)

Timothy J. Keaveny, Presiding

Employee Ownership: An Overview of Its Growing Incidence Around the World — AVNER BEN-NER AND DEREK JONES 374

Union-Management Cooperation: Choice, Implementation and Effects — WILLIAM N. COOKE AND DAVID G. MEYER 385

Employee Participation and Mental Health: A Test of a Mediational Model — PAUL D. SWEENEY, DEAN B. MCFARLIN, AND JOHN L. COTTON 390

Worker Representation and Industrial Adjustment in Germany — KIRSTEN WEVER 397

XV

CONTRIBUTED PAPERS—COLLECTIVE BARGAINING

Norman Solomon, Presiding

What Happens When Arbitration Is Not the End of the Road? — PETER FEUILLE, TIMOTHY CHANDLER, AND MICHAEL LEROY 406

Arbitration of Title VII Disputes in Academe: Impact of *University of Pennsylvania v. EEOC* — HARSH K. LUTHAR AND JERALD F. ROBINSON 416

The Best Laid Plans. . .: What Determines Whether Union Organizing Drives Result in Elections or Abandoned Campaigns? — THOMAS F. REED 425

Interunion Relations in the U.S. Airline Industry: Some Descriptive Findings — DAVID J. WALSH 434

Discussion — EMILY P. HOFFMAN 441

STANLEY C. WISNIEWSKI 443

XVI

DOCTORAL CONSORTIUM NONACADEMIC CAREERS AND INDUSTRIAL RELATIONS PHDs

Christine L. Cooper and Frank J. Bennici, Presiding

Summary and Comments on the Panel Discussion	FRANK J. BENNICI	447

XVII

ALTERNATIVE EMPLOYMENT ARRANGEMENTS: WHAT DO THEY LOOK LIKE AND WHAT CAN WE EXPECT FROM THEM?

Peter D. Sherer, Presiding

Nature of Employment and International Labor Markets in Professional Organizations	HUSEYIN LEBLEBICI	450
Labor Market Balkanization Revisited: Variation in Internal Labor Markets and Employment Arrangements	PETER D. SHERER	458
From Americanization of Japan to Japanization of America in HRM/IR	KOJI TAIRA	467
Are Home-based Workers Exploited?	LINDA N. EDWARDS	476

XVIII

RESEARCH EXPECTATIONS IN IR AND HR UNITS: VIEWS OF INTERNAL AND EXTERNAL CONSTITUENCIES

Richard N. Block, Presiding

Research Expectations of U.S. IR-HR Units in the 1990s: Challenges and Choices	DAVID LEWIN	484
Research Expectations in IR and HR Units: Views of Internal and External Constituencies	MALCOLM S. COHEN	492
Research Expectations in IR/HR Units: The View from the Beebe Institute	BRUCE KAUFMAN	502
Discussion	RICHARD N. BLOCK	510

XIX

POSTER SESSION I

Timothy J. Keaveny, Presiding

New Challenges Facing Federal Sector Grievance Administration — MICHAEL J. DOUGHERTY 513

An Exploratory Study of Work Relations and Productivity in Underground Coal Mining — ROBERT A. FIGLER, WIL J. SMITH, AND FREDERICK A. ZELLER 513

Worker Participation Groups and Safety Committees — STEPHEN J. HAVLOVIC AND DALE FEINAUER 514

Worker Autonomy and QWL Initiatives — STEPHEN J. HAVLOVIC AND PHILIP R. KROLL 514

Bargaining for Social Change: The Course of Solidarity — DAVID C. JACOBS 515

Certification Election Outcomes and Employee Behavioral Intentions — TIMOTHY J. KEAVENY, JOSEPH ROSSE, AND JOHN FOSSUM 515

A Ranking of Occupations Based Upon the Blood Pressures of Incumbents in the NHANESI — J. PAUL LEIGH 516

Determinants of Productivity: Implications for the Human Resource and Personnel Perspectives — DOUGLAS S. REBNE 517

Student Attitudes Toward Unions and Employment Rights Issues: A Preliminary Investigation — KAREN ANN TARNOFF AND DANE M. PARTRIDGE 517

The Impact of Legal Representation on Discipline and Discharge Arbitration Decisions: Evidence from Nova Scotia — TERRY H. WAGAR 518

The Influence of the Collective Bargaining Environment on Labor-Management Relationships: An Empirical Investigation — TERRY H. WAGAR, KENT F. MURRMANN, AND DANE M. PARTRIDGE 518

Relationships in the Workplace: No-spouse and No-dating Policies — PHILIP K. WAY — 519

Temporary Employment: Competing or Joint Explanations? — PHILIP K. WAY — 519

XX

POSTER SESSION II

Timothy J. Keaveny, Presiding

Adjustments in Training in the U.S. and German Automobile Industries — PETER B. BERG — 520

A Comparison of Drug Testing Programs in Unionized and Nonunionized Firms — DALE FEINAUER, LAURA O'SHEA AND LISA MAYER — 520

Positive Action and EC 1992: Negotiations in the Irish Civil Service — DEBORAH M. FIGART — 521

Process Equity in Compensation Administration: Relationships to Organizational Culture — DANIEL J. KOYS — 521

MAP: An Integrative Approach to Workplace Problem Solving — JOSETTA S. MCLAUGHLIN, JERALD F. ROBINSON, AND GERALD W. MCLAUGHLIN — 522

Japanese Employees' Attitudes Toward Changes in Traditional Employment Practices — MOTOHIRO MORISHIMA — 522

Early Retirement Option in Higher Education: Employee Reactions — JERALD F. ROBINSON — 523

The Role of Labor in Community/Economic Development: A Case Study—The Virginia Coalfields — JERALD F. ROBINSON — 523

The Effect of Union Activity in the 1989 Virginia Governor Race — GARRET A. ROSS — 524

XXI

IRRA ANNUAL REPORTS

Executive Board Meeting in Buffalo 525

Executive Board Meetings in Washington, DC 528

General Membership Meeting in Washington, DC 535

Audit Report for 1990 539

OTHER SESSIONS

WORKSHOP: AFL-CIO THEMES FOR THE 90S

Rudolph A. Oswald, Presiding

Participants: Joseph Shantz, Meredith Miller, and Sheldon Friedman
Discussants: Michele Hoyman, William Cooke, and Dorothy Sue Cobble

WORKSHOP: THE EUROPEAN COMMUNITY 1992 INITIATIVES: A LABOR ATTACHE PANEL

George Lichtblou, Presiding

Participants: Everett Kassalow, William Meagher, James A. Mattson, John Russel, and Giaouca Cortese

WORKSHOP: THE OCCUPATIONAL HEALTH AND SAFETY ACT: A 20-YEAR APPRAISAL

Charles Jeszeck, Presiding

Panelists: Wayne Gray, Benjamin Mintz, and Margaret Seminario
Discussants: Nicholas Ashford, W. J. Mottel, and Charles Jeszeck

WORKSHOP: LABOR LEGISLATION IN THE 102nd CONGRESS

Randolph M. Hale, Presiding

Participants: Susan McGuire and Mark Powden

WORKSHOP: EASTERN EUROPE—THE CHANGING SCENE FOR LABOR

Gerald P. Holmes, Presiding

Participants: Heba Beasley, William C. Clatanoff, Anthony G. Freeman, and Douglas P. Hammond

WORKSHOP: HEALTH CARE ISSUES IN COLLECTIVE BARGAINING

Ben Youtsey, Presiding

Participants: Howard Furman, John J. Sweeney, and Sharon Canner

I. PRESIDENTIAL ADDRESS

Governance: A Framework for Our Field

Robert B. McKersie
Massachusetts Institute of Technology

It was exactly 35 years ago that I started my journey into the field of labor-management relations. Given the fact that that year, 1955, now stands as the high-water mark for union density, you might conclude that anyone who makes a career decision just as unions are peaking numerically should not be taken seriously when it comes to presenting thoughts about the present and future prospects for our field.

Recently in this city, a testimonial banquet was held in honor of Bill Usury, former Secretary of Labor. In planning the affair that raised substantial support for the Department of Labor's Hall of Fame, Steve Schlossberg and his committee reasoned that if we had another decade like the 1980s (that began with the PATCO strike and the firing of the air traffic controllers), that our industrial relations system, already characterized by a steadily shrinking perimeter, would be almost totally demoralized. As John Dunlop stated the proposition at the banquet, "If we continue to head in the direction that we are headed, then we will surely get there."

And what are the features of the landscape that describe the direction in which industrial relations is currently headed? First, and most dramatic because of the newsworthiness of the episodes, are confrontations such as the one underway between the *Daily News* and its craft unions; also the dispute at Greyhound, as well as many others in the news: airline, meatpacking, and copper industries. One set of data that has been assembled for a research project that Dick Walton

Author's Address: Sloan Schools of Management, Massachusetts Institute of Technology, 50 Memorial Drive, Cambridge, MA 02139.

and Joel Cutcher-Gershenfeld and I are doing together estimates that approximately one-third of the negotiations occurring in one region of the country over the past two years were characterized by failure to reach agreement, impasses, and in some cases imposition of terms by the employers and the hiring of permanent strike replacements.

A second dominant feature of the current scene is the emergence of a number of very noteworthy examples of labor-management cooperation. And while it is heartening to those of us who believe in rational discourse and the power of collaboration, it must be admitted that the transformation of U.S. labor relations that Tom Kochan, Harry Katz, and I discussed in our book by the same title, has been proceeding much more slowly than we had hoped or anticipated.

Finally, and to return to the overriding feature of industrial relations today, the steady decline of the unionized sector continues. I am aware that there have been some recent successes (and the very intriguing partnership that has emerged between Harvard University and a local of AFSCME is important to note), nevertheless, the proportion of the workforce and employment relationships that are *not* characterized by any formal structures for voice continues to expand. Unless some steps are taken to foster more voice and participation for all interest groups within the employment relationship, then I firmly believe that all sides of the ledger will be worse off.

For this audience, the enumeration of trouble in the industrial relations system should be sufficient to set the stage. But others may desire additional reasons. Let me make several points rather quickly: a wide variety of studies have demonstrated that the U.S. is falling behind economically and technologically in comparison to other industrialized countries, particularly Japan and Germany. Moreover, since 1973 weekly earnings have dropped 16 percent for non-supervisory personnel, and they continue to decline. Other sessions at these meetings have elaborated on a wide range of indicators of economic duress.

We have been buffeted, now going on two decades, by studies and pronouncements that have focused attention on the need for our institutions to adapt and change, and CEOs increasingly place heavy emphasis on the human side of the enterprise. But despite all of this attention and exhortation, the changes, while many are occurring, appear to be far less than the situation requires. Why has it been so difficult for us to succeed in the new competitive environment?

On the employer side is the oft-mentioned predilection for management to focus on short-run results, to reduce costs, and to rely on technology rather than increasing organizational capacity. By focusing on cost reduction, managers are able to meet their targets but at a very heavy cost to the long-run social fabric and productive capacity of their organizations.

Those of us who work in the business school sector of higher education share some responsibility for the pathology of the present period. We train individuals who expect the "fast track," which means frequent movements within the corporation. It is difficult to elicit high commitment from the other stakeholders when key players are being moved around so frequently, and when they hold values that are not exactly right for the times.

I find it instructive to read the internal reports of companies that visit other sites to learn about innovations in organization design. The typical feedback focuses on policies and structure, reflecting a type of engineering design mentality. The observers rarely describe the *social* systems.

It is hard, for example, for those of us who have grown up in a culture accustomed to checks and balances, i.e., a *political* model of organization, to understand the essence of alternative systems. In fact, after the better part of a decade, it is probably the case that only several score of managers at General Motors really understand in any deep way exactly why NUMMI has been so successful.

This may be a very bald statement but I do *not* believe that U.S. managers have ever been world-class at management, if by that we mean the mobilization of the organization to perform at high levels of commitment and effectiveness. We have been good at marketing, at finance, at product development, but not as strong in implementation and operations.

A good example of the myopia of U.S. companies is in the area of employment security, where to this day companies lay off workers only to save 20 cents on the labor cost dollar, given the high carrying costs of such programs as SUB, GIS, JOBS and UI. In the recent study by the Economic Policy Council of the United Nations on the common interests of employers and employees, the two cited failures both involved instances where the employer violated worker and union expectations by outsourcing work and reducing the workforce in the face of rapid technological change.

The notion of joint planning with complete sharing of relevant information does not obtain in very many union-management relationships. In one site that we have been tracking, the workforce has achieved almost de facto income security, but because they are still laid off periodically they cling to seniority and feel very insecure.

What is called for is a better bargain that combines assurances by the employer regarding employment continuity, with commitments by members of the organization to realize high performance that makes employment continuity possible.

There is another reason that explains why so many companies do not "get it right." This is an attribute of U.S. management that has been with us for a long time: anti-union attitudes and policies. Despite the evidence that transformed unionized facilities can perform better than many nonunion facilities, companies such as Shell, Toyota, and AT&T resist unionism in their unorganized plants. Recently, I saw how far this irrational motive can be carried when a large company expressed hesitancy to get started with a reform program at one of its unionized plants for fear the union in this plant would be able to appeal to workers at other unorganized plants with the slogan—"We are partners with management."

There are also reasons on the union side of the picture as well. First, the traditions of many unions contribute to the status quo. They have sold the need for a union on the basis of opposing management, what has come to be called "the adversary system."[1] In a context of increasing standards of performance and declining margins, this gets played out as defending vested interests.

Many union leaders find themselves in a corner, in a type of "prisoner's dilemma." Having established their whole rationale on the basis of militancy and fighting management, any behavior on their part that does not fulfill these expectations, even though the substantive outcome might be superior, opens them to attack.

The charge labeled during recent political campaigns of special interest is partially true. Unions and their members in a number of industries increasingly are unwilling to curtail overtime or restrain wage increases even when it means expansion of employment opportunities for others in the workforce.

Many examples could be cited of unfavorable reviews of unions by experts writing about their fields and dealing with the role of unions only incidentally.

A recent study by Chubb and Moe of education is a case in point:[2]

> Collective bargaining leads to formal contracts that specify, usually in excruciating detail (Phila., 133 pages), the formal rights and obligations of both parties (p. 49).

> A majority of the schools with ineffective organizations indicated that unions are large obstacles in making key management decisions (p. 154).

Elements of a New System

Given the problems with our current setup, it is not surprising that a new system is struggling to be born, in places as different as Saturn, Harvard University, and local school districts.

This summer I spent about 10 days studying the Saturn organization. What makes Saturn so interesting is that it has put in place a structure that, with its emphasis on partnership and consensus, requires all stakeholders to share responsibility for economic success and individual enhancement.

What are the distinguishing features of Saturn that might point to a new way of thinking about enterprise?

First, all stakeholder groups participate. Unlike most companies in the U.S. where participation systems involve primarily blue-collar workers (because they are the only segment of the workforce that is organized), the various decision rings at Saturn include all employees. It is true that only the represented employees elect leaders (a president and 4 vice presidents), but every member of the organization gets to participate and no one speaks for anyone else since the structure of teams, task forces, and decision rings requires everyone to make his or her contribution around the concept of shared responsibilities.

Second, the scope of the agenda is wide open and no subject is out of bounds—the only limitations are time constraints and common sense.

Third, the process is ongoing and the typical sequence of first negotiating a contract, then administering the contract, and then entering into another intense period of negotiations is not the modus operandi.

Fourth, considerable decentralization of responsibility occurs as a result of the process of all members focusing attention on their customers. Uppermost in this orientation is attention to service and quality.

Basically, the architects of the Saturn partnership are testing the feasibility of a new conception and practice of management. Within our established theory of industrial relations the union is seen as a constructive constraint on management, producing what is often referred to as the "shock effect."

Such a model works when management is competent enough to make the right decisions. However, today more and more labor leaders have concluded that "Management is too important to be left to the executives."

Indeed, given the complexity of organizational life (new technology, far-flung markets, and complex employment standards), management should not be defined in terms of positions on the organization chart but as all the individuals who possess the requisite expertise.

Structures and Concepts

Saturn may be a radical form of new governance, but other examples are emerging.

- Many companies are utilizing focus groups and town meetings to involve a cross section of the organization to identify and solve the key problems of the business.
- Around the country, especially in urban centers under the banner of school reform, various innovations are emerging with labels such as shared decision making and school-based management.
- At Harvard University, the various college-level task forces possess many of the characteristics of works councils. Subjects are considered on an ongoing basis and not reserved for negotiations. Subcommittees are formed to work on particular projects, e.g., developing a plan to relocate office personnel during a period of major construction at Harvard Business School.

In typically American fashion, what may be happening is the emergence on a trial-and-error basis of a new de facto system of governance for the workforce. The fashioning of new avenues for voice is in line with the times. Opinion survey data (Gallup) attests to the fact that most employees desire some type of structure for participation: "90% of all adult/employees say 'Employees should have an organization of co-workers to discuss and resolve legitimate concerns with their employer.' "

An important reason for reconceiving the process of management, and thereby the role of unions, is that today's organization requires much more commitment and involvement from all stakeholders. Unions are in a position to mobilize the energies of its members in behalf of common objectives that cut across all interest groups.

The working hypothesis is that these new arrangements of governance will demonstrate superior economic performance because they create organizationwide credibility for required initiatives. If this indeed is the case, then unions may be able to shed the stigma that they are injurious to the economic health of an enterprise.

Such new arrangements may also help unions in other ways. In many situations today, unions spend a disproportionate amount of their time serving a very small fraction of the membership, often estimated at no more than 10 percent on a day-to-day basis. The Saturn and Harvard models exemplify the point that councils allow for much greater participation of all stakeholders.

Can this concept of works councils function in the nonunion environment? I believe it can but those of you in the audience who are legal buffs are probably saying at this point, "You can't get there from here." I do not have the legal background to determine whether changes in the National Labor Relations Act, specifically in Section 8(a)(2) would be required in order to facilitate the development of more effective governance. Paul Weiler of Harvard believes that employee participation groups could be fostered via enabling legislation at the state level.

Others will say I am exceedingly naive: employers cannot be trusted, they will coopt or subvert the councils to their own ends. This danger does exist. Consequently, a necessary safeguard for robust participation is the provision for voice at the strategic level.

Thus, another plank of the "new constitution" would be the provision for stakeholder representation on boards of directors. At a minimum, we should insist that companies that have benefited from the tax advantages of ESOPs make provision for representation on their boards. After all, in this case the stakeholders are also stockholders.

I served for five years on the board of a large trucking company as a result of the creation of an ESOP. I can say from first-hand experience that without the three employee-designated directors, important human considerations would have been completely overlooked in the pressure for short-run results and under the domination of outside financial interests, only intent on stripping the corporation of valuable assets. Given the incredible wreckage that LBOs have created, it is essential that we find ways for including other voices within the highest reaches of business.

If I had time I could enumerate many strategic blunders that would never have happened if another point of view had been present in the board room. I am thinking of such instances as peremptory decisions to shut down facilities, construction of Taj Mahal headquarters, and yes, decisions to go all out to achieve concessions from unions, such as elimination of premium pay for Sunday work. Today many of the confrontations or "holy wars" arise out of mistaken assumptions about the intentions of the other side. Like many international disputes that should never have occurred, management and labor never discuss the undiscussable—for example, why a paper company finds it necessary to train replacements, or why the union moves to pool the expiration dates for as many plants as possible to protect the status quo.

One of the characteristics of the constructive labor management relations that developed during World War II and afterwards into the 1950s was that CEOs and top labor leaders sat down and talked about the basic contradictions and the basic dilemmas facing their relationships. Today, too little of this happens.

Closing Perspectives

Basically, the concept that I am advancing is one of constructively constrained choice, or, trying another phrase: **"Choice Enhanced by Voice."**

We need to understand how we went from a situation where unions were a positive force for increasing productivity, to a view where they are seen as negatively affecting economic performance; from a view where unionism *shocked* the enterprise to where it *locked up* the enterprise.

Two of our international competitors, Japan and Germany, seem to have found the right ingredients for achieving constructively constrained choice. The voice role of the enterprise unions in Japan, and the voice role of unions via the co-determination and worker representation of works councils in Germany, help keep executives from making major mistakes. A key consequence is that the attention of the organization is focused on the long run, wherein the competitive advantage of positive human resource policies and practices are demonstrated.

I believe that the emergence of new governance arrangements also will be helpful to the long-run interests of worker representation. With all of the current emphasis on empowerment, CEOs may have started a revolution that eventually heads in a direction that they never would have anticipated.

Bringing About the New Order

Just talking about the inherent advantages of a new system will not bring about sufficient fundamental change—key leaders must embrace these new ideas that are emerging in practice. The type of dialogue that takes place between CEOs and national union presidents within the Collective Bargaining Forum is an example of a network that needs to be expanded.

At the highest levels of national leadership in this country, we require shared understandings about the new organizational arrangements that are likely to allow us to move ahead rather than clinging to outmoded arrangements.

Key leaders should engage in a basic dialogue about the undiscussed assumptions and dilemmas that characterize so many labor-management relationships today. Unions need to understand better why management universally prefers to remain nonunion. Thus far, unions have not shown much interest in examining what happens in the best of nonunion relationships and what are the generic features of these relationships that could be incorporated into a new model of unionism.

Similarly, employers have shown little interest in understanding what is happening in the best of transformed labor-management relationships. A type of group-think develops within the management community. Recently, I attended a meeting of HR/IR types where one company indicated that it voluntarily recognized a union for a greenfield operation (with a Saturn-type design), only to be met by looks of horror from everyone in the room. To change this culture will require leadership of the highest order.

Implications for the Industrial Relations Research Association

As collective bargaining has continued to decline as an activity in our economy, so has the membership of IRRA recently begun to decline. Also, many of our new members are professionals involved in representing the parties in arbitration and traditional negotiations.

Many potential members who are interested in personnel policies and human resources within nonunion establishments have moved their affiliation to organizations like the Academy of Management. And many who have been primarily interested in dispute resolution have become active in the Society of Professionals Involved in Dispute Resolution (SPIDR).

It is essential for IRRA to state its broad interests in the themes of stakeholder representation and the harmonization of business and employment relationships. Various professional groups should be made to feel welcome within the IRRA family.

For those of us who are researchers, an important opportunity is at hand to engage in creative research of the new structures that are emerging in both the organized and unorganized sectors.

As the deities of our order, like the Webbs, John R. Commons, and Summer Slichter have urged: We have a mandate to study the new species of our field, and to help in constructive ways to foster greater understanding and support for these new possibilities.

Endnotes

[1] In preparing for this talk, with the help of Saul Rubinstein, I examined the charters and bylaws of many of the leading unions. Nowhere in the constitutions can language be found that supports the adversary system as it has come to be practiced. Rather, the stated objective is to represent worker interests. And we know from the early history of unions such as the Amalgamated Clothing and Textile Workers and the United Steelworkers that the means chosen combined labor-management cooperation with union independence.

[2] See Frank Chubb and Terry Moe, *Politics, Markets and Public Schools* (Washington, DC: The Brookings Institution, 1990).

II. INNOVATIVE EMPLOYER PRACTICES IN RESPONSE TO LABOR AND SKILL SHORTAGES

Managing a Changing Labor Force: A New Look at Human Resources Management

JEFFREY ZORNITSKY
Abt Associates Inc.

This article synthesizes ongoing and past research conducted by Abt Associates and others for several large American companies and the federal government. The article reviews the human resources challenges posed by changes in workplace requirements and the size and characteristics of the labor force. It argues that shifts in the composition of the labor force have produced a new set of expectations and needs that employees have of their employers. While not causing a labor or skills shortage per se, these changes have been manifested in a variety of mismatch-like problems. Basic skills deficiencies among new and experienced workers, a strong demand for dependent care and flexible work schedules, the influx of large numbers of minority and immigrant workers, and a limited number of college graduates have presented firms with issues for which they have little experience. Not surprisingly, the response by firms has been mixed, at best—most have not instituted changes to address these issues.

Besides issues related to cost, the behavior of firms is linked to a weak connection between human resources and business strategy. While the broad social and economic costs of workplace changes are

Author's Address: Abt Associates, 55 Wheeler St., Cambridge, MA 02138.

clear to most firms, human resources issues are not usually viewed in a business context. As a result, companies tend to undervalue the benefits of human resources investments and have reason to wait things out for as long as possible.

In an effort to motivate more attention to the value of human resources investments, customer satisfaction and service quality are used to develop a practical business context in which human resources are strategically important. This approach was adopted rather than a more general framework because customer satisfaction is a key strategy used by most businesses today.

After presenting the overall framework, specific empirical evidence is presented showing how labor and skill shortage types of problems can impact the achievement of high levels of customer satisfaction. The article concludes with a summary of the implications of the findings for managing major human resources in a changing environment.

The Challenge of a Changing Labor Force

By all accounts, the world of work is changing rapidly. Strong domestic competition, the internationalization of the economy, and a near complete reliance on complex manufacturing and information technologies continue to pose serious challenges to American business. As companies adapt their business strategies to these developments, the very nature of work also changes. In this environment, business strategy plans have to include provisions for effectively and efficiently managing human resources.

Indeed, over the next several years, jobs in manufacturing and service industries will continue to be restructured and replaced by new ones. Different, and often more demanding, workplace skills will emerge as companies seek more productive styles of work. Because employees who do not have the right skills cannot perform their jobs well, American business will have to find ways to ensure that its workers, both current and future, have the capabilities to adapt to change and succeed on the job.

This is not a new challenge. Companies have always had to search for qualified employees, reorganize work, change their cultures, and provide training. What is different today is the visible and sustained difficulty firms face in recruiting and maintaining a highly productive and motivated workforce. Symptoms of this problem include diminished loyalty, rising recruitment costs, high levels of turnover in several growth industries (i.e., services), and perhaps most important, slow productivity growth (Seitchik and Zornitsky, 1990). By all accounts, the competitiveness of the American labor force has become a national concern.

One part of the problem is linked to the changing nature of job opportunities. Over the last 20 years, there has been a steady change in the types of skills employers need from workers. Manufacturing jobs have given way to the service sector, and white-collar employment, especially professional and sales jobs, has largely replaced skilled and unskilled jobs. One result of this has been a shift from the hands to the minds of employees.

Along with this change, education and critical thinking requirements have increased (Johnston, 1987). The emergence of new organizational forms that emphasize teamwork, shared responsibility, and independent decision making have highlighted the need for employees in all types of jobs to have strong personal as well as basic skills. So too has the routine use of information and communication technology in the workplace. This is especially the case in fast growing upper-level white-collar jobs (e.g., professional, technical, sales, management) where firms prefer employees who have at least some college, and particularly a college diploma (Seitchik and Zornitsky, 1989; National Center on Education and the Economy, 1990). For a large proportion of American firms today, a key challenge is keeping up with these changes by managing human resources efficiently and effectively.

Unfortunately, the aging and slow-growing American labor force has made this challenge difficult to address. Having fewer entry-level workers has placed more emphasis on using experienced employees to meet future needs. As firms have sought ways to retrain existing workers and help them adjust to organizational changes, an important problem has emerged. A surprisingly large number of experienced workers, especially in non-managerial jobs, have been found to be lacking the basic and otherwise general skills needed to participate in retraining programs or make the transition from a declining to a growing industry successfully (Seitchik and Zornitsky, 1989). As a result, it has become apparent that greater use of experienced workers will often require more planned and costly training and development strategies than in the past.

Firms have also learned that a large share of new recruits have limited basic skills and come to the workplace with a different set of needs and desired benefits from recruits of the past. Aside from fewer new workers coming out of high school and college, those available for hire are more often minorities, immigrants, and women—single and from dual working families (Johnston, 1987). Moreover, a substantial share of new recruits—present and projected—have basic skills deficiencies. As a result of these changes, basic human resource functions such as recruitment, selection, and entry-level training have become more strained, and corporations have been faced with the need to become more flexible and willing to treat their human resources as investments.

More specifically, issues such as dependent care and flexible leave policies have surfaced as a result of the rise in dual working families and single working mothers. So too have "Managing Diversity" initiatives to address the increasing number of immigrant and minority workers. When combined with basic skills deficiencies and the need to retool many experienced workers, it is clear that human resources management has become a more difficult job.

The Corporate Response

Inasmuch as changing workplace dynamics suggest a new look at human resources management, the corporate response has been limited, at best. While many companies have introduced new types of programs to address workplace changes, the majority of American firms have not changed the way they usually manage human resources. Rising recruitment costs, diminished loyalty, and sluggish productivity growth provide indications of the difficulty firms are having with human resources management. Recent surveys of human resources practices provide another indication (Society for Human Resources Management, 1988a; 1989b). For the most part, most firms in the U.S. have not initiated new programs and policies to adapt to changes in the size, characteristics, and requirements of the labor force. Few offer basic skills programs or dependent care services and support policies (Hayghe, 1988; Meisenheimer, 1989), many have not modified recruitment and selection practices, and there has been limited movement to create organizational climates that reward good performance and empower employees to do a good job (Heskett and Schlesinger, 1990).

Why is this the case? One very important reason is that there is a weak link between human resources and the bottom line. While most companies acknowledge the importance of human resources, it is difficult for them to place human resources investments in the same context as marketing, sales, and other more traditional business functions. Managers simply do not know how to value the costs and benefits of human resources investments. As a result, they tend to misread what they have lost or can gain from making a change. Recruitment problems, high turnover, and diminished loyalty are viewed as a normal "cost" of doing business.

Part of this stems from how firms view the large number of lower-level jobs created over the past 15 years. While the growing service sector has produced good jobs, it has also made a significant contribution to the growth of low-level jobs. In the mid-1980s, for example, 57 percent of all jobs in service-producing industries employed individuals with no more than a high school diploma (Seitchik and Zornitsky, 1989).

The problem is that firms make only limited investments in these types of jobs since they are, in the eyes of many, marginal to the business (Heskett and Schlesinger, 1990). This view creates a clear disincentive for investing in well over half of all American workers and suggests that firms will train only those workers who they think can make the greatest contribution, such as better-educated professionals (Carnevale, Gainer, and Villet, 1989). Since these types of workers already account for the bulk of human resources investments, it should not be surprising to find little net new investment activity targeted at lower-level workers, even though labor force changes suggest that such investments can be beneficial.

Creating a clear link between human resources and business performance is one of the most important challenges faced by companies today. Allowing management to see more clearly how key indicators of human resources management (e.g., turnover) affect the bottom line can help motivate action to address changing workplace requirements, as well as more general concerns with organizational performance.

In this spirit, the next section outlines one emerging framework for connecting human resources to business performance. The framework rests on the economic significance of customer satisfaction and its link to human resources management practices. While a more general approach is also feasible, customer satisfaction is advantageous because it is a hot topic in American business today.

Overall, I have chosen to focus the presentation on customer service industries (e.g., financial services, health services, retailing, and automotive sales and service) because they are growing the fastest, represent a significant portion of total employment, have had productivity problems, and require substantial face-to-face contact with the public. Customer service industries also involve a large number of low-level jobs that display many of the problems often associated with labor and skills shortages (e.g., high turnover).

Linking Human Resources to the Bottom Line: The Role of Customer Satisfaction

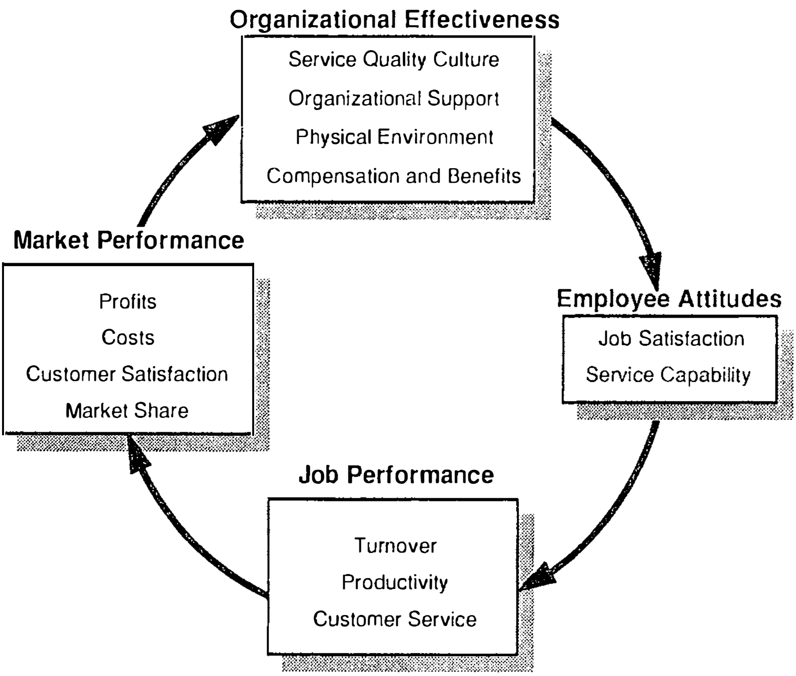
Customer satisfaction is the hot topic in American business today. Its strategic importance is based on the belief that satisfied customers will develop loyalty to a particular company vis-a-vis its products or services. Loyal customers help business because they continue to purchase services, are susceptible to cross-selling, and generate new business through word of mouth recommendations. Indeed, the work that we have conducted at Abt Associates for several firms has demonstrated clearly that customer satisfaction does affect the bottom line (Abt Insights, 1989; 1990).

As firms search for ways to manage customer satisfaction, they have realized that human resources management practices play a critical role. This is because in many service industries (e.g., fast-food restaurants, retail banking, department stores, and health care) customers experience services as they are delivered directly by employees. If employees have the skills, knowledge, and support to do a good job, and if they have positive customer-friendly attitudes, it is likely that their customers will be satisfied with the services they receive. Under these conditions, it is also likely that employees will be prone to stay with their employers rather than leave. This contributes to good service since more experienced employees have learned how to provide good service and because they can also develop customer relationships (Ulrich, Halbrook, Meder, Stuchlik, and Thorpe, 1990).

Even when services are received indirectly (e.g., bank and credit card statements, Automated Teller Machines, telephone service) employees matter. Here, they control the process of work and often deal with customers over the telephone. As a result, even when the service is indirect, attitudes, knowledge and skills, and organizational support still make an important contribution to how customers view the quality of service they receive.

This kind of thinking suggests that human resources management practices are critical to business strategy because they affect employees' ability to do a good job and provide good service. This connection is especially important when qualified employees are limited and investments in experienced workers are necessary. The exhibit below provides a graphic illustration of the basic relationship between employees, customers, and the bottom line.

Given the intuitive appeal of this model, much research has been undertaken to assess the connection between customer satisfaction,



business performance, and human resources management practices (Ulrich et al., 1990; Heskett and Schlesinger, 1990; Tornow and Wiley, 1990; Schlesinger and Zornitsky, 1990). Overall, the results of these studies confirm the importance of human resources to customer satisfaction. They show clearly that employee perceptions of their jobs and organizations affect their turnover intentions, performance, and the satisfaction of their customers. In so doing, these studies help to place human resources management squarely in the middle of a critical business objective.

Apart from these general findings, certain other important results emerged. These include:

- Employee turnover is negatively related to customer satisfaction.
- Employees' (self-perceived) service capability is a key driver of overall job satisfaction.

- A number of common organizational attributes affect both job satisfaction and employees' service capability.

Given these results, what are the implications for human resources management? One, and perhaps the most important, is that we can now begin to think about key human resources indicators in a strategic business context. Turnover is a good example since it is exacerbated by slow labor force growth and because it is a problem that many service industries face routinely.

Until recently, turnover has been accepted as a cost of doing business, with the cost consisting primarily of additional recruitment, selection, and initial training resources. Little, if any, connection has been made between turnover and business performance. Now, however, it is clear that turnover has an important opportunity cost, that being customer dissatisfaction and its resulting impact on the bottom line. By viewing turnover in the context of customer satisfaction, it is easy to see its strategic importance to business performance.

Another good example is job satisfaction. Most firms believe that job satisfaction is important, but they have had difficulty seeing its connection to business strategy. This is one reason why firms have been reluctant to act on the results of internal climate and employee attitude surveys; they tend to see the costs but not the benefits of improving job satisfaction. Since we now know that many of the same factors affect employees' ability to deliver good service and their job satisfaction, managing job satisfaction can be viewed as a legitimate business strategy.

If these types of human resources indicators have business significance, then so too do the factors that affect them. In other words, managing those factors that affect job satisfaction, service capability, and turnover are important not only to employees but to the ability of companies to perform well in the marketplace. This is generally the case and especially relevant when labor resources are scarce and more expensive to maintain productively.

Service Capability and Job Satisfaction

It is now a matter of fact that job satisfaction is important for more than altruistic reasons. It has a direct bearing on turnover and is also influenced by many of the same factors that drive how well employees are able to provide good service to their customers (Schlesinger and Zornitsky, 1990). In view of this, two important questions emerge, including:

- Is the emphasis that has been placed on a knowledgeable and skilled workforce also important to job satisfaction and employees' ability to provide good service?
- What other characteristics of an organization influence these two indicators, separately and jointly?

By addressing these questions, it is possible to see whether issues germane to labor shortages discussions are also relevant to job satisfaction, service capability, and by inference, customer satisfaction.

In this section, I will review the findings from an analysis of the key organizational factors affecting these two indicators for both newly hired employees and those with no more than a high school diploma. These two groups have been selected because they are both important in today's labor shortage environment.

The data for the analysis are based on two surveys of employees working in an insurance environment with a high level of customer contact. The surveys cover over 4,000 employees and were designed to identify the key organizational drivers of both job satisfaction and (self-perceived) service capability. Both of these indicators were measured using a five point satisfaction scale. In the analysis that follows, these two variables were used as dependent variables in a regression model, with the top two boxes indicating satisfied and the remainder not satisfied.

As can be seen in Table 1, several factors germane to current workplace problems are important to job satisfaction and service capability. In particular, knowledge, skills, and training are key drivers of the self-perceived service capability of new hires and those with no more than a high school diploma. In fact, and as might be expected, having the requisite knowledge and skills is more important to less-educated employees.

It is also apparent that rewards and recognition play an important role in motivating job satisfaction as does authority and certain aspects of supervision. Supervision and authority also impact the self-perceived service capability of employees.

These results provide strong support for the business significance of human resources management. They show clearly that management practices and knowledge and skill building investments have a direct impact on a key indicator of business performance—the service capability of employees. The results also show that job satisfaction is driven by some of the same factors affecting service capability. Taken

TABLE 1
Key Drivers of Job Satisfaction and Service Capability

No More Than High School

Key Factors	*Job Sat.*	*Serv. Sat.*
I have knowledge I need	—	0.447°°°
I have access to info I need	0.147°°°	0.172°°°
I have authority I need	0.123°°°	0.073°°°
Cust. Satis. and prod. req. are reasonably balanced	0.069°°°	0.060°°°
Rewarded for serving customer well	0.062°°	—
Customer sat. is included in my perf. evaluation	0.044°	—
Sat. with avail. of my supervisor to me	—	—
Sat. with latitude I'm given by supervisors	—	0.076°°°
Sat. with my supervisor's balance between service and prod. requirements	—	—
Sat. with my supervisor's support of high quality service	0.067°	0.083°
I get the training I need	—	0.067°°°
I have personally received a performance reward	0.067°°°	—
R^2	0.285	0.289
F	10.33°°°	10.53°°°
N	993	995

Less than One Year of Tenure

Key Factors	*Job Sat.*	*Serv. Sat.*
I have knowledge I need	—	0.298°°°
I have access to info I need	—	—
I have authority I need	0.089°°	0.131°°°
Cust. Satis. and prod. req. are reasonably balanced	—	0.064°
Rewarded for serving customer well	0.073°°	—
Customer sat. is included in my perf. evaluation	0.091°°°	—
Sat. with avail. of my supervisor to me	—	0.075°
Sat. with latitude I'm given by supervisors	0.116°°°	0.069°
Sat. with my supervisor's balance between service and prod. requirements	—	0.083°°
Sat. with my supervisor's support of high quality service	0.097°°	0.077°
I get the training I need	—	0.067°°
I have personally received a performance reward	—	—
R^2	0.328	0.343
F	8.29°°°	8.86°°°
N	629	629

°°° Sig. at 99%; °° Sig. at 95%; ° Sig. at 90%

(Controlling variables include age, education, sex, occupation, tenure, and other organizational attributes.)

together, the results provide a clear business rationale for responding to changes in the size, composition, and expectations of the labor force. Even low-level, less-educated employees need knowledge, skills, and training to do a good job.

Implications for the Future

Treating human resources as a long-term asset worthy of investment is the greatest challenge that business faces. The information presented in the previous sections suggests that the problems firms are currently experiencing with existing and new workers have significance for firm's competitiveness.

What does this imply about next steps? First, it is clear that more work needs to be done that links human resources to business strategy clearly. Absent this, it will be difficult for many firms to see the practical importance of treating their human resources as investments.

Second, the public and private sectors need to continue to disseminate information and assistance on how to address specific labor and skills shortage problems. Much has already been done in this area, but it will be important to continue to show firms how they can improve recruitment and selection, establish workplace basic skills programs, leverage new resources and partnerships, develop ongoing upgrading and retraining programs, and create a more flexible work environment that meets the needs of today's workers.

References

Abt INSIGHTS, Vol. 1, No. 1, Winter 1989; Abt INSIGHTS, Vol. 1, No. 2, Spring 1990; Abt INSIGHTS, Vol. 1, No. 3, Summer 1990.

Carnevale, Anthony P., Leila J. Gainer, and Janice Villet. *Best Practices: What Works in Training & Development*. American Society for Training and Development. Final Draft, March 31, 1989.

Hayghe, Howard V. "Employers and Child Care: What Roles Do They Play?" *Monthly Labor Review* (September 1988), pp. 38-44.

Heskett, James L., and Leonard A. Schlesinger. "Enfranchisement in Retailing." Presented at the *International Retail Conference*, Ruschlikon, Switzerland, September 25, 1990.

Johnston, William B. *Workforce 2000: Work and Workers for the 21st Century*. Hudson Institute, June 1987.

Meisenheimer II, Joseph R. "Employer Provisions for Parental Leave." *Monthly Labor Review* (October 1989), pp. 20-4 and BLS Bulletin 2363.

National Center on Education and the Economy. *America's Choice: High Skills or Low Wages*. The Report of The Commission on the Skills of the American Workforce, June 1990.

Seitchik, Adam, and Jeffrey Zornitsky. *Employer Strategies for A Changing Labor Force: A Primer. Part I: An Introduction to Innovative Programs and Policies*. National Commission for Employment Policy, June 1990.

Seitchik, Adam, and Jeffrey Zornitsky. *From One Job to the Next: Worker Adjustment in a Changing Labor Market*. W.E. Upjohn Institute for Employment, 1989.

Schlesinger, Leonard A., and Jeffrey Zornitsky. "Job Satisfaction, Service Capability and Customer Satisfaction: An Examination of Their Linkages and Management Implications," to be published in *Human Resource Planning*, 1991.

Tornow, Walter W., and Jack W. Wiley. "Service Quality and Management Practices: A Look at Employee Attitudes, Customer Satisfaction and Bottom Line Consequence," to be published in *Human Resource Planning*, 1991.

Ulrich, Dave, Richard Halbrook, Dave Meder, Mark Stuchlik, and Steven Thorpe. "Employee and Customer Attachment: Synergies for Competitive Advantage." October 1990.

Workplace Family Benefits

Adam Seitchik
Wellesley College

Workplace family policies and programs such as on-site day care centers, dependent-care spending accounts, and parental leave have been the most common new addition to the mix of benefits offered by U.S. employers over the past five years. While there is some data on the demand for, and supply of, family benefits, little research has been done either on the motivations that workers and firms have for establishing these policies or the implications of their development. In the absence of such research, it has been difficult if not impossible to predict the potential that these benefits have for modernizing employment systems in the U.S. to accommodate the marked changes in family economic organization over the past 20 years.

The research reported on in this paper began with a review of the descriptive literature on family benefits: what they are, the potential demand within the labor force, the actual incidence of these benefits within firms, and published case studies of their implementation. Then, standard theories of fringe benefits and efficiency incentive devices were applied to family policies to predict the effect of benefits on wages, employment, and other market outcomes. Finally, field interviews were conducted with consultants, vendors, companies, and employees who were involved in developing, providing, managing, and participating in workplace family programs. The structure of the paper mirrors this research approach by surveying the available data, reviewing applicable theory, and then comparing the theory to the experiences of those in the field.

In some ways, available statistics on family benefits confirm the predictions of theory, especially with regard to which companies do and do not offer benefits. However, the striking feature of programs in place is the distance between the assumptions of formal theory and the stated reasons that employers give for initiating their dependent-care programs. In cases studied on-site, as well as in many programs

Author's address: J. Hancock Mutual Life Ins., John Hancock Pl., T-27, P.O. Box 111, Boston, MA 02117.

developed by expert consultants who were interviewed as part of the research, family policies were established not as a result of a systematic process of calculating benefits and comparing these to costs. Rather, the decision to create a fringe benefit or new policy was based almost invariably on cost considerations alone, supplemented by a vague sense that family policies and programs are consistent with a broader, paternalistic company philosophy. As the research took shape, it became apparent that the diffuse nature of the decision-making process for establishing benefits within firms and the importance within this process of intuition relative to cost/benefit analysis help to explain the particular pattern in which family benefits are spreading across the corporate landscape.

Family Policy in the United States

Given the slow productivity growth and stagnating real wages in the U.S. over the last two decades, increases in Gross National Product (GNP) and family income have been attributable largely to the accelerated movement of women into the paid labor force. Women now account for 45 percent of the labor force and 40 percent of all full-time workers. The traditional reasons for women's non-employment—care of dependents in general and child-rearing responsibilities in particular—have become much less a barrier to labor market participation, as over half of all women with children under the age of three are now in the labor force. Two-thirds of these working mothers of young children are full-time employees. Fifteen percent of all full-time employees are now women with children under the age of eighteen (*Handbook of Labor Statistics*, 1989).

With so many women working outside the home and with greater numbers employed full time, workers increasingly are faced with substantial and competing demands from work and family. Child care arrangements must be made and financed; elderly dependents must be cared for and given companionship. As the traditional post-war family structure and division of labor within the household becomes more uncommon (in only 15 percent of all families are husbands the sole earner), the responsibility for dependents is more often shared by women and men. While women still carry most of the load, this trend slowly is turning work and family from a women's issue into a more generalized work force issue.

Relative to other developed economies which have experienced large increases in female labor force participation, the public policy response in the U.S. has been limited. We have no national system of child-care centers, and subsidies are limited to making some dependent-care expenses tax-exempt: companies can create flexible spending accounts which allow employees to pay for dependent-care expenses on a pre-tax basis, and there is a tax credit for the child-care expenses of working parents.

As a result of the Pregnancy Discrimination Act of 1978, employers must provide replacement income for maternity-related disability under their short-term disability programs. That is, pregnancy must be treated as any other short-term disability within the plan. However, unpaid parental leaves beyond the disability period are mandated in only six states (Meisenheimer, 1989). In comparison, all Western European countries provide for job-protected parental leaves, and many of these are paid leaves (e.g., Sweden, Italy, Germany, France) of up to one year (Kamerman, 1986).

The Demand for Dependent-Care Programs

The demand for dependent-care programs in the workplace has increased in part because of the limits of extended family networks. The majority of children under the age of five with employed mothers are cared for by nonrelatives, either in the child's home (babysitter/nanny/au pair), another home (family day care), or in a day-care center or nursery school (*Statistical Abstract of the United States*, 1990). Some workers who have relatives caring for children might prefer to hire professional care-givers if these were both more available and more affordable. The demand for dependent care policies and programs also comes from women who are not working, but who would like to work if they could find affordable care arrangements. The provision of employer-sponsored care may therefore increase the supply of available labor to the firm.

What is known about the potential demand for so-called "eldercare" benefits (for elderly dependents of workers) is based upon localized surveys from a small number of establishments, surveys which are not designed to be nationally representative and have relatively low response rates. An example is the Employee Eldercaregiving Survey (Beinecke and Marchetta, 1989). These data from workers in four Boston-area corporations reveal that about one out of every four employees cares for an elderly dependent, that one-fourth of those not providing care at the time of the survey expected to do so within the next five years, and that 86 percent of those with elderly dependents also have young dependents (the so-called "sandwich generation" of working care-givers). Respondents expressed interest in a wide variety of potential eldercare benefits from their employers.

While not based on a nationally representative survey, these results are comparable to those found by other employers. For example, a survey of public sector employees in the state of Washington (1988) found that 30 percent of respondents had eldercare responsibilities. In both surveys, the most common types of assistance provided were companionship, transportation, and help with household chores.

The Nature and Extent of Employer-Provided Family Benefits

Family related programs and policies are divided into two basic categories: (1) benefits and services, and (2) work-scheduling policies. In 1987, the Bureau of Labor Statistics conducted a special survey of child-care benefits and related policies in establishments with 10 or more employees, including both the private and public sectors (Hayghe, 1988). Results from the survey suggest that over 100,000 establishments (11.1%) provided some kind of benefit or service in 1987. However, the most publicized family benefits, on-site child-care centers and other employer-sponsored day care, are some of the least prevalent (2.1% of establishments).

The most popular form of financial assistance for dependent care (including child care and eldercare) is the reimbursement account, or flexible spending account (FSA). Typically, all contributions into the FSA are made by the employee, who is then reimbursed from the account with pre-tax dollars when dependent-care expenses are incurred. The wages that are allocated to the account are exempt from taxation, and the resulting tax savings are the sole benefit of the plan. A negative implication is that while no social security (FICA) taxes are paid by the employee on the FSA deduction, his or her social security contributions (and thus future retirement benefits) are also reduced. As of 1989, 23 percent of workers in medium and large companies (100 or more employees) were eligible for reimbursement accounts (most of which include dependent care), up dramatically from 12 percent in 1988 and 5 percent in 1986 (BLS Bulletin #2336 and News Release 90-160). About one-third of employees who are eligible for FSAs can use them as part of a cafeteria plan, in which some portion of employer-provided fringe benefit compensation can be allocated to dependent-care expenses.

Apart from FSAs, the fastest-growing family benefit is resource and referral programs. These can vary from one-day information fairs to annual contracts with local, regional, or national referral networks.

The most publicized program was developed for IBM in the mid-1980s, and it offers a national network of child-care information at no charge to its employees. In 1988, IBM established a similar service for eldercare. In the first year, over 9,000 IBM employees and retirees used the eldercare service (*New York Times*, 6/4/89, sec. 3, p. 19). The 1987 BLS survey found that 5.1 percent of establishments were providing child-care information and referral services; according to providers of these services, the percentage has grown substantially since then.

The increase in the number of workers taking on significant family responsibilities has stimulated demand for flexible work-scheduling policies, including flextime (varying the beginning and ending time of the workday); temporary, voluntary part-time work for full-time workers; job sharing (the sharing of a single full-time job by two part-time workers); working from home; and flexible leave, including parental leave for care of a newborn or newly adopted child. The results from the 1987 BLS special survey indicate that 61 percent of establishments offer some kind of flexible work scheduling, with the most prevalent options being flextime (43%), flexible leave (43%), and voluntary part-time work (35%).

In 1989, 41 percent of full-time employees in medium and large firms (100 plus employees) worked for establishments that offered maternity leave, and 20 percent worked where paternity leave was offered (BLS Bulletin #2363, 1990). These leaves allow for time off beyond the period of disability, with a guarantee of returning to the same job or to a similar job. The maximum length of leaves varies by establishment and is influenced by laws mandating unpaid leaves in six states. Almost all leaves are unpaid, and usually are for no more than 13 to 26 weeks.

Workplace Family Policy as a Low-Cost Benefit

The current stage of corporate work/family policy development is characterized by the rapid development of fringe benefits. These benefits offer some financial and (at times) logistical relief to the family. The financial rewards come mostly through tax savings. Left intact are the traditional norms of corporations as to "face time" (the hours required at the office in order to be thought of as a strong performer). While flexibility has been written into some policies, many workers still believe that upward mobility precludes extended family leaves, flextime, and the like. These have become benefits which are more often offered than taken.

What family benefits do not promise workers is a radically changed workplace in which flexibility is the norm. Nor are workers who balance work and family perceived as having the same opportunities for advancement within corporations as those who do not. According to the BLS establishment survey, family *benefits* are most common within large establishments, while it is the smaller firms that are most likely to offer flexibility.

Basic fringe benefit theory assumes that firms will trade off benefits for wages along an iso-profit curve. More generous family benefits translate into lower wages, holding profits constant. For workers, a mix of benefits that is oriented toward those with dependents (such as a subsidized child-care center) will influence choices as to where to work. We would expect a "family friendly" company to have lower wages (or reduced fringe benefits in other areas) than its competition, and we would expect its work force to be skewed toward those who can make use of the family benefits.

Against the predictions of theory is evidence that high-wage industries tend to be high-benefit industries, holding worker characteristics constant (Kruger and Summers, 1988). This is consistent with workers' sense that "good jobs" provide both attractive wages *and* a host of progressive benefits. Indeed, the incidence of family benefits is highest in larger companies, which tend to provide "good jobs" along a number of dimensions.

The rapid development of family benefits is comparable to the creation of employee assistance plans (EAPs) over the last 15 years. These are counseling programs which provide a host of confidential services and referrals to employees. EAPs were created in response to demands to make work more rewarding and fulfilling. As summed up in HEW's *Work in America* report in 1973, work was to be redesigned along lines that would make it more fulfilling. Suggested reforms included the creation of autonomous work groups, more challenging work assignments, and workers' self-governance. While some companies have experimented with new forms of work organization, by far the most common response has been to establish new *benefits* such as EAPs and "wellness" programs. More often than not, the reforms leave the central questions of work organization, promotion policies, and the like untouched.

There is a higher incidence of flexible work-schedule policies in smaller firms. Non-bureaucratic companies are in a better position to cut individual deals with high-performing workers around schedule, benefits, and routes to promotion. While most research on women and work has been oriented toward the larger corporation, it may be smaller firms that provide the most innovative opportunities for flexibly combining work and family. However, when comparing large and small companies the hypothesized trade-off between benefits (in the form of flexibility) and wages may be more apparent.

Family Benefits as an Incentive Device

Child care experts, advocates, and the spokespersons for companies that have instituted family policies point to the bottom-line benefits: it is proposed as an investment with a high rate of return. For example, Burud, Aschbacher, and McCroskey (1984) surveyed 415 companies with child-care programs (mostly on-site day care), the majority of which reported benefits in the following areas: lower turnover, reduced absenteeism, enhanced recruitment, public relations, and morale. Almost half of the companies claimed that the programs improved productivity, increased the overall quality of the workforce, and/or improved the flexibility of scheduling.

Family benefits are most likely to pay for themselves when they solve a significant recruitment or turnover problem among trained workers. An example is hospitals, which employ large numbers of skilled female personnel, particularly nurses. Of the 415 employer-provided child care programs identified by Burud et al. in 1982, almost half were in hospitals.

Within a standard labor market model of an employer facing a scarce labor supply (an upward-sloping supply curve), shortages are solved through wage adjustments. In equilibrium, there is a perpetual "shortage" at the going wage, in that employers would like to hire more workers, but find it unprofitable to do so because it would mean increasing the compensation for both new hires and incumbents. Wage adjustments for all workers are more costly than incentive devices which benefit mostly the new recruits. So in the case of a hospital, for example, which is employing nurses who for the most part do not have young children, a cost-effective strategy is to develop a child-care center. The added benefit draws in new recruits to use the center without raising the compensation paid to incumbents.

The profit-enhancing capacity of family benefits is called into question by the very slowness with which on-site programs are being established. Perhaps the profits accrue only to those first few firms that enter the market: these companies reap large returns in the form of both local and trade-association publicity, as well as in the provision of favorable terms from for-profit vendors of child care anxious to establish footholds in new markets.

In practice, the efficiency-enhancing promise of family benefits is more hoped for than studied. Even large firms report making these decisions based on a broad sense of what is right, not on cost-benefit analysis. The risks to a company of conducting a serious cost/benefit study are great. Positive results simply confirm the consensus that developed around establishing the benefit. Negative results would not serve well those who contributed to the decision in the first place, and would certainly not be published. As a result, there are no examples to date of publicly available studies that measure carefully the costs and benefits of dependent care programs within a human resource accounting framework.

How Far Can Corporate Family Policy Go?

Corporate responses to family needs have emphasized the minimization of risk. Establishing a new fringe benefit such as a flexible spending account requires a commitment of dollars, the expected magnitude of which is known with reasonable certainty. It is an amount which is thought of as either affordable or unaffordable. Affordable benefits seem to be those that have a low cost relative to total dollar expenditures on fringe benefits. For example, a nationwide dependent-care resource and referral service might cost a corporation 100 thousand dollars per year, while a small change in health benefits costs 5 million dollars per year. In this context, dependent-care benefits are thought of as affordable.

The development of real flexibility in the workplace is retarded by the fact that the vast majority of those who make use of flexibility are women. While more and more men are offered unpaid paternity leave, few take it. While many men are offered flextime, most continue to work full time. And so on. The result is a culture in which the flexible track becomes the female track, and the female track is inevitably the lower-wage and slower-promotion track. The two-track system is not egalitarian. Do men who have family responsibilities want it to be more egalitarian? How much more flexibility do men really want, and at what price to men's relative wages?

In the home, the allocation of responsibilities between men and women has been altered but not transformed. As long as there is a division of labor at home, there will be a divergence in time allocation patterns at work. And as long as there is a de facto mommy track at work, there will be a division of labor at home. The imbalance in one sphere creates the imbalance in the other.

Family benefits, as opposed to workplace flexibility, are popular with both employers and workers in part because they are gender-blind. Even the hardest-driving executive benefits from the on-site child-care center, the tax break, or the resource and referral service. Taking advantage of the benefit poses little risk to the worker. In contrast, part-time workers, those who take extensive leaves, and those who spend fewer hours in the office are marked as less committed, and placed on the mommy track. Providing flexibility in bad jobs is nothing new; in fact, a hallmark of secondary sector work always has been the relatively casual relationship that it allows between the worker and the firm.

Family benefits have been developed to date partly in response to diffuse market forces that affect recruitment; turnover, and the like. It is possible that the benefits which the marketplace is providing in fact represent the optimal resolution of the desires of the market participants. However, it is also possible that operating as unorganized individuals, working care-givers have been unable to amass the countervailing power that is necessary to bend corporate will. Corporate family policy is then well named.

The political and institutional framework which would support the development of an expanded family policy is lacking in the U.S. Unions have been cowed and their memberships have declined during the last decade. Large public demonstrations have been massed around abortion and gay rights, but not around workplace family rights. Lobbyists for parental leave and other family benefits complain that their massive constituency is not politicized—if it exists at all it is the new silent majority. True reform of the workplace for the family awaits an organized, vocal, and committed political force to replace today's tired, fractured, and individualistic work force.

Acknowledgments

To all of the working parents, employers, day-care providers, researchers, and expert consultants whom I interviewed: thanks for your invaluable insights. Thanks also to the U.S. Commission for Employment Policy, for supporting the case studies that form the backdrop to this paper. Workshop participants at MIT and Wellesley College provided useful comments on an earlier draft of this paper. Finally, thanks to Pam Wickham and Evan Seitchik for participating in our homegrown case study of work and family.

References

Burud, Sandra L., Pamela R. Aschbacher and Jacquelyn McCroskey. *Employer-Supported Child Care*, Dover, MA: Auburn House Publishing Company, 1984.

Beinecke, Richard H., and Anne Marchetta. "Employees and Eldercare: Review of Needs and Programs," Boston: Health Action Forum of Greater Boston, 1989.

Hayghe, Howard V. "Employers and Child Care: What Roles Do They Play?" *Monthly Labor Review* (September 1988), pp. 38-44.

Kamerman, Sheila B. "Maternity, Paternity, and Parenting Policies: How Does the United States Compare?" In *Family and Work: Bridging the Gap*, Sylvia Ann Hewlett et al. (eds.). Cambridge, MA: Ballinger Publishing Company.

Kruger, Alan B., and Lawrence H. Summers. "Efficiency Wages and the Inter-Industry Wage Structure." *Econometrica* 56, 2 (1988), pp. 259-293.

Meisenheimer, Joseph R. II. "Employer Provisions for Parental Leave," *Monthly Labor Review* (October 1989), pp. 20-24.

State of Washington, Department of Personnel. "Eldercare and the State of Washington's Merit System Employees," unpublished mimeo, 1988.

U.S. Department of Health, Education, and Welfare. *Work in America*. Cambridge, MA: The MIT Press, 1973.

Basic Skills Development at Motorola

SUSAN HOOKER
Motorola, Inc.

Even within the Fortune 500 companies, basic skills training is a relatively new activity and managers responsible for training programs have had to learn much along the way. Motorola Inc., the electronics firm with over $11 billion in annual sales and over 100,000 employees (53,000 of them in the U.S.), is a case in point. The company's entry into the basic skills business was "through the back door," developing out of a broader commitment to product quality.

While Motorola's emphasis on investments in quality and basic skills training is fueled by corporate-wide philosophy and policies, management also has a strong belief in the benefits of decentralization. Each sector, division and group at Motorola has a great deal of autonomy; as a result, specific training initiatives vary significantly across the corporate lines of business. Basic skills training at Motorola has thus developed through the interaction of plant-level experiments, policies in each division, and corporate initiatives.

This case study begins with a review of corporate training policy at Motorola, then proceeds to discuss the basic skills programs developed within the Communications Sector of Motorola, and finally examines a plant operating in a division within that sector in Schaumburg, Illinois. The Motorola experience highlights the benefits of developing basic skills programs from the bottom up, not from the top down. The initial efforts were established in a single factory and have since expanded, with corporate support and encouragement, into many of the other factories and lines of business at Motorola.

The Motorola experience also demonstrates that even large corporations have had to start from scratch in developing basic skills programs. Community colleges and public school systems are just beginning to tailor adult education curriculum for on-site, company-funded training, and the corporations themselves have little in-house expertise in this area. Fortunately, companies like Motorola are slowly

Author's Address: Motorola University, Motorola Inc./Corporate Offices, 1303 East Algonquin Rd., Schaumburg, IL 60196.

developing a set of educational institutions in this country that have the expertise to support workplace basic skills. Even so, the Motorola case reveals that basic skills programs are more complicated to develop than one might think and require careful planning, development, and implementation.

Corporate-Wide Policies at Motorola

Two new initiatives at the corporate level support and reinforce the basic skills efforts in each Motorola sector, division and plant. The first is a peer review process, whereby training managers visit each other's basic skills programs and share information. This internal evaluation approach, used earlier in assessing quality improvement programs, was a key reason why Motorola received the first Malcolm Baldridge National Quality Award for manufacturing in 1988. As the primary stakeholders in the delivery system learn from each other, it is hoped that these visits will lead to the widespread adoption of "best-in-the-class" basic skills training programs. Second, beginning in 1990, corporate policy has required a minimum of 5 days of job-related training annually for each Motorola employee. Company policy since 1984 has required that at least 1.5 percent of payroll be devoted to training by every operation. The current expenditure level is close to 3 percent of payroll.

The basic skills objectives established at Motorola are also reflected in the company's use of Basic Abilities Testing Battery (BATB). Since 1989 all *applicants* for direct labor positions have been given this job-related test, which screens prospective workers for minimum competencies in reading, math (decimals, fractions, and percentiles, which are prerequisites for statistical process control), visual acuity, forms completion, and simulated work situations.

As a result of this testing program, virtually all new hires at Motorola are proficient in basic skills. Recruiters work aggressively to seek out applicants with solid academic backgrounds. The goal is to have all new hires pass the BATB test, subject to the broad parameters of the company's affirmative action plan. It is therefore the longer-service workers within the corporation, not its current recruits, who present the basic skill challenge.

The Motorola Training and Education Strategic Plan has as one of its goals that by 1995 basic skills for the entire company work force will be at a level where all can be trained and retrained throughout their working lives. So far, 40 different delivery systems have been established or projected for basic skills programs. It is estimated that by 1995, the company will have spent $35 million on basic literacy. Following extensive experimentation with voluntary participation on 50 percent company time, many of the company's divisions are now moving toward mandated basic skills training on 100 percent company time.

How Motorola Got into the Basic Skills Business

Basic skills programs at Motorola developed out of business necessity for improved product quality. Like many U.S. companies, Motorola's historic advantage has been in design engineering, not low-cost, error-free manufacturing. But in competing with the Japanese, who are experts at producing in volume at high quality, the corporation has been forced to increase its quality initiatives. Nowhere has this been more true than in the development of the Cellular Subscriber Division, where basic skills training got its start at Motorola.

The corporation, in collaboration with AT&T, created the original cellular phone technology and by 1981 had invested $100 million in this effort. In 1984, Motorola began manufacturing phones, but the Federal Communications Commission was swamped with thousands of licensing applications, and the granting of first licenses was delayed for 18 months. That almost brought sales to a halt. During the 18-month window the Japanese developed a product that, while it had fewer features than Motorola's, was virtually defect free.

Motorola's competitive position was worsened by Japanese dumping and by high cost of production within its own facility in Illinois. By the end of 1985, the decision was made to move all production to the Far East. The general manager in Illinois argued strenuously against the move. His proposal for a one and one-half year trial period was accepted, during which time he would attempt to increase productivity and quality sufficiently to make the U.S. operation competitive. The approach of the cellular division was to implement on a broad scale technical system and social system changes that would solve these quality, cost and productivity problems.

The technical changes began with a redesign of the cellular phone, emphasizing a reduction in the number of parts. The plant also moved to just-in-time inventory and full implementation of statistical process control procedures. Measurement systems were upgraded and the large number of job grades was reduced to a single job grade. The factory was redesigned to encourage teamwork, inspectors were eliminated as workers took responsibility for inspecting their own work, and the problem of over-engineering was also addressed. The social system changes included a true partnership between design engineering and manufacturing operations that would ensure manufacturability of the product, a move toward flexible jobs and workers, early involvement of suppliers in the development process, and a commitment to error-free quality as opposed to simple productivity.

Managers within the Cellular Division and on the human resource staff believed that a key to the success of these changes was upgrading the skills of the hourly work force. However, in no way was this a scientific assessment based on quantitative data. It was simply clear to those involved that the new emphasis on technology, team communication, and cross-training (where all members of a team learn all of the relevant jobs) would require a more educated, flexible worker.

To provide motivation for workers to develop their skills, a skill certification system was established. Within the single job grade, wages were established based upon certification points plus merit pay. Certification points were earned by performing a job for 40 hours, defect free. Much of the skill training was delivered on-the-job, but it became increasingly evident that at least some of the workers did not have the basic skills needed to complete job-related skill training.

The basic skills program within the cellular plant developed in a virtual vacuum of information about worker competencies and needs. It was management's sense that the initial need was for mathematics. However, like many companies, Motorola had foregone workplace testing in the 1970s and early 1980s following a discrimination lawsuit, so there was no clear sense of worker competencies.

Nearby Harper Community College was called in to develop further the Cellular Division basic skills program. The experts at Harper realized quickly that worker difficulty with the word problems used in the assessment process were, in large part, due to low levels of reading competency. Harper began offering English as a second language (ESL), reading, and math courses at the plant.

The systematic changes put in place in the Cellular Division were a tremendous success. The factory remained in Illinois. Cycle time (the time it takes to convert piece parts into finished product) was decreased by a factor of 40 and the productivity of the line with upgraded personnel was five times what the original industrial engineering estimates predicted, based on technical changes alone. As a result of the successes in the Cellular Division, other Motorola business units became interested in the innovations put in place there.

The success in the Cellular Division was seen in product quality and in the bottom line. There was no effort, however, to evaluate the specific role played by the basic skills program. As the story of the success was told to other managers, much emphasis was put on the critical contribution played by the basic skills development. By the end of 1989, every one of Motorola's U.S. factories had developed a basic skills upgrade program, mostly in consort with junior colleges. Given the belief in decentralization, there has been no corporate effort to develop a model program. Differences remain as to whether the training is voluntary or mandatory and whether it is on 50 percent or 100 percent company time.

Basic Skills Training in the Schaumburg, Illinois Plant

With this overview of basic skills training at Motorola, we now discuss the programs implemented within a specific plant: the Fixed Products Division plant in Schaumburg. The purpose of the basic skills program within this plant is to lift all line workers to a level of basic skills competency that will allow them to pass the Motorola basic skills test. The skills identified in that test have been validated as a requirement for good performance in traditional factories and are essential for the learning required in the company's newer factories. The plant's work force includes many immigrants who speak English as a second language, and many longer-service workers who are not high school graduates. Since virtually all new hires at Motorola have passed this test, the emphasis of the basic skill initiative in the plant is on the longer-service workers.

Like the Cellular Division, the plant manager and training specialist in Schaumburg chose Harper Community College as its local service provider. The college was chosen on the basis of its National reputation and the positive experience with it reported by other Motorola plants. The logistical requirements of offering on-site training programs at Motorola were such that a college staff member was designated just to serve this one company's training demand. This person was also responsible for developing a job-related curriculum. While classes in standard adult basic education were in progress, a complete literacy task analysis and job task analysis were done to develop a customized basic skills program for the plant's work force.

Reflective of the emphasis placed upon skill development by the plant manager, a full-time director to coordinate all factory skill upgrades was hired by Motorola. With the support of a grant from the state of Illinois, the training director implemented a number of programs to improve the off-line skill upgrading. A grant from the local private industry council (PIC) was also critical in establishing the basic skills program.

One of the trainer's first tasks was to convince workers to sign up for the basic skills training on a voluntary basis. The trainer spent three weeks talking to workers about the program. On average, workers enrolling in the program had spent 160 hours in basic skills by the end of 1989, with 50 percent of the training time paid for by Motorola. The estimated cost to the company in 1989 for basic skills training in the Schaumburg plant was $375.00 per person, excluding student salaries. The organization has now moved to mandatory basic skills training. With 400 people enrolled in mandated training on company time, the budgeted 1990 cost of basic skills in this plant was $600,000 including the cost of classes and the payroll cost for people's time off the job.

Development and Refinement of the Basic Skills Program in Schaumburg

The Schaumburg plant is part of the Communications Sector at Motorola, a large business accounting for over $3 billion in sales and over 50 percent of total company operating profits in 1988. In the second quarter of 1987, following up on its positive experience with basic skills in Schaumburg and other locations, the entire Communications Sector implemented a systematic program of voluntary basic skills assessment and training called "New Directions." The program was launched through an 18-minute videotape featuring the paternalistic Chairman of the Board at Motorola (and son of the founder), Bob Galvin. The goal was to get basic skills programs operating in all plants and to increase recruitment into existing courses like those in Schaumburg.

In his message, Galvin had several objectives. The first was to stress the need of all workers for lifelong learning. A favorite Motorola metaphor compares workplace training to going up a down escalator. Galvin stressed to the workers that skill requirements are going up while the adequacy of existing skills is declining. Walking up the escalator through lifelong training is needed just to keep them from falling behind. Galvin's second goal was to reassure long-time employees that they were still valued members of the team and that there were no plans to let them go. This message was especially critical at Motorola, where all employees join the "service club" after 10 years.

The service club at Motorola has been a de facto guarantee of lifetime employment—before a manager can lay off a member of the club, he or she must do everything possible to retain that worker, and any layoff requires the signature of the Chairman of the Board. So by restating his commitment to these long-tenure workers, Galvin was attempting to lower the level of anxiety surrounding entry into basic skills education.

For three years, ESL, math, and reading classes have been provided in-house at a number of facilities in the Communications Sector (including Schaumburg) by local education providers. The program was promoted through meetings with supervisors and managers and by dissemination of a "new directions" brochure and pretest. The brochure, entitled "Preparing for New Directions," stresses that production operators will increasingly be able to: read vend tickets, build books and maintenance manuals; read simple blueprints, sketches, diagrams, and drawings; record data correctly; do addition, subtraction, multiplication, division, percentages, ratios, and fractions; understand written and verbal instructions and explanations; work without close supervision; work together and share work with people from all levels, and solve problems.

The brochure explains that Motorola is giving tests to new applicants that cover such areas as reading, visual tracking, arithmetic, and forms completion. The worker is then asked to answer a few questions on his or her own, with answers provided in the back of the brochure. Workers are encouraged to get in touch with their supervisor, training department, or personnel department if they cannot answer the questions.

The first two exercises in the brochure are sample job tasks: preparing a specification chart and calculating sums, averages, and ranges for statistical process control. Then there are sample test questions on arithmetic, reading comprehension, visual pursuit (following the lines in a circuit), and forms completion. Some of the math and reading exercises look like what workers would do in their jobs, such as filling out a time card. The purpose of the brochure is to convince workers that they need help and to encourage them to voluntarily sign up for the classes.

In most sites, 60 to 70 percent of the workers were taking the pretest, but problems arose when it was suggested that workers enroll in classes. For some workers, the complications were logistical: babysitting, transportation, etc. For others, there was a hesitancy toward entering into more school. Training specialists in each site talked to individual workers on the floor in an effort to overcome fear and scheduling difficulties, but recruitment into the voluntary programs remained a sticking point. And the training providers had much to learn in terms of developing job-related skills. They were getting positive feedback on the classes from the workers, but the workers were still not doing well on the Motorola basic skills test.

The plant has now entered its second phase of basic skills development using the functional context, job related curriculum developed while the first phase was in process.

A total of 252 hours of instructional curriculum has been developed to teach these basic skills in the context of Motorola's work environment. The ESL curriculum is 112 hours long in four 28-hour modules. These modules were designed to supplement the Prentice Hall *Side by Side* series, which is another 220 hours of instruction. "Communication Skills I" deals with such basics as workplace terminology, safety signs, asking for directions, asking questions for clarification, telephone skills, dealing with time cards, and calendars. "Communication Skills II" gives an overview of the manufacturing process and explains how the different jobs fit into the whole picture. Students learn to describe their jobs and the process flow before and after their part of the process. Module III, "Language Skills for Self-Management," covers verifying and clarifying information, note taking, and reading various forms and documents in the workplace. Module IV, "Language Skills for Problem Solving," teaches brainstorming techniques and meeting participative skills, such as how to decode what is written on flip charts during team meetings.

The reading series involves two modules, 56 hours of instruction in all. These are intended to be used with employees who have a functional reading skill that needs further development. For those without that functional ability, generic adult basic education materials and courses are used to build these skills. Persons who have completed the ESL curriculum may also be funnelled into reading modules. The skills taught include following written job procedures, interpreting work specifications, reading flow charts, making outlines, reading technical information, and drawing conclusions and inferences from written materials.

The math curriculum includes three 28-hour modules. Quantitative Math teaches basic four function, whole number mathematics using practical examples from the workplace. Technical Math moves on to fractions, decimals and percentages, and applies them to real factory situations such as figuring out the percentage of rejects in a lot of materials being inspected. The third module, Graphic Information, covers making and reading different types of graphs, transferring data from one format to another, and solving work problems taken from the workplaces.

This curriculum is giving employees at the Schaumburg plant the skills necessary to perform well in the increasingly complex manufacturing environment. Classes are run entirely on company time in a new set of classrooms dedicated to this process. A computer lab for drill and practice reinforcement of skills has also been installed.

All facilities within the Communications Sector, including Schaumburg, have moved to mandatory programs on 100 percent company time. Training directors believe that they have reached as many workers as possible on a voluntary basis, and now it is time to insist that the others enroll in training. It may be that those who are forced to enroll in training have greater basic skills deficiencies and less motivation than the volunteers.

At first, operations managers resisted establishing company-funded mandatory basic skills programs, but over time they began to see the real need. There were two key issues in the implementation of the program at all sites: (1) establishing a full-time liaison, and (2) providing dedicated classroom space. The development of the curriculum described above is the step which the organization hopes will allow them to close the remaining skill gap over the next two to three years.

The catalyst for change at Motorola has been new technologies and a heightened need for virtually error-free production quality. After a period of hiring workers without any systematic regard for their level of basic skills, Motorola found itself in a position where it had to significantly upgrade its workers' capabilities in order to stay competitive. Against this, it has a paternalistic company culture, which values smooth employee relations and which has made commitments to its long-tenure work force. Beginning from a relatively small experiment in its Cellular Division, basic skills training has now become a centerpiece of the company's effort to upgrade its incumbent work force so that its skills will match those of carefully assessed new hires in meeting the demands of the workplace.

An excellent component of Motorola's programs is the emphasis on job-relatedness. Over time, the company has worked to identify the skills needed for jobs and for job-specific training and is designing basic skills training programs to fulfill real needs on the shop floor. Job-related training is not only prudent and fair from a legal standpoint, but also increases the efficiency with which human resource dollars are spent. Teaching workers to help their children with homework is fine, but learning job-related math and reading skills makes more sense for both the workers and the company in the long run.

While Motorola is well on the way to establishing "best-in-the-class" basic skills programs, all those involved in the process warn that there is nothing easy about this challenge. The first inclination of managers is to believe that the problem is not as bad as the personnel specialists think it is. Therefore, the key to any success that Motorola has experienced is enlisting the support of all levels of management. For managers to believe in the program, they must sense that it has bottom-line implications. At Motorola, the positive experience in the Cellular Division was critical to building confidence in change among managers in other areas.

The early basic skills programs were voluntary on 50 percent company time. Voluntary programs benefit from motivated students and probably reach workers who are at a higher level to begin with. Now, most sectors of Motorola are moving toward mandatory basic skills training on 100 percent company time. Beginning with voluntary training and then making it mandatory is an innovative strategy that could turn out to be an effective model for grouping workers at similar ability and motivational levels and for upgrading workers' skills in general.

Motorola managers realize that there is no short-cut to meeting basic skills goals. The upgrading of the incumbent work force has proven to be very time consuming and expensive, but has paid off with improved quality, productivity and job satisfaction. In the long run, Motorola hopes that this strategy will result in the continued viability of its U.S. manufacturing work force.

DISCUSSION

CAROL D. MILLER
Lancaster Laboratories, Inc.

The papers by Seitchik, Hooker, and Zornitsky focus on some of the more innovative approaches businesses are taking to attract and maintain employees. Based on the criteria of offering family-friendly benefits and specialized training, and recognizing the human resources/client satisfaction linkage, Lancaster Laboratories would qualify as one of the companies of the future described in these papers.

The force that drives the company to innovation is the high-tech nature of the analytical testing business. Since instrumentation becomes outdated in less than five years, employee training and retraining is a continual process. And because change occurs so rapidly in the scientific service sector, the company can't afford to lose and replace skilled people. Offering alluring benefits such as on-site child care, paid leave, and flex-time helps keep our turnover rate among the lowest in our industry.

Zornitsky ties human resources practices to the economic significance of customer satisfaction. Lancaster Laboratories definitely recognizes this critical link. Approximately 50 percent of our work force has direct client contact. Sales, which have grown steadily at 30 percent per year for the past eight years, would suffer greatly if poorly trained or dissatisfied employees were the front line of interaction with our clients.

To guarantee a loyal, satisfied work force, the company places heavy emphasis on listening to employees and responding to their needs. And the process involves continual monitoring as the needs of the workers change.

An example of need response can be seen in a new cafeteria benefits program, developed from survey information supplied by employees. The program allows workers to select from a blend of

Author's Address: Lancaster Laboratories, Inc., 2425 New Holland Pike, Lancaster, PA 17601.

what are referred to as core and non-core benefits. The selective nature of this program circumvents the skewing of the work force to those with dependents, which Seitchik discusses. Those with children can choose benefit coverage for them, but it is not at the expense of those who have no dependents. This cafeteria plan (called LLIfe-style—a takeoff of Lancaster Laboratories, Inc.'s nickname of LLI) is attractive to workers no matter what lifestyle they have chosen.

If the dour predictions for labor shortages in the coming decade hold true, successful companies will need to compete for employees with benefit/training packages that are attractive from multiple viewpoints. While family-friendly benefits and basic skills programs are certainly positive drawing cards, a few stellar programs will be insufficient to attract and hold skilled specialists in short supply.

Although Lancaster Laboratories does indeed try to offer a host of family-friendly benefits, management realizes that the entire wage/benefit package has to appeal to all segments of the work force. As we add people from varied ethnic and racial backgrounds, creative approaches for dealing with differences will need to be found.

The company's human resources group plays a major role in the strategic planning process. As the United States moves from a manufacturing-based economy to a service-based economy, this practice should spread. For with personnel expenses ranging three to five percent in manufacturing compared to 40 to 70 percent in the service sector, companies will be forced to view the work force as an expensive asset worthy of a key spot in the strategic planning process.

"True reform of the workplace," Seitchik states, "awaits an organized, vocal and committed political force." Based upon our company's experience with governmental interference, it is hoped that such force plays out in governmental supports for family-friendly benefits rather than mandates to the profit-making sector about what benefits it must offer. Supports could be in the form of tax incentives, low-interest loans to fund building and outfitting of on-site child care centers, and elimination of the $5,000 annual cap on tax-free dependent care accounts.

Since Lancaster Laboratories started its program in 1986, only three new mothers have not returned to work. With 40 employees bearing children during that period, we've attained a 92.5 percent retention rate. Given the high cost of recruiting, hiring, and training scientists, savings to the company far outweigh the expense involved. If the financial pay-offs reaped by businesses which offer innovative development and benefits programs were made known to a wider audience, legislative mandates would be superfluous. Companies would adopt the practices simply because they make good business sense.

One element of our company's child-care success story ties into Motorola's use of local junior college staff to serve as in-house experts. A belief that expertise should be sought wherever it exists led the company to employ an outside provider to manage the child-care program. Hooker discusses the benefits derived ("avoiding the burden of developing a career path for an instructional specialist") from such use of outside help. Our experience with an established child care provider has shown us that going outside the company for specialized expertise is not only beneficial, but also expedient. The same thinking holds true for our laboratory technician training program developed and delivered in conjunction with our local vocational-education specialists (with Pennsylvania Department of Education funding).

In addition to using the educational system's expertise for specific employee training programs, businesses need to become involved with local school districts at a more basic level. Preparing the work force of the future calls for joint efforts to ensure needed skills are in place when the graduate applies for a job.

Seitchik, Hooker, and Zornitsky highlight three critical areas that bear notice by the business sector. With skilled workers rapidly becoming a shrinking commodity, further research such as theirs will become increasingly valued by those businesses that want to stay competitive in the 1990s.

III. DISSERTATIONS

Improving Employee Attitude Toward Employee Assistance Programs

MELINDA J. LAUBSCHER
San Francisco State University

Employee assistance programs (EAPs) are counseling services established by employers to aid employees in resolving performance related personal problems. In general, today's holistic EAPs assist employees with any problem that may hinder productivity.

To improve EAP outcomes, EAP guidelines have been recommended. To improve employee attitude toward EAPs, program design should include confidentiality of records for employees who have used the EAP, extensive publicity to enhance program credibility, and labor cooperation in EAP development and administration (Foote, 1980; Myers, 1984, pp. 254-72; Scanlon, 1986, pp. 4, 70-75; Shain and Groeneveld, 1980, pp. 7-10; Trice and Roman, 1978, pp. 170-201).

Although research has examined the effect of EAP structure on employee outcomes, no research has explored the relationship between program structure and employee attitude toward the EAP. By focusing on attitude, this study can help improve EAP use by showing how employee acceptance of EAPs can be improved.

Theoretical Framework

Petty and Cacioppo propose a theory of attitude change called the Elaboration Likelihood Model (ELM) of persuasion (1981, pp. 255-69; 1986, pp. 123-205). This theory assumes that individuals seek to hold correct attitudes about an issue to avoid harm. Individuals with a

Author's Address: Department of Management, San Francisco State University, 1600 Holloway, San Francisco, CA 94132.

greater stake in the issue are more likely to base attitudes on central information and are said to have high issue involvement. Central information is obtained through the central or cognitive route of persuasion, focusing on message content.

Individuals with a lower stake are more likely to base attitudes on peripheral information and are said to have low issue involvement. Here persuasion depends on incidental concerns or cues such as message-source attractiveness, social role, or association with something positive.

ELM explicitly predicts an interaction between issue involvement and the central and peripheral messages received about the issue. Highly "involved" individuals are more sensitive to the relative strength of central messages than less involved individuals. Individuals with lower issue involvement are more sensitive to peripheral messages.

An EAP represents an "issue" about which employee attitude is important. The employee processes EAP information differently depending on the information's central or peripheral characteristics and employee involvement. Employees, therefore, categorize EAP design characteristics such as record confidentiality, discipline to motivate program usage, publicity characteristics, and labor-management cooperation in program design and administration according to their central or peripheral nature. Consequently EAP design characteristics affect employee attitudes toward the EAP differently depending on their categorization as central or peripheral. Each variable is discussed in turn.

Record confidentiality is labeled as central because it provides message content about potential harm from using the EAP.

> H_1: Employee record confidentiality increases employee attitude toward EAPs. This effect is greater for employees with higher EAP involvement than for employees with lower involvement.

Discipline is also labeled central. The message content is strong that the employee will be harmed if the EAP is not used to solve problems. Thus, employees subjected to discipline to motivate EAP use have a negative attitude toward the EAP.

> H_2: Discipline used to motivate program usage reduces employee attitude toward EAPs. This effect is less for employees with lower EAP involvement than for employees with higher involvement.

Although not discussed in the EAP literature, what others say about the program influences employee attitude toward the EAP. This operates as a central message because it gives employees concrete information about the program.

> H_3: Positive information heard about the EAP increases employee attitude toward EAPs. This effect is greater for employees with higher EAP involvement than for employees with lower involvement.

Message repetition and source attractiveness have been found to be key peripheral cues in determining individual attitudes toward an issue (Petty and Cacioppo, 1981; 1986).

> H_4: Repetition of EAP publicity increases employee attitude toward EAPs. This effect is greater for employees with lower EAP involvement than for employees with higher involvement.

> H_5: More professional looking EAP publications increase employee attitude toward EAPs. This effect is greater for employees with lower EAP involvement than for employees with higher involvement.

Labor-management cooperation is treated as a peripheral cue because it represents the social role of the message sender, representing a peripheral cue rather than message content.

> H_6: Labor or worker cooperation in EAP development and administration increases employee attitudes toward EAPs. This effect is greater when the employee likes the union. This effect is also greater for employees with lower EAP involvement than for employees with higher involvement.

In the final explicit model, the interactions of the message with involvement are entered into an ordered probit. An ordered probit is used instead of ordinary least squares because the dependent variable is ordinal rather than interval.

Although the theory suggests an interaction only, limiting the analysis to the interaction may miss rich insights. Thus, a model with both the direct and interaction effects of EAP messages is tested. Moreover, other employee personal characteristics are entered to determine whether variables outside of EAP design may partially determine employee attitude toward the EAP.

The personal characteristic variables entered are private counseling and social support. If the EAP is structurally weak, employees with problems may explore other avenues such as private counseling or social support from co-workers, friends, or relatives to resolve problems. Moreover, having a predisposition toward other avenues of assistance may diminish an individual's attitude toward the EAP. Because of the collinearity between EAP structure and EAP alternatives and the alternatives' relationship with attitude, omitting the personal characteristics could bias the results.

Methodology

EAP structural data were gathered from nine small- to medium-size companies in Michigan. The nine provided names and addresses of thirty randomly chosen blue-collar workers who were sent a survey concerning their attitudes toward the EAP.

An initial survey followed by reminders and follow-up surveys were mailed to the 270 employees identified by the nine managers: 118 employees responded for a response rate of 43.7 percent.

Response rate per company ranged from 59.25 percent to 18.9 percent. This wide variation may reflect company specific factors that may be correlated with EAP structure and employee attitude toward the EAP. Thus, response rate is used to control for differences between respondents and nonrespondents and residual company characteristics not measured that may affect attitude, eliminating the ecological fallacy.

Measures

Attitude Toward the EAP. Seven five-point Likert scale questions measure attitude. A five means the employee has a strong positive attitude while a one means the employee has a strong negative attitude. Factor analysis produced one factor (eigenvalue = 3.99; a = .89; n = 118).

Involvement. Questions about employee substance abuse and anxiety level were used to capture involvement. If the employee faces these personal problems, the employee has a greater need to assess information about the EAP. Anxiety is measured using Goldberg's General Health Questionnaire (1972) (eigenvalue = 12.07; a = .95; n = 118). Substance abuse was measured with five, five-point Likert scale questions about alcohol and drug usage. Both have one factor (Drugs: eigenvalue = 3.12; a = .87, Alcohol: eigenvalue = 2.26;

a = .75). One measure of EAP involvement ranging from low = 1 to high = 5 was derived from these scales.

Confidentiality of Records. If persons other than the EAP director, the EAP assistant, and the supervisor of employees whose performance requires EAP referral have access to the records, access is low. If the EAP director, the EAP assistant, and the supervisor of employees whose performance warrants referral have access to the records, access is high.

In addition to record access, site of counseling and referral contributes to confidentiality. If EAP counseling is on-site, site is low because more people can observe employees seeking counseling at the EAP office. Site is high for off-site referral because no one at work can observe employees seeking EAP referral or EAP counseling.

EAPs scoring low on access or site are coded one for low confidentiality. EAPs scoring high on both are coded five for high confidentiality. All other combinations are coded two for medium confidentiality.

Discipline to Motivate Program Use. Either employers use discipline to motivate program usage (coded one) or they do not (coded zero).

Information Heard About the EAP. Employees were asked what information they have heard from others about the EAP. Positive information is coded three. Negative information is coded one. All other information is coded two.

Publicity Repetition. Employers who frequently mail EAP publicity to employee homes or employers who use three or more other EAP publicity methods are coded three for high. Employers who do not mail EAP publicity and who use only one or no other means to publicize the EAP are coded one for low. The remaining combinations are coded two for medium.

Publicity Attractiveness. Assessment of publicity attractiveness was measured by subjective consensus evaluation by a panel of volunteers. Three is attractive, two is neutral, and one is unattractive.

Labor-Management Cooperation. If the union or workers regularly assist management in program administration and they have an equal say in program administration through a joint labor-management committee, cooperation is coded three for high. If the program was management developed and the union or workers do not regularly assist management in program administration through a joint labor-management committee, cooperation is coded one for low. The cooperation score is cross indexed with employee attitude toward the union and employer.

Social Support. Social support is measured using 25-point Likert scale questions. A five means the employee strongly believes that social support is high and a one means the employee strongly believes social support is low. Factor analysis resulted in one factor (eigenvalue = 2.95, a = .87; n = 118).

Current Counseling. This is measured using four, five-point Likert scale questions asking employees whether they are currently seeking private counseling other than the EAP. A five means that the employee often goes to counseling and a one means that the employee does not attend counseling (eigenvalue = 2.03; a = .77; n = 118).

Results and Conclusions

Table 1 reports the final results. Because the sign for confidentiality of records had a negative sign in the original interaction model, the

TABLE 1

Interaction and Direct Effect Model of Attitude

	Coefficient	Std Error	Mean	Std Error
Access	−1.287°°	.571	2.03	.715
Access/Involvement	1.081°°°	.388	5.07	1.068
Site	1.182°°	.681	2.22	.668
Site/Involvement	−1.104°°	.467	5.24	.949
Discipline	−.098	.988	1.73	.446
Discipline/Involvement	−.020	.346	4.58	1.304
Heard	.785°°	.449	2.26	.684
Heard/Involvement	−.282	.315	5.29	.717
Repetition	1.117	.881	2.27	.844
Repetition/Involvement	−.374	.292	5.80	2.500
Attractiveness	−2.651°°	1.266	1.64	.834
Attractiveness/Involvement	.929°°	.443	3.91	2.518
Cooperation	.999°	.656	1.95	.552
Cooperation/Involvement	−.180	.228	4.88	1.537
Social Support	.513°°	.207	3.93	.570
Current Counseling	.505°°	.228	3.93	.570
Response Rate	.009	.013	48.53	11.89
Mu 1	1.836	3.089		
Mu 2	2.816	3.091		
Mu 3	3.891	3.096		
Mu 4	5.066	3.105		
N	118			
df	17			

° p = .10; °° p = .05; °°° p = .01

composite score of confidentiality is broken into access to records and site of counseling for the final model in Table 1. The direct and interaction model, moreover, produced significant direct effects and personal characteristic variables and was, therefore, judged better than the interaction model. This suggests that Petty and Cacioppo's theory has useful suggestions for model specification but that the direct effects cannot be ignored.

Interpretation of the significant coefficients is found in Table 2. Interpreting the results is not straightforward as in a regression analysis. Instead it relies on interpreting the coefficients using the Mus or cut points on the dependent variable and the probabilities associated with the normal density function.

For example, every unit increase in labor-management cooperation results in a decrease in the probability of an employee's being in Category 1 of attitude by .035, a decrease in the probability of being in Category 2 by .154, and a decrease in the probability of being in Category 3 by .205. Every unit increase in cooperation results in an increase in Categories 4 and 5 by .160 and .235, respectively. Thus, cooperation has a positive relationship with employee attitude, but that relationship differs for each level of attitude. All other variables are interpreted in the same manner.

Thus, the results partially support the guideline literature. On average where employees like their union, cooperation results in better attitudes toward the EAP. This finding finetunes the EAP literature's suggestion that cooperation is always a good plan when designing EAPs. Thus, cooperation should be considered only when employees, on average, have a good relationship with their union. Moreover, on average, off-site counseling is a better idea in EAP development.

Interestingly, the interaction of site and involvement has a negative sign, meaning that highly involved persons prefer on-site counseling. So, although on average, off site is better, on site is better for those who need to be targeted. This may be due to employees with high involvement having a sense of employer caring and personal commitment to the healing process when treatment is on site. An implication for EAP policy considerations may be to offer both on site and off site as an option. This way both high- and low-involved persons' needs are met.

Like site of counseling and its interaction, access and its interaction have opposite signs. As access to records becomes limited, employee attitude decreases, a counter-intuitive result. But, as expected, access has a more positive relationship with attitude for employees with high

TABLE 2

Estimated Impact of Significant Continuous Variables on Employee Attitude

X	Attitude =	d (Prob(Y =)/dx) Change in Attitude
Access	1	.074
	2	.198
	3	.265
	4	−.206
	5	−.302
Access/Involvement	1	−.038
	2	−.166
	3	−.222
	4	.173
	5	.254
Site	1	−.042
	2	−.182
	3	−.243
	4	.190
	5	.277
Site/Involvement	1	.039
	2	.170
	3	.227
	4	−.177
	5	−.259
Heard	1	−.028
	2	−.121
	3	−.161
	4	.126
	5	.184
Attractiveness	1	.095
	2	.408
	3	.545
	4	−.425
	5	−.622
Attractiveness/Involvement	1	−.033
	2	−.143
	3	−.191
	4	.149
	5	.218
Cooperation	1	−.035
	2	−.154
	3	−.205
	4	.160
	5	.235
Social Support	1	−.018
	2	−.078
	3	−.104
	4	.081
	5	.119
Counseling	1	−.018
	2	−.079
	3	−.105
	4	.082
	5	.120

involvement. Thus, on average access has a negative relationship with attitude, but for those with high involvement, the relationship is positive. This suggest that access should be limited so those who most need to use the EAP are not offended or inhibited in their pursuing EAP counseling.

As for publicity attractiveness, this study suggests that too heavy a hand in EAP publicity has a negative effect on attitude. Publicity too attractively packaged is seen as unctuous and manipulative. This effect is less for those who have a greater need to use the EAP. Thus, publicity should be professionally packaged but not to the point where packaging overshadows content.

Additionally, there is evidence that employers should focus some of their attention on employee social networks when advertising the EAP. Contacting local religious or social organizations and family members about the EAP's potential benefits may improve employee perceptions of the EAP through social support.

In conclusion, this research has both theoretical and practical implications. Structure does play an important role in determining employee attitude which will, in turn, affect employee intent to use the EAP. This effect is different depending on employee need to use the EAP. But employers must be careful when following guideline suggestions. Employees are quick to see manipulation by employers and employers cannot adopt an EAP without considering the past and current employer-employee-union relationship.

Finally, not all structural variables were significant. This may be due to the limited sample or the use of actual EAP design measures in the model rather than how the employees perceive the design of the EAP. Future research should use a larger sample and examine employee perception of EAP structure on employee attitude toward the EAP.

References

Foote, A. *Occupational Alcoholism: A Review of Research Issues*. Research Monograph No. 8. Rockville, MD: National Institute on Alcohol Abuse and Alcoholism, 1980.

Myers, D. W. *Establishing and Building Employee Assistance Programs*. Westport, CT: Greenwood Press, 1984.

Petty, R. E., and J. T. Cacioppo. *Attitudes and Persuasion: Classic and Contemporary Approaches*. Dubuque, IA: William C. Brown Company Publishers, 1981.

Petty, R. E., and J. T. Cacioppo. The Elaboration Likelihood Model of Persuasion. *Advances in Experimental Social Psychology* 19 (1986), 123-205.

Scanlon, W. F. *Alcoholism and Drug Abuse in the Workplace: Employee Assistance Programs*. Westport, CT: Praeger Publishers, 1986.

Shain, M., and J. Groeneveld. *Employee Assistance Programs: Philosophy, Theory, and Practice*. Lexington, MA: Lexington Books, 1980.

Trice, H. M., and P. M. Roman. *Spirits and Demons at Work: Alcohol and Other Drugs on the Job*. Ithaca, NY: ILR Press, 1978.

Bilateral Monopoly in the Shipbuilding Industry: A Study of Wage Rate Determination

Gregory Woodhead
University of New Hampshire

Labor costs for production workers historically have been a large component of total costs in the shipbuilding industry. It is therefore important to understand the factors which influence wage settlements in this highly unionized industry. The primary goal of this dissertation is to explicate the dynamic factors that influence the outcome of a negotiation of a labor contract where a strong union with monopoly power over the supply of labor faces an employer with monopsony power over the demand for labor.

The review of 150 years of bilateral monopoly theory reveals that wages under conditions of bilateral monopoly in the labor market are indeterminate along a range in which the outcome of negotiations may fall. In addition, the more recent literature on bargaining power in collective bargaining is also reviewed. The review of bargaining power literature indicates that power in labor negotiations has an economic element, a more subjective component, and can also be understood by employing dependency theory.

Research Methodology

The research methodology in this dissertation is to explore bilateral monopoly in the shipbuilding industry with two different but equal approaches: (1) an econometric model of wage rate determination in large private shipyards, and (2) a historical case study of the 1985 labor dispute, extended strike, and eventual settlement at Bath Iron Works. By including both qualitative and quantitative methods of research, a clearer picture emerges of how well the bilateral monopoly model applies to the determination of wages in a specific industry.

Author's Address: 1024 N. Utah St., Apt. 526, Arlington, VA 22201-5735.

The analogy often used to describe the dual methodology of this dissertation involves the fixing of a point in the distance by triangulation; the two methods are both fixed on the same objective. In addition, in the process of constructing and estimating the model and producing the case study, some measure of merging of the two methods took place.

The econometric model is intended to examine the various factors that influence the determination of wages in the U.S. shipbuilding industry. The case study is intended to tease out, from a single historical case of labor negotiations, variables to be included in the econometric model. The case study also reveals factors impacting on the determination of wages which cannot easily, and may never, be reduced to measurable quantities. These factors provide valuable insights and points of reference, and they help explain the range of indeterminacy in the theory of bilateral monopoly. The case study is, therefore, both a compliment to the regression model, and a means of examining the richness and complexity of organizational life. The two research methods are intended to compliment each other in a reciprocal manner. The case study provides insights into the regression model by providing new variables and explaining indeterminacy, while the model informs the perceptual framework of the case study by providing the field upon which to focus observations. At the same time, both methods contribute the goal of examining how bargaining power impacts on unionized wage negotiations in one industry.

Econometric Model of Wage Rate Determination

The econometric model tests whether the negotiated changes in wages collectively bargained in the shipbuilding industry under conditions of bilateral monopoly can be explained by the movement of economic variables over time. The regression model of the change in the wage rate quantifies the wage settlements of individual union contracts in shipbuilding and relates these to: (1) the local labor market conditions, (2) consumer price changes, and (3) the bargaining environment that prevailed during the term of the previous contract and during the bargaining period. Conditions in the labor market and increases in the cost-of-living affect the supply and demand for shipyard labor, and therefore, help to establish the boundaries on the range of indeterminacy. The factors which impact upon the bargaining environment help to establish where the outcome of a negotiation will fall along the range of possible outcomes.

The regression model is in part a response to de Menil's (1971) call for further studies of wage determination under bilateral monopoly estimated with microeconomic data. Variables were also included as a result of qualitative data obtained from case study interviews and from background research on the industry. The dependent variable, $\mathring{W}$, is the percent change in the negotiated wage rate collectively bargained between a monopolistic union and a monopsonistic firm in 13 large private shipyards for the 1968-1987 time period.

A difficulty with applying the least-squares procedure to a model using pooled data is that the assumption of a constant intercept term may be unreasonable. If the number of firms is N, the solution is to introduce N − 1 dummy variables which account for the firm effect on the dependent variable. The firm dummy variables control for the individual variation of each firm by capturing all variation that is time-invariant. The large negative values of the coefficients and the significant t-statistics (all significant at the .01 level, two-tailed test), for the shipyard dummy variables indicate that wage increases in the baseline shipyard, Todd of Los Angeles, were significantly different from those in the other shipyards. It appears that all explanatory factors being equal, West Coast firms consistently negotiate more generous labor contracts than others on the basis of variables included in the estimating equation.

The regression model of the percent change in the negotiated wage rate is:

$$\mathring{W}_t = a_0 + \underbrace{a_1 1/U + a_2\mathring{W}^a + a_3\mathring{W}^F}_{\textit{Labor Market}} + \underbrace{a_4\mathring{P}_{t-1}}_{\textit{Prices}}$$

$$+ \underbrace{a_5\overline{W}_{t-1} + a_6 NA_{t-1} + a_7 UN + a_8 G + a_9 AVE\mathring{W}_{t-1}}_{\textit{Bargaining Environment}}$$

$$+ a_{10}S_1 + \ldots . + a_{21}S_{12} + e_t$$

Where:

$\mathring{W}$ = percent change in the negotiated wage rate

$1/U$ = inverse of the state unemployment rate

$\mathring{W}^a$ = percent change in the state manufacturing wage

$\mathring{W}^F$ = percent change in nearby federal shipyard wages

$\mathring{P}_{t-1}$ = regional consumer price index lagged one year

$$\overline{W}_{t-1} = \frac{\textit{wages in the ith shipyard}}{\textit{average of wages in other shipyards}} \quad \textit{both lagged one year}$$

$$NA_{t-1} = \frac{\textit{Navy shipbuilding expenditures}}{\textit{Defense Expenditures}} \quad \textit{both lagged one year}$$

UN = percentage of labor force unionized in the state

G = 1 - for periods of wage controls
0 - otherwise

$AVE\mathring{W}_{t-1}$ = average percentage change in wages during the life of the previous contract

S_1 = 1 - for shipyard no. 1
0 - otherwise

.

.

.

S_{12} = 1 - for shipyard no. 12 (N − 1 number of firms)
0 - otherwise

e_t = error term
The classical normal linear regression assumptions are assumed to hold: that is, each e_t is identically and independently distributed, $N(0,\sigma^2)$.

Interpretation of the Empirical Results

Four different specifications of the model were estimated, because of limited data for one variable, in order to examine for the firm effect and in order to assess the total contribution of bargaining environment variables. Equation I, given in Table 1, is the primary regression equation of the model. The value of the coefficient of determination, adjusted for degrees of freedom, indicates that Equation I explains a significant proportion (over 65%) of the variation in the dependent variable. These findings support the model's value as a tool for determining wage increases in the shipbuilding industry.

Labor Market. The findings on the variables chosen to represent conditions in the local labor market were mixed. Although statewide unemployment rates did not significantly influence shipyard wage settlements, the wage increases in both statewide manufacturing and in nearby federal shipyards were found to have a significant influence. These findings point to comparative wages in the labor market as being instrumental in setting the boundaries on the wage settlement.

TABLE 1
Determinants of Negotiated Wage Changes in Shipyards 1968-87
(t-statistics in parentheses)

Indep. Variable	I 78 obs.	II 78 obs. (no firm dummies)	III 60 obs.	IV 78 obs.
$1/U$	.177 (1.241)	−.109 (.915)	.229 (1.237)	−.016 (.138)
$\overset{o}{W}^{a}$	1.122°°° (4.338)	1.278°°° (4.618)	1.037°°° (2.882)	1.469°°° (5.91)
$\overset{o}{W}^{F}$	.364°° (1.754)	.494°° (2.248)	.158 (.658)	.207 (1.017)
$\overset{o}{P}_{t-1}$	.408°° (2.076)	.305° (1.457)	.28 (1.022)	.492°°° (2.407)
$\overline{W}_{t-1}$	−38.501°°° (3.302)	.803 (.13)	−21.83 (.948)	
NA_{t-1}	147.91 (.766)	125.57 (.64)	737.85°° (1.858)	
G	1.342 (.672)	.31 (.148)	1.8 (.786)	
UN			.322 (.744)	
$AVE\overset{o}{W}_{t-1}$	.306° (1.485)	.064 (.304)	−.361 (.893)	
Intercept	39.129	−6.424	3.952	.378
R^2	.742	.598	.664	.679
$\bar{R}^2$	.651	.551	.478	.595

Significant at the .10 level = °, .05 level = °°, .01 level = °°° (one-tailed test)

Cost-of-Living. The lagged regional change in the cost-of-living index also has a significant influence on wage changes in the shipbuilding industry. It is evident, that during the 1968-87 time period, shipyard labor negotiations were affected by changes in the cost of living. However, in the shipbuilding industry, unions were not very successful in negotiating wages that compensated for the erosion of their members' standard of living, holding all else constant.

Bargaining Environment. The regression model in this study also views a union's ability to influence wage settlements to be a function of the bargaining environment in which negotiations take place. Therefore, five explanatory variables were used to capture the influence of the bargaining environment. The results of including the wage transmission variable indicate a strong leveling-out effect, wherein wages throughout the industry tend to move toward the industrywide average. These findings point to the conclusion that comparative wages within the shipbuilding industry also play an important role in the determination of bargaining power during shipyard contract negotiations.

In addition, a variation on the model tests whether the effect of wage transmission is symmetrical for values above or below one. The results of this estimation indicate that firms may be more effective in limiting wage increases when the firm's wages are above the industry average than the union is effective in obtaining large increases when its wages are below the industry average.

The other significant bargaining environment variable captures the influence of the average annual wage increase during the life of the previous contract. The estimated results indicate that union negotiators look to past wage increases as a measure of what they expect to receive in current negotiations. It is clear that union expectations, based on past settlements, are an important factor in the determination of shipyard wages. Wage transmission and past wage increases influence where the settlement will fall along the range of indeterminacy.

A significant revelation of this study is the important role played by comparative wages in both setting the bounds on the settlements and in determining the outcome of the wage settlements under conditions of bilateral monopoly in the highly unionized shipbuilding industry. Comparative wage increases in statewide manufacturing and in nearby federal shipyards help set the bounds on the settlement as displayed in the bilateral monopoly model, and wages in other large private shipyards nationwide and wage increases in past settlements significantly influence the final outcome of contract negotiations along the range of indeterminacy.

Another variation on the regression model examines the possibility of a change in the negotiating climate during the later part of the time period covered by this study. The results of adding a dummy variable that takes the value of one for contracts settled between 1983-87 indicate a definite change in the pattern of wage settlements which had an adverse effect on shipyard wage increases.

None of the other three bargaining environment variables used in the regression model, the relative level of Navy expenditures, periods of wage controls, and statewide rates of unionization given in Equation III proved to individually contribute to the explanatory power of the model. However, when the total contribution of all bargaining environment variables is examined by performing an F-test for the restrictions imposed in Equation IV, the estimated results indicate that, as a group, the variables chosen to represent the bargaining environment do significantly help to determine wage settlements in the shipbuilding industry. The findings of this study point to the importance of the bargaining environment when determining the balance of bargaining power, and thus, the position of the settlement along the range of indeterminacy.

Firm effect. In order to examine the total contribution of the firm-specific dummy variables, Equation II deletes the firm dummies. The results of the estimation are that although the labor market and price inflation variables all remain significant, the bargaining environment variables in the model all become insignificant. In addition, an F-test for the joint significance of the bargaining variables in the model without the firm dummy variables indicates the bargaining variables also are insignificant as a group. These results confirm the fact that the firm dummy variables are controlling for the omitted firm-specific characteristics of each firm.

Case Study of a Contract Settlement

Three primary theoretical frameworks are employed to analyze the events surrounding the 1985 BIW labor negotiation, strike and eventual settlement. Each frame of reference serves as a "conceptual lens" through which we can view the labor dispute. The analysis seeks to examine the issue of bargaining power by intertwining the elements of Chamberlain's (1965) economic rationality, Morgan's (1986) subjective interpretations of power in organizations, and Bacharach and Lawler's (1981) dependency theory. In addition, Kochan's (1980) study is utilized to examine how environmental change affected employment.

The case study of the 1985 labor dispute reveals several factors which were instrumental in the determination of bargaining power at BIW and which ultimately impacted on the outcome of negotiations. These factors include the dynamics within each bargaining team, the timing of contract talks, control over access to company data, and the bargaining tactics used by each party.

Bargaining Teams

The owners of the parent corporation and its hand-picked labor attorney exercised bureaucratic authority over the company team by virtue of corporate ownership, and by controlling the decision agenda and process. The company team was well organized and specifically staffed and structured to present a hard line and committed position during negotiations. On the other hand, in addition to lacking the prerequisite experience, the union committee was found wanting along several dimensions of power in organizations.

Timing of Contract Talks

The timing of Navy contracts was essential in the determination of the balance of bargaining power. During the strike, because of the economics of defense contracting, the company not only avoided financial penalty, but may have saved money by not paying production workers during the slack period between major Navy building programs. This is an illustration of how economic factors, as seen in the costs incurred by each party, affect the balance of bargaining power and hence, the final outcome of a labor settlement.

Access to Company Data

Control of knowledge and information is an important source of power in organizations, and the union could have used the cost data to establish the extent of company profits on future Navy contracts. A standoff ensued when the company maintained that it was under no obligation to share sensitive cost data with anyone. The company's refusal to grant the union access to the company cost data contributed significantly to the imbalance of power in favor of the company by frustrating the union effort to construct a coherent economic argument in their favor.

Bargaining Tactics

The company successfully employed several bargaining tactics that increased the union's cost of disagreeing with its terms and were designed to break the morale of the striking shipbuilders. First, the company brought back the other striking union locals. Second, the company team demonstrated strong *will* and convinced the union that the parent corporation had the strength and resolve to outlast the union. Third, the company engaged in a newspaper advertisement campaign to tell the "BIW Story." Finally, the company's CEO threatened to open the shipyard to those willing to cross the picket lines if the proposed contract was not ratified. With regard to decreasing the union's cost of agreeing, the $2000 cash bonus over the life of the contract significantly decreased each member's cost of agreeing to the company's terms.

In addition, the company team was also able to tap into several of more subjective dimensions of power in organizations. For example, the company team included individuals capable of using organizational structure and rules and regulations to their advantage in bargaining. The successful company bargaining tactics completed the link between potential power and the favorable bargaining outcome.

On the other hand, the union committee was never able to devise and implement effective bargaining tactics which would have enhanced its bargaining power during negotiations. The union responded to the company offer by going on an ineffective 14-week strike, which only served to place financial hardship on the union. In addition, there was very little direction and assistance by the national union in the early crucial phases of negotiation.

During the 1985 contract talks, a significant amount of negotiating was conducted "off line" away from the table. Both parties believed that, in general, meeting informally during the period of negotiating has the potential for making progress when contract talks stall. However, in 1985, informal negotiations between individuals on the respective teams were seen as disruptive, troublesome, and counterproductive.

In sum, when the factors which influenced the balance of power in the BIW labor dispute are examined in the context of economic costs, subjective interpretations of power, dependency theory, and sources of environmental change, a picture emerges of a company that would achieve the majority of its negotiating objectives.

Conclusion

The central purpose of this dissertation is to determine which factors affect the position of a contract settlement along the range of indeterminacy in the bilateral monopoly model. The estimated results of the econometric model indicate that when analyzing the determination of wages in the shipbuilding industry, both the local labor market and the impact of the bargaining environment must be taken into account. The case study data supported the theories that bargaining power has both an economic and a more subjective component. The case study also demonstrated that dependency theory is appropriate for the study of bilateral monopoly in the market for labor.

References

Bacharach, Samuel B., and Edward J. Lawler. *Bargaining: Power, Tactics and Outcomes*. San Francisco: Jossey-Bass, 1981.

Chamberlain, Neil W. *The Labor Sector*. New York: McGraw-Hill, 1965.
De Menil, George. *Bargaining: Monopoly Power v. Union Power*. Cambridge, MA: The MIT Press, 1971.
Kochan, Thomas A. *Collective Bargaining and Industrial Relations: From Theory to Policy and Practice*. Homewood, IL: Richard D. Irwin, 1980.
Morgan, Gareth. *Images of Organizations*. Beverly Hills: Sage Publications, 1986.

The Effect of Demographic Change on Firms' Human Resource Policies

LISA REAVLIN
Louisiana State University

The changing demographics of the work force is an increasingly important issue in the field of industrial relations. The increased labor force participation of women, the aging of the work force, and the decreased proportion of young workers in the work force all create challenges for the firm in managing human resources. This research examines the entry of the "baby bust" into the labor market and documents the response of companies to the increasing difficulty of attracting young workers.

Literature Review and Hypotheses

Previous demographic research has been conducted by economists who have focused on the baby boom cohort and have examined two issues: the substitutability/complementarity of labor inputs in the production process and the relationship of cohort size to wages and employment of workers in that cohort. First, the studies on labor substitution find that adult women and male youth are substitutes in production (Ferguson, 1986; Grant and Hamermesh, 1981). Second, younger workers appear to be substitutable by capital, while older workers are complementary with capital (Hamermesh and Grant, 1979). Third, young and older males are found to be complementary production inputs (Costrell, Duguay, and Treyz, 1986). Additionally, both Freeman (1979) and Welch (1979) find cohort size to have an important impact on the labor market. The baby boom workers were found to have increased relative unemployment and decreased relative wages upon labor market entry because of their large cohort size.

This analysis uses these economic findings as a theoretical basis to begin examining the effects of the baby bust on the labor market.

Author's Address: Department of Management, Louisiana State University, Baton Rouge, LA 70803-6312.

Furthermore, this research focuses on the impact of demographic change on firms rather than on the workers themselves and so adds the dimension of human resource management in the firm. Finally, this study uses a unique data base with firm-level data collected by the author. This dissertation seeks to demonstrate empirically how firms are responding to the lack of young workers through their use of human resource policies.

Space limitations prevent the theoretical development of specific hypotheses; however, it is postulated that the firm with difficulty in attracting youth will respond to the lack of young workers in at least one of three ways. The firm may respond by altering one or more of its human resource policies to try to attract and retain needed young workers. Secondly, since young workers are generally needed at entry-level, the firm may also respond by substituting other types of workers at entry level. Lastly, the firm may respond by substituting capital for entry-level labor.

Data and Method

Data were collected through a survey sent to the companies listed in the Industrial Compustat Primary File. The survey was conducted in 1988 and asked the firms a number of questions about their human resource policies over the preceding five-year period. The five-year time frame was used to capture the period in which the baby boom cohort completed its labor market entry and the baby bust workers began their entry. A total of 354 usable responses were received from 1,889 mailings for a response rate of 18.7 percent. Additional information was obtained from the COMPUSTAT II data file and the data sets were merged according to company code number. The industry distribution of the respondent firms follows that of the firms listed in the COMPUSTAT file.

Three sets of equations are estimated. In the first set of equations regarding human resource policies, it is postulated that change in the usage of a particular human resource policy is a function of the difficulty in attracting young workers. In the next set of equations regarding labor substitution, it is postulated that the usage of other types of workers at entry-level is a function of the difficulty in attracting youth. Finally, in the capital substitution equation, it is postulated that the use of capital by a firm is also a function of its ability to attract young workers. Thus, the primary independent variable is a youth variable which is an indication of whether or not a firm has experienced difficulty in hiring young workers (aged 16-24) over the past five years. Approximately 26 percent of the respondents did indicate such a difficulty.

The hypothesized relationships between the dependent variables and the youth variable are presented in Table 1. The dependent variables which represent usage of human resource policies and usage of labor inputs are binary variables are coded one if usage had increased and zero otherwise. Maximum likelihood estimation of logit equations is performed.[1] The capital substitution equation is estimated with an OLS regression. The dependent variable is the percentage change in a firm's capital expenditure over the five-year period.[2]

The other independent variables attempt to control for firm specific characteristics which may have influenced changes in human

TABLE 1

Hypothesized Relationships Between Dependent Variables and Youth Variable

Dependent Variable	*Youth*
Human Resource Policies	
Starting Salaries	+
Merit Pay	+
Individual Incentives	+
Seniority-Based Pay	−
Skill-Based Pay	+
Profit Sharing	+
Stock Options	+
Team-Based Pay	+
Flexible Benefits	+
Seniority-Based Benefits	−
Health Benefits	−
Vacations/Holidays	?
Non-Medical Benefits	?
Pensions	?
Child Care	?
Parental Leave	?
Recruiting Budgets	+
Newspaper Ads	+
Employee Referrals	+
Private Employment Agencies	+
Public Employment Agencies	+
School Recruiting	+
Training Budgets	+
Length of Training	+
Requirements for Training	−
Substitution Equations	
Use of Adult Males	−
Use of Adult Females	+
Use of Older Workers	+
Use of Capital	+

resource policies or factor substitution. These include: the number of employees at the firm five years ago, used as a measure of firm size; industry dummies coded using two-digit SIC codes; turnover, approximate percentage of annual turnover; firm growth, measured by the size of workforce growth; and a union dummy variable indicating any unionization at the firm.

Results[3]

The maximum likelihood estimates suggest that thus far changes in compensation policies have been the primary method of responding to the lack of youth. Firms with difficulty in attracting young workers were more likely to experience wage compression. That is, these firms were more likely to have increased starting salaries relative to other salaries in the firm. Additionally, firms that expressed difficulty in attracting young workers were also found to have increased their use of individual incentives and stock options. It was anticipated that firms would use incentive types of compensation to obtain greater productivity from fewer workers if they were facing difficulty in obtaining young workers. Long-term incentives could be used as a method of retaining needed workers, and the increased use of stock options as a response to the lack of youth may reflect such a strategy.

The primary hypothesis regarding benefits was that they would become increasingly flexible in firms needing to appeal to a more diverse work force. Flexible benefits were found to have increased as a result of difficulty in attracting young workers. It was also postulated that firms facing a lack of young workers might increase benefits desired by young workers or decrease benefits not of value to them. Consequently, firms with difficulty in attracting young workers were more likely to have decreased their usage of health benefits. Since younger workers on average have lower health costs than older workers, it is likely that health benefits are less attractive to them.

It was further anticipated that firms needing scarce baby bust workers would be more likely to increase usage of one or more recruiting activities. The youth variable was positively signed in all equations; however, the only policy on which it had a significant impact was the use of private employment agencies. While there does not appear to be a specific reason why firms would use one recruiting method over another, it may be that private screening agencies are more efficient at screening potential applicants or providing the firm with quality applicants. It was also hypothesized that firms would perhaps increase use of training policies or programs in an effort to retain workers through firm-specific training, as well as to broaden the pool of qualified applicants. Overall, these firms did show an increased use of training, but this development could not be attributed to the lack of youth.

Furthermore, this study corroborates some of the findings of earlier studies which show that young workers are found to be substitutable by other types of labor. Previous studies found older women to be substitutes for youth and here too women are increasingly being hired at entry level because of the lack of young workers. The results of this study also support the anecdotal evidence that firms are hiring retired older workers at entry level. Workers aged sixty-five and over are also being hired because of firms' inability to attract youth. On the other hand, this study does not support earlier estimates of capital substitution. The hypothesis that firms would substitute capital for scarce young workers could not be confirmed with these data.

Conclusion

This dissertation analyzed the effect of the baby bust cohort on firms' human resource policies. The study covers the time period 1983 to 1988 which is the initial five years of the baby bust cohort's entry into the labor market. Thus, the findings discussed here represent firms' initial responses to this demographic shift. At this point, compensation and benefits policies have been the most affected by the lack of young workers. Additionally, firms have been recruiting alternative types of labor to compensate for the lack of young workers at entry level. These findings corroborate earlier analyses of the baby boom which found wages to be affected by cohort size, as well as studies which found youth to be substitutable by other labor inputs. While I could not show that firms have been substituting capital for youth, there are limitations to these data (described above) and so better estimation of capital substitution for young workers may yield different findings.

It can also be said that thus far firms have been using primarily short-term methods to deal with the lack of young workers, such as increasing starting salaries, individual incentives, and recruiting alternate types of entry-level labor. As firms become increasingly aware of demographic shifts, it is possible they will formulate more long-term strategies for human resource management. Firms showed use of long-term compensation which could be construed as a method of retention, but benefits do not appear to have been used as a retention tool. It may be that benefits are more stable because it is more difficult or costly to implement changes in benefits, but it is possible that firms have not yet explored changes in long-term benefits strategies as a response to demographic change. Likewise, training may be a way of increasing worker productivity and increasing company commitment. Companies can provide firm-specific training to entry-level workers to encourage tenure with the firm. In the longer run, policies which serve to accommodate different types of workers and which serve to encourage retention of workers may become more prevalent.

Endnotes

[1] The respondent had the opportunity to respond in several ways, but because of the limited number of respondents who indicated that policy usage had decreased, the variables representing human resource policies were collapsed into binary dependent variables. Since it was also hypothesized that some of the human resource policies might decrease as a result of the lack of young workers, ordered logit equations were also estimated in the cases where there were enough observations to allow for proper estimation. These results generally corroborate those found with the logit equations.

[2] The capital/labor ratio might be a preferred measure; however, these data do not contain enough observations on labor expenditure to calculate this ratio.

[3] Space limitations prevent the inclusion of results tables. These are available from the author upon request.

References

Costrell, R. M., G. Duguay, and G. I. Treyz. "Labour Substitution and Complementarity Among Age-Sex Groups." *Applied Economics* 18 (1986), pp. 777-91.

Ferguson, B. "Labour Force Substitution and the Effects of an Ageing Population." *Applied Economics* 18 (1986), pp. 901-13.

Freeman, R. B. "The Effect of Demographic Factors on Age-Earnings Profiles." *Journal of Human Resources* 14 (1979), pp. 289-318.

Grant, J., and D. Hamermesh. "Labor Market Competition Among Youths, White Women and Others." *Review of Economics and Statistics* 63 (1981), pp. 354-60.

Hamermesh, D., and J. Grant. "Econometric Studies of Labor-Labor Substitution and Their Implications for Policy." *Journal of Human Resources* 14 4 (1979), pp. 518-42.

Welch, F. "Effects of Cohort Size on Earnings: The Baby Boom Babies Financial Bust." *Journal of Political Economy* 87 5 (1979), pp. S65-S98.

DISCUSSION

Ellen Ernst Kossek
Michigan State University

The inclusion of both Melinda Laubscher's paper on employee assistance programs (EAPs) and Lisa Reavlin's paper on the effect of demographic change on firm's human resource policies in the 1990 IRRA dissertation session is indicative of the growing integration between the labor relations (LR) and human resource management (HRM) fields in current research. Laubscher's linking of such variables as labor management cooperation and discipline to employee attitudes toward EAPs and Reavlin's joint discussion of the substitution of labor or capital and change in human resource policies in response to labor market shortages illustrate how many of today's important HRM and LR research questions are not only enriched by taking an interdisciplinary approach to their study—they demand such an approach.

Laubscher's findings of a relationship between program structure and employee attitudes toward EAPs may have important implications for the development of other HR policies in general. In reality, the paper focuses not only on structural issues, but more importantly, on issues of *design and implementation* and *reputation* of these programs. Using a marketing analogy, HR policies are essentially products that are being offered to the employee marketplace. If the HR products meet some customer needs, and are easy to use and effectively publicized, the employee market will respond favorably. Unfortunately, as my research on human resource innovation has found (cf. Kossek, 1989a, 1989b), all too often human resource departments tend to put much greater emphasis on the development of new programs, which is often done with little or no employee input, as opposed to the systematic evaluation of these programs—in other words the conducting of rigorous research on the behavioral and attitudinal impact of these programs on employees—just as would be the case in conducting market research for any company product.

Author's Address: School of Labor and Industrial Relations, Michigan State University, East Lansing, MI 48824.

Laubscher's delineation of various segments of the employee marketplace—those with high stakes in EAP structure versus those with low stakes really is quite analogous to Tsui and Milkovich's (1987) notion of using a multiple constituency approach to measure HRM effectiveness. HR programs and policies serve various constituencies or employee groups. As a result, certain features of these programs and policies will be more salient to some constituencies than others. Similarly, some communication strategies that may be very effective with one targeted constituency will be ineffective with others—such as the general mass market. Thus, firms need to tailor their programs so that the certain program features and communication strategies will be targeted at the appropriate market segment or constituency.

The EAP paper could strengthen its theoretical and analytical presentation in several ways. First, the hypotheses section needs to be considerably enhanced with additional backing and explanation from the literature. One article that should be included in the review is by Harris and Fennell (1988), which found that employees' perceptions of an EAP were greatly influenced by their familiarity with the program, their perceptions of its trustworthiness, and their level of alcohol consumption. It is also recommended that a figure be developed that summarizes all of the relationships between the variables. The paper also might have used some qualitative data to back up its quantitative analysis. Since only nine firms were studied and employees were asked what information was heard about the programs, the analysis would be enriched by not only coding the information as positive or negative, but by also giving examples of the most common kinds of employee statements made. Laubscher may find a relationship between the nature of the information that employees shared and the response rate for each firm, which had very high variation: from 19 to 59 percent. Perhaps there will be a lower response rate in firms where the EAP has a poor reputation, is ineffectively publicized, lacks union support, and exists where a greater portion of employees tend to have low involvement and are apathetic.

Reavlin's paper, which focuses on the important issue of how employers will respond to labor market shortages predicted by such reports as *Workforce 2000* (Hudson Institute, 1987), was very clearly presented. My one concern is that perhaps her findings that changes in compensation and benefits policies are the main ways that firms have responded to these shortages may have been slightly skewed toward her inclusion of some HR policies over others. About two thirds of the HR policies she examined were compensation and benefits-related and the other policies she examined were in the recruitment and training areas. I would have liked to have seen the inclusion of selection and affirmative action policies in her study. *Workforce 2000* not only predicts a youth shortage, but also a decrease in the quality of the youth in the U.S. work force due to increasing dropout rates and declining literacy rates. Growing racial diversity of the labor force is another major predication. It would have been interesting to have studied how firms' selection policies have changed (e.g., increased use of testing, lowering selection standards, etc.) and also how affirmative action policies have been altered to more effectively reach out to people of color, for example.

References

Harris, M. M., and M. L. Fennell. "Perceptions of an Employee Assistance Program and Employee's Willingness to Participate." *Journal of Applied Behavioral Science 24* (1988), pp. 423-38.

Kossek, E. E. "The Acceptance of Human Resource Innovation by Multiple Constituencies." *Personnel Psychology 42* (1989a), pp. 263-81.

Kossek, E. E. *The Acceptance of Human Resource Innovation: Lessons for Management*. Westport, CT: Greenwood Press, 1989b.

Tsui, A., and G. Milkovich. "Personnel Department Activities: Constituency Perspectives and Preferences." *Personnel Psychology 40* (1987), pp. 519-38.

Workforce 2000. Indianapolis: Hudson Institute, 1987.

DISCUSSION

THOMAS F. REED
University of Calgary

Gregory Woodhead's dissertation seeks to shed light on the determinants of wage settlements in the bilateral monopoly context. He uses the shipbuilding industry as the focal point of his investigation and does a nice job of bringing together qualitative and quantitative analyses.

Woodhead's topic is important for a few reasons. From a viewpoint of theory, current bilateral monopoly theory cannot establish a theoretically justifiable equilibrium point: wages are indeterminate along a range of possible outcomes as unions trade off jobs for wages and firms trade off appropriated consumer surplus for peaceful labor relations. Therefore, we need further exploration of this topic, particularly with institutional insights gleaned from qualitative research. This topic is important from a substantive viewpoint as well: the U.S. shipbuilding industry has been under assault from foreign competition, particularly price competition, in recent years.

As mentioned above, Woodhead combines qualitative and quantitative analyses in this dissertation. First, he performed a historical case study of the 1985 strike at the Bath Iron Works to gain insights into the industrial relations context in the shipbuilding industry and to help in the specification of an econometric model. Next, he tested an econometric model of wage determination, using data on large private shipyards. By combining these two research methods, Woodhead hoped to "triangulate" on to a clearer understanding of how wages are determined under bilateral monopolies.

I have a number of questions about the econometrics that Woodhead might consider. First, Are the assumptions of the classical linear regression model upheld in this analysis? Specifically, Are the error terms independent, or do negotiated outcomes affect other negotiations? Second, Could the size of ship-building contracts (or the

Author's Address: Mohr/Faculty of Management, University of Calgary, Calgary, Alberta T2N 1N4 Canada.

"expected" size of future contracts) be an important determinant of the firms's ability to pay wage increases? And finally, If shipbuilding for the Navy is partially determined by perceptions among political leaders and policy makers of national security threats, would a variable that captured changes in this threat for the time period under investigation (1968-1987) be important—and interesting—to include in the model?

In his qualitative analysis, Woodhead wove together diverse theories from IR, organizational theory, and dependency theory to explore labor-management relations. He found in his case study that management was better prepared and staffed for contract negotiations and used more sophisticated tactics than did the union. In his quantitative analysis, Woodhead found that settlements in the manufacturing sector and in nearby shipyards influenced wage settlements.

Overall, Woodhead's dissertation is an interesting example of research that seeks to shed light on an important theoretical and substantive problem through multiple methods.

IV. STRATEGIC OPTIONS FOR ORGANIZED LABOR IN THE 1990S

Union Strategies for Organizing and Representing the New Service Workforce

DOROTHY SUE COBBLE
Rutgers University

Who will reign as the prototypic worker of the postindustrial era has been a fiercely debated question. Leading contestants have included the white-collar technician (Bell, 1973), the de-skilled data entry clerk (Braverman, 1974), and, most recently, the low-paid service or retail worker (Silvestri and Lukasiewicz, 1985; AFL-CIO, 1990). A consensus on the winning entry is unlikely to emerge in the near future, but an intellectual as well as "industrial divide" has been crossed (Piore and Sabel, 1984). The blue-collar hard hat—the traditional mainstay of organized labor and the predominant icon of working America—is not on anyone's list of semi-finalists. The continuing numerical minority status of the male industrial worker is now assumed.

In this paper, I look at the new majority—the workers to whom organized labor must now appeal if it is to survive. I will delineate the distinguishing characteristics of the new workforce, examine the question of union organization and representation, and discuss the potential barriers to the construction of alternative models of unionism.

A Review of Workforce Trends

Retail salesperson, registered nurse, janitor, and food server head the list of occupations expected to expand most rapidly in the 1990s.

Author's Address: Labor Education Center, Rutgers University, Ryders Lane & Clifton Avenue, New Brunswick, NJ 08903.

Analysts often note that these jobs are low-paid, lack promotional opportunities and benefit coverage, exhibit high turnover, and are held primarily by women (Nussbaum and Sweeney, 1989).

Of importance for my analysis, however, is that many of these jobs—along with others in the health, educational, and food service sectors—involve personal service or interaction with a client, customer, or patient. The employment relationship is not the classic one described by Marx nor even the conventional adversarial one. This new third party, the customer, complicates and transforms the old diad. Some service workers, for example, perceive the customer as more important in determining their wages and/or working conditions than the employer. The customer, described by saleswomen as "our friend, the enemy," may also engender more strong emotion—usually anger, sometimes affection—than the employer (Benson, 1986, p. 258; Woods, 1979).

The relationship between employer and employee is changing in other fundamental ways. The dominant employment arrangement (at least since World War II) consisted of a continuous 40-hour week, the expectation of long-term tenure, benefits, and promotional opportunities. This traditional relationship is now eroding. One-fourth of all workers in the U.S. are part-time employees; are hired on a "temporary," subcontracted or leased basis; or are defined as "independent contractors." Few put in a 9-to-5 work week at the office, shop, or factory and fewer still have long-term continuous relations with a single employer (Plewes, 1988; Christensen and Murphree, 1988). This "casualized" workforce may not see the employer as either friend or enemy: their relationship with individual employers is brief, distant, and often mediated by a subcontractor or temporary agency.

Work sites are changing as well. The growth of service work has meant the proliferation of smaller workplaces and the decentralization of production. Even industrial workplaces have followed this pattern (Nussbaum and Sweeney, 1989). The seamstresses, legal transcribers, or business consultants toiling alone in home work sites scattered across the decentralized residential landscape represent the furthest extreme of this trend (Boris and Daniels, 1989).

The long-standing separation between home and work is also being challenged. With the phenomenal entry of women into the waged sphere beyond the home, the dissolution of the traditional family, and the aging of the workforce, the problems of household production and reproduction have now become business concerns. Those juggling work and family—in particular the 45 percent of the workforce that is female—are demanding family support services such as child care and parental leave. They are also asking that the workplace adjust to family needs rather than vice versa. Why should waged work in the public sphere be structured along the male model of a continuous 9-to-5, 5-day week? Why should intermittent, non-continuous, and part-time work be penalized? (AFL-CIO, 1990; Howe, 1977; Hochschild, 1989).

Lastly, the postindustrial majority is often depicted as increasingly comprised of ethnic minorities and as increasingly "skilled." Clearly, minorities will make up a greater share of the future workforce. Most estimates hover around one-fourth by the year 2000 with the greatest increases posted by Hispanics and Asians (AFL-CIO, 1990). The skill level of the postindustrial workforce, however, is hotly contested. The post-Fordists argue that information-based technology and new industrial organization will mean an upgrading of skill (Hirschhorn, 1984); the labor process theorists predict continuing de-skilling and rationalization (Shaiken, 1984). A third position points to a polarization of skills, with both upgrading at the top and de-skilling at the lower levels (Milkman, 1990). But regardless of the skill mix, most agree that the postindustrial workforce will need continuous retooling and training (Hallock, forthcoming).

Towards A Postindustrial Unionism

Despite the transformations just enumerated, the dominant model of unionism remains the industrial model. Industrial unionism emerged in the 1930s and 1940s to meet the needs of blue-collar male workers toiling primarily in large industrial work sites. It is increasingly outmoded for today's workforce. (Kochan, Katz, and McKersie, 1986; Heckscher, 1988). Let me make it clear that I'm not arguing that the industrial model should be abandoned wholesale. Manufacturing itself is not going to disappear and many of the practices of industrial unionism will continue to be appealing and advantageous to a wide variety of workers. Nonetheless, just as industrial unionism superseded craft unionism as technological change and economic restructuring transformed the workplace, so too must industrial unionism give way to other alternatives. We must now begin to think in terms of multiple and competing models of unionism and in particular of devising approaches suitable for organizing and representing the growing service and contingent workforce.

As a step in that direction, I will reconsider some of the historical alternatives to industrial unionism. These approaches were relied upon by workers conventionally termed craft unionists—construction workers; musicians; or printers, but agricultural laborers; longshoremen; waitresses and other groups of workers not usually viewed as skilled or craft workers also engaged in many of these craft practices.

But what distinguished craft unionism? Craft unions organized on an occupational or craft basis rather than by industry or individual job site. They focused on fostering ties between workers within a given occupation rather than uniting all those employed at a particular work site. They also emphasized occupationally based rights and benefits rather than work site based protections (Cobble, 1991b).

I would argue that aspects of this historic craft unionism hold promise for organizing and representing workers currently. A mobile workforce, for example, does not stay with one employer long enough to utilize the conventional election procedures and card-signing associated with industrial unionism. Yet despite high job turnover, the new service workforce often demonstrates a strong occupational stability. Waitresses, for instance, are well-known migrants, moving from employer to employer. Yet they remain in the occupation for a surprisingly long time (Butler and Skipper, 1983). Today's contingent workforce also carries job skills from site to site, hence increasing the investment and identity with occupation not employers. Indeed, some sectors of the contingent workforce long thought unorganizable have already formed guilds and associations based on occupational and professional identity. Home-based clericals, for instance, are organizing to share information about job referrals, prospective employers, minimum occupational standards, and training opportunities—all important services that craft unions historically provided (Christensen, forthcoming).

But what specific approaches should unions consider reviving? Given our time constraints, let me mention only two: hiring halls and what can be called "peer management." Historically, union hiring halls functioned effectively for skilled craft workers such as ironworkers and musicians as well as for others such as janitors, construction laborers, and even waitresses. In the early 1900s, for example, waitresses in Butte, Montana, organized against "the vampire system" of high-fee employment agencies (for quote, see Chumley, n.d.). For the next half century, no waitress worked in Butte unless she was dispatched from the union hiring hall. The Los Angeles waitresses' local, founded in the 1920s, had a thriving hiring hall as late as 1967, where, according to the *Los Angeles Times*, 350 "extras" were sent out on a typical weekend (Cobble, 1991a; *Los Angeles Times*, October 13, 1967).

These hiring halls succeeded by a combination of carrot and stick. Some employers sought out hiring halls because they provided the best source of skilled, reliable labor; others used union workers only after pressure from recognitional picketing, secondary and customer boycotts, and strikes over closed shop and preferential hiring agreements (Cobble, 1991a).

A modified hiring hall or worker-run temporary agency would appeal to today's mobile workforce. Many workers desire mobility between employers and a variety of work experience (Olesen and Katsuranis, 1978, pp. 316-38). Those balancing work and family are also concerned with shortened work time and flexible scheduling (United States Department of Labor, 1980). A worker-run employment agency could provide such variety and flexibility. A unionized agency could also offer portable, high-quality benefits that would not penalize workforce intermittence, and it presumably could offer higher wages than an agency run for profit. Lastly, training and job referral needs could be met by reviving apprenticeship training through the union. This kind of training creates portable skills: the worker learns generic as well as work site-based skills.

A number of settings appear ripe for organizing along these lines. The Service Employees International Union, for example, is already organizing janitors and commercial cleaners geographically rather than by work site. The casual day-labor market is another possible target. California government officials, for example, recommended setting up state agencies for the dispersal and regulation of unskilled casuals after discovering workers gathered on Orange County street corners hawking their labor (*Los Angeles Times*, September 3, 1989, Pt. IV, 7).

The health care sector also offers possibilities. The use of temporaries in the health care industry has burgeoned. On the one hand, this restructuring is a form of employer cost-cutting; on the other, at least among nurses, the workers have demanded more flexible work schedules. Many nurses prefer working through nurse registries. Unions have negotiated protections involving the use of these commercial registries; they could also consider setting up their own (Engberg, forthcoming). In short, rather than attempt to prevent subcontracting or the use of temporaries, in some cases, unions might want to require unionized contractors or temporaries.

The second and final craft practice I would like to consider is union-maintained occupational competency. This approach would appeal to contingent workers as well as more "permanent" workers, both of the non-professional and the professional/technical rank. Professional associations from physicians to teachers routinely take on the tasks of upgrading and monitoring occupational standards, and many have developed their own peer-based disciplinary procedures for those who fall below accepted occupational norms. Unions representing non-professional workers have been more reluctant to move in this direction.

But many workers now want an organization that assists them in improving the image of their occupation, in achieving professional recognition, and in performing their work to the best of their abilities. Maintaining the quality of service has always been central to those who face the public daily. Indeed, promoting competency and attention to quality among production as well as service workers is increasingly being recognized as crucial to our economic well being as a society. Letting management have sole responsibility for work organization, productivity, and competence has meant a declining standard of living for American workers. Unions could play a critical role in responding to what some have proclaimed as a crisis in workplace competence by devising mechanisms that improve and maintain competency without increasing workplace stress, exploitative supervision, and production speed.

The traditional craft union approach to workplace regulation has much to recommend it. Historically, craft unions, like professional associations, set standards for admission to the craft, offered entry-level training for new workers, provided retooling and upgrading for mid-stream members, and in some cases devised their own licensing and testing mechanisms. Once on the job, craft unions took responsibility for maintaining these standards. The details of acceptable work performance were hammered out in union membership meetings; these working rules of the craft were not an arena for management prerogative or even a proper subject for collective bargaining.

To enforce these standards, the union controlled the selection of supervisors (they had to be union members) and union members could be brought up before their peers when infractions occurred. Wayward members were fined and in some cases removed from their jobs. This approach is quite different from the current dominant industrial model in which the employer takes responsibility for discipline and the primary union role is to defend the worker. But in many workplaces, the older "us against them" model that assumes hostility and rigid demarcations between labor and management no longer suits workers or their bosses.

The industrial model of seniority-based wages and narrowly defined job classification systems also may need reformulating. Craft unions not only set and policed occupational standards, they devised pay schedules combining seniority-based scales with wages pegged to skill development. In general, unlike the industrial model, the craft approach rewarded individual initiative and higher skill level. Group solidarity was still maintained, however, through occupational identity (Cobble, 1991b).

Barriers to Change

The barriers to a new model of unionism appear formidable. Employers in the U.S. have grown accustomed to operating in an environment in which they retain unilateral authority over hiring, firing, workplace standards, and work organization. Moreover, unions themselves have difficulty conceiving of ways they can take on traditional management responsibilities without also taking on the exploitative functions of management. And, reviving the tradition of peer management would mean making some hard decisions concerning the competing claims of individual and group rights. Yet the issue facing unions is not whether decisions about workplace discipline and regulation can be eliminated, but who will be making them.

Current labor policy is another serious obstacle. Attempts to use worker-run employment agencies and peer management clearly are hampered at present by legal restrictions on closed shop, pre-hire agreements, recognitional picketing, a limited definition of who qualifies as an employee, and restrictions on worker and union encroachment on management prerogatives. Any reformulated labor law policy should consider providing for alternatives to the industrial union model (for further elaboration, see Sockell, 1990). At the very minimum, the legal exemptions once enjoyed by the building trades under Taft-Hartley should be extended to other sectors of the economy.

Although a postindustrial unionism reconceived along some of the lines suggested has much to offer, it is not a path without risks. Historically, craft unionism provided a powerful centripetal force uniting workers across industry, but it also segmented workers along gender, racial, and craft lines. And in some cases, individual rights were sacrificed unnecessarily in the name of group progress. Occupational consciousness, then, must be coupled with a vision that incorporates the need for internal democratic processes and realizes that the ability of any single group to survive is dependent ultimately on ties that transcend craft, class, and even national boundaries.

References

AFL-CIO Dept. of Economic Research. *American Workers in the 1990s: Who We Are . . . How Our Jobs Will Change.* AFL-CIO. Washington, D.C., 1990.

Bell, Daniel. *The Coming of Post-Industrial Society.* NY: Basic Books, 1973.

Benson, Susan Porter. *Counter Cultures: Saleswomen, Managers, and Customers in American Department Stores, 1890-1940.* Urbana: University of Illinois Press, 1986.

Boris, Eileen, and Cynthia Daniels. *Homework: Historical and Contemporary Perspectives on Paid Labor at Home.* Urbana and Chicago: University of Illinois Press, 1989.

Braverman, Harry. *Labor and Monopoly Capital.* New York: Monthly Review Press, 1974.

Butler, Suellen, and James Skipper. "Working the Circuit: An Explanation of Employee Turnover in the Restaurant Industry." *Sociological Spectrum* 3 (1983), pp. 19-33.

Christensen, Kathleen. "Re-evaluating Union Policy Toward Home-based Work." In *Women and Unions: Forging a Partnership*, ed. Dorothy Sue Cobble. Ithaca, NY: Cornell University ILR Press (forthcoming).

Christensen, Kathleen, and Mary Murphree. "Introduction." In *Flexible Workstyles: A Look at Contingent Labor.* Conference Summary. U.S. Department of Labor, Women's Bureau, 1988.

Chumley, L. S. "Hotel, Restaurant, and Domestic Workers." 4-page pamphlet, Box 163, Industrial Workers of the World Collection, Walter Reuther Archives, Wayne State University, Detroit, Michigan, n.d.

Cobble, Dorothy Sue. *Dishing It Out: Waitresses and Their Unions in the Twentieth Century.* Urbana: University of Illinois Press, 1991a.

Cobble, Dorothy Sue. "Organizing the Postindustrial Work Force: Lessons from the History of Waitress Unionism," *Industrial and Labor Relations Review* 44, 3 (April 1991b), pp. 419-36.

Engberg, Elizabeth. "Union Responses to the Contingent Work Force." In *Women and Unions: Forging a Partnership*, ed. Dorothy Sue Cobble. Ithaca, NY: Cornell University ILR Press (forthcoming).

Hallock, Margaret. "Unions and the Gender Wage Gap: An Analysis of Pay Equity and Other Strategies." In *Women and Unions: Forging a Partnership*, ed. Dorothy Sue Cobble. Ithaca, NY: Cornell University ILR Press (forthcoming).

Heckscher, Charles. *The New Unionism: Employee Involvement in the Changing Corporation.* New York: Basic Books, 1988.

Hirschhorn, Larry. *Beyond Mechanization: Work and Technology in a Postindustrial Age.* Cambridge: MIT Press, 1984.

Hochschild, Arlie. *The Second Shift.* New York: Avon, 1989.

Howe, Louise. *Pink Collar Workers.* New York: G. P. Putnam's Sons, 1977.

Kochan, Thomas, Harry Katz, and Robert McKersie. *The Transformation of American Industrial Relations.* NY: Basic Books, 1986.

Los Angeles Times. 13 (October 1967).

Los Angeles Times. 3 pt. IV, 7 (September 1989).

Milkman, Ruth. "Labor and Management in Uncertain Times: Renegotiating the Social Contract." In *The Recentering of America: American Society in Transition*, ed. Alan Wolfe. Berkeley, CA: University of California Press, 1991.

Nussbaum, Karen, and John Sweeney. *Solutions for the New Work Force.* Cabin John, MD: Seven Locks Press, 1989.

Olesen, Virginia, and Frances Katsuranis. "Urban Nomads: Women in Temporary Clerical Services." In *Women Working: Theories and Facts in Perspective*, Ann Stromberg and Shirley Harkess (eds.). Mountain View, California: Mayfield Publishing Company, pp. 316-38, 1978.

Piore, Michael J., and Charles Sabel. *The Second Industrial Divide: Possibilities for Prosperity.* New York: Basic Books, 1984.

Plewes, Thomas. "Understanding the Data on Part-Time and Temporary Employment." In *Flexible Workstyles: A Look at Contingent Labor*. Conference Summary, U.S. Department of Labor, Women's Bureau, 1988.

Shaiken, Harley. *Work Transformed: Automation and Labor in the Computer Age*. NY: Holt, Rinehart and Winston, 1984.

Silvestri, George, and John Lukasiewicz. "Occupational Employment Projections: The 1984-85 Outlook." *Monthly Labor Review* 108 (November 1985), 42-57.

Sockell, Donna. "Research on Labor Law in the 1990's: The Challenge of Defining a Representational Form." Paper presented to the Second Bargaining Group Conference, Cornell University, May 6, 1990.

USDL, Employment and Training Administration. *Exchanging Earnings for Leisure: Findings of an Exploratory National Survey on Work Time Preferences*. Monograph 79. Washington, D.C.: GPO, 1980.

Woods, Susan. "Waitressing: Taking Control of Our Work." *Quest: A Feminist Quarterly* 5, 1 (Summer 1979), 82-94.

Strategic Implications of Union Corporate Campaigns

PAUL JARLEY
University of Iowa

CHERYL MARANTO
Marquette University

The union corporate campaign is one of the most visible and perhaps one of the most important union innovations of the 1980s. Three recent reviews of union corporate campaigns (Jarley and Maranto, 1990; Thompson, 1989; and Perry, 1987) have focused on their short-term consequences, assessing campaign success by the degree to which the union's short-term objective (e.g., a contract, a neutrality agreement) was achieved in a given dispute. This paper develops a framework for assessing the long-term consequences of union corporate campaigns. Emphasis is placed on how the campaign changed the power relationship between the union and management. We then use this framework to provide a preliminary assessment of the long-term consequences of four campaigns: Beverly, IBP, BASF and Pittston.

The Corporate Campaign Concept

Although the tactics utilized in campaigns vary dramatically, many corporate campaigners implicitly ascribe to a common campaign concept. As Thompson notes (1989, p. 124), campaign coordinators utilize principles closely aligned to stakeholder theory. Early campaign activities often involve the identification of stakeholders: any individual or group who can affect, or is affected by, the achievement of the firm's objectives. Many campaigns seek a measure of influence over stakeholders' behavior.

The union may influence stakeholder behavior in two ways. First, the union may identify common interests with a stakeholder, thereby

Jarley's Address: 515 Phillips Hall, College of Business, University of Iowa, Iowa City, IA 52242.

encouraging the stakeholder to take an active part in the campaign. Alternatively, a stakeholder may be accused of complicity with the firm. Such exposure may encourage the stakeholder to intervene in the dispute or dissociate itself from the target.

Whether the union seeks cooperation with a stakeholder or charges it with complicity, gaining a measure of influence over stakeholder behavior usually depends on labor's ability to characterize the dispute in broad social terms. A broad social issue provides the basis for wider support because resolution of the labor dispute becomes part of the solution to a wider social problem. The stakeholder then has an interest in the resolution of the labor dispute. Alternatively, a charge of complicity will only be effective where the target's activities are viewed as morally reprehensible and the stakeholder believes any association with the target during the dispute is not in its best interests.

To the extent that these methods provide unions with a degree of influence over stakeholder behavior, resolution of the labor dispute offers management not only labor peace, but a restoration of stakeholder relationships. As a result, management's incentive to settle with the union is increased.

Strategic Implications

The strategic implications of corporate campaigns arise from their ability to alter the long-term power relationship between the union and the firm or to produce large, positive externalities such as a viable "deterrent effect" on other employers. These changes may result from a conscious campaign strategy or they may be the unintended consequences of campaign activity. Such changes may be manifested in any of three places: the firm's external environment, firm management, and/or within the union itself.

Environmental Changes

Corporate campaigns may alter the firm's (and union's) environment in several ways. First, coalitions with activist groups formed during the campaign may continue to pay dividends. The ability to mobilize support around a common interest that is identified in a campaign may require continued coordinated activity against the target, may spill over to affect other firms, or may lie dormant, but credible, in the eyes of management as a source of union power in future conflicts. On the other hand, alliances may dissolve as the interests of the union and these groups collide on future issues. Unions may be seen as self-serving or be accused of selling out.

Second, government agencies may be sensitized to firm behavior and may come to view the union as a more credible source of future complaints. Increased scrutiny of firm operations may cause employers to put a premium on labor peace. More importantly, claims that regulators found credible during the course of the campaign may produce good will between the agency and the union, increasing the likelihood that future union charges will place costs on management. In addition, union-encouraged changes in government regulations may be effectuated, requiring lasting changes in firm behavior.

Finally, the campaign may alter how other firms perceive the cost of conflict with the union. Even where the union campaign does not achieve its initial goals, other employers may hesitate to undertake the costs associated with a union corporate campaign. In addition, secondary targets (e.g.,financial institutions) may have a new appreciation for what the union can do to the target firm as well as their own operations.

Impact on Management

Corporate campaigns may also bring changes in management personnel, philosophy, and practice. An effective campaign may erode support of existing management. Managers hostile to the union may be replaced or management may move from an approach based on confrontation to one based on accommodation to the union. Such accommodation may manifest itself in a greater willingness to settle disputes, more integrative approaches to collective bargaining, less adversarial stances in union organizing drives, or changes in the manner in which day-to-day operations are handled under the contract.

Aside from the direct impact on management, effective use of stockholder and corporate board actions may produce lasting ties between these groups and the union. Stockholders may be convinced that union avoidance strategies are not cost effective. Placing officers who are sympathetic to the union on corporate boards of directors is potentially even more significant.

On a negative note, management may initiate a strategy to counter the campaign, improving its corporate image and building its own ties with groups that could be used in future disputes with the union.

Impact on the Union

A successful campaign may serve to energize the union as an organization, while a crucial defeat may lead to decertification, or loss of credibility and bargaining power. Corporate campaign activities may change union utilization of the rank and file, increasing member participation in union activities. Members and nonmembers may alter their views on union instrumentality and the rank and file may become more militant. The prolonged nature of most corporate campaigns and the scope of the union's actions make increased rank-and-file militancy a likely outcome. Increased militancy may serve as a source of union power, making future threats more credible, or it may serve to hinder future union-management relations by inflating rank-and-file expectations and increasing the risk that the membership will view any cooperative relationship with management as a sellout. Finally, a campaign may produce lessons that are useful in future campaigns, making future activities more likely and more successful. Learning may include the acquisition of firm-specific information that could be of use in future conflicts with management or it may help refine tactics of generic value.

In sum, the list of the potential long-term campaign effects is large. Some of these effects are not fundamentally different from those associated with more traditional union activities (e.g. strikes, boycotts). Yet, other outcomes appear to be unique to corporate campaigns: long-term changes in relationships with important stakeholders, in government regulations, in union strategies, and in union utilization of rank-and-file members in future disputes.

Sample and Methods

To assess the long-term consequences of corporate campaigns, we examine four cases: BASF, Beverly, IBP and Pittston. The BASF and Pittston campaigns produced settlements in the last year, while the IBP and Beverly campaigns reached their initial goals three and six years ago respectively. It should be noted that these campaigns are *not* representative of the population of large national campaigns. Each was strongly supported by its national union(s) and the AFL-CIO; involved large expenditures of time, staff, and money; and have been viewed as successful (Jarley and Maranto, 1990; Thompson, 1989; Perry, 1987) in the short run. As a result, these campaigns provide the greatest prospects for long-term results favorable to the union. The key research question we address is: To what extent have these unions been able to build on their initial success?

Any assessment of campaign success is difficult and involves a degree of subjectivity. Extricating the impact of the campaign per se from the impact of the dispute in general, particularly where there has been a strike or a lockout, adds to the difficulty of the task. Yet, insights can be obtained by focusing on the obvious consequences of salient campaign activities and significant changes in firm or union behavior after the cessation of the campaign. Because the sources for our analysis are limited to high-ranking union officials directly involved in these campaigns and the academic and business press on corporate campaigns, the results of our inquiry must be viewed as tentative.

Analysis

We begin our analysis by detailing the long-term outcomes peculiar to each campaign. An analysis of the short-term outcomes of these campaigns can be found in Jarley and Maranto (1990). After this brief review, common outcomes are identified and discussed.

BASF

The BASF settlement came in December of 1989 after a campaign of more than five years. The campaign was one of the most thorough efforts to build alliances with other groups and a local public interest group infrastructure. The Oil Chemical and Atomic Workers (OCAW) have assigned a full-time staffer to work out of the local to continue building community-labor coalitions. Many of the initiatives begun during the campaign continue as the company and the union skirmish over back pay and other issues. Most notable in the area of coalition building is the union's participation in the National Toxics Campaign (NTC), an organization devoted to environmental issues. In March of 1990, the local union voted four to one to increase dues by $5 per month to fund a team of environmental experts and to promote a superfund that would compensate workers who lose their jobs when products harmful to the environment are banned (Wilson, 1990). In the regulatory arena, the union's investment in research on environmental issues won the respect of the Louisiana Department of Environmental Quality (DEQ) and led to union representation on the agency's advisory panels.

Beverly

The corporate campaign against Beverly ended in March of 1984 when the company, the Food and Commercial Workers (UFCWU), and the Service Employees (SEIU) signed an accord aimed at establishing a noncoercive atmosphere for organizing and a joint labor-management committee to resolve disputes. The unions had won 28 of 41 (68%) certification elections during the campaign and had generally matched this impressive win rate during the next 18 months, winning 34 of 48 (71%) elections. By mid-1985 the unions had negotiated 78 contracts with Beverly covering 10 percent of firm's 87,000 employees (Reuben, 1985).

Since late 1987 things have taken a turn for the worse at Beverly. Problems with patient care, a major theme of the campaign, continued to plague the firm. Regulators in several states have cited Beverly for chronic violations and this increased scrutiny has hampered Beverly's ability to operate in some states (Miles, Cole, and Grover, 1988). At about this same time, Beverly's labor policies were again brought into question. In September 1987, the National Labor Relations Board (NLRB) issued a 67-page complaint against the firm. The complaint, the largest single action by the NLRB since J.P. Stevens, sought nationwide remedies similar to those afforded the Textile Workers (ACTWU). The administrative law judge's (ALJ) decision was handed down on November 9, 1990 (Beverly California Corp., *NLRB Case No.* 6-CA-19444). Although stopping short of providing unions with extraordinary access to Beverly sites, the ALJ found Beverly had violated the law at least 35 times and issued a nationwide cease and desist order against Beverly's threats, interrogations, and surveillance activities. The company plans to appeal.

IBP

Although most signs of the corporate campaign against IBP ended with the July 1987 Dakota City settlement, the union continued to participate in the worker health and safety debate. The Congressional inquiry into worker safety in the meatpacking industry that began during the Dakota City dispute ran its course, resulting in continued negative publicity for IBP. The company unveiled a new safety program at its Dakota City plant in September of 1987, but both the Occupational Safety and Health Administration (OSHA) and Congress continued to pursue the firm. In March of 1988, the Lantos Committee issued a scathing report about safety in the meatpacking industry and at IBP in particular. Additional fines were proposed by OSHA in May of 1988 and in November of that year IBP, the UFCWU, the Food and Allied Service Trades Department AFL-CIO (FAST), and OSHA entered into agreements concerning worker safety. The three-year IBP-UFCWU agreement, characterized by a company official as an outgrowth of the Dakota City dispute, established a companywide program to address cumulative trauma injuries and a joint labor-management committee to resolve any disputes over proposed corrective measures. Measures that prove successful at the Dakota City plant are to be extended to all IBP locations. A second agreement signed by all parties reduced the proposed fines against IBP from $5.6 million to $975,000 (Bureau of National Affairs, 1988a).

The campaign also appears to have changed IBP's stance in UFCWU organizing drives. A *minority* within the UFCWU believe this change in company policy is more a function of the union's willingness to negotiate modest contracts in exchange for greater union representation at IBP (Erb, 1989). Nonetheless, in June of 1988, IBP announced it would voluntarily recognize the UFCWU at its Joslin, Illinois plant (Bureau of National Affairs, 1988b). The 1,700 production and maintenance workers at Joslin became only the second IBP facility to be organized by the UFCWU and a first contract was signed in October of the same year (Bureau of National Affairs, 1988c). A second unit of 600 employees in Waterloo, Iowa was voluntarily recognized in May of 1990, only three weeks after the plant opened (Bureau of National Affairs, 1990a).

Pittston

The Pittston settlement came on February 20, 1990. From a long-term perspective, the most important aspect of the settlement involved the establishment of a Coal Labor Advisory Board within the Department of Labor to review and make recommendations on health care and pension benefit funds in the industry. The Board made its final report in November and unanimously stated that all retired miners are entitled to the health care benefits they were promised. The panel differed sharply, however, on who should share the burden for orphan retirees—retirees whose companies have gone out of business or stopped paying for health care benefits. A proposal backed by the Mineworkers (UMW) would provide health care benefits for orphan retirees out of a new fund financed by *all* employers in the coal industry. An alternative proposal, endorsed by some nonunion firms, would limit liability to current and former signatories of the Bituminous Coal Operators Association (BCOA)-UMW agreement. Both proposals would insure participation by Pittston (Bureau of National Affairs, 1990b). The UMW is awaiting Congressional enactment based on the report's recommendations.

More Common Outcomes

Aside from these specific outcomes, our interviews and examination of secondary sources suggest some more common long-term outcomes. The fact that these campaigns were perceived as successful in the short run appears to have changed the firms' view of the unions' power. All union officials interviewed believe that the campaigns generated new respect for the union. Many interviewees stated that their short-term success made other firms less willing to confront the union, fearing the same protracted battle, and resulted in easier contract settlements or fewer strikes in the industry.

Changes at the shop floor were also noted. An official involved in both the IBP and Beverly campaigns noted that relations at the shop floor generally improved after these campaigns. These changes were attributed to both parties' desire to make their new agreements work and to the participation of high-level management and union officials who could place shop floor disputes in the context of the wider union-management relationship. On a more negative note, one OCAW official reported that hostility to management at BASF is still high, hindering the parties' ability to engage in cooperative efforts. The negative consequences reported at BASF may be partly a function of the fact that the campaign ended relatively recently. It may also be due to the long duration of the dispute.

It is noteworthy that the themes stressed by unions during these corporate campaigns tended to live on in their aftermath. Unions continued to push these issues, in part, because they continued to provide labor with leverage vis-à-vis these firms. In three cases (Beverly, IBP, and BASF) the substantiation of union charges made during the campaign gave union officials credibility with regulators who continued to closely scrutinize these firms' behavior, giving the unions ever-present allies. In addition, in both the IBP and BASF cases, the union was not in a position to halt ongoing regulatory investigations.

Moreover, stakeholders continued to have an interest in seeing these issues played out to their ultimate resolution. Building and maintaining credible alliances with activists and lodging successful complaints with regulatory agencies requires raising issues based on general principles that do not disappear with the cessation of the campaign. Some union officials interviewed noted that maintaining such general principles is necessary in order to convince allies that the union is not simply pursuing its narrow self-interest. These officials also noted that if the union distanced itself from those activities after the campaign, their allies would have charged them with selling out and ended these relationships.

Both UMW and OCAW officials noted that coalitions with other unions or community groups built or extended during the corporate campaign have continued to pay dividends. At BASF, the labor-environmentalist coalition not only continues to press environmental and safety issues at the Geismar plant, but has been utilized to press other firms for change. Similar alliances with environmentalists grew out of the IBP campaign and a UMW official noted that their alliances have been useful in other strikes. Union officials also noted that these alliances proved useful in the political arena, where several groups are coordinating drives for national health care and environmental legislation. However, the details gathered from these interviews are too sketchy to draw any solid conclusions regarding the long-term viability of specific alliances. The OCAW-NTC alliance may be an interesting test of this issue since the program's priority is to find ways to remove the employer's ability to divide and conquer unions and environmentalists through "job blackmail"—claims that environmental initiatives will result in job loss.

Internal union changes were also noted by interviewees. Union officials noted that the campaigns energized support for the union, increasing member instrumentality perceptions and identification with the union. Some union officials we interviewed noted that the education process that accompanies campaign activities increased worker knowledge of the issues, making rank-and-file members more active in union affairs and social issues more generally. It should be noted, however, that three of these campaigns involved strikes or lock-outs and some of the union officials we interviewed noted that it is not clear if the campaign or the work stoppage was the dominant factor in effectuating some of these changes. Some UMW and OCAW officials also noted that interest in union representation by nonunion workers increased in the campaign aftermath. On a more negative note, OCAW officials noted that the long lockout and campaign appears to have exhausted the rank and file. Also, in both the BASF and IBP cases, the campaigns appear to have left local union leaders with the dilemma of when and how to put their long fights behind them. Resentment against the companies remained high after these campaigns and attempts by local leaders to restore some level of cooperation with management involved political risk.

All union officials agreed, however, that these campaigns made them more likely to use the tactic elsewhere. All the officials interviewed agreed that union corporate campaigns are still in an evolutionary stage and that the tactics and strategies continue to undergo revision as they are applied in different disputes. Although each corporate campaign is unique and depends on firm-specific factors, interviewees noted that the experience allowed them to fine-tune some tactics of generic value and to eliminate others.

Finally, few lasting changes within management were noted by the union officials we interviewed. Personnel changes occurred at BASF and IBP, where some union officials believe management officials were removed for failing to reach their initial objectives. But, the union officials interviewed reported few lasting alliances with stockholders. This is not surprising, however, since this tactic did not appear to be a major contributor to initial campaign success (with the exception of Pittston), or the union lacked a reason to utilize any such ties again.

Conclusions

Our analysis suggests that corporate campaigns can have lasting effects on union-management relationships making them a potentially potent union strategy. The cases analyzed here suggest that the most significant source of long-term changes in union power derive from changes in the environment that were the result of labor's ability to articulate to stakeholders the broad social significance of its dispute with management. The social issues raised during these campaigns ultimately produced increased government oversight of firm operations, and ties with external stakeholders that continue to be sources of union power.

References

Beverly California Corp., *NLRB, Case Nos.* 6-CA-19444, Nov. 9, 1990.

Bureau of National Affairs. "Officials at IBP Inc., UFCWU meet to set guidelines for upcoming talks at Waterloo, Iowa Plant." *Labor Relations Week* (June 27, 1990a), p. 604.

Bureau of National Affairs. "Financing for Orphan Retirees Most Divisive Issue, Coal Report Says." *Daily Labor Report* (Nov. 8, 1990b), pp. A-13-A-15.

Bureau of National Affairs. "Historic Agreement on Safety Program Reached by IBP, Food Workers Union, OSHA." *Daily Labor Report* (Nov. 25, 1988a), pp. A-10-A-11.

Bureau of National Affairs. "IBP Agrees to Recognize UFCW as Illinois Plant Bargaining Agent." *Daily Labor Report* (June 17, 1988b), pp. A-6-A-7.

Bureau of National Affairs. "IBP Workers at Joslin, IL Plant Gain First Contract Covering 1700." *Daily Labor Report* (Oct. 20, 1988c), p. A-7.

Erb, Gene. "Food Union's New Course Sparks Derision, Applause." *Des Moines Register* (Jan. 22, 1989).

Jarley, Paul, and Cheryl Maranto. "Union Corporate Campaigns: An Assessment." *Industrial and Labor Relations Review* 43 (July 1990), pp. 505-25.

Miles, Gregory L., Patrick Cole, and Ronald Grover. "This Nursing Home Giant May Need Intensive Care." *Business Week* (November 7, 1988), pp. 124-26.

Reuben, George. "Nursing Home Organizing Drive A Success." *Monthly Labor Review* (Sept. 1985), p. 56.

Thompson, Judith K. "Pressure to Change: A Case Analysis of Union Use of Corporate Campaigns." *Research in Corporate Social Performance and Policy* 11 (1989), pp. 119-50.

Perry, Charles R. Union Corporate Campaigns. Philadelphia, PA: University of Pennsylvania Press, 1987.

Wilson, Rand. "A Labor-Environmental Alliance: Louisiana OCAW Local Union Joins Forces with NTC." *Toxic Times* (Summer 1990)

Employee Involvement within an Adversarial Structure: A Bargaining Model of Worker Participation

Jack Metzgar
Roosevelt University and Midwest Center for Labor Research

Employee involvement in workplace decisions traditionally reserved for management has come a long way in the past 15 or 20 years. Under a bewildering variety of names and formats, various forms of employee involvement (EI) or worker participation are seen as panaceas for a multitude of problems—from quality, cost, and productivity problems in the workplace to international competitiveness in the economy as a whole.

Programs purporting to involve some kind of worker participation, in fact, have a very mixed record of achievement. But there are enough successes—indeed many dramatic successes—with these programs, that their *potential* is now well established.

In this paper, I want to outline answers to two questions that affect the way unions relate to these programs:

(1) When EI-type programs work, why do they work?

(2) Do EI-type programs require or augur a transformation of labor relations, and therefore of the way unions operate, in the United States?

I take the current conventional wisdom about these questions to be something like this:

(1) EI-type programs work because labor and management *cooperate*, instead of fighting each other.

(2) To fully benefit from EI-type programs, both sides have to overcome the debilitating effects of *adversarialism* and therefore substantially transform labor relations as it has traditionally been practiced in the United States.

I believe the conventional wisdom is wrong on both questions and that the emphasis on cooperation versus adversarialism both disguises

Author's Address: Labor Education Program, Roosevelt University, 430 S. Michigan Avenue, Chicago, IL 60605-1394.

the potential of worker participation in management and undermines unionism.

Why Does EI Work When It Works?

The actual success of the totality of EI-type programs is not very impressive. Probably fewer than one of five, maybe not more than one in ten, actually achieve anything significant. What drives all the excitement about EI-type programs is a growing catalog of success stories.

In the typical success story, productivity and/or product quality is improved (sometimes saving a plant that would otherwise have been closed) and workers and management both enjoy coming to work more than they ever did before. People feel better about themselves and about life in general. This is the basic "win-win" scenario. Management gets improved productivity and/or quality. Workers get treated like intelligent human beings. And both benefit by increasing the "competitiveness" of their enterprise.

Such success stories have added impact when told by battle-hardened union representatives or frontline supervisors whose eyes fill with tears as they describe their conversion to "working together as a team."

These success stories are genuinely moving and genuinely inspiring. Unlike many skeptical unionists, I think such results—increased productivity, improved product quality, reduced costs, reduced tensions in the workplace, and a general high level of enthusiasm and morale—are highly desirable. Cooperation between workers and management in a common enterprise is highly desirable.

What bothers me is that cooperation is seen as the key to these successes and that cooperation is viewed as something that transcends, and is incompatible with, that basic premise of American labor relations: that workers (and their unions) and managements are by nature adversaries.

In most success stories, both cooperation (often of a genuinely heartwarming sort) and genuine worker participation in management decisions are present. But the key to the success is never cooperation as such, but always the genuine participation of workers in decisions from which they have been traditionally excluded.

Locating and weighting causal factors is always difficult and tricky. There is no study that attempts to measure the relative importance of cooperation versus worker participation in achieving recognized successes. On the contrary, the words "cooperation" and "participation" are commonly used as if they are synonymous, and therefore, this question never gets asked. "Cooperation, trust, working together" simply receive more emphasis than the "involvement" or "participation" of workers in designing and implementing work processes.

My basic argument that the key to success is worker participation and not labor-management cooperation is this:

(1) There are hundreds, maybe thousands, of programs that achieve cooperation of various degrees but do not succeed in actually tapping the insight and knowledge of workers in designing and implementing work processes. These programs, which are the vast majority of actually existing programs, achieve little or nothing in the key measures of productivity, product quality, or cost reduction—though they may make everybody feel better. There is not one inspiring success story, as described above, that I am aware of among this group of cases.

(2) Among the inspiring success stories of which I am aware, if one looks carefully, one can always find the specific insights and knowledge of workers at the base of any actual improvements in production processes—insights and knowledge that traditionally have been ignored, even systematically suppressed, by management.

(3) There are a few cases—the Machinists at Eastern Airlines and the United Auto Workers at Harrison Radiator being the most well known—where there was genuine worker participation without the kind of labor-management cooperation that is usually trumpeted as "the key," and where the program was a demonstrable success, as defined by hard measures like productivity, quality, and costs.

This reasoning may be a little too Aristotelian for current tastes, but I think it still makes sense: Where Substance A always has Property X but only usually has Property Y, Property X is essential to Substance A, whereas Property Y is merely contingent. Worker participation is essential to the success of "employee involvement"; cooperation between labor and management is not.

What Does It Matter?

This distinction is important because *employee involvement* has been (and is being) turned into a weapon, both rhetorical and actual, against adversarial unionism. What started out as *worker participation* based on a biting critique of American management—of scientific management in particular but of all forms of hierarchical, top-down management decision making in general—has been turned into *labor-management cooperation* as a critique of unionism.

As a result, many unionists reject worker participation in management because it seems to involve an abandonment of adversarial unionism—that is, an abandonment of the heart and soul of what they understand a union to be. Many more participate in various EI-type programs only guardedly and skeptically, thereby allowing management to determine the basic agenda of a program while the union adopts a passive wait-and-see attitude.

But even those unionists who are enthusiastic advocates of these programs often miss their potential for both reforming the workplace and strengthening the union because they see cooperation with management as being the key factor rather than the aggressive participation of workers. If the cooperation of management is desirable but not essential and if genuine worker participation in management can dramatically improve product quality and reduce costs, then there are many situations where the union should aggressively pursue worker participation in management.

In the past decade some unions have done this in two kinds of situations: (1) Where they are being asked to make wage and work rule concessions in order to improve the economic prospects of an enterprise. (2) Where they are faced with a plant closing. While I cannot develop all the evidence here, I think the experience of unions in these situations has accumulated to strongly suggest that in most U.S. workplaces top-down corporate and bureaucratic management structures ("bossing") actively undermine productivity and product quality and lead to bloated cost structures, all of which undermine the long-term viability of the enterprise, private or public. When these structures are challenged or significantly modified by tapping the insight and knowledge of workers, dramatic improvements are possible—so dramatic that workers' living and working standards can be maintained and their plants kept open.

If all this is so, then unions should proactively organize their members to challenge these authoritarian decision-making structures. They should do so not simply to advance the cause of democracy in the workplace, a historical role of unions, but to reform management in order to improve the long-term viability of enterprises upon which workers depend for their livelihoods. With such goals in mind, unions should not anticipate the wholehearted and consistent cooperation of management. Rather they should seek to organize their members in such a way as to be able to advance worker participation in management, with or without the cooperation of management.

In a long article in *Labor Research Review No. 14* (Fall 1989), Andy Banks of Florida International University and I outlined a fairly elaborate model of what we call a "union-empowering structure of worker participation." This model is based on Banks' experience as a consultant to a number of unions in transportation industries, including the Machinists at Eastern Airlines in the mid-1980s and the Transport Workers Union in Philadelphia. There are two primary elements in this model. One is that unions should see EI-type programs as an opportunity for internal organizing of their memberships, an opportunity to revitalize strong rank-and-file participation in the life of the union. The other is that unions should, wherever possible, structure EI-type programs on the model of collective bargaining. It is this latter element I'd like to focus on here.

The emphasis on cooperation in EI-type programs, with its constant references to the negative effects of *adversarial* relations between labor and management, has led nearly all third-party consultants to contrast EI-type activities to the collective bargaining process. Bargaining is adversarial, whereas employee involvement, it is said, can only be built on *trust* between the parties. Banks and I argue that EI-type programs should not be built on trust for two kinds of reasons:

(1) Unions cannot trust that management will not use these programs to undermine the union in any number of ways. There are instances of EI-type programs being used to brainwash workers and frustrate union organizing drives. (See Guillermo Grenier, *Inhuman Relations: Quality Circles and Anti-Unionism in American Industry*, Temple University Press, 1988). There are also instances of EI-type programs being used to extract craft knowledge and insight from workers in order to transfer it to nonunion plants at other locations. (See Keith Knauss and Michael Matuszak, "Torrington/Ingersoll-Rand's Shutdown of Its South Bend Heavy Bearings Plant," in Charles Craypo, ed., *The Grand Design*, forthcoming.) While the vast majority of presently existing EI-type programs probably involve no such hidden management agendas, unions cannot afford to ignore such possibilities, even if they are a real threat in only one of 100 cases.

(2) Unions cannot trust management to pursue genuine worker participation with sufficient vigor to ensure that EI-type programs actually have an impact on improving the long-term viability of an enterprise. In fact, the historical record indicates that most managements are highly conflicted about these programs. The potential of these programs to undermine management authority and

control, to threaten managers' self-esteem, and to turn into worker criticism of a wide array of management practices causes most presently existing EI-type programs to be so thoroughly hedged with safeguards that they achieve little or nothing.

Modeling EI on Bargaining

This reasoning leads to the following guideline for unions participating in EI-type programs: Far from seeing EI as something entirely different from the way bargaining is conducted, EI should be modeled on the etiquette and procedures of bargaining.

Above all, this means that the union should have a separate and equal EI process that parallels management's. *Joint* labor-management meetings should be viewed as bargaining; as the tip of the process, and not the iceberg that underlies it. The union's goals should be debated and determined through *separate* union membership and leadership meetings, and then bargained with management. Whatever *joint* labor-management training is necessary for the process should be accompanied by *separate* union-only training. And the process of gathering and developing workers' insights and suggestions for improvements should be conducted by the union and its membership, drawing on management expertise only where that is decided on by union EI-groups. The implementation of worker-generated proposals for changes in work processes then needs to be negotiated with management, of course. Where union proposals will clearly improve quality, reduce costs, or increase productivity, management should agree to implement them. When management does not agree to implement important changes—and it often will not—the union should use the same kinds of pressure that it has learned to mobilize around negotiating the contract.

In the *Labor Research Review* article referred to above, Banks and I try to elaborate on these ideas, drawing on several partial examples to construct a sort of "ideal type" program. But the point of this piece is that unions can and should pursue the potential of worker participation programs by building on union experience with bargaining and administering contracts, rather than putting that experience aside as either negative or irrelevant. Far from adversarialism being something that must be overcome or avoided in order to effectively engage a work force in participating in management, it is precisely those adversarial traditions of organizing, mobilizing, and bargaining that unions must build upon.

References

Banks, Andy, and Jack Metzgar. "Participating in Management: Union Organizing on a New Terrain." *Labor Research Review* 14 (Fall 1989), pp. 1-55.

Grenier, Guillermo. *Inhuman Relations: Quality Circles and Anti-Unionism in American Industry*. Philadelphia, PA: Temple University Press, 1988.

Knauss, Keith, and Michael Matuszak. "Torrington/Ingersoll-Rand's Shutdown of Its South Bend Heavy Bearings Plant." Chapter One in *Grand Designs: The Impact of Corporate Strategies on Workers, Unions and Communities*. Ithaca, NY: Cornell University ILR Press, forthcoming.

DISCUSSION

Joseph B. Uehlein
Industrial Union Department, AFL-CIO

Corporate campaigns *always* produce lessons, and unions rarely spend time conducting in-depth review and analysis of campaigns. The authors of this study are to be congratulated, and thanked, for their contribution in this regard. I also must qualify my response by saying that I am responding to both the June 1990 paper published in the IRRA journal and the paper submitted for the conference.

I have two problems with the nature of the study. First, the term "corporate campaign" defies succinct definition, and the authors' attempt to provide one necessarily limits the study. For example, the authors did not analyze a single campaign that was built around an "inside game"/worksite-based program. A properly constructed campaign targets vulnerabilities found after conducting a thorough power structure analysis. In some campaigns this process leads unions to focus primarily on worksite-based programs. Unions universally and purposefully define "corporate" campaigns in very broad terms, in fact, most refer to them as "comprehensive" or "coordinated" campaigns as a way of underscoring the broad nature of the effort. Also, only analyzing "announced, national" campaigns limits the study because many successful campaigns were never announced as a corporate campaign, and obviously many will not be national in scope. Finally, campaigns designed to influence the purchase of the firm were excluded from the study. This activity has been, and will continue to be, an important strategic objective of corporate campaigns and should be considered central to any definition.

Second, determining success by analyzing tactics is problematic. Power structure analysis is the key element in determining strategy, which leads to tactics. Power structure analysis includes an analysis of ourselves as well as of the adversary. Our strengths need to be matched against the vulnerabilities of the enemy. Most successful

Author's Address: Industrial Union Department, AFL-CIO, 815 16th St. NW, Washington, D.C. 20006.

campaigns benefit from a confluence of pressures and tactics, rather than a single tactic. The unions' skill in understanding timing and escalation is critical to tactical success. Yes, tactics are critical to the success of any campaign, but I would argue that there are four other determinants that are more important, and admittedly more difficult to analyze, that were not included in the study. They are:

(1) *Early Preparation.* How early did the union begin to conduct power structure analysis and prepare the campaign? In too many cases this begins after there is a crisis. When the union prepares well in advance the success rate is considerably higher.

(2) *Ability to Escalate.* Was the union able to raise the stakes by escalating the flow of tactics? On this point, I would disagree with the authors in that escalation does not necessarily mean raising issues of broad social significance. This is not always possible. It means causing increasing difficulty for the adversary in arenas that may be foreign to the adversary. It often means operating outside the experience of the adversary.

(3) *The Will Factor.* Is the union fully committed to the effort? Is there a strong will to win? In some campaigns this is not the case. I realize this is a largely intangible element but argue that its importance exceeds that of the more tangible aspects.

(4) *Rank-and-File Involvement.* In cases where workers are still on the job, has the union implemented an aggressive "inside game" component? In cases where workers are on strike, has the union constructed an effort that utilizes the creativity and imagination of the membership? It needs to be deeply involved in the effort. The worksite/membership program is the engine that drives the entire campaign.

"Corporate" campaigns remain in an evolutionary stage and are becoming more central to collective bargaining and organizing efforts of many unions. The broadening definition assists with this process. A campaign is a series of actions designed to achieve a specific objective—that's what's important; not how we define it.

Based on their study, the authors found that the future promise of corporate campaigns is in organizing. I agree totally. The study shows that the most successful campaigns were used in organizing while most failures were campaigns where the campaign was designed as strike support. Reasons for this relate to my point about early preparation—obviously more prevalent in organizing than in strike support, and to the fact that strikes are often used as a tool by management, so the union is behind the eight ball from the outset.

In the past "corporate" campaigns have been used as reactive efforts to management actions. The challenge is to craft proactive campaigns to support organizing and collective bargaining goals that put management in the reactive position. These kinds of "conditioning" campaigns are becoming, and will continue to become, part of the everyday standard operating procedure of trade unionists at all levels.

V. CONTRIBUTED PAPERS—LABOR ECONOMICS

Male and Female Quitting: The Case of Professionals and Managers

LOREN M. SOLNICK[*]
Naval Postgraduate School

This study analyzes differences in the quit behavior of male and female professionals and managers, an occupational group that has not been studied in this context. In recent years females have significantly increased their representation in this group, so a study of their labor market behavior is warranted. Moreover, as a result of their substantial human capital investments, these females should have strong labor force commitments that are more like those of their male counterparts than is generally true of women in the labor force. Therefore, comparison of the quitting of these males and females may yield different results than previous studies which analyzed a cross-section of occupations.

The labor market for professionals and managers is characterized by an absence of unions and by rewards contingent on job performance. Holding constant worker characteristics, the quality of the job match will determine productivity. Employees who receive management signals of low productivity (e.g., low performance ratings and/or promotion rates), will be more likely to quit in search of a better job match (Bishop, 1989). Group differences in the responsiveness of quitting to these signals or rewards have important implications for differences in the relationship between wages and job tenure, since the group whose quitting is less sensitive to rewards will be paid less,

[*] Loren M. Solnick was the winner of the contributed papers competition. This award was presented posthumously to his family.

ceteris paribus (Viscusi, 1980; Kahn and Griesinger, 1989). Therefore, if male quitting is more (less) sensitive to rewards than that of females, their wage/job tenure profiles will appear steeper (flatter) than those of females because of the selection effects of quitting.

The sample consists of the white professional and managerial employees of a large manufacturing firm. The use of firm-specific data affords several advantages compared with broad-based survey data. It makes possible an analysis of how male and female quitting responds to specific measures of employee productivity, which are key factors in the quit decision. The data also allow control for level and type of education (i.e., major field of study) and type of job experience at the firm, which are determinants of (unobserved) job alternatives, and thus of quit propensities. Survey data generally lack detailed education and job-related data, and therefore cannot support the type of model estimated here. Finally, the data facilitate the use of event duration analysis, which provides an appropriate statistical technique for analyzing longitudinal data. It yields a single set of parameter estimates relating the explanatory variables to the probability of quitting over a multi-year period.

The use of firm-specific data also eliminates a possible source of selection bias. Assume, for example, that males are more likely than females to be employed by firms that offer long-term employment relationships, whereas females are more likely to be employed by firms that have higher average turnover rates. If this difference arises from discrimination in hiring rather than from personal choices, female quit propensities will incorrectly appear higher than those of males. The bias in survey data derives from the inability to observe the personnel policies and practices of firms that affect quitting. Although generalizations from a single firm may be risky, the employment policies and practices of the subject firm are uniform and fairly typical of large corporations.

Gender and Quitting

Unadjusted quit rates generally show that women have higher quit propensities than men. However, Viscusi (1980) and Blau and Kahn (1981) found that most of the gender difference in quit rates were due to differences in job and personal characteristics and regional economic conditions. On the other hand, Viscusi found that the wage elasticities of quitting were similar for both sexes, whereas Blau and Kahn found that the quit rate of white females was more sensitive to the wage rate than that of white males. Meitzen (1986) found that among low-skilled workers the top wage for the person's job significantly affected male quitting but was unrelated to female quitting. He also found that the starting wage had no effect on the quitting of either sex. Most recently, Kahn and Griesinger (1989) found that female quitting was significantly related to wage changes, but male quitting was not.

Past research has thus produced conflicting findings on sex differences in the responsiveness of quitting to wages. There is also conflicting evidence on the comparative impact of marital status and dependents. Blau and Kahn (1981) found that among whites, marriage significantly increased female quitting but was unrelated to male quitting. Viscusi found that marriage reduced the quitting of both sexes, but only the female coefficient was significant. Although there were some differences in the signs of the coefficients, neither study found the presence of dependents to have significant effects on quitting. Separate studies of male and female professionals (Solnick, 1988 and 1989) found that the quitting of both sexes was significantly related to performance ratings, promotion rates, salary grade, and marital status. However, the two studies used different models and sample selection procedures, so their results are not directly comparable.

The Quit Model

The quit model is based on a standard utility maximation approach: an individual quits if the expected utility of any alternative, including not working, exceeds the expected utility of the present job plus the cost of quitting. Since neither the utilities nor the cost of quitting are directly observable, proxies are used. The expected utility of the best alternative depends on expected market wage and the value of time in home production. The expected wage is assumed to be determined by human capital variables: educational attainment, major field of study (occupation), and previous work experience. The value of time in home production depends on the level of family responsibility (marital status and children).[1]

The expected utility of the present job is assumed to depend on measures of employee productivity: starting salary, promotion rate, and current performance rating. These key management indicators are signals to employees about their worth to the firm, and thus of their likely future success. Note that the first is measured at hire, the second reflects progress within the firm, and the last is the most recent measure of productivity.[2] This specification thus facilitates the comparison of the quit sensitivity of males and females to different measures of productivity. If, for example, males have a stronger career commitment than females, then we would expect to find their quitting relatively more sensitive to promotion rates and performance ratings, but relatively less sensitive to starting salary.

Since job utility may also depend on unobserved non-wage job characteristics, the model also includes dummy variables for the functional division of the employee's job (viz. financial control, manufacturing, personnel, research, marketing). These dummies provide some control for job differences. We are thus able to compare the quit behavior of males and females with similar education and jobs, employed by a firm with uniform employment policies and practices.

The cost of quitting generally depends on length of service with the firm, a proxy for lost pension benefits, and the (unobserved) psychic cost of separation. Since the maximum length of service observed for the sample is five years, pension considerations are assumed not to be a factor in the quit decision. Psychic factors not associated with the variables in the model are assumed to be random.

If the proxies for the expected utility of the alternative uses of time are represented by the vector X, and those for the expected utility of remaining with the firm by Z, then a general expression for the probability of quitting is:

$$(1)\quad \Pr(Q = 1) = f(X,Z,u)$$

where u is a random disturbance that captures the effects of unobserved factors on quitting. The parameterization of this model and the estimation procedure are described below.

Model Estimation

The quit model is tested on a sample of 676 female and 2,310 male professional and managerial employees of a large manufacturing firm. The master personnel file provided the data from which the variables were derived. It was possible to follow these employees from date of hire (1976-1980) until either date of termination or to five years of service.[3] The study thus focuses on the early years of service, when quitting is most prevalent. As is common in longitudinal studies, the data are censored (truncated) at the end of the observation period.

Equation (1) is estimated using a continuous time hazard model. Discrete time probability models (e.g., logit or probit) estimate the probability of an event occurring at any time during a chosen time period. The hazard model, however, utilizes information about the timing of the quits over the period, and also accounts for data censoring (no quit observed at end of period). The application of a continuous-time hazard model to longitudinal data yields parameters that are independent of time units and thus provide a more general analysis of how the independent variables influence quitting. The hazard model is therefore an appropriate technique for analyzing quitting over an extended period.

The hazard rate h(t) is the probability that an employee quits at length of service t, conditional on not having quit prior to that time. Mathematically $h(t) = f(t)/S(t)$, where f(t) is the quit density function (frequency of quits by length of service) and S(t) is the survival function (probability of being employed for at least t years). The specific function relating h(t) to the explanatory variables used in this study is the proportional hazard model of Cox (1972):

(2) $H_j(t) = H_o(t) \exp(X_jB)$

where H_j is the hazard (the probability of quitting with length of service t given that a quit has not yet occurred) for person j, H_o is the baseline hazard function, X_j is a vector of explanatory variables, and B is a vector of parameters to be estimated. In this model the shape of the baseline hazard H_o is not specified, and is assumed not to vary by person. The model assumes that all persons follow an identically shaped baseline hazard function (i.e., quit probability as a function of length of service), and that the vector X shifts that common baseline hazard up or down by amounts determined by the parameters, B. Thus no parameters are estimated relating the quit probability directly to length of service.[4] Estimation is by the partial likelihood method (Cox, 1972), which yields consistent and asymptotically efficient estimates.

The means and standard deviations of the key variables are presented by gender in Table 1. The table also includes the significance level of a test of the difference in the means. The large sample results in some small differences being statistically significant (tenure for example). Notable differences are that males are more likely to be married and to have children and doctorates. Also note that the distribution of performance ratings and the promotion rate are almost identical for males and females. The comparison of monthly starting salaries is misleading, since it reflects substantial differences in educational background.[5] Males are about twice as likely to have doctorates and engineering degrees, and thus are paid significantly higher salaries.

TABLE 1

Means (Standard Deviations) of Selected Variables by Gender

Variable	Males	Females	p.[a]
Tenure	4.12 (.86)	4.00 (.89)	.002
Previous Experience	1.76 (3.84)	1.43 (2.90)	.041
Master's	0.23 (.42)	0.22 (.41)	.520
Doctorate	0.14 (.34)	0.07 (.25)	.001
Degree After Hire	0.07 (.26)	0.08 (.28)	.297
Married	0.68 (.47)	0.49 (.50)	.001
Children (< 21)	0.33 (.47)	0.12 (.32)	.001
Performance "Good"	0.32 (.46)	0.33 (.47)	.563
Performance "VG"	0.41 (.49)	0.40 (.49)	.809
Performance "EX"	0.21 (.41)	0.18 (.39)	.129
Promotion Rate	0.44 (.31)	0.44 (.31)	.959
Starting Salary (00)	18.25 (3.85)	16.33 (3.01)	.001

[a] Significance level of a t-test for the difference in means.

Table 2 shows the unadjusted quit probabilities of males and females over the first five years of employment. In the first two years the rates are identical, but after that females have higher quit rates. For both sexes, the rates peak in the third year and then begin to decline. Whether these differences persist after controlling for the personal and job differences between males and females is determined by fitting the proportional hazard model.

TABLE 2

Unadjusted Quit Rates by Years of Service and Gender

Years	Males	Females
1	.006	.006
2	.055	.055
3	.077	.117
4	.072	.103
5	.048	.067

Table 3 presents parameter estimates of the quit hazard function for the entire sample and separately for males and females.[6] Equation (2) is estimated after a logarithmic transformation, therefore the reported coefficients (B's) indicate the effect of a change in the independent variables on the log of the hazard (quit probability). The effect of variable X_j on the hazard is calculated as $\exp(B_j)$. For dummy variables the exponentiated coefficient shows the hazard for the group defined by the variable relative to the reference group.

TABLE 3

Proportional Hazard Estimates of Quit Model

Variable	All B (s.e.)	Males B (s.e.)	Female B (s.e.)
Female	.039 (.091)		
Previous Experience	.001 (.029)	.017 (.032)	.017 (.086)
Previous Exp.^{2}	−.002 (.002)	−.002 (.002)	−.006 (.008)
Master's	−.125 (.109)	−.070 (.128)	−.200 (.234)
Doctorate	−.438 (.198)°°	−.391 (.221)°	−.625 (.491)
Degree After	−1.284 (.248)°°	−1.159 (.284)°°	1.699 (.521)°°
Married	−.505 (.083)°°	−.622(1.000)°°	−.322 (.152)°°
Children	−.528 (.116)°°	−.521 (.130)°°	−.505 (.294)°
Performance "G"	−.079 (.114)	.090 (.138)	−.442 (.208)°°
Performance "VG"	−.252 (.120)°°	−.211 (.147)	−.242 (.219)
Performance "EX"	−.274 (.159)°	−.304 (.190)	−.173 (.296)
Promotion Rate	−3.568 (.185)°°	−3.631 (.221)°°	3.598 (.364)°°
Starting Salary	−.061 (.016)°°	−.054 (.017)°°	−.107 (.039)°°
N	2986	2310	676

° = significant at .10, two-tailed test
°° = significant at .05, two-tailed test

Note: Each equation also included eight dummy variables for major field of highest degree (mathematics, computer science, accounting, finance, business, engineering, sciences, other technical fields), and five dummies for functional division of job (financial control, manufacturing, personnel, research, marketing). Complete results are available upon request.

The first column of Table 3 presents the estimates for the whole sample, with a dummy variable for gender. The estimates indicate that there is no overall gender difference in quit probabilities, the coefficient of the gender variable being less than half its standard error. The other estimates in Column 1 of Table 3 show that the quit probability is significantly reduced by having a doctorate or children, being married, having high performance ratings or a high promotion rate, and starting with a high salary. Thus, this equation supports the prediction of job match theory that quitting is selective on the measures of productivity; the more productive employees being less likely to quit.

The second and third columns of Table 3 present the parameter estimates of the hazard function for each sex. Generally the same variables are significant in both equations, with only two exceptions: having a doctorate reduced quitting only for men, and getting a "good" current performance rating reduces quitting only for women. A likelihood ratio test was performed to determine whether it was appropriate to split the sample by gender. The null hypothesis is that the two coefficient vectors are equal. The calculated chi-squared statistic was 451.7 (df = 25), significant at < .001, indicating that separate equations are justified.

The two highest performance rating variables have significant negative effects in the pooled equation. For the men, the estimates have a similar trend but are not significant. For women, the only significant negative effect is for the "good" rating. However, the effects on quitting of the other measures of productivity are robust. The coefficients of the promotion rate variable are similar and highly significant for males and females: the estimates indicate that an increase in the promotion rate of one standard deviation (.31 promotions per year, or about one more promotion every three years) decreases quitting by about 30 percent. However, a $100 increase in starting salary reduces the female quit probability by about 10 percent, but the male probability by only 5.5 percent.

Marital status and dependent children also affect male and female quit probabilities. The effect of children is to reduce quitting by about 40 percent for both sexes. However, the presence of children lowers male quit probabilities by about 46 percent compared with 28 percent for females. Also note that receiving a degree after hire has a larger effect on female quitting; it lowers the female quit rate by almost 82 percent whereas the male rate is lowered by only 69 percent.

Conclusions

The results of this study reveal both similarities and differences in male and female quitting. Most significant among the similarities are the same average quit probability (*ceteris paribus*), and the equal effect of the promotion rate, which suggests that professional and managerial females are as committed to their careers as similar males. Moreover, since wage increases in the firm are closely related to promotions, the results imply an equal sensitivity to wage growth. This finding supports that of Viscusi (1980), but is contrary to that of Kahn and Griesinger (1989) and Blau and Kahn (1981).

The greater sensitivity of female quitting to starting salary could be interpreted as supporting the traditional view that females are less interested in obtaining on-the-job training, since they anticipate interrupted careers. That preference would make them less willing to forego present pay in exchange for higher future earnings. Another interpretation of this finding is that professional and managerial females with short tenure were more mobile in the late 1970s and early 1980s than similar males, perhaps because of improving employment opportunities. The lower female quit rate associated with having children suggests that professional women with children seek employment stability, but do not tend to leave the labor force.

This study examined gender differences in quitting in a homogeneous occupational group. The findings suggest that inferences from studies of occupationally diverse samples may be misleading if applied to specific groups. However, it is also appropriate to suggest that studies of professionals and managers at other firms, and of other occupational groups, are desirable to help provide a clearer picture of the gender differences in quitting.

Endnotes

[1] Cultural differences result in different expected impacts of these factors on male and female quitting.

[2] Progress is not measured by wage growth because a continuous wage history was not available. Wage growth and promotions are closely related, however.

[3] A test for cohort differences by year hired indicated that pooling was appropriate.

[4] The hazard incorporates information about length of service. It is therefore possible to obtain the quitting/length of service relationship from the estimated equations. That calculation revealed little difference between males and females. Discussion of the method is beyond the scope of this paper (see Kalbfleisch and Prentice, 1980).

[5] The salaries were adjusted for inflation to make cross-year comparisons valid.

[6] Fewer than one percent of hires quit in the first year of employment (four females and fourteen males—see Table 2). These observations were deleted because the promotion rate and performance rating variables could not be calculated. The model thus applies to quitting in years two through five.

References

Bishop, J. "Job Performance, Turnover and Wage Growth." Working Paper No. 88-03, Center for Advanced Human Resources Studies, Cornell University, August 1989.

Blau, F., and L. Kahn. "Race and Sex Differences in Quits by Younger Workers." *Industrial and Labor Relations Review* 34, 3 (1981), pp. 563-77.

Cox, D. R. "Regression Models and Life Tables." *Journal of the Royal Statistical Society* B, 34 (1972), pp. 187-220.

Kahn, S., and H. Griesinger. "Female Mobility and the Returns to Seniority: Should EEO Policy Be Concerned with Promotion?" *American Economic Review* 79, 2 (1989), pp. 300-04.

Kalbfleisch, J., and R. Prentice. *The Statistical Analysis of Failure Time Data.* New York: John Wiley, 1980.

Meitzen, M. "Differences in Male and Female Job Quitting Behavior." *Journal of Labor Economics* 17, 2 (1986), pp. 151-67.

Solnick, L. M. "Promotions, Pay, Performance Ratings and Quits." *Eastern Economic Journal* 14, 1 (January-March 1988), pp. 51-62.

Solnick, L. M. "Marital Status, Children, and Female Quitting." *Proceedings of the Forty-First Annual Meeting,* Industrial Relations Research Association, 1989, pp. 549-56.

Viscusi, W. "Sex Differences in Worker Quitting." *Review of Economics and Statistics* 62, 3 (1980), pp. 388-98.

The Relative Effects of Employer-Provided OJT and Apprenticeship Training

ROBERT F. COOK
Macro International Inc.

This paper measures the relative effects on earnings of apprenticeship training and employer-provided on-the-job training. An earlier paper examined the net earnings impacts of participation in apprenticeship programs relative to a comparison group of individuals from the National Longitudinal Study of the High School Class of 1972 (Cook and Cairnes, 1989). This paper extends the analysis two ways. First, the results of the outcome variables are presented for those who participated in apprenticeship training and their comparison group. Second, workers who participated in employer-provided on-the-job training (OJT) were added to the study. Thus, the earnings and wage impact of OJT can be compared to the effect of apprenticeship training.

Economic theory generates predictions about the relative impacts of apprenticeship and OJT on wages and earnings. The predictions are derived from the difference between general and specific training (Becker, 1964). General training is applicable to a number of employers. Specific training is applicable only to the employer providing the training. Workers accept lower wages to engage in general training, since it has applications with other employers and will raise their later earnings. That is, workers will pay for most or all of the cost of their training. Workers will not accept a lower wage and may even require a wage premium to engage in specific training, since it has no application beyond their current employer. Therefore, the employer must pay almost the full cost of such training. Once trained, workers who receive general training must be paid a higher wage to compensate them for investing in their training. Otherwise, workers will go to another employer who is prepared to pay for the workers'

Author's Address: Applied Research Division, Macro Systems Inc., 8630 Fenton Street, Silver Spring, MD 20910.

skills. Workers who have received specific training do not receive the full increase in their productivity in the form of a higher wage. Rather, the employer receives back part of the increased productivity of the workers as a return on his investment in the training provided to those workers.

Most OJT is a combination of general and specific training, so costs will be shared between the worker and the firm. However, apprenticeship is more in the nature of general training, since the training received is certified to all potential employers. This is the reason for paying a lower wage while the apprentice is in training. Upon completion of training, the apprentice must be paid the same wage as all individuals who have the training. Employer-provided OJT is more likely to be specific training, and thus employers are more likely to pay a higher wage while the individual is in training and to pay a lower return to the worker after training.

We would thus expect the OJT group to exhibit higher earnings during the period of training relative to the apprentices. However, once the training is completed, the wages and earnings of the apprentices should be higher than for OJT workers.

The Employer OJT Group

The National Longitudinal Survey (NLS) contains information on education, training, employment, and earnings of the senior class of 1972. Four follow-up surveys covered the period from graduation through October 1979. A fifth follow-up in February 1986 involved a subsample of this cohort. Only some of the 12,841 respondents to the Wave 1 through Wave 4 NLS file were of interest. All individuals were deleted who, at the time of the fourth wave (1979), had a college or advanced degree or whose primary educational activity was the pursuit of a four-year academic or graduate or professional degree.

A total of 2,701 individuals who received employer-provided OJT as well as 356 apprentices were identified in the fifth follow-up (1986). A comparison group of workers that had received only classroom vocational training (or less than baccalaureate academic education) was matched to those who participated in apprenticeship training using four variables: race, gender, high school program, and socioeconomic status. The match variables were recoded into categorical cells that were based on the various combinations of the variables. The cells of the members of the comparison group were then matched to the cells of the apprentices and the resulting numbers were weighted by the inverse ratio of the cell frequencies. The resulting weighted frequencies were 356 in each group. A similar procedure was used to match the employer OJT group to the (weighted) comparison group, which had already been matched to the apprentice sample. Thus, the size of the weighted OJT group was 356—the same as the comparison group and the apprentices.

Characteristics of the OJT Group

The weighted distributions of the OJT group regarding sex, race, socioeconomic status, and type of high school program are necessarily identical to those of the apprentices and the comparison group. Table 1 contains the distribution of educational attainment by 1986 for the apprentices, the employer OJT group, and the comparison group. The group that received employer-provided OJT was more likely to have had no college or classroom vocational training (31%) than the apprentices or comparison groups (22%). Almost the same percentage of comparison workers and those with employer-provided OJT had some vocational training. The OJT group was more likely to have had some college (36%) than the apprentices (26%), but less than the comparison group (46%). The percentage of college graduates in each of the three groups is one percent. The higher proportion of the employer OJT group with no college or vocational education is probably a response to training provided on the job by the employer.

The proportion of the three groups that were members of a union at some time between high school graduation and the fall of 1979 is

TABLE 1
Educational Attainment by 1986

Frequency Column Percent	Apprenticeship	Employer OJT	Comparison	Total
Missing	0 0.00	3 0.74	1 0.18	4 0.31
No Col, No Voc	77 21.63	110 30.78	78 22.03	265 24.81
Vocational	185 51.97	109 30.61	108 30.24	402 37.60
Some College	92 25.84	130 36.47	165 46.22	386 36.18
Col Grad or More	2 0.56	5 1.40	5 1.33	12 1.10
Total	356 33.33	356 33.33	356 33.33	1068 100.00

indicated in Table 2. Slightly more than half (52%) of those who received employer OJT were members of a union at some time during the interval. This is higher than for the comparison group (44%), however, it is lower than among the apprentices (74%).

TABLE 2
Union Membership 1972-1979

Frequency Column Percent	Apprenticeship	Employer OJT	Comparison	Total
No	94 26.40	169 47.53	200 56.07	463 43.33
Yes	262 73.60	187 52.47	156 43.93	605 56.67
Total	356 33.33	356 33.33	356 33.33	1068 100.00

Training Outcomes

The average earnings of apprentices, of workers who received employer-provided OJT, and of comparison group members for the years earnings data are indicated separately for males and females (Table 3). (The averages use cell weights from the matching.) The averages for the employer OJT group are uniformly higher than those of the comparison group. These are, however, only simple averages for the various groups.

Tables 4 and 5 present regression-adjusted estimates of the differences in earnings for males and females in the various years for which earnings data were available. The first set of regressions in each table is the group with employer-provided OJT, relative to the comparison group. The estimates of the earnings effect of apprenticeship relative to the comparison group are presented in the second set of equations.

The estimates of the returns to employer-provided OJT are large, increasing, and highly significant. The differentials rise from over $1,000 in 1975 to over $3,600 in 1986. The OJT differentials were comparable for males and females. For both the OJT and apprenticeship equations, the minority differentials for females are generally positive and, in the later years, significant. The union differentials are always positive and highly significant for both the males and the females.

TABLE 3
Average Earnings - Various Years (Weighted)
Males

Year	Apprentice N = 311	Employer OJT N = 1,087	Comparison N = 320
1975	$ 8,209	$ 7,954	$ 6,723
1976	9,268	9,224	7,683
1977	11,660	10,731	9,726
1978	13,224	12,522	11,383
1979	15,623	14,579	13,212
1984	22,428	20,980	17,215
1985	24,734	22,888	18,512

Females

Year	Apprentice N = 45	Employer OJT N = 1,411	Comparison N = 498
1975	$ 3,753	$ 4,516	$3,448
1976	4,464	4,983	4,107
1977	6,421	6,124	4,279
1978	8,230	7,164	5,220
1979	9,507	7,702	5,862
1984	9,927	10,645	7,396
1985	12,376	12,076	8,275

Comparing the results for the apprentices to those for the employer OJT is interesting. For the males, in the first four years, the differential for the employer OJT group was higher in three years. In the last three years, the differential was higher for the apprentices and the gap increased relative to the differential for the employer OJT group. Among the females, the differential for the employer OJT group was substantially higher in the first three years. The differential was higher for the apprentices in three of the last four years. These results support the hypothesis that the earnings differential of those who receive employer-provided OJT should be higher than that of the apprentices in the early years, when training is being undertaken. The differential for the apprentices was higher in the later years, after the training has been completed, which is also consistent with the hypotheses.

Conclusions

The relative impacts of employer-provided OJT (largely specific training) have been compared to apprenticeship (largely general

TABLE 4

Male Earnings Regressions
Apprenticeship/Employer OJT
Weighted

Dependent Variable	Intercept	Minority	Employer OJT/ Apprentice	High School Program: Academic	High School Program: Vo-Tech	Union	Socioeconomic Status: Low	Socioeconomic Status: High	F
				Independent Variables					
Employer OJT									
1975 Earnings	6248.15***	−201.11	1209.57***	244.62	519.14*	1242.44***	−826.07**	−323.63	9.07
1976 Earnings	7103.50***	−391.67	1384.46***	7.08	211.08	1932.00***	−852.24**	525.59	11.60
1977 Earnings	9548.07***	−714.63	780.46**	−10.94	−6.06	2068.58***	−1246.10***	−522.88	9.92
1978 Earnings	11188.06***	−901.90*	762.29**	−105.99	−450.46	2414.45***	−749.94	−247.42	8.63
1979 Earnings	12475.28***	−965.85	1311.57***	−360.82	−548.98	3286.15***	−1315.21**	626.05	12.30
1984 Earnings	16262.68***	−739.36	3192.22***	1395.70*	−329.33	4170.97***	−2190.56***	−217.82	11.47
1985 Earnings	17576.73***	−417.98	3868.23***	2458.31***	323.74	3748.65***	−3283.65***	−354.32	11.15
Apprentices									
1975 Earnings	6036.99***	−1123.69**	1157.77***	612.77	769.07*	1589.06***	−589.32	−578.75	6.67
1976 Earnings	6829.49***	−904.88	834.80*	336.15	184.63	2818.50***	−877.56*	−379.43	8.71
1977 Earnings	8811.49***	−870.36	1032.61**	473.90	657.64	2907.25***	−1036.95*	−772.96	7.88
1978 Earnings	10357.54***	−988.62	695.99	745.15	61.50	3288.80***	−313.81	−822.54	6.70
1979 Earnings	11555.72***	−696.96	1476.52**	1409.00*	72.83	3749.51***	−1159.79	59.46	6.89
1984 Earnings	15392.78***	−643.25	3481.96***	2261.16*	705.55	5199.32***	−2467.46*	−1033.98	7.10
1985 Earnings	17163.72***	144.50	4656.96***	2602.37*	1316.64	4234.37***	−3866.86***	−950.01	7.02

Notes: *** Significant at the 1 percent level
** Significant at the 5 percent level
* Significant at the 10 percent level

TABLE 5

Female Earnings Regressions
Apprenticeship/Employer OJT
Weighted

Dependent Variable	Independent Variables								
				High School Program			Socioeconomic Status		
	Intercept	Minority	Employer OJT/ Apprentice	Academic	Vo-Tech	Union	Low	High	F
Employer OJT									
1975 Earnings	3227.1 ***	−247.90	1033.36***	451.46**	432.49	755.37***	−199.97**	38.82	11.87
1976 Earnings	3587.49***	−614.16**	792.66***	776.77***	654.50	1339.44***	−449.36	959.08***	11.38
1977 Earnings	3752.17***	436.80	1598.53***	324.46	279.98	1140.62***	−152.19	877.98***	12.73
1978 Earnings	4321.64***	854.80**	1974.76***	418.70	−104.24	1109.64***	−227.01	1280.98***	9.92
1979 Earnings	4998.51***	532.68	1364.33***	907.82**	30.95	1964.98***	−32.97	931.58*	7.48
1984 Earnings	6073.23***	1980.94***	3172.60***	527.50	45.61	2216.31***	111.66	1691.74***	11.42
1985 Earnings	6727.91***	2342.18***	3601.90***	635.27	−250.02	2489.86***	−145.80	2411.88***	13.40
Apprentices									
1975 Earnings	3055.66***	−414.26	93.48	656.97**	234.29	1264.84***	353.90	−412.34	4.01
1976 Earnings	3162.90***	22.83	83.45	746.41	592.82	1234.13**	150.60	1506.91**	2.62
1977 Earnings	3441.80***	1298.66***	1177.90**	434.56	35.65	1745.06***	427.16	1144.97**	6.56
1978 Earnings	4027.74***	2752.24***	2080.54***	−2083.93***	−728.45	3207.86***	910.11	863.04	11.03
1979 Earnings	5032.89***	2265.13***	1545.18	−1791.95*	2355.78	5142.31***	1424.96	−1095.09	8.67
1984 Earnings	4363.77***	2853.67***	2427.24**	1755.90	4660.95**	1496.13***	1325.71	3193.53**	3.81
1985 Earnings	4902.50***	3564.22***	4090.04***	1886.09	6585.37***	2791.37**	304.54	2217.08	5.66

Notes: *** Significant at the 1 percent level
** Significant at the 5 percent level
* Significant at the 10 percent level

training) in relation to the same comparison group, selected from the NLS survey of the high school class of 1972. As suggested in the theoretical section of this article, the average earnings of both male and female workers who participated in apprenticeship programs were lower during the early years when the training was taking place than were the earnings of workers who participated in employer-provided OJT. But the earnings differentials of the apprentices were generally higher in the later years during the post-training period. The earnings of both the apprentice and employer OJT groups were higher than that of a comparison group that only had post-high school classroom training at the less than baccalaureate level.

References

Cook, Robert F., and K. Lynn Cairnes. 1989. *The Impact of Participation in Apprenticeship, 42nd Annual Proceedings of the Industrial Relations Research Association.* (December 1989) Atlanta, GA.

Becker, Gary. *Human Capital.* National Bureau of Economic Research. New York: 7-36.2, 1964.

The Effect of Collective Bargaining on Faculty Salaries at Public Colleges

JAVED ASHRAF
University of West Florida

Although a number of studies have been conducted on the influence of unions on teachers' salaries (see for example, Baugh and Stone 1982; Baird and Landon 1972; Holmes 1976, Hall and Carroll 1973; Kasper 1970, Balfour 1974; and Lipsky and Drotning 1973), there have been few such studies for college faculty. This study represents the first ever to calculate and examine the union wage effect on faculty salaries for public colleges and universities on a national basis. The few existing studies on the effects of faculty unionism are based on samples of both private and public colleges (Barbezat 1989; Birnbaum 1976; Hu and Leslie 1982; and Marshall 1979). Since the funding of public education is quite different from that at private institutions, a strong case can be made for examining the wage-determination model in public colleges separately and focusing on the influence of unions therein. This study also breaks down the sample data to allow additional insights into the effects of unions on different faculty subgroups at public colleges.

The Data, Model and Variables Used

The only existing data set that provides relatively recent comprehensive information on college faculty on a national basis is the *1977 Survey of the American Professoriate*. It includes responses from 4,250 faculty members from 158 colleges in the United States. For this study, only public colleges were included. Seventy-seven percent of the respondents in the survey reported employment with a public sector institution. The information in the data set was insufficient to determine which of the respondents were members of a faculty union. To determine the UNION variable, confidential information on school names provided by Professor Ladd, one of the principal investigators of the

Author's Address: Department of Economics, College of Business, University of West Florida, 11000 University Parkway, Pensacola, FL 32514-5752.

survey, was matched up with those schools that had collective bargaining contracts in 1977. This latter information was extracted from the 1984 *Directory of Faculty Contracts and Bargaining Agents in Institutions of Higher Education.*

The model used was:

$$\begin{aligned} \text{LSALARY} = {} & a_0 + a_1\text{ADVDEGREE} + a_2\text{EXPER} + a_3\text{EXPSQ} \\ & + a_4\text{YRSINRANK} + a_5\text{ASSIST} + a_6\text{ASSOC} \\ & + a_7\text{PROF} + a_8\text{TENURED} + a_9\text{HVYLOAD} \\ & + a_{10}\text{BOOKS} + a_{11}\text{ARTICLES} + a_{12}\text{MALE} \\ & + a_{13}\text{BLACK} + a_{14}\text{AGE} + a_{15}\text{RESEARCH} \\ & + a_{16}\text{DIV1} + a_{17}\text{DIV2} + a_{18}\text{UNION}. \end{aligned}$$

The dependent variable, LSALARY was the log of monthly salaries. Annual salaries were divided by 9.5 in cases where a respondent reported a salary earned over 9/10 months, and by 11.5 where the respondents received salaries over an 11/12 month period. ADVDEGREE was 1 for respondents having a doctoral degree or a medical degree. It was zero for faculty having a master's diploma. YRSINRANK represented the number of years a faculty member had served within his or her current rank. EXPER was defined as the number of years since a faculty member took up his or her first full-time teaching position. To test the concavity of the earnings profile, the square of EXPER was also included in the regressions. ASSIST, ASSOC and PROF were dummy variables representing faculty ranks (INSTRUCTOR was the omitted base variable). TENURED took a value of 1 for tenured faculty and zero otherwise. HVYLOAD was a dummy variable to distinguish between faculty with a teaching load of 9 or more hours a semester, and those with fewer than 9 hours. BOOKS and ARTICLES referred to the number of books and articles published by each faculty member. MALE, BLACK, and AGE had obvious interpretations. RESEARCH[1] was a dummy variable intended to determine how research-oriented or teaching-oriented a faculty member was. DIV1, DIV2 and DIV3 represented different kinds of schools.[2] UNION was 1 for faculty from an organized college and zero otherwise. Union-nonunion salary differentials were calculated from the OLS regression as $\lambda = \exp(U) - 1$ where U was the coefficient estimate of the UNION variable.

Regression Results

Table 1 lays out the results from running OLS regressions for the union and nonunion sectors separately as well as for the entire sample. One of the more striking results is that an advanced degree appears to have had an insignificant impact upon salaries in unionized schools, but it was highly significant in explaining higher salaries in nonunion colleges. This may have been because of the nature of the data. Relatively few faculty members at DIV3 schools had advanced degrees, while practically all those at DIV1 schools did. Only in DIV2 colleges was there a mix of faculty members having doctoral and "master's only" degrees. It was not surprising that years within a rank, the number of articles published, and age (which one expects to be a proxy for experience) were all significant in explaining higher salaries. DIV1 and DIV2 were negative and significant across both sectors, suggesting that faculty at DIV3 institutions were compensated more highly than faculty in the other divisions, given their credentials and

TABLE 1
Wage Equations for the Union, Non-Union and Entire Sample

	Union Sample		Nonunion Sample		Entire Sample	
Variable	Estimate	t-stat	Estimate	t-stat	Estimate	t-stat
Intercept	7.0656	109.18***	7.4300	141.24***	7.2783	204.02***
Adv degree	0.0166	0.74	0.0712	5.93***	0.0632	5.93***
Experience	0.0068	1.74*	0.0026	1.37	0.0035	2.03**
Expsquared	−0.0002	−2.51**	−0.0001	−2.14**	−0.0001	−3.17***
Years in Rank	0.0099	4.71***	0.0083	7.62***	0.0086	8.83***
Assist Prof	0.0968	2.40**	0.0649	3.05***	0.0676	3.60***
Assoc Prof	0.2714	5.92***	0.2122	8.79***	0.2183	10.22***
Full Prof	0.4756	9.50***	0.4051	15.46***	0.4116	17.67***
Tenured	−0.0167	−0.66	−0.0036	−0.27	−0.0062	−0.52
Heavy Load	−0.0164	−0.89	−0.0531	−6.16***	−0.0467	−5.95***
Books	0.0043	1.26	0.0089	5.24***	0.0080	5.26***
Articles	0.0027	3.40***	0.0022	6.52***	0.0022	7.11***
Male	0.0519	2.53**	0.0429	3.63***	0.0440	4.26***
Age	0.0054	4.20***	0.0012	1.68*	0.0021	3.29***
Research	0.0234	1.18	−0.0033	−0.37	0.0009	0.11
Division 1	−0.0976	−3.47***	−0.2523	−5.72***	−0.1455	−6.44***
Division 2	−0.1114	−3.64***	−0.2953	−6.65***	−0.1832	−7.91***
Black	0.0271	0.48	0.0260	0.82	0.0236	0.84
Union					0.0401	4.16***
R^2:		.729		.655		.661
No. of Observations:		383		1903		2286

* Significant at the .10 level; ** significant at the .05 level; *** significant at the .01 level.

characteristics. The insignificant coefficient for BLACK indicates that race was not a factor in explaining salary levels. For the entire sample, the UNION coefficient was 0.401, which implies a union-nonunion salary differential of 4.09 percent. This is very close to the union salary premium of 4 percent reported by Freeman (1978) in a study he undertook using sample data on faculty for 1976 to 1977. It is, however, higher than the differential of less than 2 percent found by Barbezat (1989) in a recent study.

The union salary premium of 4.09 percent represents an average for all kinds of institutions and faculty members. Table 2 lists union-nonunion salary differentials for various faculty subgroups. It is seen that the union salary premium ranges from a low of −6.39 percent (faculty at schools in the West) to a high of 9.00 percent (faculty in DIV2 schools). It is important to note that while four subgroups had negative union salary premiums, the union coefficient from which these premiums were derived were all statistically insignificant.

Union salary gains appear to increase with rank. Assistant Professors enjoyed a premium of 1.72 percent, Associate Professors had a

TABLE 2

Union-Nonunion Percentage Salary Differentials for Different Faculty Subgroups

Subgroup	Sample Size	Percentage Salary Differential	t-stat	Percentage of Faculty from an Organized Campus
ALL	2286	4.09	4.16	17.24
MALES	1938	4.14	3.82	16.12
FEMALES	348	2.46	1.19	23.20
DIVISION 1	1752	3.65	3.28	15.75
DIVISION 2	469	9.00	3.91	13.54
DIVISION 3	65	−1.88	−0.28	75.26
FULL PROF	928	8.96	5.73	14.67
ASSOC PROF	668	4.00	2.43	20.38
ASSIST PROF	592	1.72	0.92	17.30
INSTRUCTOR	98	−6.06	0.94	19.35
TENURED	1659	5.77	5.28	17.86
NON-TENURED	627	0.56	0.27	15.62
BLACK	36	3.50	0.34	22.45
WHITE	2250	4.11	4.14	17.10
EAST	387	5.79	2.90	61.73
NORTHCENTRAL	869	−1.79	−0.98	11.46
WEST	319	−6.39	−0.92	6.17
SOUTH	711	9.46	3.47	5.47

Note: The t-statistics reported here are those that correspond to the coefficient of the union membership variable (from which the union-nonunion salary differentials were calculated).

premium of 4.00 percent, and this figure was 8.96 percent for Full Professors. Although Freeman (1978) got similar results for different faculty ranks, these findings are in conflict with the results from another study (1980) in which he found that unions tend to restrict the dispersion of wages: thus those at the top of the economic hierarchy gain less than those at the bottom. It appears then that faculty unions in this regard impact on faculty salaries in a manner different from that in other occupations. Geographically speaking, unions appear to win salary gains for faculty only in the East (5.79 percent) and the South (9.46 percent), and these gains are statistically significant. For both Northcentral and Western schools, the union salary premium is negative, but insignificant. Both male and female faculty members gain from unionism, but the relative gain to males is greater. Thus, while race appears not to be a factor in salary determination, the same cannot be said about gender.

Summary and Conclusions

This study sought to fill a gap in the literature by examining union salary differentials for a wide variety of faculty subgroups at public colleges and universities. The salary gain from collective bargaining was 4.09 percent in 1977, and was as high as 9 percent for one subgroup (faculty at DIV2 colleges). Rewards from unionism seem to increase with rank—a result that runs counter to the Freeman thesis that unions reduce wage dispersion. Race does not appear to be a factor in determining salaries, but male faculty members gain somewhat more from collective bargaining than do female faculty members.

Endnotes

[1] The survey asked the question, "Do your interests lie primarily in research or teaching?" Responses were (1) very heavily in research; (2) in both, but leaning toward research; (3) in both, but leaning toward teaching; and (4) very heavily in teaching. For this study, responses of (1) and (2) were treated as "research-oriented" and (3) and (4) as teaching-oriented.

[2] The AAUP defines Category 1 as doctoral-level institutions which grant a minimum of 30 doctoral-level degrees annually in three or more unrelated disciplines. Category IIA are comprehensive universities characterized by diverse post-baccalaureate programs, but that do not engage in significant doctoral-level education. Category IIB are institutions with primary emphasis on general undergraduate baccalaureate-level education (this study treated Categories IIA and IIB as one group). Category III are two-year institutions with academic rank, while Category IV are mainly two-year colleges that do not utilize academic ranks. This study treated Categories III and IV as one group.

References

Barbezat, D. "The Effect of Collective Bargaining on Salaries in Higher Education." *Industrial and Labor Relations Review* 42 (April 1989), pp. 443-55.

Balfour, A. "More Evidence that Unions Do Not Achieve Higher Salaries for Teachers." *Journal of Collective Negotiations in the Public Sector* 3 (Fall 1974), pp. 289-303.

Baugh, W., and J. A. Stone. "Teachers, Unions and Wages in the 1970s: Unionism Now Pays." *Industrial and Labor Relations Review* 35 (April 1982), pp. 368-73.

Baird, R., and J. N. Landon. "The Effect of Collective Bargaining on Public School Teachers' Salaries: Comment." *Industrial and Labor Relations Review* 26 (April 1972), pp. 440-47.

Birnbaum, R. "Unionization and Faculty Compensation: Part II." *Educational Record*, 57 (Spring 1976), pp. 116-18.

Douglas, J., and Carol Rosenberg. *Directory of Faculty Contracts and Bargaining Agents in Institutions of Higher Education*, 1984. New York: The National Center for the Study of Collective Bargaining in Higher Education, Baruch College.

Freeman, R. "Should We Organize? The Effects of Faculty Unionism on Academic Compensation." Working Paper No. 301, *National Bureau of Economic Research*, November 1978.

________. "Unionism and the Dispersion of Wages." *Industrial and Labor Relations Review* 34 (October 1980), pp. 3-23.

Holmes, A. "Effects of Union Activity on Teachers' Earnings." *Industrial Relations* 15 (October 1976), pp. 328-32.

Hall, C., and N. E. Carroll. "The Effects of Teachers' Organizations on Salaries and Class Size." *Industrial and Labor Relations Review* 27 (January 1973), pp. 834-41.

Hu, T., and L. Leslie. "The Effects of Collective Bargaining on College Faculty Salaries and Compensation." *Applied Economics*, 14 (1982), pp. 269-77.

Kasper, H. "The Effects of Collective Bargaining on Public School Teachers' Salaries." *Industrial and Labor Relations Review* 24 (October 1970), pp. 57-72.

Ladd, E., and Seymour M. Lipset. *1977 Survey of the American Professoriate*. Documentation for computer tape. Storrs, Connecticut: Roper Center, University of Connecticut.

Lipsky, D., and L. E. Drotning. "The Influence of Collective Bargaining on Teachers' Salaries in New York State." *Industrial and Labor Relations Review* 27 (October 1973), pp. 18-35.

Marshall, J. "The Effects of Collective Bargaining on Faculty Salaries in Higher Education." *Journal of Higher Education* 50 (May-June 1979), pp. 310-22.

DISCUSSION

Katharine G. Abraham
The University of Maryland

The question of whether and why women's quit rates differ from those of men is of significant interest. Loren Solnick's study can be distinguished from most previous research on male/female quit rate differences in two respects. First, whereas previous studies have typically included men and women from a broad range of occupations, this study focuses on managers and professionals. Second, whereas most previous studies have used standard cross-sectional data sets that contain information on individuals who work for many different employers, this paper analyzes data obtained from the personnel records of a single large manufacturing firm. Given the growing interest in using firm-level data for addressing a variety of labor market issues, it may be useful to consider what we can in fact hope to learn from firm-level data in the present context.

One argument advanced in the paper is that using firm-specific data holds constant employment policies and practices that might affect individuals' quit propensity. This claim can be debated. While both men and women may be subject to the same formal policies, members of the two groups may be treated quite differently in practice.

There is also a more fundamental issue concerning the use of firm-specific data to examine male/female differences in quit behavior. So long as employers differ in the employment packages they offer to their employees, neither the men nor the women who choose to work for any particular employer are likely to be representative of men and women in the population at large. Instead, they are likely to be those people for whom the employment package offered is an attractive one. The author's own reasoning later in the paper suggests, for example, that individuals with stronger career commitments should be attracted by jobs that offer good prospects for advancement, while

Author's Address: Department of Economics, University of Maryland, College Park, MD 20742.

individuals with weaker career commitments should care more about the starting salary offered on the job. (This assumes, of course, that individuals are able to obtain reasonably good information about the packages offered by different employers before they actually accept a job.) Insofar as such sorting of similarly motivated individuals to particular jobs occurs, even if the average male manager or professional is more strongly committed to the labor market than the average female manager or professional, male/female differences in labor market commitment among those who go to work for any particular firm are apt to be smaller than those in the larger population. This, in turn, implies that results based upon the analysis of data for a single firm are likely to understate male/female differences in quit behavior.

Where does all of this leave us? While I agree with the author that one must be cautious in interpreting male/female quit rate differences derived from standard cross-sectional analyses, one must also, I think, be cautious in interpreting case study results of the sort reported in the present paper.

Let me now turn briefly to the paper's main findings. These are contained in Table 3, which reports proportional hazard estimates for the full sample and for men versus women separately. While the null hypothesis that the coefficient vectors in the male and female models are identical can be rejected, to my eyes the most striking feature of the empirical findings is the similarity between the determinants of male and female quitting. While this might be taken as evidence that, at least among those holding managerial and professional jobs, men's and women's quit behavior is similar, I suspect it also reflects sorting of individuals to employers of the sort I have described above.

With respect to the effects of specific variables, I will confess to being a bit troubled by the treatment of performance ratings and promotions, both viewed by the author as key determinants of quit behavior. The performance rating variables are based on individuals' most recent performance reviews; no account appears to have been taken of changes in individuals' rated performance over time. In effect, however, this means that the most recent performance rating is assumed to affect an individual's propensity to quit during the period prior to the receipt of that rating. A similar criticism can be made of the promotion rate variable. Hazard models are capable of handling changes in variables' values over time; allowing for this might be a worthwhile extension of the analysis.

One finding that is at least superficially surprising is that concerning the effect of the presence of children on a woman's probability of quitting. This effect is negative and of a rather similar magnitude to that estimated for men. If I have understood the equation specifications correctly, however, the presence-of-children variable is defined as of the date the individual is hired. What the female model tells us, then, is that women with children *who have accepted a job offer from this firm* are less likely to leave the job than women with no children as of the date of hire. This does *not* imply that *having* a child reduces a woman's probability of quitting; it may well increase that probability. Identifying the effect of the birth of a child on the probability of quitting would, however, require a rather different empirical strategy than has been adopted here.

DISCUSSION

STEPHEN A. WOODBURY
Michigan State University and W. E. Upjohn Institute

Javed Ashraf has produced some useful extensions of Debra Barbezat's (1989) earlier work with the 1977 Ladd-Lipset survey of American faculty. To my knowledge, the papers by Barbezat and Ashraf are the only ones that examine the impact of faculty collective bargaining using micro data. All other work has used data from the annual compensation survey of the American Association of University Professors (AAUP), and has consequently taken the institution (college or university) as the unit of observation, rather than the individual professor.

Barbezat's basic finding was that coverage by a contract raised faculty pay by about 1 percent in 1977—one of the lowest existing estimates of the impact of faculty unionism. In contrast, Ashraf's basic finding is that contract coverage raised faculty pay by over 4 percent in 1977. Since Ashraf and Barbezat used the same data, the obvious question is, Why are the estimates so different?

The most likely answer is that Barbezat included in her specifications dummy variables for an 11-month contract, whether a person spent much time in administrative work, and region, none of which appear in Ashraf's specifications. Ashraf, on the other hand, includes dummies for whether a person taught in a private institution, held tenure, had a heavy teaching load, and was mainly interested in research, none of which were included in Barbezat's specifications. There are other minor differences in specification, but these appear to be the main ones. That they should result in such a difference in union impact suggests more than anything else that estimates of the impact of faculty unionism are rather fragile.

Ashraf's paper also differs from Barbezat's by offering a detailed set of disaggregated estimates of the impact of faculty unionism—by gender, type of institution, faculty rank, tenure status, race, and region

Author's Address: W. E. Upjohn Institute, 300 South Westnedge Avenue, Kalamazoo, MI 49007.

(he even gives a separate estimate for economists). This is a nice effort that yields some interesting results.

One point that may deserve greater attention in work on faculty unionism is the issue of spillover or threat effects. I was glad to see Ashraf's mention of threat effects in relation to his rather low union impact for Division 3 schools. In a related vein, Hamermesh and I have found that spillover effects are important in the determination of faculty fringe benefits: the degree of unionism among primary and secondary school teachers in the state where an institution is located is strongly (and positively) related to the share of compensation received as fringe benefits by faculty; but whether collective bargaining takes place on campus bears little relation to the faculty fringe benefit share (Hamermesh and Woodbury, 1990). It is unclear whether the estimated union impact on faculty compensation would diminish if spillover effects were controlled for, but my reading of the literature suggests that the question remains unexplored.

Finally, it is worth comparing the strengths of the AAUP data that most studies of faculty unionism have used with the Ladd-Lipset micro data on faculty that Ashraf and Barbezat use. As a user of the AAUP data, I may not be a disinterested party, but I think that the ready availability of micro data has caused many social scientists to shun more aggregate data without giving them their due. It is clear that micro data on faculty can answer various questions that more aggregate data simply cannot: How is faculty compensation related to publications, to tenure and experience, and so on? Micro data should also be useful with the question of union impacts on salary dispersion, although not uniquely so. But it is not obvious that micro data are superior in examining the impact of faculty unions on compensation levels. After all, the locus of collective bargaining is usually the institution, which implies that the appropriate unit of observation is the college or university.

So I find it puzzling that the most recent study of faculty union impacts using the AAUP data is nearly ten years old (Hu and Leslie, 1982). Because the AAUP data are longitudinal, they include information about salaries before and after unionization and can give estimates of union impacts that may be more convincing than those from any cross section. Such longitudinal estimates are still not free of potential selection bias, but collective bargaining will never be a randomly assigned treatment. In any case, it seems clear that research on faculty unionism that uses 1980s' data from the AAUP faculty compensation survey could be quite fruitful.

References

Barbezat, Debra A. "The Effect of Collective Bargaining on Salaries in Higher Education." *Industrial and Labor Relations Review* 42 (April 1989), pp. 443-55.

Hamermesh, Daniel S., and Stephen A. Woodbury. "Taxes, Fringe Benefits, and Faculty." *Review of Economics and Statistics*, forthcoming.

Hu, Tei Wei, and Larry L. Leslie. "The Effects of Collective Bargaining on College Faculty Salaries and Compensation." *Applied Economics* 14 (1982), pp. 269-77.

DISCUSSION

Robert J. Gitter
Ohio Wesleyan University

The paper by Robert Cook provides us with useful information at a time when the United States wrestles with the problem of improving the quality of its work force. Apprenticeship is a vastly under-utilized training method here, with the share of workers learning their job through this method less than a tenth than that of Germany's (Glover, 1986.) Research that illustrates the financial return to apprenticeship, as Cook and Cairnes (1989) did, as well as the return to on-the-job training, as this paper does, is needed if we are to create an effective system of worker training. The work here is sound, but there are a few methodological questions I would like to raise.

First, the sample basically was confined to non-college graduates with either apprenticeship training, on-the-job training, or no training. The last group was used as a control group. Regressions were run to show the effects of minority status, type of high school curriculum, union status, and socioeconomic status on wages and earnings for each of the three groups. Separate regressions were run for males and females. I believe that the occupation of the individual would also play a large role in determining the wages and earnings of the individual. Apprenticeship-trained plumbers (and I would venture a guess even nonapprenticeship-trained plumbers) would earn more on average than apprenticeship-trained carpenters. I would hope that the author would make an effort to account for the differences in occupation on earnings. If occupation is correlated with apprenticeship or on-the-job training, then the regression coefficients showing the effect of the training will be biased.

Second, although a procedure is set up to match those with training to individuals of similar background who did not receive training, no rationale for the matching procedure used is given. In a recent article Mangum, Mangum, and Hansen (1990) summarized the several

Author's Address: Department of Economics, Ohio Wesleyan University, Delaware, OH 43015.

methods used to control for background characteristics when attempting to determine the effect of training on labor market success. The matching method used here is acceptable, but a rationale for its use over other methods should be presented.

Finally, the regressions that were run were weighted ones, with the observations of the control group weighted so as to achieve an equal number of trained and control group individuals. Why should such a weighting occur? Suppose we had a sample with information on three variables; wages, education, and gender and 60 percent of the sample was female. If we were to run a regression of wages on education and gender, we would not weight the observations to have an equal number of males and females. Using the same logic, why would we weight the observations here? The weighting won't bias the estimates of the betas, but will cause the estimates of the standard deviation of the betas to be biased and hence affect our hypothesis testing.

Also, Cook states that apprenticeship takes the worker away from the job, and hence the employer might feel that too little firm-specific on-the-job training would take place. Since apprentices typically spend the vast majority of their time at work rather than in the classroom, would employers feel that strongly about the relatively small loss of time away from the firm?

The paper is a good one and if the changes suggested above were adopted, the basic results would still most likely be of the same order of magnitude. The paper provides evidence of the impressive gains in earnings that can be made with apprenticeship and on-the-job training, and sheds light as to how we can best use our resources to effectively train our work force.

References

Cook, Robert F., and K. Lynn Cairnes. "The Impact of Participation on Apprenticeship." In *Proceedings of the Forty-Second Annual Meeting*. Madison, Wisconsin; The Industrial Relations Research Association, The University of Wisconsin, 1990.

Glover, Robert W. "Apprenticeship Lessons from Abroad." Columbus, Ohio; The National Center for Research in Vocational Education, The Ohio State University, 1986.

Mangum, Stephen, Garth Mangum, and Gary Hansen. "Assessing the Returns to Training." In *New Developments in Working Training: A Legacy for the 1990s*. Madison, Wisconsin: Industrial Relations Research Association, The University of Wisconsin-Madison, 1990.

VI. EMPLOYEE REPRESENTATION RIGHTS: CHARTING A NEW PATH

Mandating Employee Information and Consultation Rights

Janice R. Bellace*
University of Pennsylvania

In complying with the subject of this session, "Employee Representation Rights: Charting a New Path," I focused on how employees can exercise their voice and on new ways to support the exercise of this voice. At the outset, let me distinguish my approach to avoid confusion. To do so, I will resort to the analogy of a building. Our national labor law as it currently exists can be viewed as a building. There are many proposals to change something in the existing building (Sockell, 1989). My approach is to add an extension to the existing building. As such, my paper does not discuss what could be done to improve the existing building to improve workers' representational rights through existing law and traditional collective bargaining practices. This must be emphasized. It may be that changes should be made to overturn the holdings of *Yeshiva*, *First National Maintenance* and even *Mackay Radio*; but, my focus is not on adversarial bargaining.

Eighty-five percent of private sector employees are not unionized. At present, such employees have no rights to be informed or consulted about the terms and conditions of their employment. I view this as the challenge: to draft a proposal to give the majority of employees a statutory right to information and to consultation. Adhering to the

Author's Address: Wharton School, University of Pennsylvania, 3620 Locust Walk, Philadelphia, PA 19104-6369.

* This is a summary of a much longer, extensively footnoted, law review manuscript. Those wishing to read the full article should contact the author directly.

tenets of comparativism with its caveats regarding transplantations (Kahn-Freund, 1974), my proposal seeks to do this (1) without undermining the existing structure of collective bargaining and (2) in a way that makes the old and new structures coherent.

Under my proposal, employees would still be permitted direct entry into the existing building; that is, employees can still opt to organize and to select a bargaining representative and to engage in collective bargaining through the procedures now existing by virtue of the National Labor Relations Act (NLRA). Employees, however, who did not want to enter the building through the union election entry could enter through the new wing. The new wing would contain the provisions on information and consultation rights.

New Information and Consultation Rights

Since 1938, the employees' right to information has been viewed as a derivative right that cannot be severed from the bargaining process (Bellace and Gospel, 1983; Bellace, 1987). There is no independent right of employees to receive information. Rather, employees who are exercising the right to bargain collectively must ask for information, and the employer is obliged to disclose only such information as is relevant and necessary to bargaining. Since *Borg-Warner* in 1958, the duty to disclose information relates only to mandatory subjects of bargaining. Thus, unionized employees have no right to receive information on such subjects as the company's plans for phasing out of older plants, the development of new products, product investment strategy, the introduction of new technology and employee training in nonunion plants, etc. Nonunionized employees have virtually no rights to information, even about the terms and conditions of employment at their workplace.

Union employees would use the new information and consultation rights to receive information they cannot demand now. In addition, they would be able to consult regarding such information. This will fill a gap. At present, there are mandatory and permissive subjects of bargaining. Yet, in this judicial schema, unions do not have the right even to receive information about permissive subjects, let alone to bargain about them in the sense of insisting to impasse. This proposal would create a category of mandatory subjects of consultation. Both union and nonunion employees would have a right to receive information regarding these subjects and engage in consultation with the employer about them.

Labeling the right one of consultation is not a literary device. It is descriptive: these subjects are removed from the bargaining table where adversarial behaviors predominate. At present, information is conceived as an aid to battle. The union must ask for it, and it does so to prepare its demands. In a sense, information is needed to decide when to use missiles and where to aim them. If the employer keeps secret a key piece of information, the employer is seen to have gained some leverage in the battle. Knowledge is power and neither side willingly shares knowledge in adversarial bargaining. The new rights of information and consultation are so labeled to highlight a new labor law conception of information. Knowledge of current and future realities regarding the firm is no longer a weapon of the employers. It is information to be shared, to be discussed, to be used as the basis of decision making by both sides.

The Nature of the Mandated Consultation

Today's labor relations practitioners, steeped in adversarial bargaining, have difficulty grasping the notion of consultation, often viewing it as a poor substitute for collective bargaining. Possessing an adversarial mindset, they ask where is the employees' leverage and point out that nothing in the consultative process will compel the employer to make concessions.

Practitioners may value the adversarial process too highly. Some subjects are simply not suited for adversarial bargaining. For instance, if product development were a mandatory subject of bargaining, it is extremely unlikely that a union would strike over plans which it finds unsatisfactory. Moreover, it is difficult to conceive of such a discussion having much benefit when the discussion is held in the middle of an overall rancorous negotiation. The subjects of permissive consultation are suited for discussions, and discussions that are not necessarily intended to result in agreement. What is the utility of such discussions? They better inform both employees and employers of the realities and of the opinions of the other side.

At present, even in unionized companies with stable labor relations, the exchange of information and views can hardly be termed an ongoing process. Rather, the coming together of the parties usually happens as part of the negotiations every three years and in response to some pressing issues. As a result, the exchange of views becomes something of a declaration of set positions. Conflict is inevitable as one side must invariably lose if agreement is to be reached. In contrast, mandatory consultation is designed to foster cooperative relations. As proposed, information would be disclosed quarterly and consultation sessions would follow shortly thereafter. These periodic consultation sessions would serve the function of keeping the channels of non-adversarial communication open during times when there is no pressing issue that needs a decision.

Necessary Statutory Amendments

Although the NLRA could have been interpreted to give much broader rights to information and consultation, it would be impossible to implement my proposal without amending the statute. Nearly all of the proposed amendments would amend by addition only, since they serve to supplement existing statutory-protected behaviors.

To fill the gap between mandatory bargaining and permissive consultation, a right of consultation and information would have to be established. Section 7 of the NLRA would be amended to provide for three new rights. The new Section 7(a) would provide that all employees, except for highest level management, have a right to form, join, and assist a company-based employee consultative committee. Section 7(a) would also provide that employees, through their elected consultative committees, have a right to receive information relating to their terms and conditions of work and to the direction of the enterprise. Section 7(a) would further provide that employees, through their consultative committees, have a right to consult with company management about terms and conditions of work and the direction of the enterprise.

Section 8(a)(2) would be amended to permit the establishment of employee consultative committees which would be permitted to discuss terms and conditions of employment with the employer. Moreover, the section would have to be amended to permit certain items to be paid for by the employer when unions exercise the consultative function. For instance, it is anticipated that meetings of the employee consultative committee with management would occur during work time and employees would receive paid time off to perform their duties on the committee. In order to bolster the independence of employee consultative committees, Section 8(a)(2) could be amended to require that such committees be given facilities on company property to conduct meetings, for instance monthly, without management present.

Section 8(a)(5) would be amended to declare that it is also an unfair labor practice for an employer to refuse to disclose information or to consult in good faith with the employee consultative committee.

Section 9 would be amended to provide for the formation of an employee consultation committee. In unionized workplaces, the certified bargaining agent could elect to exercise the functions of the employee consultative committee. In nonunion companies, a petition for an employee consultative committee signed by 20 percent of the employees at one physical location would be sufficient for the establishment of such a committee. The employees themselves could contact the regional office of the NLRB, or if not, the employer would be obligated to contact the regional office of the NLRB as soon as it is aware of the petition. Once the NLRB deemed that there is sufficient sentiment for the setting up of such a committee, employees would be elected to serve on the committee for a two-year period. Employees could nominate themselves or coworkers on forms distributed by the NLRB. A majority of those voting would determine who would serve. From the time the petition is signed, not more than one month should elapse until the secret ballot election. No challenges to the process would be permitted except for those challenging the authenticity of signatures.

Section 8(d) would be amended to define the new rights of information and consultation. There would be a right of information. The employer would be required, at least quarterly, to disclose information to the employee consultative committee pertaining to the company's financial performance, its economic outlook, its human resource plans, and any strategic decisions that might have an effect on the work force. Members of the employee consultative committee would be prohibited from divulging confidential information to noncompany persons. On consultative subjects, the parties would be required to meet and confer. The parties might reach agreement, but there would be no requirement that they consult with the intention of reaching agreement.

During this information and consultation phase, there would be no right to resort to economic weapons, a result dictated by the fact that since an agreement is not the desired end product of the process, there would certainly be no right to insist to impasse. Essentially, the new duty of good faith consultation would accord with the normal use of the word "consultation": an exchange of views based on relevant information.

Employee Consultative Committees

Although it is possible for employees to receive information and to read it on their own, any meaningful analysis of the information depends on the recipients' having the training to analyze the information or the resources to hire experts to do it for them. More importantly, views are much more likely to be formulated if employees have the opportunity to discuss the information among themselves. Thus, it is essential that employees have the opportunity to meet at the workplace to discuss among themselves the information they have received.

This proposal envisions the creation of employee consultative committees because employees cannot individually consult with management. It must be emphasized, however, that this body is not a works council, particularly in the German sense. The German works council is a full-fledged employee representative body, parallel to union representation (Weiss, 1986). Moreover, it has extensive stipulated powers, including a co-determination right on certain issues. What is proposed is similar to the Japanese joint consultation committee, although that committee acts only where collective bargaining occurs (Shirai, 1987).

The independence of the employee voice is essential. Some fear that the creation of employee consultative committees in nonunion firms would place employee representation within the control of the employer, and it would undermine unions. Although this fear is not groundless, it may well overstate the problem. Firstly, in most American workplaces, the likelihood of a union organizing effort in the next decade is almost nil. Thus, there is little to undermine. Secondly, today any participation by a nonunion employee is determined by the employer. It is difficult to conceive how employee consultative committees could be less independent than, for instance, a quality circle. As such, the proposed system could not be less beneficial than what we now have. The challenge is to make it more beneficial. If Section 7 were amended as suggested, employees could file under Section 8(a)(3) if they believed they were being discriminated against for participation on an employee consultative committee.

Although consultative committees would be limited to one company, it would be permissible for them to belong to a body that could provide necessary support. Just as the Federal Mediation and Conciliation Service was established to support desired behaviors, Congress could use the Department of Labor's Bureau of Labor-Management Relations and Cooperative Programs to provide support to employee consultative committees. The Bureau could provide training and assistance to employee consultative committees seeking to understand financial data and economic concepts. The Bureau could also provide training in cooperative but assertive approaches for those unaccustomed to speaking out.

The Evolutionary Potential of Section 7

Viewing consultation as a stage of bargaining, in contrast to a distinct and alternative process, is not an artificial construct. Rather, it aptly describes the preliminary stage in all good faith bargaining: the two parties meet to exchange views and to determine where the points of mutual agreement are and to ascertain how far apart they are on the remaining issues. The next stage is adversarial. If Congress would amend Section 7 as proposed, it would simply be including with the ambit of statutory protection a phase of the negotiating process already engaged in by many unions and employers.

A reading of the NLRA against the backdrop of legislative history does not provide convincing evidence for the restrictive employee participation paradigm developed by the Supreme Court. A reading of the NLRA reveals no Congressional vision of what role unions should play in the year 2000 or how that role might evolve. What such a reading does reveal is Congress's desire to grant employees the freedom to join independent employee organizations and to decide what role their organizations should play. The adversarial option of collective bargaining was expressly sanctioned. Cooperative options, such as consultative bargaining based on information rights, while not expressly mentioned, were not precluded either explicitly or implicitly.

At present, if employees eschew an adversarial model (which is dependent on a willingness and an ability to strike effectively), it is assumed that they do not want statutorily-protected representation. It may be that they would welcome an independent employee organization of elected representatives that would be the vehicle for receiving information and participating in joint consultation.

Employee consultative committees should not be seen exclusively as competitors to unions. In some cases, they may be forerunners to unions. If nonunionized employees perceive the limits of information and consultation rights to be unsatisfactory, they can opt to take the further step of unionizing.

If a right of information and consultation were recognized, and if employee groups wishing merely to receive information and to be consulted were protected under the NLRA, it might well be that many employees would opt for the middle ground between no representation and unions committed to adversarial bargaining. The amended statute already provides the basis for opening up this possibility.

References

Bellace, Janice R., and Howard Gospel. "Disclosure of Information to Trade Unions: A Comparative Perspective," *International Labour Review* 122 (Jan/Feb 1983), pp. 57-74.

Bellace, Janice R. "Mandatory Consultation: The Untravelled Road in American Labor Law," Proceedings of the 40th Annual Meeting of the Industrial Relations Research Association (1987), pp. 78-83.

Kahn-Freund, Otto. "On the Uses and Misuses of Comparative Law," *Modern Law Review* 37 (1974), p. 1.

NLRB v. First National Maintenance Corp., 452 U.S. 666 (1981).

NLRB v. Mackay Radio & Telegraph Co., 304 U.S. 333 (1938).

NLRB v. Wooster Div. of Borg-Warner Corp., 356 U.S. 342 (1958).

Shirai, Taishiro. "Recent Trends in Collective Bargaining in Japan." In *Collective Bargaining in Industrialised Market Economies: A Reappraisal*, ed. John P. Windmuller. Geneva: ILO, 1987.

Sockell, Donna. "The Future of Labor Law: A Mismatch between Statutory Interpretation and Industrial Reality?" *Boston College Law Review* 30 (July 1989), pp. 987-1026.

Weiss, Manfred. *Labour Law and Industrial Relations in the Federal Republic of Germany*. Deventer, Netherlands: Kluwer, 1986.

Yeshiva University v. NLRB, 444 U.S. 672 (1980).

Redressing the Imbalance in the Law of Union Representation Elections: The Principle of Workplace Neutrality

Richard N. Block
Michigan State University

During the past 15 years, there has been a great deal of interest in the changes that have occurred in collective bargaining in the United States. These changes, sparked to a large extent by increased product market competition (Block and McLennan, 1985), have often encouraged a movement toward the extremes of collective bargaining. Some relationships have moved towards innovation and cooperation (Kochan, Katz, and McKersie, 1986; Gershenfeld, 1987; Kochan and Cutcher-Gershenfeld, 1988), while others have been marked by conflict, the establishment of nonunion facilities (Kochan et al., 1986) and the permanent replacement of strikers (see, for example, Block and Wolkinson, 1989; Kahn, 1990; "NLRB Authorizes Complaints . . .," 1990).

These trends have not been ignored by policy makers. The Federal Labor-Management Cooperation Act of 1978 (29 U.S.C. 175a), attempts by states to encourage labor-management cooperation (Howitt, Wells, and Marx, 1989), the U.S. Department of Labor Laws Project (U.S. Department of Labor, 1986, 1987), the Secretary of Labor's Commission on Workforce Quality and Efficiency (U.S. Department of Labor, 1989), and the recent introduction in Congress of legislation that would prohibit employers from permanently replacing strikers ("Bush Administration . . .," 1990), all suggest a strong interest in a vigorous collective bargaining system.

This work and the related policy discussions have focused almost exclusively on the unionized sector of the economy. That sector, however, is shrinking. In 1990, only 16.1 percent of employed persons in the U.S. were union members ("Union Membership Down . . ., 1991), down from roughly 30 percent in the late 1950s (Troy, 1965).

Author's Address: School of Labor and Industrial Relations, South Kedzie Hall, Michigan State University, East Lansing, MI 48824-1032.

Collective bargaining coverage in the private sector in 1989 was 12 percent, roughly equivalent to unionization in the early 1920s ("Union Membership Down . . ., 1991; Troy, 1965), prior to the passage of laws that protected employees' rights to organize and bargain collectively.

Although the decline in unionization has been attributed to such factors as modern human resource management (Kochan et al., 1986), laws protecting individual employees (Nash, 1985), outmoded representational forms (Heckscher, 1988), and the resource allocation preferences of union members (Block, 1980), it is also clear that the law of union organizing under the National Labor Relations Act (NLRA) has made organizing increasingly difficult. Over the past 50 years, the law has evolved in such a way as to give employers enormous advantages in organizing campaigns (Block, Wolkinson, and Kuhn, 1988). This evolution has been associated with a long-term decrease in the percentage of NLRB representation elections in which employees choose union representation (Block and Wolkinson, 1986; NLRB Annual Reports). Thus, at the same time that policy makers are expressing an interest in strengthening the collective bargaining system, it is likely that other governmental policies are contributing to the disappearance of that system.[1]

The Law of Workplace Campaigning in NLRB Elections: An Overview and Synthesis

The law surrounding the rights of employers, employees, and unions to campaign at the workplace prior to NLRB elections is well established and well documented (Block et al., 1988) and will be summarized only briefly here. Generally, employees have the right to discuss unionism during working time when they might normally carry on a conversation. They may solicit for unionism on their own time at the workplace (e.g., lunches and breaks) provided that such solicitation does not interfere with production (*Republic Aviation*, 1945; *May Department Stores*, 1962).

Employers may generally campaign against the union at the workplace provided that there is no promise of benefit or threat of discrimination (*Virginia Electric and Power*, 1941). This right to campaign includes the right to make "captive audience" speeches by gathering employees in a group and requiring them to listen to employers' messages without the obligation to provide the union with the opportunity to respond (*Livingston Shirt Corp.*, 1953). Employers may exclude the union from soliciting employees for unionization on their premises unless the union has no other reasonable access to the employees (*Babcock and Wilcox*, 1956). In practice, the union has been found to have reasonable access if the employees ever leave the employer's premises during some reasonable time period. The only cases in which it has been found that unions do not have reasonable access were two cases involving employees working on the Alaska pipeline, who remained on the employer's premises for weeks at a time (Block and Wolkinson, 1986).

In general, then, employers have enormous advantages in the election campaign. They have virtually unlimited access to employees during the workday to present their positions on unionism. They have the option of requiring employees to hear their position. At the same time, they may almost always prohibit the union from coming on the premises to present its position. Although employees may campaign for the union, that campaigning is limited to breaks and lunch hours, and employers may control the information employees possess by declaring such information confidential (*Texas Instruments*, 1981). Given these rules, it is not surprising that employers benefit from even small delays in conducting NLRB elections, that employers win the close elections, as they may use the delay to exercise their campaign rights (Roomkin and Block, 1981), and that the union win rate has consistently declined since 1942, the year after *Virginia Electric and Power* was issued (Block and Wolkinson, 1986).[2]

These "rules" evolved over a period of 50 years, from the mid-1930s through the early 1980s, as the Board, the Courts of Appeals, and the Supreme Court, on a case-by-case basis, attempted to strike a balance among the rights of employees to be free from employer coercion, the free speech rights of employers, and the property rights of employers to manage their business efficiently. As the balance has been struck however, employers have been able to use their free speech rights to present their position at the workplace, while using their property rights to require employees to hear their message at the workplace and to prevent unions from presenting their message at the workplace.

This case-by-case development of the doctrine has prevented the NLRB election campaign system from being analyzed as a coherent whole. Rather, the law of NLRB election campaigning has developed in a piecemeal fashion. Each case has been decided in isolation, based on the free speech and property rights arguments that have been made to the Board and to the Courts in that particular case. Thus, *Virginia Electric and Power* was decided based on the principle that to limit the employer's right to campaign would violate its rights of free speech. *Livingston Shirt* and *Babcock and Wilcox* were both decided on the grounds that the exercise of property rights by employers meant that they were generally not required to permit an outsider, in this case, the union, on their premises, provided that prohibitions against outsiders coming on to the property were applied in a nondiscriminatory manner.

As noted above, the evolution of the case law has been driven by two legal doctrines—free speech and property rights. Free speech rights have been the basis for providing employers with the right to campaign on company time against the union, while property rights have been the basis for requiring employees to listen to the message and for preventing the union from entering employers' property and campaigning in favor of unionization. This has occurred because employers have been permitted to exercise their property rights not only in furtherance of their *management interests* to run the business efficiently, but also in furtherance of their *election interests* in having the employees vote against union representation.

By permitting employers to use their property rights to pursue their management interests *and* their election interests, the Board and the courts, almost by accident, have developed an election system that is inconsistent with free speech principles of full information and standard U.S. election principles of reasonably equal access of the opposing parties to the voters. It is this distinction between employers' management interests and their election interests that will be the basis of the proposed principle of "workplace election neutrality" that will be introduced in the next section.

The Principle of Workplace Election Neutrality

Because this section of the paper relies on the distinction between the employer's management interests and election interests, it is appropriate to define these terms with some precision. The employer's management interest is an interest rooted in production or something related to the operation of the business. Matters such as hiring, scheduling of work, assuring that employees do their jobs efficiently and with attentiveness, and determining which products will be produced and by what techniques are all examples of management interests. An election interest, on the other hand, is one rooted in the employers' interest in the employees' vote against union representation in an election.

While both are legitimate, the employers' management interests are entitled to greater deference than their election interests. This greater deference is based on the U.S. system of private ownership of capital and management's legal obligation, as the designees of the directors elected by the shareholders, to operate the company and to deploy the company's resources and assets in the best interests of the shareholders. Indeed, this is management's major task. The firm's employees, its human resources, constitute one of the categories of resources that management has the authority and obligation to deploy.

On the other hand, the employees have an election interest that is as legitimate as the employer's. Just as the employers may have a legitimate interest in seeing that their employees do not choose to be represented by a union, the employees have an equally legitimate interest in their right to make a choice regarding union representation, and, consistent with employers' management interests, to have access to information necessary to make an informed decision.

A corollary of this employee interest is the right of unions, the opposing party in the election, to have the same opportunity as employers to make their case to the employees. In this sense, the union is comparable to the nonincumbent in a political election in which an incumbent is being challenged. That nonincumbent is viewed as a potential officeholder. Thus, the union, in NLRB elections, should be viewed as a challenger to the employer's interest in individual bargaining and as a potential bargaining representative of the employees. The union is entitled to make its case for collective bargaining with the same vigor that the employers make their case for individual bargaining.

Taking into account the distinction between the employers' management and election interests, and in view of the importance of the workplace as a source of information on unionization, it is proposed that NLRB election campaigns be regulated under a principle called *workplace election neutrality*. Under this principle, the law would be neutral as among the election interests of employers, unions, and employees while giving deference to employers' management interests.

In general, the principle would operate as follows: Once the regional office had determined that there was a showing of substantial interest by a potentially or truly appropriate unit of employees, the election campaign at the workplace would be regulated to insure that neither employers nor unions had an advantage in presenting their views about unionization to employees when the employees were required to be at the workplace. Employers, however, would have all rights to run their business and protect management interests that they would have had in the absence of a showing of substantial interest and an election campaign.

Operationally, during the period in which the principle of workplace neutrality was in effect, employers would have the absolute right to make business decisions that furthered management interests, provided, of course, that they did not otherwise violate the NLRA. Also consistent with management interests, employers would have the right to determine the level and nature of the campaigning permitted on their premises. Such permission could be given explicitly, by employers opening their property for certain campaign tactics, or implicitly, by employers engaging in legal campaign tactics. Once campaigning is permitted, however, a union would be entitled to the same use of the workplace as the employers. In other words, when employers made a workplace decision or acted in such a way that furthered election interests, they would be required to provide a similar privilege to the union.

For example, if after a showing of substantial interest, the employers delivered a captive audience speech to their employees, they would be required to give the union the opportunity to deliver a captive audience speech under similar conditions. The reason for this is that the captive audience speech in no way furthers employers' management interests in production. Rather it furthers the employers' interests in the outcome of the election, interests shared by the employees and the union.

Under this principle, employers' property-based management interests are protected in three ways. First, the principle of workplace neutrality would not be triggered until the regional office has determined that there is a showing of substantial interest in representation. Prior to such a showing, the employers may present their views about unionism to employees in any manner they see fit, provided that they do not otherwise violate the NLRA.

Second, even after a showing of substantial interest, employers may continue to exercise their property rights to protect management interests. In this sense, the principle of workplace neutrality is no different from the current legal doctrine.

Third, employers determine the level and the nature of the campaigning that will occur on their premises. By simply refraining from using their property to further their election interests, employers can assure that the workplace will be for work. Even if employers decide to permit campaigning on their property, they will determine the intensity of that campaigning (i.e., leaflets, bulletin board notices, small group meetings, large group meetings).

Finally, this principle would not prevent employers from campaigning after working hours away from the workplace during a period of time when the employees are not paid. Thus, employers could still reach their employees. They simply could not use the workplace to do it without giving the same privilege to the union. In this sense, their campaign rights would be no different than the rights of the union under current legal doctrine.[3]

Concluding Remarks

The principle of workplace neutrality, as enunciated here, attempts to effectuate a balance among the management interests employers and the election interests of the employers, employees, and unions. It protects management in its right to run the business. It does, however, move the rules for the conduct of NLRB elections out of the exclusive domain of private property rights and assures that NLRB elections will be governed by something comparable to the principles of fairness that the U.S. has developed for conducting its political elections.

For such a principle to be adopted would require, for the most part, legislative changes. This is because *Virginia Electric and Power* and *Babcock and Wilcox*, two of the key cases that established this principle, are decisions of the U.S. Supreme Court. The captive audience doctrine, since it is based on a Board decision, could be reconsidered by the Board, although to do so would require the General Counsel to bring the matter before the Board. In the alternative, this would seem to be the kind of issue that would be amenable to Board rulemaking.

Fundamentally, however, adoption of the principle of workplace neutrality requires a reconsideration of our notion of property rights as they have been applied in the context of NLRB election campaigns and of the role of unions under the NLRA. By making the distinction between management interests and election interests, policymakers would have the opportunity to obtain a fairer, more equitable system of NLRB elections than currently exists with no infringement on the rights of management to operate their businesses.

Endnotes

[1] Although this paper will focus on the law of union organizing, interpretations of the NLRA in other areas may also have impaired union growth. For example, the development of the law of collective bargaining may have reduced the attractiveness of unions by limiting the scope of their influence at the workplace. For an in depth discussion of the impact of the law of collective bargaining on labor-management cooperation, see Block and Wolkinson, 1989. For a discussion of the impact of the employer's power to initiate action on union influence under the law, see Roomkin and Block, 1983.

[2] Although Getman, Goldberg, and Herman (1976) found that only 19 percent of the employees in election campaigns are influenced by the campaigns, Roomkin and Block (1981) found that the average election was decided by roughly that percentage of voters, 20.6 percent.

[3] This doctrine is different from the principle of employer neutrality that the Board applied prior to the Supreme Court's decision in *Virginia Electric and Power*. That doctrine, found to be inconsistent with the employer's rights of free speech, prohibited the employer from being involved in the election campaign on the grounds that its economic power made its involvement inherently coercive (Millis and Brown, 1950). The doctrine proposed here does not prohibit employer involvement in the election campaign. Rather, it is designed to assure that the employer does not use its property rights to obtain an unfair advantage in the election.

References

Block, Richard N. "Union Organizing and the Allocation of Union Resources," *Industrial and Labor Relations Review* 34, 1 (October 1980), pp. 101-13.

Block, Richard N., and Kenneth McLennan. "Structural Economic Change and Industrial Relations in the United States's Manufacturing and Transportation Sectors Since 1973." In *Industrial Relations in a Decade of Economic Change*, eds. H. Juris, M. Thompson, and W. Daniels, Industrial Relations Research Association Series. Madison, WI: 1985, pp. 337-82.

Block, Richard N., and Benjamin W. Wolkinson. "Impediments to Innovative Employee Relations Arrangements." In *Investing in People: A Strategy to Address America's Workforce Crisis*, Background Papers, II, U.S. Department of Labor, Commission on Workforce Quality and Labor Market Efficiency, 1989, pp. 2003-56.

Block, Richard N., and Benjamin W. Wolkinson. "Delay and the Union Election Campaign Revisited: A Theoretical and Empirical Analysis." In *Advances in Industrial and Labor Relations*, 3, eds. D. B. Lipsky and D. Lewin. Greenwich, CT: JAI Press, 1986, pp. 43-82.

Block, Richard N., Benjamin W. Wolkinson, and James Kuhn. "Some are More Equal Than Others: The Relative Status of Employers, Unions, and Employees in the Law of Union Organizing." *Industrial Relations Law Journal* 10, 2 (1988), pp. 220-40.

"Bush Administration Still Studying Strike Replacement Bill." BNA *Daily Labor Report* 120 (June 21, 1990), A16-A17.

Gershenfeld, Walter G. "Employee Participation in Firm Decisions." In *Human Resources and the Performance of the Firm*, eds. M. Kleiner, R. N. Block, M. Roomkin, and S. Salsburg, Madison, WI: IRRA, 1987, pp. 123-58.

Getman, Julius G., Stephen B. Goldberg, and Jeanne B. Herman. *Union Election Campaigns: Law and Reality*. New York: Russell Sage Foundation, 1976.

Heckscher, Charles C. *The New Unionism: Employee Involvement in the Changing Corporation*. New York: Basic Books, 1988.

Howitt, Arnold M., John Calhoun Wells, and Stacey S. Marx. "A National Overview of State Labor-Management Cooperation Programs." *Proceedings of the Forty-Second Annual Meeting of the Industrial Relations Research Association*, December 28-30, 1989, Atlanta, Georgia, ed. John F. Burton, Jr., Madison, WI: IRRA, 1990, pp. 58-69.

Kahn, Mark L. "The Eastern Airlines Strike: Collective Bargaining Implications." *Proceedings of the Forty-Second Annual Meeting of the Industrial Relations Research Association.* December 28-30, 1989, Atlanta, Georgia, ed. John F. Burton, Jr. Madison, WI: IRRA, 1990, pp. 238-46.
Kochan, T. A., and J. Cutcher-Gershenfeld. *Institutionalizing and Diffusing Innovations in Industrial Relations.* BLMR 128, Washington, D.C.: U.S. Department of Labor, 1988.
Kochan, T. A., H. Katz, and R. McKersie. *The Transformation of American Industrial Relations.* New York: Basic Books, 1986.
Livingston Shirt Corp., 107 N.L.R.B. 400 (1953).
May Department Stores Co., 136 N.L.R.B. 797 (1962).
Millis, Harry A., and Emily Clark Brown. *From the Wagner Act to Taft-Hartley.* Chicago: The University of Chicago Press, 1950, pp. 174-89.
National Labor Relations Board, *Annual Reports, 1985-88.*
"NLRB Authorizes Complaints Against Greyhound Lines." *The Wall Street Journal,* November 7, 1990, p. B5.
NLRB v. Babcock and Wilcox Co., 351 U.S. 105 (1956).
NLRB v. Baptist Hospital, 442 U.S. 773 (1979).
Nash, Peter G. "The NLRA at Age Fifty." *Proceedings of the Spring Meeting of the Industrial Relations Research Association, Detroit, Michigan.* Madison, WI: IRRA, 1985, pp. 600-04.
Republic Aviation Corp. v. NLRB, 324 U.S. 793 (1945).
Roomkin, Myron, and Richard N. Block. "Case Processing Time and the Outcomes of Representation Elections." *University of Illinois Law Review* 1 (1981), pp. 75-97.
Roomkin, Myron, and Richard N. Block. "The Legal Environment as a Challenge to Unions." *Proceedings of the Thirty-Fifth Annual Meeting of the Industrial Relations Research Association,* New York, NY, December 28-30, 1982, Madison, WI: IRRA, 1983, pp. 22-29.
Texas Instruments, Inc. v. NLRB, 637 F.2d 822 (1981).
Troy, Leo. *Trade Union Membership, 1897-1962,* NBER Occasional Paper No. 92, New York: National Bureau of Economic Research, 1965.
"Union Membership Stays on Downward Trend Falling to 16.1 Percent of Employment" *BNA Daily Labor Report* 26 (February 7, 1991), B8-B11.
U.S. Department of Labor, Commission on Workforce Quality and Labor-Market Efficiency. *Investing in People: A Strategy to Address America's Workforce Crisis,* September 1989.
U.S. Department of Labor, Bureau of Labor-Management Relations and Cooperative Programs, *U.S. Labor Law and the Future of Labor-Management Cooperation: Final Report,* BLMR 104, 1989 and *First Interim Report,* BLMR 113, 1987.
Virginia Electric and Power Co. v. NLRB, 314 U.S. 469 (1941).

Unions without Majorities: The Potentials of the NLRA

Clyde W. Summers
University of Pennsylvania

The unspoken assumption, shared by unions and employers, is that unions without majorities have no significant role in representing employees under the National Labor Relations Act (NLRA). The immediate union objective during an organizing campaign is not to increase membership but to obtain the status of exclusive representative either through voluntary recognition by the employer or through a Board election. Indeed, employees are commonly not asked to join the union but only to sign cards authorizing the union to represent them. If the union loses the election, it assumes that it has no continuing role to play. It commonly abandons the field, seldom attempting to maintain a functioning organization in the plant, except where the union hopes to mount a winning campaign the next year. The union ceases to exist as an organization representing the interests of those who supported it, leaving the local leaders to the tender mercies of the employer. The union tacitly assumes that if it is not the exclusive representative it has no representation function.

The unions' perspective that the election is a life and death struggle is not only shared, but embraced, by employers. It makes the existence of the union depend on the outcome of an election where the employer has crucial advantages because of its control overs jobs and the workplace. The employer can interrogate employees, hold captive audience speeches, and compel foremen to campaign against the union. It can make fear provoking "predictions," lead employees to believe that future promotions depend on their attitude toward the union, and threaten to go out of business. If an employer stumbles or deliberately steps across the boundary of legality, the worst that will happen is a new election with the employer sending the same message more subtly. Even discriminating against union activists will lead only

Author's Address: Law School, University of Pennsylvania, 3400 Chestnut Street, Philadelphia, PA 19104-6204.

to orders of reinstatement with back pay, which may cost the employer less than a union victory in the election. The employer's goal, like the union's goal, is to win the election, for the union will then disappear, at least until it seeks another election.

It is this myopic assumption that a nonmajority union can serve no useful function that I want to address. My thesis is that the union's life need not depend on winning elections. First, I want to sketch the potential legal rights and status of nonmajority unions. Most of this is well-settled law, though largely forgotten or ignored by unions. Second, I want to suggest a range of practical possibilities for nonmajority unions to represent the interests of workers in the workplace.

Legal Rights of Nonmajority Unions

Section 7 of the NLRA, in describing the basic rights of employees, makes no distinction between a union with a majority and a union without a majority. The section states:

> Employees shall have the right to self organization . . . to bargain collectively through representatives of their own choosing, and to engage in concerted activity for purpose of collective bargaining and other concerted activity for mutual aid and protection.

A quick canvass will indicate the potential reach of Section 7 rights.

Protected Concerned Activity

It has been settled law since *Republic Aviation*, that employees, in the exercise of their rights of self-organization can wear union steward buttons at work, distribute union literature, and solicit membership on the plant premises during nonworking time, absent special circumstances. *Eastex* expanded this to protect distribution at the workplace of a newsletter urging employees to write their legislators expressing opposition to a "right-to-work" law, criticizing the President for vetoing an increase in the minimum wage, and urging employees to register and vote. Employees were protected regardless of whether these acts were done on behalf of a majority or nonmajority union.

It is equally well settled that in the absence of a majority union, the right to strike or picket can be exercised by a nonmajority union, or even an informal group. In *Washington Aluminum*, seven machinists walked out, refusing to work in an unheated and bitterly cold shop. When they refused to return to work, they were discharged. The

Supreme Court held that although they were only a small group with no formal organization, their walkout was protected concerted activity for mutual aid and protection, and they could not be discharged. They could be replaced, but they were no more vulnerable than strikers belonging to a majority union. Similarly, a nonmajority union has substantially the same rights as a majority union to picket an employer, promote a consumer boycott, or induce employees of another employer to refuse to provide services or handle goods.

Collective Bargaining by a Nonmajority Union

Section 9(a) of the statute provides that "Representatives selected by a majority of employees in the bargaining unit shall be the exclusive representative for purpose of collective bargaining of all employees in the bargaining unit." This section, by its words and purpose, does no more than provide a special status for the majority union, when there is one. It in no way derogates the rights of employees to "bargain through representatives of their own choosing" when there is no majority union. It does not provide that the majority, by voting "No Union," can deprive the minority of employees of their Section 7 right to "bargain through representatives of their own choosing."

When there is no majority union, the nonmajority union has three significant rights to bargain collectively. *First*, the nonmajority union has the legally protected right to present demands and request negotiations. This is well settled. In the first year of the statute, a committeeman of a nonmajority union was discharged for seeking to negotiate reinstatement of a discharged employee. The Board held that the committeeman was exercising rights guaranteed by Section 7 and ordered him reinstated. If the employer refuses to negotiate, the union can strike and the strike will be protected activity, as in *Washington Aluminum*.

Second, members of the nonmajority union can refuse to discuss terms and conditions of employment with the employer and insist that any negotiations must be with "the representatives of their own choosing." The employer may be free to act unilaterally without discussion, but it cannot discharge the employee for refusal to bargain individually.

Third, a nonmajority union can make a collective bargaining agreement for its own members. Members-only contracts have been recognized by the Supreme Court for more than 50 years. In *ILGWU v. NLRB*, Justice Douglas stated, "We have indicated over and again that absent an exclusive agency for bargaining created by a majority of workers, a minority union has standing to bargain for its own members." Such members-only contracts are legally enforceable in the federal courts under Section 301 of Taft-Hartley, the same as majority union contracts.

Members-only contracts have played a significant role in our history of collective bargaining, from contracts in the stove and glass industry 100 years ago and early contracts in the coal mines. The first contract between the Auto Workers and General Motors was, by its terms, applicable only to union members, and the first recognition agreement between the Steelworkers and United States Steel recognized the union as representative for members only.

The nonmajority union and its members have all the rights of a majority union to bargain collectively with three exceptions. (1) The employer is not legally obligated to bargain with the nonmajority union. This advantage of majority status, however, is of limited value, for the employer can so easily engage in the form of bargaining without the substance. (2) If the employer's refusal to bargain with a majority union leads to the union striking, the strikers cannot be permanently replaced, as can strikers of a nonmajority union. (3) The agreement negotiated by a majority union governs all employees in the bargaining unit, whether union members or not.

Sketching these Section 7 rights which may be exercised by employees through a nonmajority union may seem unnecessary, for they are well known and undisputed. However, preoccupation with the organizational campaign culminating in an election which, if lost, is considered a requiem for the union, has pushed out of mind the legal rights which pre-exist and survive the loss. Failure to recognize the limited role of majority status has fostered the unfounded assumption that in the absence of a majority union there can be no collective bargaining; that a nonmajority union has no legal right or role to represent its members.

Practical Possibilities for Unions without Majorities

This sketch of existing rights makes clear that a nonmajority union has a range of legal protection entitling it to maintain a visible presence in the workplace and to represent its members in matters related to their work. As a base, it can maintain in-plant committees, designate employees as union stewards, identify them with steward buttons, and through them maintain contact with member and non-member employees. Taking further advantage of *Republic Aviation*, its members can distribute in the plant during non-working time, literature protesting any aspect of wages and working conditions such as the calculation and payment of bonuses, setting of incentive rates, the scope of medical insurance, and scheduling of vacations. The union can, through its members in the plant, be the voice of employees on all matters of common concern. Under *Eastex* this may extend to distributing political literature related to employment issues generally.

Union stewards can present employee grievances to management, and if management refuses to meet with the union committee, employees may leave their work as a group to request discussion of the problems with management directly. If the employer's response is unsatisfactory, the union may engage in a stoppage or walkout, picket, or institute a consumer boycott. The employees' vulnerability to replacement can be reduced by engaging in the stoppage without notice and offering to return to work before the employer can install replacements. Other devices, such as "work-to-rule" and sick-outs, may be more difficult for the employer to counteract. Although such measures create only limited economic pressure on the employer, their potentially disruptive effect may induce the employer to discuss problems and make tolerable adjustments.

A nonmajority union can provide the shield of "concerted activity" for an individual employee who refuses to drive a truck with faulty brakes, reports violations of the Occupational Safety and Health Act, refuses to act in violation of professional ethics or personal morality, or sues for unpaid overtime. The individual, by making the report or protest through the union, relying on established union policy or obtaining endorsement by the union, converts individual action into concerted activity and obtains the protection of Section 7.

A more fruitful role of the nonmajority union is to help employees know and enforce their individual employment rights. For example, many employees do not know the full scope of their rights under workers' compensation, that injuries such as gradual loss of hearing, heart attacks, facial scars, and emotional problems may be compensable. Many do not know when, or how, to file claims or how to prove them. Few realize that they may have third party tort claims, particularly for defectively designed equipment or for toxic materials. The union can establish a committee within the shop to distribute literature describing the kind of injuries covered, help injured employees file claims, and help employees gather evidence to prove their claims. The union can provide injured employee representation or help obtain a competent representative to present the compensation claims and a competent lawyer where third party actions may be possible. Some unions have developed effective plans of this kind, but they are established only where the union has majority status.

Similarly, in-plant committees could help employees know and enjoy the full measure of entitlements such as medical benefits, sick leave, severance pay, and pensions provided by employer-established plans. The union could help employees claim and collect statutory entitlement such as unemployment compensation, disability pay, and social security. It could consolidate suits under the Wage-Hour Law where separate individual suits would not be worth litigating.

The expansion of common law doctrines has increased individual employment rights; reading provisions of employee manuals into employment contracts, finding public policy exceptions to employment at will, implying covenants of good faith and expanding torts such as outrageous conduct, defamation, and invasion of privacy. Employees now have an increasing need for advice and representation; this can be met by a nonmajority union as well as a majority union.

The most important potential function of a nonmajority union is reinforcing the Occupational Health and Safety Act. Statutory procedures provide a series of openings to a union which establishes an active in-plant safety committee. Complaints of violation can be filed through the union. This triggers inspections, and members of the safety committee may then be allowed as a "representative of employees" to accompany the compliance officer and discuss the claimed violations. In an inspection not initiatied by a complaint, a representative of employees is entitled to participate in the opening conference, accompany the compliance officer in the "walkaround" the plant and attend the closing conference. The compliance officer may select a member of the safety committee to act as a representative, but if no employee representative is selected, the compliance officer is required to "consult with a reasonable number of employees," giving the safety committee an opportunity to call attention to unsafe conditions in the plant.

If the employer contests the citation, any "affected employee" has a right to intervene. Again the nonmajority union can act as representative of employees in the proceedings before OSHRC, playing the same role as a majority union.

The nonmajority safety committee can play an equally effective role in enforcing the Hazard Communication Standard. It can file complaints that the employer is not properly labeling toxic substances, is failing to provide toxic hazard training to employees, or has not prepared a written hazard communication program. By obtaining written authorization from an employee, the committee is entitled to access to Material Safety Data Sheets (MSDS) showing the chemical content of substances used, the exposure records and medical records of employees exposed to toxic substances, and to any analyses of such records.

The nonmajority union is not limited to these procedural rights in enforcing health and safety standards. It may protest and publicize violations by the employer, and employees who join in these actions have double protection. By acting for or with their union they are protected by Section 7 of the NLRA, for they are engaging in "concerted action . . . for mutual aid and protection." In addition they are protected by Section 11 of OSHA which prohibits discrimination against an employee for exercising any rights afforded by the Act. Similarly, the nonmajority union can give the added protection of Section 7 to employees who refuse to do dangerous work.

There is neither time nor need to canvass the functions which nonmajority unions could fulfill in making real other individual employment rights under the evolving common law, and under statutes such as plant closure laws, pregnancy leave acts, polygraph and privacy laws, and whistleblowing statutes. Judicially created doctrines and employment protection statutes are proliferating at a rapid rate, largely because of recognition that the shrinking sphere of collective bargaining cannot provide protection. The failure of unions to achieve and maintain majorities is increasing the necessary role of nonmajority unions. When unions cannot obtain collective agreements, they can represent employees by protecting individual employment rights. Nonmajority unions can perform this function substantially the same as majority unions.

Potential future legislation most significant for nonmajority unions is broad statutory protection of all employees from unjust discharge through procedures modeled on labor arbitration. Passage of such legislation, now supported by the AFL-CIO, will not only open an opportunity for unions to provide representation to discharged employees who cannot afford a lawyer, but will also give added protection to nonmajority unions in their other functions. Employees vulnerable to discharge for engaging in those activities will not need to rely on the narrow protection and slow procedures of the Board. They will have the broad protection of "just cause," and the faster procedures of arbitration.

Obstacles to Realizing the Possible

The possibilities open to unions without majorities seem so obvious that one must ask why unions have not done more to develop them. Three other factors, I believe, have made unions slow to explore these possibilities. *First*, unions seem to have been captured and imprisoned by the misconception that collective bargaining requires exclusive representation, and this legally requires majority support. Preoccupied with obtaining exclusive bargaining rights, unions have assumed that without a majority they have no purpose, other than to obtain a majority.

Second, union dues are generally fixed at the level to support the negotiation and administration of collective agreements, including grievance procedures and arbitration. Employees not covered by collective agreements are not expected to remain active members and pay regular dues. The result is that no money was available for places where the union lacked a majority. In 1985, the AFL-CIO recommended new categories of "associate" membership with reduced dues, but the projected services included none of the in-plant representation activities suggested here. The use of the term "associate" member betrays the assumption that they are not really union members but purchasers of service.

Third, the assumption that nonmajority unions have no function is welcomed and reinforced by employers. It relieves them of any burden in dealing collectively with their employees so long as they can prevent the union from obtaining a majority, a relatively easy matter with the present legal rules and climate. By persuading half of their employees to vote "No Union," they are able to assert that the others should not exercise their Section 7 rights.

Conclusion

During the last 25 years the proportion of private workers covered by collective agreements has steadily shrunk. This is, in my view, a tragic trend, for collective bargaining serves vital social and political values. My limited purpose has been to suggest the potential role of nonmajority unions in representing those who want collective representation when the union is unable to obtain a majority. I have said nothing about how nonmajority unions can obtain majority status. But the union's demonstration of its continued concern for the rights of employees and its ability to provide some protection of those rights can be the most persuasive path to achieving majority status.

References

Eastex v. NLRB, 437 U.S. 556 (1978).
ILGWU v. NLRB, 366 U.S. 731 (1961).
NLRB v. Washington Aluminum Co., 370 U.S. 9 (1962).
Republic Aviation Corp. v. NLRB, 324 U.S. 793 (1944).

VII. DISTINGUISHED PANEL—CEOS AND INTERNATIONAL LEADERS: NEW POLICY STATEMENTS

The Importance of the Collective Bargaining Forum

MORTON BAHR
Communications Workers of America

I appreciate the opportunity to participate in this panel and discuss the importance of the work of the Collective Bargaining Forum.

There are many groups dealing with various issues involving labor-management relations, such as Quality of Work Life, Job Training, and Education and Quality.

But the Collective Bargaining Forum is virtually the only organization that brings together the decision makers and principles from labor and corporate America to talk about all of these issues within the collective bargaining process from a perspective of mutual respect and understanding; respect for the views that we bring to these discussions and the understanding of the institutional concerns of our respective organizations.

But I have felt a personal sense of frustration over what I feel is extremely slow recognition and acceptance by members of labor and management that the traditional adversarial approach to the union-company relationship must give way if America is to be great in the next century.

We conduct studies, issue significant reports endorsed by top leaders in labor and business, and widely disseminate our findings—only to find that our reports may or may not be read.

Author's Address: Communications Workers of America, 1925 K Street NW, Washington, D.C. 20006.

I want to thank the IRRA for providing us with the opportunity to discuss in some detail the importance of the reports issued by the Collective Bargaining Forum and what our work can mean to the economic life of our nation. I hope today's session leads to opportunities for members of the Forum to appear before local IRRA chapters throughout 1991.

The first report issued by the Forum in 1988, *New Directions for Labor and Management*, represented a new direction of labor-management relations in the U.S.

It is a document in which both labor and management pledge mutual commitment to improving the competitiveness of American business and workers.

It is a document in which organized labor is recognized as having a legitimate and valuable role in the strategic decision making of a business and in public policy.

It is a document in which American management acknowledges a greater concern for employment security and the rights and aspirations of workers.

Unfortunately, these goals have not yet been realized throughout the American economy.

But we never thought this was going to be an easy task.

I remember when I was first elected president of CWA. It was shortly after Bill Weiss became the CEO of Ameritech.

We didn't know each other very well.

The relationship of Ameritech and CWA was rocky at first. Each of our organizations was under great pressure as the breakup of the Bell System was just taking place.

Now, we have come full circle.

CWA and Ameritech have redefined our collective bargaining relationship for the better. We are working together to reshape our industry and to respond to the needs of Ameritech's customers, shareholders, and employees and their union. In fact, at this very time we are discussing the possibility of making dramatic changes in our health plan. This is most difficult at contract expiration—and we are doing it in midterm. Certainly this effort is indicative of the mature relationship that exists.

From my perspective, Bill's service as a co-chairman of the Collective Bargaining Forum and thus his personal endorsement of our new report is very important.

The other employers I deal with are Bill's peers. It becomes very difficult for them to tell me that these things can't be done when Bill is taking such a public and personal leadership role on these issues.

A major section of the Forum's new report, compact for Labor-Management Relations, we will be discussing today deals with one of the more contentious issues—a code of conduct for firms with both organized and unorganized units in the same company.

In fact, virtually every union and company at one time or another will need to deal with this issue.

CWA will look to CEOs such as Bill Weiss as the kind of corporate leaders with whom we can do business as our union decides what policies to support in the future as the telecommunications industry, in the U.S. and globally, undergoes dramatic changes.

From a broader perspective, the work of the Collective Bargaining Forum also helps bring into focus one of the pressing issues of American competitiveness: How to improve America's lagging investment in our human resources.

Business Week magazine recently published an in-depth article on American competitiveness. The magazine warned that investing in our human capital "is not a social luxury, but a matter of survival in today's economy."

Yet, the U.S. continues to lag seriously behind our toughest foreign competitors in our investment in infrastructure, health care, education, and training.

I find the response from America's business community to this problem very unsettling.

Earlier this year, the *Wall Street Journal* reported on a survey of 250 midsize manufacturing companies conducted by Grant Thornton business consultants.

According to Grant Thornton, more than two-thirds of the firms reported that they had a productivity problem.

Yet, more than half of them considered the problem a minor one because it was caused by people, and people could be replaced by machines.

"Manufacturers say they place more importance on investment in plant or equipment than on investment on people in their attempts to increase productivity," Grant Thornton reported.

So, instead of a widespread, nationwide effort to improve employment security through better training and education, expanded job opportunities and tougher policies against unfair trade, we see massive downsizing, contracting-out and the rise of the so-called "flexible workforce."

The work of the Collective Bargaining Forum calls these economic practices into serious question and offers a better alternative; an alternative that preserves the American standard of living, promotes employment and job security, builds our competitive strength as a nation, and insures a profitable and fair return on capital.

In one sense, the Forum is recommending a redefinition of labor-management relations in the U.S. away from confrontation to a new level of cooperation.

Obviously, we have a challenge to spread this message throughout the business and labor communities.

The members of the Forum are pragmatists and realize it will take time for the message to be both accepted and implemented.

But we are committed to this new path, and we are prepared to take the leadership responsibility to set the example for others to follow.

Last March, I had the honor to participate in the Distinguished Speaker's Series at Michigan State University, which is underwritten by Ameritech.

I would like to share with you my concluding remarks at Michigan State that I believe sum up what we are trying to achieve in the Collective Bargaining Forum.

> "As we approach the 21st Century, I see a turning point in the history of U.S. labor-management relations.
>
> The time has come for a new vision of the role of unions and business in our economy of the future. We have a choice between the cooperation of greater power-sharing or the confrontation of power-grabbing.
>
> Hanging in the balance is the competitive position of our nation in the new international order and the American standard of living which has led the world for most of this century."

A New Vision for Industrial Relations: A Report of the Work of the Collective Bargaining Forum

WILLIAM L. WEISS
Ameritech

It's a pleasure to be with you today. Industrial relations has been a personal interest of mine for some years now. It is a matter of such importance to me that, like you, I have left the warmth of the holiday hearth to brave the winds of winter.

President Buchanan once said that Washington, D.C. is no place for a civilized person to spend the summer. I would add, having just experienced the chilly December wind off the Potomac, that it's no place to be during the winter either.

But here in this room, where we are dealing with industrial relations, the most apt seasonal reference may be to neither summer nor winter, but to early spring.

I say that because I am convinced that the practice of industrial relations in this country is ready to move into a period of new life and growth—and the promise of that growth lies in one word—*cooperation*.

Given the sometimes turbulent history of labor relations in this country, it may seem naive on my part to speak of labor and management working with increased understanding, cooperation, and commitment to one another's goals. However, it is now realistic to think in those terms—and in fact the practical foundations have already been laid to make such cooperation possible.

Many in this audience are aware of the efforts of the Collective Bargaining Forum. It is an organization of national union presidents and corporate chief executive officers. Until last month, I served as co-chairman, along with Lynn Williams, president of the United Steel Workers of America.

Author's Address: Ameritech, 30 South Wacker Drive, 38th Floor, Chicago, IL 60606.

The objective of the group is to improve labor-management relations in a way that will, over time, help the people of the United States maintain a rising standard of living in an increasingly competitive global economy.

We operate from the conviction that our nation *can* be a more successful competitor—and this can be achieved in a way that's consistent with our values as a republic of free people built on respect for the rights and dignity of the individual.

There are many ways to define competitiveness. The Collective Bargaining Forum defines it as the ability of the United States, in a world economy, to produce domestically the goods and services that will yield a competitive return on capital, provide jobs for the American work force, and promote a rising standard of living for the American people.

Understood this way, competitiveness clearly cannot be achieved by eliminating American jobs and exploiting cheap labor markets in other parts of the world.

We are convinced that improved productivity is the answer, and that improved industrial relations are a major and an indispensable factor in improved productivity.

Obviously, technology enhances productivity, and will continue to do so. But technology has never been the whole answer. Businesses, after all, are made up of people. Thus, if we're seeking greater productivity and competitiveness, then, along with continued advances in technology, we need to look at how people interact to get the job done and at how we can improve that interaction.

The Collective Bargaining Forum began to address these questions by focusing on three interrelated issues: the role of unions in a democratic society; the mutual responsibilities of management and labor in fostering the competitiveness of American enterprises; and the mutual responsibilities of management and labor in promoting the employment security of American workers.

As a result of our discussions, we were able to build what we consider to be a solid intellectual foundation for dealing with these issues. We published our ideas in 1988.

In the time since, we have been building on that foundation to create a model of a compact, or constitution, which can serve as guidelines for today's labor-management relations.

In my presentation this afternoon, I will give you a summary of the ideas contained in the 1988 report, and then tell you what's in the compact we just finished writing. This will, in fact, be the first public discussion of the compact, and I am pleased that it is taking place under the aegis of the Industrial Relations Research Association.

Perhaps the most remarkable aspect of the initial report was that it represented a broad consensus of the Forum membership. Individual members could place different emphasis on this or that statement in the report. But the overall thrust was uniformly supported by both labor and management participants.

This gave the report significant credibility, in that labor and business leaders throughout the country, as well as political leaders and policymakers, could look to it as a reliable source of balanced and up-to-date information on improving American industrial relations.

The new definition of competitiveness I mentioned a moment ago was embodied in the report. This definition makes it clear to players on both sides of the labor relations field that there has to be acceptance of two concepts not commonly agreed to in the past: one, that there *must* be a competitive return on capital; and two, that ***high-quality*** *employment opportunities* are a factor in productivity.

Making these two elements essential to competitiveness has enormous consequences for the future of industrial relations. It says that the confrontational approach is essentially obsolete—rendered inappropriate by today's mutual need for productivity and a more successful battle against foreign competition.

That's worth dwelling on for a moment. What it really says is that both labor and management have broader responsibilities—you might say constituencies—than they may have recognized in the past.

For *management*, the report emphasizes the responsibilities a business has toward its employees, basing those obligations simply and pragmatically on the good of the business.

I have spoken often on the need for businesses to recognize that they have many more responsibilities than to their shareowners alone—although shareowners do indeed provide the capital that makes the business go. I am therefore especially pleased that the Forum recognizes and underlines these other responsibilities of business.

Specifically, the report states that management should accept the validity of unions, and the value of an enlarged role for worker and union participation in certain decisions of the enterprise.

In addition, management should treat employment security at the policy level, and consider it among such other basic business strategies as capital deployment, lines of business, and market selection.

Unions, too, have to take a broader view of their responsibilities—and of where their best interests lie. The report holds that labor has an obligation to work with management, quote, "to improve the economic performance of American enterprises and to help firms adapt to changes in technology, market conditions, and worker values and expectations."

These enlarged views of labor and management responsibilities are not something that can simply be "sold" to one side or the other at the bargaining table. Nor will attitudes change just because people believe they should. There will have to be ongoing, day-to-day activities that create and cement the relationship. There will have to be conduits for communication on many fronts. Above all, there will have to be commitments on both sides—commitments to the principles behind the new relationships, and commitments to work patiently at cooperation even when the going gets difficult.

After the report was issued, the Forum began to address the practical question of just what those commitments should involve. Our objective was to suggest specific elements for a compact, or constitution, that would be appropriate for governing labor-management relations in a contemporary business.

It would take the form of standards, or "rules of the game," regarding certain fundamental aspects of the relationship. The compact could then be adopted by companies and unions that wish to increase the productivity of their daily interaction—as well as their contract negotiations. But it would be only guidelines, not absolutes: obviously the precise form of the standards embodied in such a compact would have to be determined by the parties themselves.

Today, I am pleased to describe publicly for the first time what the new compact contains.

A compact between labor and management, as we see it, should address seven needs:

First and foremost, *there should be joint commitment to the economic success of the enterprise.*

This means both parties should commit to economic success in ways that create a fair return to shareowners, provide quality goods and services to the public at a reasonable price, and allow a rising standard of living for employees. It means agreeing on standards of quality, safety, and productivity. And it also means that in the bargaining process, and at all other times, decisions will be geared to the realities of the competitive marketplace and the needs of the consuming public.

Next—and this is a corollary of the first principle—*there has to be joint commitment to the institutional integrity of the union.*

Only if management accepts the legitimacy of the union's role—and of the collective bargaining process—can the union contribute effectively to the economic success of the business. The more the union is recognized and integrated into decisions affecting it, the more it will be disposed and able to carry out the decisions reached.

Labor and management should agree in advance how the question of representation will be addressed if a new facility is opened. There are several legitimate options here, but the important thing is to try to include an agreement in the compact.

In addition, the compact should embody *a corporate commitment to employment security and continuity.*

In this matter, we believe a policy should be established and enshrined in the compact that says planning for employment continuity will be given the same level of priority as the other key business decisions of the corporation.

Under this principle we would also emphasize the joint responsibility of labor and management to provide sufficient education and training to ensure continued employability.

If layoffs finally become necessary, the company agrees to provide all reasonable support to aid the separated employees in their re-employment efforts.

The compact should provide for *worker participation and empowerment.*

Ongoing employee and union participation, in our view, is one of the ingredients for remaining competitive in the changing global economy. Both parties need to commit to employee participation in programs dealing with such questions as safety, productivity, quality, and employment security, and in any other such areas where the parties agree there is a need. Information such as financial data and proposed business plans should be shared to the extent necessary in order to make union participation effective.

Next, the compact should deal with the matter of *conflict resolution.*

Even highly cooperative relationships can have areas of conflict. But resolution of conflicting goals should be attempted in a way that does not endanger or destroy the bonds between the parties.

Both parties benefit when every effort is made to resolve differences amicably, without recourse to strikes, lockouts, or replacement hiring. In any case, coercion, inflammatory conduct, protracted strikes, violence, or harassment are, by nature, destructive. Effective conflict resolution requires strategies that are consistent with an ongoing cooperative relationship.

Companies and unions entering a compact should also take steps to *help transform industrial relations* by promoting understanding of the value of non-confrontational relationships.

This might include exploration of other successful union-management relationships here and abroad. It might also include joint exploration of labor laws and their application with a view toward identifying factors that might hinder the development of a more positive climate.

Finally, both parties should recognize that the competitiveness, employment security, and other principles behind this kind of compact depend not only on the sincerity and energy of the parties, but also on public policies affecting many areas. Therefore, they should *work to develop joint policy positions* on a variety of issues such as trade policies, national health care, labor law, the environment, substance abuse, and the like.

There should especially be assistance to the government from the local to the national level in meeting its responsibility to produce entry-level candidates with the competence needed in the work force.

The labor-management compact I have just described summarizes the work of the Collective Bargaining Forum to date. It is not a radical document. Indeed it is in the very mainstream of the American tradition of democracy and respect for the individual. Nonetheless, it requires of both sides that they give up positions that they may have held sacred in the past.

I believe that the companies and unions of this nation are capable of doing that. And I believe that if they do, our country will indeed find itself in a springtime—a springtime represented by a more congenial workplace; a springtime reflecting better employment security; a springtime resulting in more competitive economic performance.

Thank you.

VIII. PRIORITIES AND CONSTRAINTS IN IMPROVING LABOR MARKET INFORMATION

Conceptual Problems in Labor Market Statistics: Men not in the Labor Force

ALBERT REES
Princeton University

The United States government has produced labor force statistics for 50 years, using remarkably consistent concepts for the entire half century. These statistics have been a major guide to macroeconomic policy, rivaled only by the Consumer Price Index. They have also been a rich source of data for research on labor markets, especially since the microdata have been available on tape. The consistency of concepts has, in my view, greatly enhanced the value of the data for both major uses.

There have, of course, been some persistent criticisms of the concepts of employment and unemployment. One is that people who do as little as one hour per week of paid work are counted among the employed. However, the household survey regularly provides data on hours of work and on the reasons for not working full time. From these, measures of partial unemployment can be and are constructed, and can be combined with measures of total unemployment when this is useful.

A second persistent criticism is that discouraged workers—those not seeking work because they believe that none is available—are not counted among the unemployed. Separate supplementary data on discouraged workers are available. In my view, it is correct not to

Author's Address: Industrial Relations Section, Department of Economics, Princeton University, Princeton, NJ 08540.

count discouraged workers in the labor force because labor force concepts measure activity rather than attitudes or beliefs, which are much harder to measure unambiguously.

The most serious conceptual problem in the labor force data seems to me, somewhat paradoxically, to concern people who are not in the labor force and who do not want to be. In 1940, when the household survey began, almost all people not in the labor force fell into one of three groups: married women, most of whom were keeping house; young people, most of whom were in school; and the elderly, most of whom were retired. Since 1940, as we all know, the labor force participation rate of married women has increased greatly, while the participation rate of men has fallen. The decline among men has occurred for both blacks and whites (Parsons, 1980) and for married men with spouse present considered separately from other men (Hayge and Haugen, 1987). The percentage of white men aged 35 to 44 not in the labor force rose from 1.8 in 1954 to 4.7 in 1989; for black men the rise was from 3.4 to 11.3. The percentage of married men with spouse present aged 35 to 44 who were not in the labor force rose from 1.2 in 1954 to 3.8 in 1987. Data for the age cohorts 25 to 34 and 45 to 54 show similar trends.

In the rest of my remarks, I shall concentrate on men between the ages of 25 and 59 who are not in the labor force. Such men as a percentage of the male civilian noninstitutional population in this age range have risen from 4.7 percent in 1969 to 7.6 percent in 1989. Moreover, the great majority of them (more than three out of four) do not want a job now and therefore are not discouraged workers. On average in 1989 there were 3.4 million men aged 25 to 59 who were not in the labor force and did not want a job now. Of these, 336 thousand were in school, 1,360 thousand were ill or disabled, 138 thousand were keeping house, and 340 thousand were retired. This leaves 1.25 million men designated as engaged in "other activity," which is not a small number. For example, it is substantially larger than employment in the motor vehicle and basic steel industries combined, or in all but one of the two-digit manufacturing industries.

The number of men out of the labor force has been reported in consistent categories since 1973. From 1973 to 1989, the number of men in the civilian noninstitutional population aged 25 to 59 grew 39 percent, while the number of these not in the labor force grew 75 percent. The number of those who "do not want a job now" grew a bit less rapidly, by 65 percent. While all of the subcategories within this group grew, they did so at very different rates. Those in school and those ill or disabled grew less rapidly than the population, at 38 and 24 percent. The fastest growing category was those keeping house, which more than tripled. Those who had retired before age 60 almost tripled. Those engaged in "other activity" also grew much more rapidly than the group as a whole, growing by 121 percent.

Although the number of women aged 25 to 59 who are not in the labor force is about seven times as large as the number of men, the number engaged in "other activity" is slightly smaller. More than half of women not in the labor force are keeping house.

What does a man in his thirties or forties do if he is not employed, not unemployed, does not want to work, is not in school, is not in an institution or in the armed forces, is not keeping house, is not ill or disabled, and is not retired? How can there be 1.25 million such people? It is a puzzle.

To begin to explore this puzzle, I have examined data from the March 1989 Current Population Survey on men aged 25 to 59 who fall in this mysterious "other activity" category. The results are based on a small sample because the question, "Does ------ want work now?" is asked of only one of every four people not in the labor force. But even if the numbers are imprecise, they are of some interest. About 14 percent of these men are black and about 12 percent are Hispanic. These percentages are higher than the corresponding percentages for the male civilian noninstitutional population in this age group (8 and 9 percent), but not by very large amounts. About 52 percent of these men are married with spouse present—substantially less than the corresponding population percentage, which is 68. The men engaged in "other activity" also have substantially less education than the population of all men in the age group. They have completed an average of 10.1 years of school, compared with a population average of 13.0.[1]

It appears that most of the mysterious "others" have been out of the labor force for some time. Their average weeks worked in 1988 were only 6.7, and their mean 1988 earnings were only $3,301. However, their mean 1988 income was $9,847 and their mean 1988 family income was $19,064. All of these numbers have very large standard deviations and are therefore very imprecisely estimated.

There are two leading hypotheses about why men in the prime of life do not want to be in the labor force. One is that they are receiving disability insurance, though it is hard to see why such people are not reported in the category "ill or disabled." The other is that they are engaged in illegal activities that they do not want to report—that they are part of the underground labor force.

Since I am not Sherlock Holmes, I cannot conclude by revealing the solution to the mystery. Rather, I shall make some modest suggestions for ways in which a little more light might be shed on the problem. First, it would be useful to ask the question, "does ------ want to work now?", of everyone not in the labor force rather than of one in four. This would improve the accuracy of estimates for subgroups of those not in the labor force. The second suggestion arises from the fact that when a person's major activity, in response to the first question in the survey is recorded as "other," the enumerator is asked to specify the other activity. It would be useful to examine a sample of these records to see if some new concept of activity not now tabulated emerges from them. Third, it would be useful on a one-time basis to administer the household survey to a sample of people known to be receiving Social Security Disability Insurance to see how they respond to the activity questions. It might also be enlightening to look at men engaged in "other activity" in a longitudinal data set to see what they did before they entered this group and what they do when they leave it. Finally, as another one-time experiment I suggest asking the men in the "other" category of those not in the labor force to give brief time diary for the reference week by asking, "What did ------ do on Monday?", "What did he do on Tuesday?" etc. This would be particularly useful when the person referred to is himself the respondent.

Not all such experiments can be expected to work. Perhaps through some of them, however, we could sharpen our concepts that deal with those not in the labor force, a large group who have received relatively little attention.

Acknowledgments

I am indebted to Dean Hyslop for very able research assistance and to David Card and Sharon P. Smith for helpful comments.

Endnote

[1] The means reported in this paragraph and the following one are weighted by person weights.

References

Hayge, Howard V., and Steven E. Haugen. "Profile of Husbands in Today's Labor Market." *Monthly Labor Review* (October 1987), pp. 12-17.

Parsons, Donald O. "Racial Trends in Male Labor Force Participation," *American Economic Review* (December 1980), pp. 911-20.

Establishment Surveys and Labor Market Analysis

CHARLES BROWN
University of Michigan and
National Bureau of Economic Research

During the last 25 years, there has been a dramatic change in the data available from household surveys and in how those data are analyzed. Topical modules—which differ from month to month—have established themselves as extremely valuable components of the Current Population Survey and the Survey of Income and Program Participation (and they provide year-to-year variety in university-based efforts such as the Panel Study of Income Dynamics and the National Longitudinal Surveys as well). Micro data on magnetic tape, floppy disks, and now CD-ROM (what does *that* sound like when played backwards?) have largely supplanted published tables as the basic input for academic research with household data. Moreover, the ability to follow individual respondents and households over time, along with a better understanding of how to analyze such longitudinal data, has fundamentally changed the way researchers think about labor supply, labor market careers, and poverty.

Research based on data collected from employers has benefited *far* less dramatically from each of these trends (see Stafford, 1986). While there have been gains in information collected—greater attention to non-wage labor costs (and the Employment Cost Index program in general), more extensive information on labor and multifactor productivity, more complete information about occupational injuries come to mind—these have been large programs aimed at regular collection of accurate aggregate numbers and so have lacked the diversity of the household supplements. More-detailed tabulations are now available in machine-readable form, but genuine micro data (at the establishment or firm level) are generally unavailable. And longitudinal data are even less commonly available, though of course one can follow individual industries over time.

Author's Address: Department of Economics, University of Michigan, Ann Arbor, MI 48109.

As is probably clear by now, the theme that runs through my thoughts on how to make data collected from employers more helpful in understanding the labor market is to take advantage of the progress made with household surveys. Suggestions for new topics to include on surveys of employers are made in the next section, and some more "operations"-related suggestions are offered after that. I suspect that all of these suggestions have been made at least once before, and I'm sure that several have been made often. Nevertheless, I hope that collecting them in one place will be useful, and that a few will actually happen.

I apologize in advance for skirting altogether two questions about data from employers that are probably as important as the ones I do try to discuss—the technical adequacy (up-to-dateness of sample frames, response rates, accuracy of responses) of the various programs, and which efforts ought to be scaled back or discontinued. These are important omissions.

New (and Not-So-New) Content for Employer Surveys

Current federal employer-based data collection efforts are strongly dominated by a desire to measure employment and wages (and more recently compensation) accurately at the industry and economy level, so that changes (often month-to-month) can be accurately reported to policy makers and, one hopes, accurately predicted by forecasters. My goal here is not to challenge that desire, but to suggest what other data best collected from employers would be for improving our more general understanding of how labor markets function. I have the following five suggestions.

Compensation Policies

The Industry Wage Survey (IWS) has for many years presented information on the method of pay (time rates or incentive pay, with five types of each) for blue-collar workers in surveyed industries. The last decade has seen considerable interest in more merit-based pay, but the ability of IWS to track whether this "interest" has led to important changes is limited. Surveyed industries are concentrated in (though not limited to) manufacturing, the focus is on blue-collar workers, and the published tables often combine methods of pay with quite different merit-pay implications. As a result, analysts often turn to data, collected by compensation specialists, which do not purport to be representative of the economy. Data on compensation policies—the importance of merit, seniority, or other factors and the degree of differentiation in wages and wage increases within job categories—would be extremely valuable even if samples sizes did not permit detailed characterization of the situation in narrowly defined industries (as is currently possible for blue-collar workers in IWS industries).

Vacancies, Turnover, and Hiring

Several years ago the Bureau of Labor Statistics (BLS) experimented with collecting vacancy data from employers and terminated the experiment. Nevertheless, analysts have found even the experimental data useful, and even so crude a proxy for the vacancy rate as an index of help-wanted advertising seems to predict wage changes better than the more traditional unemployment rate (Medoff and Abraham, 1982). It may be time to reopen this particular can of worms.

More generally, consideration should be given to the employer's side of the hiring and leaving process, which is now represented only on the worker's side via labor force status and reason for unemployment. This means information on turnover and hiring as well as vacancies.

Given that turnover data were collected for manufacturing industries until 1981, this suggestion no doubt raises the feeling of "déjà vue all over again." But the focus of my suggestions are quite different from the turnover data which are now ten years dead. Those data focused on manufacturing, with samples large enough to provide both industry and geographic detail. My strong preference would be for more modest samples, spread across the economy, perhaps on a quarterly rather than monthly basis. Such data—especially if supplemented by occasional questions about numbers of applicants—would be useful to microeconomists as well as macroeconomists. The irony of the head of the Office of Personnel Management arguing that federal workers must be overpaid because their quit rates are so low, shortly after the collection of turnover data in the private sector had been terminated, may not be the most heartwarming use of turnover statistics; but it does illustrate a set of issues for which quit rates, applicant flows, etc. would be extremely helpful.

Training

The perception—as yet unsupported by productivity-growth data—that we are in a period of unusually rapid technological advance has led to considerable concern about the need for training and retraining workers for the new technologies. Data on training and retraining have come from workers (giving us limited information about the extent of training and almost no clue as to how much such training costs and whether it is spurred by new technologies or by inadequately prepared workers) and convenience samples of employers. Collecting data on training from employers would strain both the question-framing skills of survey researchers and the patience of employers. But my sense is that employers are upset enough about training problems that they may prove cooperative; and, unlike the core of the federal employer statistics, training data could be gathered every several years, rather than every month, in order to minimize respondent burden.

Size and Age of Employing Unit

Recent claims—exaggerated in my view—that small business has been responsible for a disproportionate share of new-job creation has led to considerable interest in data by size and age of employing unit. "Employing unit" is deliberately vague—it could mean firm or establishment when these two are not identical. BLS has recently announced that it will create a longitudinal file of business establishments from the ES-202 data (Plewes, 1990, p. 6). Occasional tabulations of data from this *and other programs* by age as well as size would be a low-cost and quite valuable way of responding to the interest in these issues: Are wages paid by larger employers due primarily to a relationship between size and age? How do injury rates vary with age as well as size of firm? Do younger employing units have more merit-driven compensation policies? Do wages increase less rapidly in firms that are about to die than at other firms? Do they increase more rapidly at growing firms?

Supervision

One of the more important themes in recent theoretical work about labor markets is the idea that much of firms' personnel and wage-setting policies is a response to difficulties in monitoring their workers. The issue arises in recent papers on "efficiency wage" models (which attempt to explain why wages don't fall to eliminate excess supplies of labor), on discrimination against women, and on why large firms pay higher wages. Yet we know next to nothing about how the intensity of supervision or monitoring (which may not be the same thing) varies from one setting to the next. Many workers with managerial titles spend much of their time on tasks other than keeping tabs of their subordinates and much monitoring is done by those with non-supervisory titles. Increasingly, computers can be used to measure workflows, but there is little hard information on how often these opportunities are put into practice—and whether firms which do so stay with them.

Some "Operational" Suggestions

I'm not sure how I would define "operational" here—maybe "miscellaneous" would be closer to the mark—but my goal in this section is to identify factors other than changes in content that would make data collected from establishments more useful to labor economists. Five such suggestions come to mind.

A New Establishment Survey?

A common theme of the content suggestions is that they could be implemented on a much more modest basis than is true for most current BLS or Census establishment-data programs. Several of the suggested topics would be valuable if done once for several thousand establishments, and more valuable if repeated several years later—their usefulness does not depend on having tens-of-thousands of sampled establishments or frequent reporting. One could imagine either a separate "odds and ends" survey or occasional supplements to an existing survey's content. However it is achieved, I believe the content flexibility one sees in all of the major household surveys would significantly increase what we could learn from establishment surveys.

Cross-survey Linkages

Given very real concerns about respondent burden, there is an understandable reluctance to duplicate questions across different survey programs. To an outsider, this would seem to argue for an aggressive use of cross-program matching; computers are cheap, but the shadow price assigned to respondent cooperation is high indeed, so we should substitute computer matching for duplication. Alas, even an outsider quickly learns of institutional problems in doing so; in particular, BLS-Census collaboration seems to run afoul of pledges each agency makes to its respondents. But there are unexploited opportunities for merging data from different BLS programs (ES-202 data on employment growth could be useful in analyzing Industry [or Area] Wage Survey compensation data, and IWS collective-bargaining indicators could allow ES-202 data to trace differences in growth rates of union and nonunion establishments in a given industry). And the same goes for "looking up" respondent firms' data in nongovernment data files such as Dun and Bradstreet's and especially Compustat (BLS establishment surveys lack data on firms' balance sheets, Compustat is notoriously weak on compensation data).

Micro Data and Confidentiality

While there are important exceptions, the clear trend of research by academic labor economists is toward greater use of data on individual economic units whenever those data are available. There are at least two reasons: estimating the relationship between Y and X controlling for industry allows one to be confident that any relationship one discovers is not due to omitted "industry effects," but controlling for industry requires multiple observations per industry (i.e., cannot be done with data aggregated to the industry level, as is much establishment data); and attempts to estimate ever-more-complicated functional forms often make little sense with aggregated data, because one isn't able to work out the relationship between the desired micro-level relationship and the functional form of the relationship among the aggregated variables.

Confidentiality concerns interfere much more seriously with release of micro data on firms than on individuals. If the Hunt brothers found themselves interviewed by the Current Population Survey, and they cooperated, one could top-code (in the good old days) their income without seriously distorting most studies. Hiding General Motors or IBM in an establishment survey is a more vexing problem. It is ironic that as the record of academic researchers in not abusing the micro data they have obtained grows each year, governmental concern about potential abuse grows about as fast. Are there any constructive solutions?

The accepted solution is to disguise firms by providing only group (e.g., industry) means. One can do better if one is free to define the groups; e.g., data classified by industry and employment size will have less within-cell variation than if classified by industry alone. My sense is that there are unexploited opportunities for "almost micro" data here: academics need to show enough interest in such special data tapes that BLS and other agencies could provide them at moderate cost per request—where "cost" includes agency staff time and analysts' time in getting such requests approved.

A more radical (and clearly experimental) idea is to ask respondent firms if they object to having their data identified. Depending on the survey content, the number who don't object might be surprisingly high. (Judging from firms' nonresponse rates to individual items on existing surveys, relatively minor variations in the question can have large impacts on sensitivity. For example an Institute for Social Research survey done several years ago found some reluctance to report payroll, but very little reluctance to report numbers of workers in each of seven wage intervals.) The Federal agency that collected the data would be able to ascertain whether the objecting firms differed from those that don't object in ways that would bias potential analyses.

Longitudinal Matching

If one looks at establishment data from the vantage point of household surveys, the lack of longitudinal files for the former is striking. A wide range of questions about causes and consequences of firms' growth, decline, and disappearance would benefit from longitudinal data. Have high-wage (or unionized) workplaces grown more slowly than others in the same industry? Are there important differences in this regard between industries subject to significantly greater import competition and those more sheltered? Do increases in output per worker come primarily at existing firms or through replacement of old, inefficient firms with new more up-to-date ones? (Dunne, Roberts, and Samuelson's [1988] paper provides an interesting example of this sort of work.) I realize that longitudinal data raise particularly intense confidentiality concerns. But given available knowledge, even fairly simple tabulations would be very valuable.

Dictionary of Occupational Titles (DOT) Data

One of the recurring frustrations of those who are interested in any of the characteristics compiled in great occupational detail by the DOT is that its coding scheme is used by almost no other data sets, so one doesn't even know how many workers are employed in these very detailed jobs. Plewes (1990, p. 8) notes more careful integration of DOT with other data programs is contemplated; I worry that coordination will mean that DOT occupations will aggregate neatly into Standard Occupational Classification ones, but with—as at present—no firm basis for weighting DOT titles into these broader occupations.

Conclusion

Labor economists obviously have much to learn from data collected from employers, and we have made too little progress in the decade and a half that I've had a first-person view of the process. There are three key ingredients: modest amounts of or redirected resources, genuine interest by labor economists, and cooperativeness of the relevant agencies' staffs. I think the first is the binding constraint.

References

Dunne, Timothy, Mark Roberts, and Larry Samuelson. "Patterns of Firm Entry and Exit in U.S. Manufacturing Industries." *RAND Journal of Economics* 19 4 (Winter 1988), pp. 495-515.

Medoff, James, and Katharine Abraham. "Unemployment, Unsatisfied Demand for Labor, and Compensation Growth, 1956-1980." In *Workers, Jobs, and Inflation*, ed., Martin N. Baily, Washington, DC: Brookings, 1982, pp. 49-83.

Plewes, Thomas. "Labor Force Data in the Next Century." *Monthly Labor Review* 113 4 (1990), pp. 3-8.

Stafford, Frank. "Forestalling the Demise of Empirical Economics: The Role of Micro data in Labor Economics Research." In *Handbook of Labor Economics*, eds., Orley Ashenfelter and Richard Layard, I. New York: North Holland, 1986, pp. 387-423.

Issues in the Use of Household Labor Statistics in Industrial Relations Research

LISA M. LYNCH
Massachusetts Institute of Technology and National Bureau of Economic Research

There are a variety of reasons why household data rather than employer-based data are often preferred as a source of information for researchers and policy makers in the field of industrial relations. For example, in the analysis of pensions (or any other benefit such as medical coverage, dependent care, sick days, and vacation), one policy issue is how the structure of a pension plan influences employee retirement (or employment) behavior. At first glance having employer-based data on pensions (or benefits), current wages, etc. would appear to be sufficient to analyze this problem. But with household data it is also possible to examine the extent of knowledge individual workers have about their pension benefits and how the wage income, retirement income, and work patterns of others in their households influence their retirement decision. This is all information that employers would not have access to.

Another example of the usefulness of household data is in the area of employment/unemployment history and job turnover. Employers can identify how long workers have worked for their firm or in their current position but they may not be able to describe their workers' previous employment histories (how many previous jobs, previous unemployment, previous training and wages), and if they identify a specific worker as quitting or being permanently laid off we do not know where that worker went after leaving the firm. With household data it is possible to construct an employment history across employers and examine the topics of unemployment and job mobility in more detail. Finally, the topic that is examined most frequently by those using household data is compensation. Again, an employer can give

Author's Address: Sloan School of Management, Massachusetts Institute of Technology, 50 Memorial Drive, Cambridge, MA 02139.

detailed information on compensation but with household data it is possible to see how the income of others affects the labor supply of other household members, how many individuals supplement their income with a second job, how wages grow over time, and how wages are related to characteristics such as schooling, family background, college major, participation in a government training program, etc.

So, conditional on using household data (the appendix gives a brief description of the characteristics of the more commonly used household surveys in the U.S.) what are some of the special issues associated with these type of data? The first issue is how to conduct the interview—mail vs. telephone vs. personal interview? Mailed interviews allow you to ask detailed questions and allow for open-ended responses without an obvious time constraint, but response rates over 30 percent are unusual (with the length of the survey one of the factors affecting response rates). Individuals are often reluctant to reveal income information in a survey that has been sent to them in the mail, let alone more personal questions on health problems and substance abuse. Telephone interviews can increase the response rate, but they typically are more expensive and you are constrained in the ability and time of the interviewer to probe in more detail about specific answers. For example, it is extremely difficult to ask respondents to fill in an employment/schooling history calendar on the telephone. Personal interviews are the most effective; however, they are also the most expensive. In addition, some respondents may prefer the remoteness provided by a mailed or telephone interview as opposed to a face-to-face interview.

Once you decide in which format you will conduct your interview, the next issue is who you will ask to answer the questions. For example, if a telephone interview is used the individual who responds to the questions may or may not have accurate information on all aspects of other household members' employment experiences. For example, Freeman and Medoff (1982) compared labor force participation rates, unemployment rates, employment to population ratios, and weeks worked for young workers in the Current Population Survey (CPS), the National Longitudinal Survey (NLS), and the National Longitudinal Survey of the High School Class of 1972 (NLS-72). The CPS uses telephone interviews in which the youth labor market activity rates are typically proxy-reported (i.e., a parent provided the information) while the NLS and NLS-72 surveys use self-reported rates. Freeman and Medoff found that the reported activity rates were higher in the NLS and NLS-72 than in the CPS. Therefore, care must be taken in using proxy-reported rather than self-reported data. If, however, we rely on self-reported information for all members of the household this again raises the cost of interviewing substantially.

The next serious issue associated with household data is the frequency of interviewing and over what period of time. Obviously, the more frequent the interview, the more data are collected. However, interviewing is costly so it is important to understand the "value added" of each additional interview. Reinterviewing individuals allows a researcher to construct a "motion picture" of their labor market experience rather than a "snap shot" in time. While it is possible to ask retrospective questions about an individual's labor market experiences, response errors seem to increase the further back in time respondents are asked about their activities (see Duncan and Hill, 1985). If, however, you decide to follow individuals over a longer period of time (e.g., the NLS, the NLS-72, the Panel Study of Income Dynamics, [PSID]) there is the problem of sample attrition. In the appendix there are reported numbers for the different amounts of sample attrition by survey. While longer panels of individuals provide detailed information on topics such as the transition from school to work or from work to retirement, if there is substantial attrition then it is not clear how representative the remaining respondents are of the population as a whole. It is possible by construction to initially oversample groups that are more likely to drop out of the sample, but this is still problematic. While attrition rates in the older NLS samples such as the young men's cohort were extremely high (35 percent by 1981) relatively high response rates have been maintained in the newest youth cohort (91 percent response rate after 8 years).

Probably the most serious issue is the reliability of the reported answers to questions of interest. Mellow and Sider (1983) used data from the CPS and the Employment Opportunity Pilot Project (EOPP) surveys in which both individual respondents and their employers were asked a set of identical questions in order to compare responses across these two groups. They then tried to obtain some reliability measures on questions such as industry and occupation of employment (both three-digit level and single-digit level), union coverage, hours worked, and wages. They found some interesting patterns in the responses across these two groups and across the two data sets. Interestingly, they found on average more discrepancies between the employees and employers in the EOPP sample than in the CPS. For example, 84 percent of employees and their employers agreed on their industry in the CPS sample while only 71 percent agreed in the EOPP sample (only 58 percent of the CPS sample agreed with their employers on their detailed occupation). For the measure of union coverage almost 10 percent of the EOPP sample employers stated there was union coverage when the workers said they were not covered, and 5 percent of the EOPP workers stated they were covered by a collective agreement when their employers said they were not. In the CPS the percentage of discrepancy was about 7 percent with the difference split evenly across the two groups. Again in the CPS, production workers and their employers were much more likely to agree on hours worked and the rate of pay, while professional and managerial workers were more likely to state that they had worked more hours than their firm said they had and they reported less income than their firm said they were receiving. Mellow and Sider concluded that their findings were reassuring and that they had presented evidence that obtaining data about these items from individual workers rather than from employers did not lead to significant measurement error, with the important exception of detailed occupation.

Duncan and Hill (1985) tried to address this issue of measurement error using a slightly different approach than that followed by Mellow and Sider. They used administrative records from a large manufacturing firm and then interviewed some employees in that firm about the characteristics of their jobs. They structured their questions using the format utilized in the PSID and they asked restrospective income questions of the respondents so that they could examine the issue of recall over a two-year period. They found that employees and their employers matched extremely well (only 1 percent of the workers differed from their employers' responses) on questions such as union coverage, union membership, and receipt of medical benefits and vacation days. They did a bit worse on knowledge of receipt of paid sick days, dental benefits, life insurance for non-job related death, and whether or not they were vested. Twenty-eight percent did not realize that they could retire earlier and receive partial benefits and 36 percent did not understand their eligibility status for maternity/paternity benefits. When employment tenure, earnings, and hours were examined the gap between the employers' information and the workers' responses widened. For example, only 45 percent of the sample correctly reported the year they were hired (this firm had a relatively older work force), but 90 percent were within a year of actual hire date. For annual earnings respondents on average reported somewhat lower earnings than those listed in the administrative records, and that difference increased with time. While the averages were not far apart numerous respondents either underreported or overreported their earnings compared with their employer's responses. This suggests that studies that focus on the determinants of individual annual earnings in the firm using data reported by the workers might be misrepresentative. Unemployment durations were again underestimated by workers compared to employer records, and hours of work were overestimated by the workers compared to the recorded hours. Consequently, the combined effects of errors in annual earnings and hours makes the calculation of individual average hourly earnings from this information potentially rather dubious.

As documented by Mellow and Sider (1983), when respondents are asked about their industry or occupation they may respond with a different descriptor than an employer would use for that individual. In a cross section this type of measurement error may cancel out, but in longitudinal data it is possible that a researcher using the data may see transitions from one occupation to another over time that are not actually happening, but rather reflect some confusion or difficulty by the respondents to accurately describe what they are doing (see Freeman, 1984, for a discussion of this problem in the context of the effect of unions on wages). This may also happen in unemployment and employment data in samples such as the CPS where the respondent may be describing the labor market status of other members in the household. Poterba and Summers (1986), using data from the CPS Reinterview Survey attempted to estimate the incidence of errors in the classification of employment status from month to month. They found that there is evidence of many spurious transitions, and they concluded that standard estimates of unemployment durations which use the gross flows data from the CPS substantially underestimate the actual duration of completed and uncompleted spells. They also concluded that the labor force attachment of women and youths may also be significantly underestimated using this data.

The issue of measurement error or the reliability of data remains a serious issue associated with household data (see Stafford, 1986 for a detailed review). The seriousness of the problem, however, seems to be a function of how the data are used and which data are used. Ideally, it would be helpful to have more matched surveys of individuals with their employers so that we could obtain the benefits of both employer based and household based data for empirical work in industrial relations.

Appendix

A Brief Description of Some Commonly Used Household Surveys

Survey

Current Population Survey, CPS

The CPS is a survey conducted by the Census Bureau for the Bureau of Labor Statistics with tapes available as far back as 1964. The survey is designed as a rotating sample of approximately 60,000 households (approximately 100,000 individuals) who are surveyed by telephone each month. Respondents are interviewed for four consecutive months, omitted for eight months, and then re-interviewed for four more months. The monthly questionnaire includes information on employment status, industry, occupation, education, hours of work, duration of unemployment, SMSA, race, gender, and household composition. Since 1979 certain questions such as union status and weekly earnings are only asked of the outgoing rotation groups. Previously these questions had been asked of all respondents but only in May. There are periodic supplements on topics of interest, e.g., the 1983 survey on training.

Panel Study of Income Dynamics, PSID

Produced by the Survey Research Council at the University of Michigan, this annual survey began in 1967 and tracks approximately 5,000 initial households from 1967 until the present. There are approximately 20,000 individuals or 7,000 households currently responding and approximately 14,000 nonrespondents. (Children born after 1968 and members of the original sample families that have split off to form their own households have been tracked over time). The data are particularly useful for measuring all types of income and also include information on employment history, demographic and family characteristics, union status, industry, occupation, race, and gender. There are detailed questions on retirement plans, commuting, housework, and taxes. It is also possible to construct matched family-individual data.

Survey of Income and Program Participation, SIPP

Begun in October 1983, this survey, which is administered by the Department of Commerce and Bureau of the Census, is somewhat similar to the CPS in that it interviews households. Approximately 21,000 households were initially selected in 1983 (due to budget constraints subsequent samples have been reduced in size). This sample was then divided into 4 rotation groups who were interviewed at 4-month intervals over a 2½ year period. Therefore, one rotation group is interviewed each month. The interviews are conducted in person, which allows for more in-depth probing of labor market experience. One of the unique features is that there are supplemental modules covering education, work history, health and disability, assets and liabilities, and housing characteristics. (See the special issue on SIPP in the *Journal of Economic and Social Measurement*, 1985.)

National Longitudinal Surveys of Labor Market Experience, NLS

Administered by the Bureau of Labor Statistics, Department of Labor, the NLS is composed of 5 separate cohorts: the "Older Men" cohort of 5,020 respondents aged 45-49 in 1966 and surveyed until 1983; the "Mature Women" cohort of 5,083 respondents aged 30-44 in 1967 and last interviewed in 1989; the "Young Men" cohort of 5,225 respondents aged 14-24 in 1966 and surveyed until 1981; the "Young Women" cohort of 5,159 respondents aged 14-24 in 1968 and last interviewed in 1988; and the "Youth" cohort of 12,686 males and females aged 14-21 in 1979 who have been interviewed every year since then to the present. The attrition rates of the various cohorts are as follows: young women in 1987—29 percent; mature women in 1986—34 percent; young men in 1981—35 percent; older men in 1983—48 percent; and the youth sample in 1987—9 percent. Information for the earlier cohorts was not gathered every year and a mixture of telephone, mail (only once for the older men and the mature women), and personal interviews were used to collect the data. The more recent youth cohort has used personal interviews every year except 1987 when a telephone interview was conducted. All of the cohorts provide detailed information on current labor force status, work history, job characteristics, union status, race, gender, and schooling. The youth cohort is particularly good for documenting weekly transitions between school, work, and out-of-work. It is also possible to create matched households across the cohorts. For example there are 1,965 pairs of mothers and daughters using the mature women/young women respondents. (See Manser, Pergamit, and Peterson, 1990 for a recent review.)

National Longitudinal Survey Class of 1972, NLS-72

NLS-72 is a Department of Education survey of 22,652 individuals who were high school seniors during the 1971-1972 academic year.

Follow-up surveys were conducted in 1973, 1974, 1976, and 1979 and a subsample of 12,841 individuals was followed up in 1986. The data set contains detailed information on the respondents' post secondary schooling (e.g., college major and training from technical institutes), race, gender, parents' education, family income, and aptitude and achievement scores.

High School and Beyond

This survey began in 1980 and its intent is to expand upon the NLS-72. In 1980 it sampled 30,000 high school sophomores and 28,000 high school seniors. Follow up surveys were conducted in 1982, 1984, and 1986, and they are expected to continue into the future. This sample, given its age structure, is helpful for understanding the underlying dynamics in the school to work transition, and there are very useful matched data from the respondents' schools, teachers, and parents.

Employment Opportunity Pilot Project (individual data)

This survey was conducted in 1980 and 1982 under contract to the Department of Labor. The 1980 survey of households included 30,000 households. A complementary survey was conducted at the same time of approximately 5,000 employers. Both of these surveys are designed to oversample low income or low wage employers. It is possible to construct matched samples of employer and individual data. For example, in the 1980 survey there are 3,327 records of individuals matched with their employers.

References

Duncan, Greg, and Daniel Hill. "An Investigation of the Extent and Consequences of Measurement Error in Labor-economic Survey Data," *Journal of Labor Economics* 3, 4 (October 1985), pp. 508-32.

Freeman, Richard. "Longitudinal Analyses of the Effects of Trade Unions," *Journal of Labor Economics* 2 (January 1984), pp. 1-26.

Freeman, Richard, and James Medoff. "Why Does the Rate of Youth Labor Force Activity Differ Across Surveys?" In *The Youth Labor Market Problem*, eds. Richard Freeman and David Wise. Chicago: University of Chicago Press, 1982.

Journal of Economic and Social Measurement 13, 3 and 4 (1985), pp. 215-393.

Manser, Marilyn, Michael Pergamit, and Wand Bland Peterson, "National Longitudinal Surveys: Development and uses," *Monthly Labor Review* (July 1990), pp. 32-7.

Mellow, Wesley, and Hal Sider. "Accuracy of Response in Labor Market Surveys: Evidence and Implications." *Journal of Labor Economics* 1 4 (October 1983), pp. 331-43.

Poterba, James, and Larry Summers. "Reporting Errors and Labor Market Dynamics." *Econometrica* 54 (November 1986), pp. 1319-38.

Stafford, Frank. "Forestalling the Demise of Empirical Economics: The Role of Microdata in Labor Economics Research." In *Handbook of Labor Economics*, Vol. 1, eds. Orley Ashenfelter and Richard Layard, Amsterdam: North Holland, 1986.

DISCUSSION

JANET L. NORWOOD
Bureau of Labor Statistics

Each of the papers takes a different approach to labor market statistics. Albert Rees discusses an issue of data substance, Lisa Lynch considers measurement error and data reliability, and Charles Brown considers micro data for research.

Rees reviews Current Population Survey (CPS) data on men aged 25 to 59 who were not in the labor force. He suggests the need for additional data to shed light on their activities. His suggested diary survey or matching of CPS and SSA data would be expensive and could present problems. But one could compare the sources of income for men not in the labor force with those who are, using the CPS March supplement data. In addition, a special supplement to the CPS on this out-of-the-labor-force group might provide useful data.

The Lynch paper describes four problems in household survey data: type of interview; recall period; proxy response; and response reliability. This is not a complete list of survey design problems nor are the issues listed mutually independent. Each is worthy of more complete treatment than has been given in this paper. The paper would have benefitted from review of the large body of survey research literature that has given a great deal of attention to these issues.

Perhaps the most important point in the Lynch paper is the notion that the importance of measurement error ". . . is a function of how the data are used." We do need to give more thought to educating analysts about the reliability of micro as well as of aggregate data. Those using micro records also need to focus more attention on measurement error.

The Lynch paper referred both to household- and establishment-based data. The Brown paper focuses on the need for micro data from establishments. I welcome the constructive suggestions made by

Author's Address: Bureau of Labor Statistics, U.S. Department of Labor, 441 Grant Street NW, Washington, D.C. 20212.

Brown, although I think he greatly oversimplifies the problems involved.

It is true that we have not devoted the same attention to support of academic research with business establishment data as we have for household survey data collected from households. We are interested in linking data from individuals with data from establishments, and we recognize that there is a need for more longitudinal data on business establishments. BLS is currently working with the states to develop more-detailed data on multi-location businesses and identification of ownership on our business list so that organizational as well as longitudinal analysis could be done. This multi-year project will improve our capability to track establishment data over time and perhaps, even, between surveys.

But we have not even begun to solve the confidentiality problems of access to micro data from business establishment data. This is an area of increasing concern to our business respondents, and we must exercise great care before changing our method of doing business with them. The confidentiality of data about individuals involves important issues of privacy. The confidentiality of data about business establishments involves real or potential business secrets that could affect the competitive position of the firm. Business respondents also have legitimate concerns about the possible use of the data in regulatory or legal action against them. The very process of requesting the consent of the business respondent to permit development of matched micro data tapes could change the respondent's perception of the purpose and use of data not just for the particular survey involved but for all the surveys in which the respondent has participated.

These are areas on which there is a lot more work to be done, but I am not sanguine about our ability to respond quickly to Brown's suggestions. The future will lie as much with micro as with aggregate data, and we hope to make some progress in both of these areas.

On the household side, we are improving longitudinal as well as cross-sectional CPS data. Research on questionnaire wording is in progress. We plan to improve CPS occupational coding, expand the usefulness of gross-flows data, and develop a complimentary longitudinal CPS to study issues of duration and change. A fully integrated set of data on the household side will include cross-sectional data from the CPS, a longitudinal survey using the CPS questionnaire, and age cohort information from the National Longitudinal Survey.

We haven't yet come that far on the establishment side. But we believe that a comprehensive set of data about business begins with an improved universe file and employment, hours, and earnings data by industry and the capability for research using establishment information over time and by enterprise ownership. Much work needs to be done, and we do not yet see solutions to all the issues we must confront, but we hope to move these goals forward in the years ahead.

DISCUSSION

PAUL A. WEINSTEIN
University of Maryland

Economists should rejoice in plying their trade with the topic at hand. The constraints appear to be budgetary, in monetary terms and respondent time. There is a clear concern for specifying the output that will be produced by "better" data. Al Rees argues that the unaccounted group of males is larger than the employment of two substantial industries and further exploration of the topic is not trivial. Where, however, does the topic rest in the hierarchy of needs? There is also a severe constraint on maintaining confidentiality. Two matters concern us. One is protection of privacy and the other relates to the possible impact of disclosure on the quality and quantity of data. Certainly, Lisa Lynch's paper gives direct testimony to the already fragile character of data from alternative sources.

All three papers point to the need for microdata, matching information from alternative sources and then considering data in a longitudinal framework. Rees offers that the consistency of definitions and categories is a virtue. Charles Brown, on the other hand, decamps on what he calls an important matter, deciding what should be discarded. Given our binds, and the changes in both the nature of units (multinational, multiproduct firms, and the redefinitions of households and families), the theoretical base, the subjects explored and the policy problems, we must carefully assess how the policy problems of information should be assessed. The consistency of the data sets may not be an unalloyed virtue, given that our categories are probably rooted in the ideas of scholars and bureaucrats of an earlier time anchored to their contemporaneous environment. The changes now observable in households and firms is unlikely to be transient, and I believe, are not trivial. Nor do I wish to trivialize the whole problem by suggesting that the only certainty is change.

If one were told to take two data sets for three days and if not cured call the office, there is a likelihood of offense. The medical

---

Author's Address: Industrial Relations and Labor Studies Center, University of Maryland, College Park, MD 20742.

profession is open to criticism, by offering helpful pills. Medicine relies heavily upon epidemiology, which is an exemplary model for the collection and analysis of data. Sadly though, there is little theory behind epidemiology. Those of us interested in labor markets have a tropism emerging from positive economics accompanied by the technological advances of computer technology and communication. This Scylla and Charybdis is not without merit. It is vital that we know that some nostrum has the affect of terminating an illness while not terminating the patient, *ceteris paribus*.

Knowing whether something works is vital. We have scant data to suggest how labor management joint efforts affect productivity, profitability, firm longevity, etc. That a programmatic initiative involving the investment in human capital is efficacious requires empirical analysis detecting how observed responses were affected by internal or external variables, and most significantly, by controllable variables. It is not *entirely* useless to know that the fault could be in our stars and not ourselves. Congress, BLS, Census, etc., are correct in suggesting that we use the fisk for data that produce more than aesthetic pleasure.

Lester Thurow's lecture at the IRRA Meetings in 1987 offers a valuable perspective. He said that economics, and I believe that this could stand for most social sciences, have been intellectually guided by the model of theoretical physics. The concepts of equilibria and stability have also guided strategic concerns for our data needs. That may be so even if the fundamental model is less than appropriate for the subject we chose. Thurow argues that molecular biology may be a more fitting model for our fields. That is, we deal with "organisms" which have lives that are changing through the process of aging and the process of adaptation to exterior phenomena. In our tradition "process" has generally been neglected.

Brown's paper suggests that the age of firms is an important variable to examine. There is little to suggest that in economic theory, but a lot of good sense and developments in natural history, psychology, etc. point to this as a significant variable. Tropic influences on natural phenomena, such as light or heat can be observed and measured. It could be an avenue to explore the issues behind the observed behavior of males out of the labor force, as suggested by Rees. It most certainly suggests that we must be careful in choosing the appropriate "unit" of observation. Whether household, individual, family, tribe or community, each organism has value in and of itself and its relationships to the other organisms.

These are important issues, and they drive agencies such as BLS and Census to distraction. We have an obligation to help those institutions carry out their work, as they are essential to ours.

The papers properly explored matters of who should be asked and how they should be asked. They were less daring on the matters of why and what should be asked. They should not be faulted for this, but we as a profession should be concerned with such matters. It is time that we abandoned our mutant offspring who do "research" because there was a handy data set and free computer and programming time. Issues of development and growth, well-being and the natural developments of internal labor markets as part of a natural organism hold a bright hope for researchers and policy makers. Our data needs and the support of computers, I believe, would not decline or descend in rigor, but would mushroom.

The seriousness of informational policy should be a continuing and not an episodic concern for us individually, the disciplines we follow, and the institution that has brought us here today.

IX. CONTRIBUTED PAPERS— HUMAN RESOURCES AND ORGANIZATIONAL BEHAVIOR

The Effects of IMPROSHARE on Productivity: Preliminary Results

ROGER T. KAUFMAN
Smith College

Gainsharing can increase productivity by reducing downtime, absenteeism, scrappage rates, and "schmooze" time. Workers could also improve the quality of output and possibly the entire production process by making valuable suggestions. While collective bonus systems may have some disadvantages because of the free-rider problem, individual incentive plans also have drawbacks. Industrial engineers have noted that piece rates have some negative effects on productivity in an integrated production process. Individual employees may increase wastage or hoard inventory of raw materials in their effort to increase individual production, thereby creating inefficiencies in the distribution of materials within the plant. Similarly, workers complain that individual incentive plans often pit themselves against each other and that the rates on different jobs are set inequitably (Whyte, 1955).

There is a growing empirical literature that links gainsharing and productivity enhancements. Many studies examine profit sharing in producer cooperatives, but similar results have been found among many types of firms. (See Schuster, 1984; Fitzroy and Kraft, 1987; and the surveys by Ehrenberg and Milkovich, 1987; Estrin, Grout, and Wadhwani, 1987; Mitchell, Lewin and Lawler, 1989; Weitzman and Kruse, 1989; and Kruse, 1988.)

Author's Address: Pierce 31, Smith College, Northampton, MA 01053.

IMPROSHARE

Formulated by Mitchell Fein (1981) IMPROSHARE is a plan that rewards workers whenever the actual number of labor hours used to produce output in the current week or month is less than the estimated number it would have taken to produce the current level of output in the base period. On the other hand, there are no negative bonuses. Workers are never paid less than the basic wage rate.

Fein believes that this form of physical productivity gainsharing is more compatible with workers' desires than the economic gainsharing present in many other plans, such as the Scanlon and Rucker plans. He argues that many workers are eager to share in improvements in physical productivity that they can both understand and control but are unwilling to share the additional financial risks borne by the company. IMPROSHARE also does not force management to reveal sensitive information about the company's financial performance.

In the absence of capital improvements the IMPROSHARE bonus can be expressed as one-half of the percentage change in the average physical product of labor between the base period and the current period. Consequently, the compensation rate w' consists of the initial wage rate w^* and any positive bonus:

$$(1)\quad w' = \mathrm{Max}\,\{w^*, w^*[1 + (1/2)(Q'/L' - Q^*/L^*)/(Q^*/L^*)]\}$$

where the asterisks denote the levels of output and labor hours in the base period and the primes denote their values after the firm implements an IMPROSHARE plan. When there is a significant change in technology or a purchase of capital equipment exceeding $15,000, firms are allowed to revise the "base period" coefficients. The bonus is calculated weekly or monthly and the pay out is based on a four-period moving average to smooth fluctuations.

There are two studies that focus solely on the changes in productivity following the implementation of IMPROSHARE plans. Fein (1983) collected data from 72 of the approximately 100 companies that had introduced IMPROSHARE plans by 1982 and found that the median increase in output per worker-hour after one year was 21 percent. Globerson and Parsons (1987) recently surveyed 157 firms in the United States and Canada that had introduced IMPROSHARE plans. The median increase in productivity among the 92 responses they received was 10 percent, and the average increase was 14 percent, but it is unclear from the wording of their question whether this was the cumulative or annual change in productivity.

Both studies included firms that had introduced IMPROSHARE plans but had subsequently abandoned them. In neither study was the timing of the productivity changes analyzed nor were the determinants of the productivity changes estimated.

The Survey Questionnaire

A list of all companies and divisions that had ever implemented IMPROSHARE was obtained from Mitchell Fein. A detailed questionnaire was sent to all 273, and 112 surveys were completed or partially completed. Although a 43.7 percent response rate is high for surveys of this nature, it may be argued that the sample is biased. Perhaps those companies that have had success with IMPROSHARE are more likely to take the time to complete the questionnaire. While it is difficult to ascertain whether my sample is representative, Mitchell Fein has estimated that 15 to 20 percent of all companies that implemented IMPROSHARE eventually discontinued it. In my sample 23.2 percent of the plans were discontinued, leading me to believe that my sample is reasonably representative.

Among the 103 companies that reported such data, the median and average bonuses during the first three months after the introduction of IMPROSHARE were 4.0 and 5.83 percent, respectively. For simplicity, the survey questionnaire inquired about the average bonus during various time periods. Since the bonus is non-negative even when productivity in any 4-week period falls below the base period, one cannot simply double the average bonus in full quarters and years containing those 4-week periods to obtain estimates of the average productivity gain. To estimate the relationship between the bonus and productivity gain more accurately I obtained actual weekly productivity and bonus data since the inception of IMPROSHARE for 44 companies from Mitchell Fein. These data yielded 378 observations of non-overlapping quarterly averages. I fitted a quadratic spline function with two knots to these data to estimate the change in productivity given the bonus and obtained an R^2 of 0.98. Other parsimonious spline functions with polynomials of different powers and with different knots yielded slightly lower R^2. This spline function was then used along with the reported bonuses to estimate the productivity change for each company in my sample. In several instances in which the survey respondents provided more exact information about the productivity change, the more exact data were used.

Substituting the reported bonus data into the spline function, I estimate that the median and average percentage increases in productivity during the first 3 months relative to the base period among these 103 firms were 5.61 and 8.58 percent, respectively. In Figure 1, I present the average bonuses and estimated productivity increases during three periods among the 84 firms that reported continuous data for one or more years. Here one can see that the median increase in productivity among those 84 firms was 4.17 percent during the first three months, 5.90 percent during the first six months, and 8.31 percent during the first year. The average increases in productivity for these same three periods were 8.41 percent, 9.43 percent, and 13.04 percent, respectively. There was substantial variation within the sample, reflected by large estimated standard deviations of 15.8, 16.1, and 17.6 percent for the 3-month, 6-month, and 1-year productivity changes.

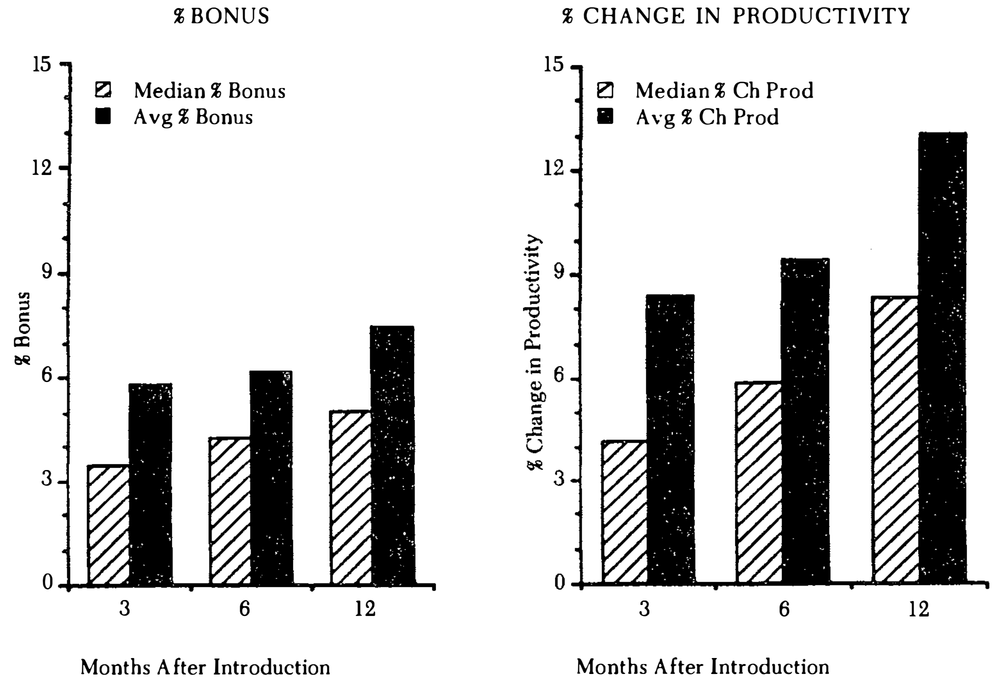
Although these one-year productivity gains of 8.3 and 13.0 percent may be compared with the 3 percent annual growth rate of manufacturing output per hour between 1977 and 1989, the 3 percent figure is probably an overestimate, for several reasons, of the productivity change that would have normally occurred in the firms in my sample. First, a substantial portion of the 3 percent growth rate in manufacturing is due to vintage effects whereby inefficient plants are closed and more efficient plants are opened. Secondly, the reported bonus and productivity data in my survey exclude (net out) most of the significant improvements in capital equipment and technology within the firm. Finally, much of the productivity growth in manufacturing has occurred within the computer industry, where none of the companies in my sample are located (Baily and Gordon, 1988). A better, but still imperfect comparison would be multifactor productivity growth. From 1977 to 1987 (the latest year for which estimates are available) multifactor productivity in manufacturing grew at an annual rate of 2.1 percent (U.S. Department of Labor, 1989).

Data from firms with more than one year of continuous data indicate that productivity continues to rise sharply after the initial introduction of the plan for at least three years (to 17-19 percent) after which time it begins to plateau. Once again, the average gains exceed the median gains.

Because firms that have disappointing experiences with IMPROSHARE are more likely to discontinue it, one might argue that these results are biased upwards. In order to take account of this potential bias I constructed adjusted series for all of my data by extending the data series among those firms that discontinued their plans and adding

FIGURE 1

Bonus and Productivity Change Data for Firms with 1 or More Years of Experience With IMPROSHARE (N=84)



these observations to my sample to obtain adjusted samples. I extended these series by assuming that the actual average annual performance during the life of the plan relative to the base period would have remained constant if the plan had not been terminated. For example, if a plan was discontinued after 2.5 years and the bonuses were 4 and 5 percent during the first two years, I set the adjusted bonus in years 3 and 5 to 4.5 percent. I did not extend data beyond 1989.

The adjusted medians are very close to the unadjusted medians during the first two years and then fall slightly behind. The adjusted averages, on the other hand, almost always *exceed* those of the unadjusted averages because a few of the firms that discontinued their plans had experienced dramatic increases in productivity.

The Determinants of Productivity Changes

Following the previous discussion, I postulated the following functional form for the determinants of the change in productivity under IMPROSHARE:

(2) %ΔPROD = f(DUNION, MODE, LWORKERS, CHUR)

where %ΔPROD = the percentage change in productivity

DUNION = a dummy variable reflecting the presence of a union

MODE = a dummy variable indicating whether the product is produced via mass production or job lot

LWORKERS = the logarithm of the number of production workers at the commencement of IMPROSHARE

CHUR = the change in the average (seasonally unadjusted) national unemployment rate between the reference period and the base period.

The expected sign of the coefficient on LWORKERS is negative, reflecting the firm-size effect. CHUR was initially included to test for procyclical movements in productivity, in which case the coefficient would be negative. It was subsequently noted, however, that workers may be less inclined to shirk as unemployment rises, in which case the coefficient would be positive. The expected signs on the DUNION and MODE are ambiguous.

Equation 2 was estimated using both the change in productivity during the first three months after IMPROSHARE's introduction and the change during the first year as the dependent variable. Separate equations were also estimated for union and nonunion firms.

The regression results for the entire sample are presented in Table 1. The most robust finding in these regressions is the confirmation of a firm-size effect. In all the regressions the productivity change is negatively related to the number of production workers in the firm at the time IMPROSHARE was implemented, and in most of the regressions this coefficient is significant at the 5 percent level. The size of the coefficient varies between −4.02 and −5.45, with a median estimate of −5.27. Using this median estimate, a 10 percent increase in firm size, evaluated at the median employment level of 206, would *ceteris paribus* reduce the productivity gain by about 0.5 percentage points. A doubling in size to 412 would *ceteris paribus* reduce the productivity gain by about 3.65 percentage points. This finding stands in contrast to White (1979), who found greater productivity effects in larger plants.

There is some (albeit weak) evidence that IMPROSHARE may be more successful in unionized plants. This is reflected by the coefficient on the union dummy variable. Although it is statistically significant only in the 3-month productivity change regressions, the t statistics in the 1-year regressions exceed 1.0. Nevertheless, when a separate variable equal to LWORKER times DUNION was added to the regression, it was always insignificant, implying that one cannot reject the hypothesis that the firm-size effect is the same in union and nonunion firms. Finally, F tests indicated that one cannot reject the null hypothesis that all the variables (except the union dummy variable) are the same in both union and nonunion firms.

Several additional tests were run. First, the same regressions were estimated using the adjusted data discussed in the preceding section, and the results were very similar. Secondly, the regressions were estimated for several subsamples in which the outliers for the dependent variable and/or the number of workers were excluded. The firm-size effect in these regressions was generally a bit smaller, but the t statistics on LWORKER were even higher and the adjusted R^2 increased substantially.

TABLE 1

Determinants of Productivity Changes Among All Firms

Indep. Variable	Dependent Variable: % Change in Productivity During First Year			% Change in Productivity During First 3 Months			
Constant	32.92°°	32.96°°	33.27°°	28.08°°	28.49°°	29.54°°	28.69°°
	(9.31)	(9.37)	(9.29)	(7.21)	(7.20)	(7.16)	(7.30)
LWORKER[a]	−5.29°°	−5.27°°	−4.14°°	−5.44°°	−5.45°°	−5.15°°	−4.02°°
	(2.10)	(2.12)	(1.92)	(1.59)	(1.59)	(1.57)	(1.51)
DMASSP[b]	7.63	6.54		4.11	4.39		
	(4.58)	(4.55)		(3.35)	(3.34)		
D2MODES[c]	−2.82	−4.02		−1.56	−1.15		
	(11.02)	(11.06)		(8.77)	(8.76)		
DUNION[d]	5.23	4.28		7.66°°	7.88°°	7.32°°	
	(4.84)	(4.82)		(3.58)	(3.57)	(3.49)	
CHUR[e]	0.33			−0.15			
	(0.24)			(0.15)			
$\bar{R}^2$	0.06	0.05	0.05	0.10	0.10	0.11	0.07
N	69	69	70	81	81	82	82

[a] LWORKER = the logarithm of the number of production workers at the time of IMPROSHARE's introduction.

[b] DMASSP = a dummy variable that equals 1 if the principal type of production is mass production (as contrasted with job lot).

[c] D2MODES = a dummy variable that equals 1 if production is evenly divided between mass production and job lot.

[d] DUNION = a dummy variable that equals 1 if the firm is unionized.

[e] CHUR = the change in the average seasonally unadjusted unemployment rate between either: 1) the first year after IMPROSHARE's introduction and the previous year, which is typically the base year, or, in the case of the last 4 columns, 2) the first three months after IMPROSHARE's introduction and the corresponding three months of the previous year.

° Denotes statistical significance at the 10% level

°° Denotes statistical significance at the 5% level

Acknowledgments

I gratefully acknowledge the financial assistance I received as a Picker Fellow. I also thank Mitchell Fein for his assistance in collecting the data, Peter Dorman, Geoffrey Woglom, and Andrew Zimbalist for their suggestions, and Una Grewal, Wei Diao, and Anita D'Souza for their able research assistance.

References

Baily, Martin N., and Robert J. Gordon. "The Productivity Slowdown, Measurement Issues, and the Explosion of Computer Power." *Brookings Papers on Economic Activity* 1988, No. 2, pp. 347-420.

Ehrenberg, Ronald G., and George T. Milkovich. "Compensation and Firm Performance." National Bureau of Economic Research Working Paper #2145, 1987.

Estrin, Saul, Paul Grout, and Sushil Wadhwani. "Profit-Sharing and Employee Share Ownership." *Economic Policy* 2 (1987), pp. 13-62.

Fein, Mitchell. "IMPROSHARE: An Alternative to Traditional Managing." Norcross, GA: American Institute of Industrial Engineers, 1981.

———. "Improved Productivity Through Worker Involvement." *Industrial Management* 25 (1983), pp. 1-12.

Fitzroy, Felix R., and Kornelius Kraft. "Cooperation, Productivity, and Profit Sharing." *Quarterly Journal of Economics* 102 (1987), pp. 23-35.

Globerson, Shlomo, and Robert Parsons. "IMPROSHARE: An Analysis of User Responses." *Proceedings of the IXth International Conference on Production Research*, 1987. Cincinnati, Ohio, pp. 158-162.

Kruse, Douglas L. "Profit-Sharing and Productivity: Microeconomic Evidence." Unpublished manuscript. New Brunswick, NJ: Institute of Management and Labor Relations, Rutgers University, 1988.

Mitchell, Daniel J.B., Daniel Lewin, and Edward E. Lawler III. "Alternative Pay Systems, Firm Performance, and Productivity." University of California Los Angeles Institute of Industrial Relations Working Paper 165, February 1989.

Schuster, Michael H. *Union-Management Cooperation: Structure, Process, Impact.* Kalamazoo: W.E. Upjohn Institute. 1984.

U.S. Department of Labor. *Monthly Labor Review*. November, 1989.

Weitzman, Martin L., and Douglas L. Kruse. "Profit Sharing and Productivity." Mimeo. Cambridge, MA. February 1989.

White, J. K. "The Scanlon Plan: Causes and Correlates of Success." *Academy of Management Journal* 22 (1979), pp. 292-312.

Whyte, William. *Money and Motivation*. New York: Harper & Row. 1955.

Does Dual Commitment Underlie the Constructs of Company and Union Commitment?

Roderick D. Iverson
University of Iowa

Sarosh Kuruvilla
Cornell University

The concept of dual commitment (also referred to as dual allegiance or dual loyalty) has been a subject of intermittent research interest over the last 40 years (Gordon and Ladd, 1990). Early research was concerned with the notion that individuals' commitment to the union would compete with their commitment to the company since there was essentially an adversarial relationship between company and union. The resurgence of interest in dual commitment in the 1980s is due to beliefs that dual commitment is a necessary ingredient for the success of cooperative union-management strategies being currently undertaken in the face of increased foreign competition (Kochan, Katz, and Mower, 1984). In addition, advances in measurement instruments for union commitment (Gordon, Philpot, Burt, Thompson, and Spiller, 1980) and company commitment (commonly referred to as organizational commitment [Porter, Steers, Mowday, and Boulian, 1974]) have also provided an added fillip to studies of dual commitment.

Despite the resurgence of interest, there are, as Gordon and Ladd (1990) note, "a number of unresolved theoretical and technical issues that continue to plague this stream of research" (p. 38). These issues relate primarily to the methodology used to investigate the concept and to the absence of any theoretical underpinnings for dual commitment research. In effect, there is little agreement whether dual commitment is a construct or not.

Iverson's Address: Department of Sociology, S140 Seashore Hall, University of Iowa, Iowa City, IA 52242.

This paper attempts to shed light on this question by examining the construct validity of dual commitment through the application of the maximum likelihood technique of LISREL VII (Joreskog and Sorbom, 1988). Alternative models of factor structures for union and company commitment are evaluated and the model with the best fit is then subjected to a second-order confirmatory factor analysis to investigate whether a common latent dual commitment construct underlies company and union commitment. The results provide no support for the existence of a separate construct of dual commitment. Implications for research are discussed.

Approaches to the Study of Dual Commitment

Most researchers have examined dual commitment through the taxonomic, dimensional, or parallel model approaches. For a comprehensive review of the literature in this area see Gordon and Ladd (1990) and Jeong (1990).

Under the taxonomic approach, union and company commitment measures are divided into two groups, low and high. This results in a quadrant classification of high company commitment-high union commitment, low company commitment-low union commitment, high company commitment-low union commitment and high union commitment-low company commitment. The first two quadrants are then labeled dual commitment. The taxonomic approach then investigates other variables that differentiate between membership in these four groups.

The taxonomic approach to the study of dual commitment has been criticized on numerous grounds. First, cutoff points for dividing the commitment scales are arbitrarily determined, which implies that membership in each quadrant is arbitrarily decided. Since means and medians are invariably used to split groups, differences in means or medians across samples implies that the coordinates of the quadrants will differ from study to study. Second, much information is lost by transformation of continuous variables into categorical ones. Added problems posed by differences in reliability of commitment scales used in various studies make the taxonomic approach inappropriate to examine dual commitment.

The dimensional approach has been widely used (Angle and Perry, 1986; Conlon and Gallagher, 1987; Fukami and Larson, 1984; Magenau, Martin and Peterson, 1988; Schriesheim and Tsui, 1980). This approach involves investigating the correlation between company commitment and union commitment measures. In sum, under this approach, a high (low) positive correlation between company and union commitment implies a high (low) level of dual commitment. One problem with this approach is that since researchers have to assume that union commitment and company commitment are equally important (in the absence of theory), they have no theoretical basis to decide whether union commitment moderates the relationship between company commitment and some other antecedent variable, or vice versa. Second, the correlation coefficient between two commitment scales is not related to the absolute values of both commitments (Gallagher, Fiorito, Jarley, Jeong, and Wakabayashi, 1988). The Pearson product-moment correlation coefficient is determined by the variances of the two measures rather than their mean values. Consequently, the correlation coefficient cannot produce any indication of the levels of an individual's commitment to the company and union. Besides, comparisons across studies indicate substantial variations in the correlations between company and union commitment, ranging from 0 to .74, with an average of .30 (Gordon and Ladd, 1990).

The third approach has been the parallel models approach, whereby company and union commitment are regressed on a common or similar set of determinants in order to identify common variables that influence the two (Fukami and Larson, 1984). While this has some practical relevance in terms of identifying variables that management and unions could influence, this approach does not provide evidence that the construct of dual commitment exists.

In sum, previous approaches to dual commitment research do not provide any evidence as to whether dual commitment is an independent construct. Examination of the antecedents of dual commitment is clearly premature, in that the antecedents of a construct cannot be examined if the construct itself does not exist. Direct measures of dual commitment (Angle and Perry, 1986) are also problematic due to the absence of a clear theoretical underpinning for the construct of dual commitment.

The guidelines in "Standards for Educational and Psychological Testing" (American Psychological Association, 1985) states that "The construct of interest should be embedded in a conceptual framework . . . The conceptual framework specifies the meaning of the construct, distinguishes from other constructs and indicates how measures of the construct should relate to other variables." Given these guidelines, dual commitment cannot be termed a construct. Most researchers, however, tend to view dual commitment as a construct.

The purpose of this paper is to examine empirically the construct validity of dual commitment. If dual commitment is in fact a construct, it should represent a changing of the factor structure of both company and union commitment. This is tantamount to stating that union and company commitment are components of the same construct or that dual commitment is a single general second-order construct underlying the two first order constructs of company and union commitment.

Data and Methods

Sample

The sample consists of 181 full-time blue-collar (58.2%) and white-collar (41.2%) employees of a power generating plant located in the southeast region of Australia. A union shop clause is in operation and consequently, 96 percent of the employees are union members. The sample comprises 92 percent males, with 91 percent being day workers, where the average age, education, and tenure of employees are 31.92 years (s.d. = 9.80), 11.34 years (s.d. = 2.69), and 7.26 years (s.d. = 1.27), respectively.

Data Collection

Surveys were administered to employees in June 1986. Due to the nature of the industry, three major unions were contacted and agreed to participate. The response rate was 43 percent.

Measures

Union commitment was measured by 18 items from the 48 items identified by Gordon et al. (1980). These 18 items were further broken into the four subscales as reported by Gordon and his colleagues: Union Loyalty (8 items); Responsibility to the Union (4 items); Willingness to Work for the Union (4 items); and Belief in Unionism (2 items). Contemporary research (Fullagar, 1986; Klandermans, 1989; Kuruvilla, 1989) also suggests a controversy as to whether the Gordon et al. (1980) union commitment scale has two, three, four, or five factors. The original 18 items were therefore grouped into the two subscales as reported by Friedman and Harvey (1986): Union Attitudes and Opinions (10 items); and Prounion Behavioral Intentions (8 items). In addition, based on the results of Klandermans (1989) and Gordon et al. (1980, p. 487), the Loyalty and Beliefs subscales were combined to form a general attitudes (Union Loyalty/Beliefs) factor. The three-factor structure comprised: Union Loyalty/Beliefs (10 items); Responsibility to the Union (4 items); and Willingness to Work for the Union (4 items). Thus, four different factor structures of union commitment were used in the analysis of dual commitment.

The full scale of company commitment as identified by Porter et al. (1974) was employed in this study. Following the recommendations of Michaels and Spector (1982) and Mobley, Griffeth, Hand, and Meglino (1979) company commitment was divided into two subscales: Commitment to the Company (11 items) and Intention to Leave (4 items). Similar to union commitment, company commitment also investigated dual commitment with alternative factor structures.

Analysis

The analysis involved two basic strategies. First, comparisons of the relative goodness-of-fit of models of differing dimensionality was conducted. Second, confirmatory second-order factor analysis (with one general factor) using LISREL was used to examine dual commitment as a latent variable underlying the two commitments. Second-order factor structures (e.g., general factor of commitment) are appropriate when trying to explain the covariances among first-order factors (e.g., union and company commitment [Marsh and Hocevar, 1985]).

The LISREL VII computer program was employed to obtain maximum likelihood factor analysis solutions for models of differing dimensionality. First, the Null Model was estimated, i.e., that each of the items in the company and union commitment questionnaires is an independent factor of its own. Then the 2 Factor (Friedman and Harvey, 1986), 3 Factor (Klandermans, 1989), and 4 Factor (Gordon et al., 1980) solutions of the union commitment model, and the 1 Factor (Porter et al., 1974) and 2 Factor solutions (Michaels and Spector, 1982; Mobley et al., 1979) of the company commitment model were assessed. In the analyses, the factors were allowed to be correlated. Finally, the second-order model was estimated, whereby the best fitting first-order factor model was employed, and company commitment and union commitment were hypothesized to load onto one underlying latent construct of dual commitment.

If the goodness-of-fit criteria for a second-order factor is significantly better than the fit of the first-order factors, then we may conclude that the latent factor (dual commitment) does exist.

Results and Discussion

Table 1 provides the results of the various analyses for models of differing dimensionality. The results support the previous research of Magenau et al. (1988) and Martin, Magenau, and Peterson (1982) by indicating that union and company commitment are distinct constructs, and it implies that a combination of the two constructs or their factor structures will not result in a third dual commitment construct.

In terms of first-order factors, the 1 Factor Model had a statistically better fit than the Null Model ($x^2(33) = 1163.57$, $p < .05$). The 2 Factor Model showed a significant improvement over the 1 Factor Model, with the GFI, AGFI, NFI, and PFI all being higher, and the RMSR reduced to .068. A similar pattern in improvement was found between the 3 Factor Models of 1 UC and 2 CC, and 2 UC and 1 CC with the 2 Factor Model ($x^2(2) = 7.03$, $p < .05$ and $x^2(2) = 42.29$, $p < .05$, respectively). Though the increase in fit was not as dramatic as that from the 1 Factor to the 2 Factor Model, the fit for each of the 3 Factor Models was significantly better than that of the 2 Factor Model. Although the 4 Factor Model (2 UC and 2 CC) had slightly better indicators than both the 3 Factor Models, the chi-square difference of the model was not significant when compared to the 2 UC and 1 CC model. However, the 4 Factor Model of 3 UC and 1 CC produced a significant better fit than the 3 Factor models, where the GFI, AGFI, and PFI increased to .794, .764, and .686, respectively. In comparison to the 4 Factor Model of 3 UC and 1 CC, both the 5 Factor Models failed to provide a significant improvement in the fit indices as identified by the nonsignificant change in the chi-square. Finally, although the 6 Factor Model (4 UC and 2 CC) had a slightly higher GFI, AGFI, NFI and PFI and a lower RMSR than the 4 Factor Model of 3 UC and 1 CC, it also had a nonsignificant chi-square difference.

The results of the first-order factors clearly indicate that the 4 Factor Model of dual commitment (i.e., 3 factors of union commitment and 1 factor of company commitment) is the best fitting, most parsimonious structure in this sample of Australian workers. This result is consistent with Klandermans' (1989) 3 Factor union commitment solution and Porter et al.'s (1974) 1 Factor company commitment construct. Furthermore, the correlations among the 3 factors of union commitment ranged from .72 to .76 ($p < .05$), with the 1 factor of company commitment having nonsignificant correlations of .05, .04, and .04 with Union Loyalty/Beliefs, Responsibility to the Union, and

TABLE 1
Confirmatory Factor Analysis for Dual Commitment Models of Differing Factor Structure[a]

Model	Chi-square	*df*	p <	GFI	AGFI	RMSR	NFI	PFI
First-Order Factor Models								
Null	2765.27	528	000	.321	.278	.239		
1 Factor	1601.70	495	000	.517	.453	.140	.421	.382
2 Factor								
(1 UC & 1 CC)	886.35	494	000	.771	.740	.068	.679	.657
3 Factor								
(1 UC & 2 CC)[b]	879.32	492	000	.772	.740	.068	.682	.659
(2 UC & 1 CC)[c]	844.06	492	000	.783	.753	.067	.695	.672
4 Factor								
(2 UC & 2 CC)[d]	837.00	489	000	.785	.753	.067	.697	.673
(3 UC & 1 CC)[e]	804.12	489	000	.794	.764	.066	.699	.686
5 Factor								
(3 UC & 2 CC)[f]	796.95	485	000	.795	.763	.066	.702	.686
(4 UC & 1 CC)[g]	795.50	485	000	.796	.764	.066	.712	.687
6 Factor								
(4 UC & 2 CC)[h]	787.99	480	000	.797	.763	.071	.715	.686
Second-Order Factor Model[i]								
4 Factor								
(3 UC & 1 CC)	805.67	491	000	.794	.764	.067	.709	.687

[a] GFI = Goodness-of-Fit Index; AGFI = Adjusted-Goodness-of-Fit Index; RMSR = Root Mean Square Residual (Joreskog and Sorbom, 1988); NFI = Normed Fit Index (Bentler and Bonett, 1980); PFI = Parsimonious Fit Index (James, Mulaik and Brett, 1982).

Note:

2 Factor Model: 1 union and 1 company commitment factor.

3 Factor Model[b]: 1 union commitment factor and 2 company commitment factors (Michaels and Spector, 1982).

3 Factor Model[c]: 2 union commitment factors (Friedman and Harvey, 1986) and 1 company commitment factor (Porter et al., 1974).

4 Factor Model[d]: 2 union commitment factors (Friedman and Harvey, 1986) and 2 company commitment factors (Michaels and Spector, 1982).

4 Factor Model[e]: 3 union commitment factors (Klandermans, 1989) and 1 company commitment factor (Porter et al., 1974).

5 Factor Model[f]: 3 union commitment factors (Klandermans, 1989) and 2 company commitment factors (Michaels and Spector, 1982).

5 Factor Model[g]: 4 union commitment factors (Gordon et al., 1980) and 1 company commitment factor (Porter et al., 1974).

6 Factor Model[h]: 4 union commitment factors (Gordon et al., 1980) and 2 company commitment factors (Michaels and Spector, 1982).

Second-Order Factor Model[i]: The best fitting first-order model (4 Factor model: 3 UC & 1 CC) was then re-estimated on a second-order basis.

Willingness to Work for the Union, respectively. These results demonstrate that the 3 factors of union commitment are moderately correlated and can be discriminated from the company commitment factor.

An additional analysis was undertaken to test the existence of a second-order general factor (see Table 1). As the 4 Factor Model (3 UC and 1 CC) had the best fit of first-order models it was employed in this analysis. The results of the hypothesis that a latent construct (dual commitment) underlies both union and company commitment indicate little support for the presence of a second-order dual commitment construct. Although the GFI and AGFI of the second-order 4 Factor Model were equal in magnitude to the first-order 4 Factor Model and the degrees of freedom indicated a slightly better fit in the second-order model, there was a nonsignificant change in the chi-square. When comparing first and second-order models it is recommended that a target coefficient index be used (Marsh and Hocevar, 1985). The target coefficient is the ratio of the first-order models chi-square to that of the second-order, and is characterized by an upper limit of 1 representing no difference in fit between the models. The target coefficient was .98, indicating that the second-order model provides a fit differing little from the first-order model. Thus, moving from a first-order model to a second-order model does not result in an increase in goodness-of-fit.

An examination of the correlations between the hypothesized dual commitment construct and the first-order factors indicate that dual commitment is correlated significantly with union commitment (Union Loyalty/Beliefs, $r = .89$; Responsibility to the Union, $r = .85$; and Willingness to Work for the Union, $r = .85$), but not with company commitment ($r = .05$, $p > .05$). The pattern of correlations show no support for the hypothesis that a single latent factor of dual commitment underlies both company and union commitment.

Conclusions

In general, these results provide little support for the existence of a second-order dual commitment construct. Following the analysis of the best fitting and most parsimonious first-order model (i.e., Klandermans, 1989 and Porter et al., 1974), the second-order model identified no underlying dual commitment factor. This further suggests that empirically, company and union commitment are distinct constructs and efforts to merge them into a dual commitment as done in much of the previous research may be erroneous. In the absence of a clear theoretical basis for the identification of a dual commitment construct, further research in this regard may be futile.

Caution should be exercised by readers, however, considering that this research is based on one sample in a differing cultural context, and the ability to generalize is, of course, limited. However, to the extent that there is no dual commitment construct, the assumption that dual commitment is an important determinant of the success of cooperative labor management programs (Gordon and Ladd, 1990) may be problematic. Future research on the success of joint labor management programs should concentrate on other factors such as union member and leadership support for these programs, rather than focusing on dual commitment.

These are preliminary results in a single sample of largely male Australian workers in a firm where union membership is compulsory, i.e., a union shop exists. Future research must examine the empirical existence of a dual commitment construct in a variety of different cultural, industrial, and union settings. It is apparent that the controversy over the existence of a dual commitment construct will not be settled until many of the theoretical and methodological pitfalls in various studies have been overcome.

Acknowledgment

The authors would like to thank Daniel Russell for valuable technical assistance on this paper.

References

American Educational Research Association, American Psychological Association, and National Council on Measurement in Education. *Standards for Educational and Psychological Testing*. American Psychological Association, Inc., Washington, D.C., 1985.

Angle, Harold L., and James L. Perry. "Dual Commitment and Labor Management Relationship Climates." *Academy of Management Journal* 29 (1986), pp. 31-50.

Bentler, P. M., and Douglas G. Bonett. "Significance Tests and Goodness of Fit in the Analysis of Covariance Structures." *Psychological Bulletin* 88 (1980), pp. 588-606.

Conlon, Edward E., and Daniel G. Gallagher. "Commitment to the Employer and the Union: The Effect of Membership Status." *Academy of Management Journal* 30 (1987), pp. 151-62.

Friedman, Lee, and Robert J. Harvey. "Factors of Union Commitment: The Case for a Lower Dimensionality." *Journal of Applied Psychology* 71 (1986), pp. 371-76.

Fukami, Cynthia V., and Erik W. Larson. "Commitment to the Company and the Union: Parallel Models." *Journal of Applied Psychology* 69 (1984), pp. 367-71.

Fullagar, Clive. "A Factor Analytic Study on the Validity of a Union Commitment Scale." *Journal of Applied Psychology* 71 (1986), pp. 129-36.

Gallagher, Daniel G., Jack Fiorito, Paul Jarley, Yeon-Ang Jeong, and Mitsuru Wakabayashi. "Dual Commitment in Japan: Preliminary Observations." *Proceedings* of the 41st Annual Meeting, Industrial Relations Research Association, WI: IRRA, 1988. Pp. 598-99.

Gordon, Michael E., John W. Philpot, Robert E. Burt, Cynthia A. Thompson, and William E. Spiller. "Commitment to the Union: Development of a Measure and an Examination of its Correlates." *Journal of Applied Psychology* 65 (1980), pp. 479-99.

Gordon, Michael E., and Robert T. Ladd. "Dual Allegiance: Renewal, Reconsideration and Recantation." *Personnel Psychology* 43 (1990), pp. 37-69.

Gordon, Michael E., Laura L. Beauvais, and Robert T. Ladd. "The Job Satisfaction and Union Commitment of Unionized Engineers." *Industrial and Labor Relations Review* 37 (1984), pp. 359-70.

James, Lawrence R., Stanley A. Mulaik, and Jeanne M. Brett. *Causal Analysis*. Beverly Hills: Sage, 1982.

Jeong, Yeon-Ang. "Determinants of Employees Multiple Commitments to the Company and Union in Canada and Sweden: Parallel Models." *Unpublished Doctoral Dissertation*, University of Iowa, 1990.

Joreskog, Karl B., and Dag Sorbom. *LISREL VII: Analysis of Linear Structural Relationships by the Method of Maximum Likelihood*. Morrisville: IN: Scientific Software, 1988.

Klandermans, Bert. "Union Commitment: Replications and Tests in the Dutch Context." *Journal of Applied Psychology* 74 (1989), pp. 869-75.

Kochan, Thomas A., Harry C. Katz, and Nancy R. Mower. *Worker Participation and American Unions: Threat or Opportunity?* Kalamazoo, MI: Upjohn Institute, 1984.

Kuruvilla, Sarosh. "Union Attitudes: Three essays on Dimensionality, Discriminant Validity and Union Attitude Formation." *Unpublished Doctoral Dissertation*, University of Iowa, 1989.

Magenau, John M., James E. Martin, and Melanie M. Peterson. "Dual and Unilateral Commitment amongst Stewards and Rank and File Members." *Academy of Management Journal* 31 (1988), pp. 359-66.

Marsh, Herbert W., and Dennis Hocevar. "Application of Confirmatory Factor Analysis to the Study of Self Concept: First- and Higher Order Factor Models and Their Invariance Across Groups." *Psychological Bulletin* 97 (1985), pp. 562-82.

Martin, James E., John M. Magenau, and Mark F. Peterson. "Variables Differentiating Patterns of Commitment Among Union Stewards." *Proceedings* of the 42nd Annual Meeting, Academy of Management, New York, 1982, pp. 302-06.

Michels, Charles E., and Paul E. Spector. "Causes of Employee Turnover: A Test of the Mobley, Griffeth, Hand, and Meglino Model." *Journal of Applied Psychology* 67 (1982), pp. 53-59.

Mobley, W. H., R. W. Griffeth, H. H. Hand, and B. M. Meglino. "Review and Conceptual Analysis of the Employee Turnover Process." *Psychological Bulletin* 86 (1979), pp. 493-522.

Porter, Lyman M., Richard M. Steers, Richard T. Mowday, and Paul V. Boulian. "Organizational Commitment, Job Satisfaction, and Turnover amongst Psychiatric Technicians." *Journal of Applied Psychology* 59 (1974), pp. 603-09.

Schriesheim, Chester A., and Anne S. Tsui. "Dual Commitment to the Company and Union: A Review and Resolution of the Controversy." *Paper presented at the 40th Annual Meetings of the Academy of Management*, Detroit, 1980.

Information and Relevancy Factors as Predictors of Referents in a Tiered Setting

JAMES E. MARTIN
Wayne State University

RAYMOND T. LEE
University of Manitoba

Pay comparisons (referents) have long been a critical element in bargaining with unions, employers, and various membership factions making different pay comparisons to support their positions (Chamberlain and Kuhn, 1986). Such comparisons may affect whether employees are satisfied with the results of collective bargaining. While research on the relative importance of comparisons or the criteria used by employers in setting wage targets exists (Freedman, 1985), there have been no empirical studies examining the relative importance of the pay referents or comparisons unionized employees make.

The process of pay comparisons appears to be even more complicated in situations where wage tiers exist (i.e., where employees are placed on different wage progressions based solely on their date of hire). Cappelli and Sherer (1990) found that employees on different tier levels rated the importance of various pay referents differently. Martin and Peterson (1987) argued that attitude differences among employees on different tier levels were likely attributable to how each group used referents. Moreover, employers may attempt to influence which tier level employees use as a referent. For example, the airlines argue that the low-wage tier rates, which are comparable to those of the nonunion competition, should be viewed as the standard or "market rate" paid, and are necessary for them to remain competitive (Cappelli and Sherer, 1990). Hence, the debate over which referents are used in determining the market rates (Chamberlain and Kuhn,

---

Martin's Address: School of Business Administration, Wayne State University, Detroit, MI 48202.

1986) appears to be a greater source of labor-management contention where wage tiers exist, suggesting a need to understand how referents are used in such settings. Using employees from a setting with a two-tier wage structure, the current study seeks to (1) examine the dimensionality of pay referents thought to be important in evaluating pay fairness, and (2) investigate the relations between information and relevancy factors and the use of various referents.

Little is known about the dimensionality and importance of pay referents in such settings. Goodman's (1977) model of pay comparisons provides a basis for understanding how an individual selects social referents (other individuals, both internal and external to the organization), and self referents (experiences, needs, and expectations unique to the individual). According to Goodman's model, the selection of referents is a function of both the availability of information concerning the standards of comparison and their relevance for comparison. Availability of information is primarily related to the individual's job position and willingness to search for information. Goodman suggested that the information about a referent, however, should be viewed as only a necessary condition for its selection, while the relevance or attractiveness of a referent for satisfying a person's instrumental needs leads to its selection. The employee's work setting sets constraints in pay, perceived promotion opportunities and their desirability, scheduling of hours, and perceived employment mobility, which together may affect the relevancy of various pay comparisons. Surprisingly, little research has examined variables that address the issues of information and relevancy in the use of referents as suggested by Goodman's (1977) model.

Setting and Sample

This study focused on unionized employees from five retail food stores in a large Midwest metropolitan area. The parent chain had implemented permanent wage tiers eight years prior to the administration of the survey questionnaires. The 685 respondents who were on wage tiers and completed the questionnaire represented 26 percent of the surveyed employees. Overall, the sample had a mean age of 27, a mean organizational tenure of 3.6 years, and a mean hourly pay rate of $6.09. The sample was predominantly female (72%), white (93%), on the low-wage tier (85%), and in part-time positions (78%). These employees had completed 12.7 years of school on average.

Dimensionality of Referents

Eighteen of the 36 referent items included in the questionnaire were identical or conceptually similar to the items used by Hills (1980). Four other referents were included that incorporated the concept of an external-cohort comparison, i.e., persons with levels of education, skill, training, and job security similar to the respondent's. Based on interviews with several union officers and retail food employees, 14 additional referents were developed that related specifically to the situation. Three of these were self-referent items concerned with the scheduling of hours. Seven concerned comparisons with specific groups of company employees. The last four items concerned comparisons with four specific groups of hourly employees in other industries. All the items used a 5-point Likert-type scale, ranging from one (not at all important) to five (extremely important). They were preceded by instructions that the items were those "which people may consider when thinking about how fair their pay is." Employees were asked to rate each one as to how important it was in deciding the fairness of their pay. The 36 referent items were submitted to a principal components analysis with varimax rotation. Nine factors with eigenvalues greater than 1 were extracted, representing five social- and four self-referents. The items and their factor loadings are shown in Table 1. Using the factor loadings, the 34 referent items which loaded above .40 on only one factor were combined to form nine referent scales.

Regression Analyses and Results

To determine the relations of the information and relevancy factors and the use of the nine types of referents, hierarchical regressions were performed for each referent. These analyses included only respondents with more than six months seniority to ensure that all had sufficient opportunity to learn about the wage tiers and had sufficient opportunity to read the union and company newspapers. In the first regression step, the demographic variables of EDUCATION, AGE, and FAMSTAT (marital status, number of children at home, and sex (alpha = .64) and the work-related variables of weekly pay (WEEKPAY) and TIER were entered as controls. Information variables were entered in the second step. Information was measured by the number of issues of the union and company newspapers read in the previous year (READUNEWS & READCNEWS), knowledge about the pay structure when hired (KNEWPAY), current knowledge

TABLE 1

Factor Structure of the 36 Pay Referent Items

	Factor								
Items	External-Cohorts-General	Internal-Specific	External-Specific Industries	Family/Social	Internal-General	Scheduling	Expected Pay	Economic Need	Historical Pay
1. Cost of Living								.78	
2. Earning enough income to meet your own needs								.68	
3. Earning enough income to meet your family's needs								.80	
4. What people you know in other companies are paid	.54								
5. What people with your level of education are paid	.81								
6. What people with your level of skill are paid	.87								
7. What people with your level of training are paid	.85								
8. What people with the same degree of job security as you are paid	.67								
9. What your current employer paid you in the past									.65
10. What other people in your company with similar jobs are paid					.65				
11. What people with similar jobs in other companies are paid	(.47)				(.48)				
12. What members of your immediate family are paid				.73					

TABLE 1—(*Continued*)

Factor Structure of the 36 Pay Referent Items

	Factor								
Items	External-Cohorts-General	Internal-Specific	External-Specific Industries	Family/Social	Internal-General	Scheduling	Expected Pay	Economic Need	Historical Pay
13. What your other relatives make				.87					
14. What your friends are paid				.78					
15. What people in your company make who are paid less than you					.59				
16. What people in your company make who are paid more than you					.64				
17. What other employers pay for your kind of work	(.43)		(.40)		(.41)				
18. What your previous employers paid you									.73
19. What you are used to making									.69
20. What you think you will make in the future							.78		
21. What you think you are worth							.78		
22. What you could earn in other places where you might be able to get a job							.67		
23. The scheduled hours and days you normally work						.85			
24. The number of hours you work in a week						.89			

TABLE 1—(*Continued*)

Factor Structure of the 36 Pay Referent Items

	Factor								
Items	External-Cohorts-General	Internal-Specific	External-Specific Industries	Family/ Social	Internal-General	Scheduling	Expected Pay	Economic Need	Historical Pay
25. Your ability to work more hours						.70			
26. High-tier employees in general		.65							
27. Low-tier employees in general		.62							
28. Full-time employees in general		.73							
29. Part-time employees in general		.62							
30. General merchandise employees in general		.68							
31. Food employees in general		.68							
32. Management at your store		.63							
33. Employees in the automobile industry			.49						
34. Employees in the fast food industry			.69						
35. Employees at K mart			.81						
36. Employees at your employer's competitors			.76						
% Variance Explained	30.5	7.3	6.9	5.4	4.2	3.8	3.6	3.0	2.8

Note: (N = 685) The numbers in parentheses indicate multiple loadings for those items. These items are not included in any scale.

of the pay structure (CONTRATES), and prior retail food employment (PRIOREMP). In the third step, the relevancy variables were entered. A review of the literature (Heneman, Schwab, Standal, and Peterson, 1978; Hills, 1980) and interviews during survey development helped identify which relevancy variables might affect the use of pay referents among the respondents. These were perceived promotion opportunity (PROMOTION), attitude towards promotion (DESIREPROM), the expectation of working for the firm as long as they did (WKASLONG), satisfaction with the number of hours worked (SAT#HRS), satisfaction with the two-tier wage plan (SAT2TPLAN), and perceived employment mobility (MOBILITY).

Table 2 presents the referent means and a summary of the regression results. In the third regression step, 11 variables appeared as significant predictors for one or more referents. Distinct patterns of results were evident for all four of the variables that were predictors for a majority of the nine types of referents. The four internal and external references and Historical Pay had READUNEWS as a positive predictor. Since the union newspaper reported settlements of the competition and of other industries in the area, as well as comparative changes over time, these relations are not surprising. Information factors (e.g., what the union newspaper said about tiers, hours, promotions, and the competition) may have further provided a basis for the formation of attitudes related to the relevancy factors.

Satisfaction with tiers (SAT2TPLAN) was a negative predictor of the four internal and external referents and the self-referents of Expected Pay and Economic Need. This suggests that wage tiers were highly salient, irrespective of the proportion of employees on each tier level. Employees who relied on internal and external referents and their economic needs would likely have become dissatisfied with the two-tier plan, perceiving it as restricting their pay. Consistent with Cappelli and Sherer's (1990) position, the institution of tiers may have also negatively affected employee expectations about future expected pay. All four self-referents and the Internal-Specific referent had SAT#HRS as a negative predictor. In our setting, where part-time employees predominated, individuals likely evaluated their self-referents relative to their aspirations concerning the number of hours they would like to have worked, which in turn may have mediated the relations between the self-referents and SAT#HRS. Comparisons with part- and full-time employees (included in the Internal-Specific referent items) thus likely accounted for the association between that referent and SAT#HRS.

TABLE 2

Separate Regression of Each Referent on the Background, Information, and Relevancy Predictors

Referents	Mean (SD)	Background ΔR^2, step 1	Information ΔR^2, step 2	Relevancy ΔR^2, step 3	R^2 (adj. R^2)	Sig. Predictors at step 3
Social						
1. External-Cohorts-General	3.06 (1.06)	.03***	.02**	.02*	.07*** (.04)	EDUCATION(+) READUNEWS(+) SAT2TPLAN(−)
2. Internal-Specific	3.30 (1.01)	.02**	.03***	.10***	.15*** (.13)	READUNEWS(+) SAT2TPLAN(−) SAT#HRS(−) DESIREPROM(+)
3. External-Specific Industries	2.56 (1.14)	.01	.03***	.03***	.07*** (.04)	READUNEWS(+) SAT2TPLAN(−) DESIREPROM(+) WKASLONG(−) MOBILITY(−)
4. Family/Social	2.03 (1.07)	.02*	.01	.01	.04* (.01)	DESIREPROM(+)
5. Internal-General	2.96 (1.04)	.01	.06***	.05***	.12*** (.10)	EDUCATION(−) READUNEWS(+) CONTRATES(+) SAT2TPLAN(−)

TABLE 2—(*Continued*)

Separate Regression of Each Referent on the Background, Information, and Relevancy Predictors

Referents	Mean (SD)	Background ΔR^2, step 1	Information ΔR^2, step 2	Relevancy ΔR^2, step 3	R^2 (adj. R^2)	Sig. Predictors at step 3
Self						
6. Scheduling	3.92 (0.89)	.00	.00	.15°°°	.16°°° (.13)	WEEKPAY(+) SAT#HRS(−) DESIREPROM(+) MOBILITY(+)
7. Expected Pay	4.04 (0.89)	.01	.02°°	.05°°°	.08°°° (.05)	FAMSTAT(+) SAT2TPLAN(−) SAT#HRS(−) DESIREPROM(+) MOBILITY(+)
8. Economic Need	3.97 (0.97)	.11°°°	.01	.03°°°	.15°°° (.12)	FAMSTAT(+) WEEKPAY(+) SAT2TPLAN(−) SAT#HRS(−)
9. Historical Pay	2.79 (1.09)	.01	.02°°	.02°	.06°°° (.03)	EDUCATION(+) READUNEWS(+) PRIOREMP(+) SAT#HRS(−)

Note: n = 588, (excludes those with < 6 months seniority)
°$p < .10$; °°$p < .05$; °°°$p < .01$

Five referents had DESIREPROM as a positive predictor. The large number of family members employed in the industries included in the items in the External-Specific Industries referent, suggests that those with greater aspirations for promotion placed greater importance on Family/Social referents who were employed in such industries. Its relation to the Scheduling and Expected Pay referents can be explained by the fact that most promotions in the examined work setting result in more favorable schedules and increases in future pay. In our setting, employees often advance from part- to full-time positions and/or from low- to high-paying departments. Since comparisons with such internal referents are included in the Internal-Specific referent, it follows that DESIREPROM would be related to that referent as well.

Discussion

The low variance accounted for by the background variables suggests that they were linked to the referents primarily through the information and relevancy variables. The institution of tiers, as partially reflected in the background variables of TIER and WEEKPAY, had detrimental effects on the number of hours employees on both tier levels were able to work and on their opportunities for greater income through promotions. The information variables as a group, while providing a basis for attitudes about referents and the work situation, were overshadowed by the relevancy variables, suggesting that the former were both directly and indirectly related to the referents. Further, information about the work situation appears to have affected some of the relevancy variables. While the predictors explained only a small amount of variance, our findings nevertheless partially support Goodman's model (1977).

The results should be interpreted cautiously given that causal relations among the variables were not established. To demonstrate that READUNEWS or SAT#HRS directly influenced the use of a particular referent or SAT2TPLAN, a longitudinal design would be needed to show whether employees switched referents or became more dissatisfied with tiers *after* they read the union newspaper or become dissatisfied with the number of hours they worked. It may have been that the use of particular referents or SAT2TPLAN initially affected READUNEWS and SAT#HRS. Those, in turn, may have affected the subsequent use or distortion of information about the referents or about the two-tier plan as a means of reducing dissonance (Goodman, 1977). Finally, the applicability of our results to other settings, both tiered and nontiered, may be limited by the fact that we only studied one setting. However, the rank order of importance of five of our referents which were the same as those of Heneman et al. (1978) was identical, suggesting some generalizability to other settings.

Nonetheless, the results suggest that management may have difficulty convincing employees on wage tiers to accept the low-tier rates as standard market rates. Comparisons with internal and external market rates are incorporated in the referents related to READUNEWS. Thus, the union may be able to influence the importance of these referents through the union newspaper. While READCNEWS was correlated significantly with READUNEWS ($r = .56$, $p < .001$), the former was not a predictor of any referent. Follow-up interviews indicated that pay comparisons appeared in the company newspaper only during contract negotiations, and that such comparisons were given little credibility by the employees. Thus, pay comparisons in the company newspaper were apt to be less relevant to the employees than information in the union newspaper.

The negative relation of SAT2TPLAN with the internal and external referents further suggests that management may positively influence the importance of those referents by changing the tiers from permanent to merging (thus reducing dissatisfaction). This follows Cappelli and Sherer's (1990) conclusion that merging plans are preferable to permanent plans in terms of employee satisfaction. Equity theory suggests that employees who perceive their pay as unfair may be less productive. This is consistent with what has been reported in the news media concerning the negative impact of tiers on productivity (Seaberry, 1985). As the tiers merge and the pay structure is perceived to be more equitable, the factors working toward lower productivity may be reduced. Thus, in merging the high- and low-tier levels, management may forgo some savings in direct labor costs in exchange for improved employee attitudes, which, theoretically, could result in long-term benefits for all concerned parties.

Acknowledgments

This study was conducted while the second author was a research fellow in the College of Urban, Labor, and Metropolitan Affairs, Wayne State University. Funding for the data collection was provided by the senior author's ANR Pipeline Company Business Administration Fellowship. Additional support was provided by the Master of Arts in Industrial Relations program at Wayne State University.

References

Cappelli, Peter, and Peter D. Sherer. "Assessing Worker Attitudes Under a Two-Tier Wage Plan." *Industrial and Labor Relations Review* 43 (January 1990), pp. 225-44.

Chamberlain, Neil W., and James W. Kuhn. *Collective Bargaining*, 3rd ed. New York, NY: McGraw-Hill, 1986.

Freedman, Audrey. *A New Look in Wage Bargaining*. New York, NY: Conference Board, 1985.

Goodman, Paul S. "Social Comparison Processes in Organizations." In *New Directions in Organizational Behavior*, eds. Barry M. Staw and Gerald R. Salancik. Chicago, IL: St. Clair Press, 1977, pp. 97-132.

Heneman, Herbert G., Donald P. Schwab, Jerry T. Standal, and Richard B. Peterson. "Pay Comparisons: Dimensionality and Predictability." In *Proceedings of the 38th Annual Meeting of the Academy of Management*, San Francisco, CA (August 1978), pp. 211-15.

Hills, Frederick S. "The Relevant Other in Pay Comparisons." *Industrial Relations* 19 (Fall 1980), pp. 345-51.

Martin, James E., and Melanie M. Peterson. "Two-Tier Wage Structures: Implications for Equity Theory." *Academy of Management Journal* 30 (June 1987), pp. 297-315.

Seaberry, Jane. "Two-Tiered Wages: More Jobs Vs. More Workers Alienation." *Washington Post* (April 7, 1985), p. G1, G3.

DISCUSSION

Barry Gerhart
Cornell University

Alison Barber
Michigan State University

Construct validity refers to the correspondence beween a measure and a hypothetical construct. The latter must be clearly and thoroughly defined and explicated before a measure can be evaluated. Unfortunately, the definition of the dual commitment construct is somewhat unclear in the literature. In Iverson and Kuruvilla's first paragraph, for example, dual commitment is defined as "the notion that an individual's commitment would *compete* (emphasis added) with his commitment to the company." However, the next sentence says that another perspective holds that "dual commitment is a necessary ingredient for the success of cooperative union-management strategies." Thus, dual commitment is variously defined as (a) competing commitments or (in contrast), (b) high commitment to both the company and the union. Until there is some agreement in the literature on a definition, empirical tests will be difficult. The authors say as much in their Conclusion section: "In the absence of a clear theoretical basis for the identification of a dual commitment construct, further research in this regard may be futile" (p. 11).

However, in their own empirical study, the authors chose to define dual commitment as the existence of a second order factor that underlies company and union commitment. In other words, they believe a correlation between company and union commitment is evidence of dual commitment. This operational definition is not consistent with Definition (a) above. Perhaps less obviously, it is also not consistent with Definition (b), because a positive correlation between company and union commitment does not tell us whether the two types of commitment are high or low.

Gerhart's Address: NYSSILR, Cornell University, 303 Ives Hall, Ithaca, NY 14851.

In any case, the authors find that union and company commitment appear to be independent. If they are distinct constructs, why not then just recognize that sometimes they will both be high, sometimes one will be high and one low, etc.? What does the concept of "dual commitment" really add?

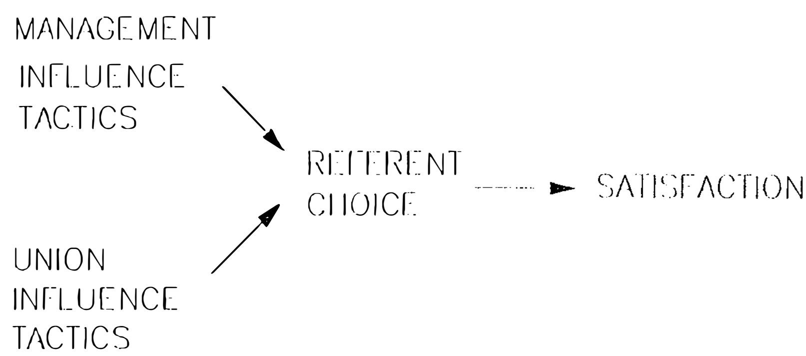
Finally, if we understand the construct definitions correctly, union and company commitment, although measured at the individual level, should have as a major source of variance differences between companies and unions. Thus, it is not clear that one can adequately examine the relation between employer and union commitment with data from just one employer. If such research is done in the future, it would seem that multiple employers should be included to obtain this key source of variance in the commitment measures. Otherwise, the observed independence between union and company commitment may be an artifact of the data used.

A stated purpose of the Martin and Lee study is to determine why people choose different referents. However, no referent choice decision is examined. Instead, the referents are treated as though they are independent and analyzed separately. The analysis does not seem to fit the problem very well. Perhaps multinomial logit or a similar model would have been better. As it now stands, the study does not really tell us when a particular referent is more likely to be used than another.

The focus of the study may also need to be changed. If there is an interest in how much influence management or unions can have on pay referents (as implied in the Discussion), we would suggest testing the model appearing in Figure 1 instead. It suggests that the choice of pay referents is important because of its possible impact on eventual satisfaction (and associated behaviors). Also of importance is how management or the union can influence these choices. As it now stands, the author uses satisfaction measures as predictors rather than outcomes. This seems just the opposite of what should be done. (See Cappelli and Sherer, 1990, cited by Martin and Lee for a design consistent with Figure 1.) The only management influence tactic measured has to do with the company newspaper, but the authors state (on page 9) that the newspaper may not have made any attempt at influence in terms of pay comparisons.

Gain-sharing is a subject of great interest, but for which there is relatively little empirical research. The Kaufman study provides some interesting evidence on the matter. There are, however, a few issues that may cloud the interpretation of the results.

FIGURE 1



First, measuring increases in productivity relative to a standard raises the question of how the standard is set. It may be that standards are often set to maximize the probability of a payoff to help plans get off the ground. A plan that does not pay off in the beginning may not be met with much enthusiasm (see the recent example of DuPont). It would be useful to know whether this is an issue in this particular study.

Second, the research does not tell us what would have happened to productivity in the (reporting) companies if the Improshare plan had *not* been adopted. Would these companies have experienced productivity increases even without the implementation of Improshare? A better, but obviously much more difficult approach, would have been to match companies (based on size, product market, pay level, etc.) and compare those that adopted Improshare to those that did not.

Third, and closely related, as Kaufman notes, selection bias may have been a problem. An organization may have been more likely to provide data if its Improshare plan was successful. Again, the use of matching (control companies) would be useful.

Fourth, why did firms that showed productivity improvements discontinue their plans? Perhaps the productivity measure lacked validity (see Point No. 1 above). In any case, future research that systematically examines adoption and cancellation decisions would be useful.

Fifth, contrary to the claim in the version of the paper we read, the results cannot really be interpreted as a "confirmation of the free rider effect." The potential free riders are those people involved/covered in the gainsharing plan. This by no means necessarily includes all employees in a company (or even in the plant). A more accurate test would be to include in the regression the number of employees covered under the plan.

Despite these issues of interpretation, the findings are interesting and timely, given the wide interest in gainsharing plans.

X. ECONOMIC CONSEQUENCES OF RAISING THE MINIMUM WAGE

Minimum Wages and the Teenage Labor Market: A Case Study of California, 1987-89

David Card
Princeton University

From introductory textbooks (e.g., Baumol and Blinder, 1988; Chapter 20) to congressional testimony (Welch, 1987) economists are nearly unanimous in asserting that legislated wage floors will reduce the employment opportunities of younger and less-skilled workers. The theoretical basis of the argument is simple and compelling. The empirical evidence, by comparison, is surprisingly weak. Today, the most widely cited evidence consists of time series studies of aggregate teenage employment (Brown, Gilroy, and Kohen, 1982; 1983). Even granting the difficulty of interpreting such data, the estimated disemployment effects are small and distressingly sensitive to choice of sample period and specification.

Before the availability of long time series of aggregate data and before the extensions in coverage in the federal minimum wage, empirical analysts concentrated on an alternative "case study" methodology. Here, the standard approach was to measure changes in employment following a rise in the minimum wage for a certain sector of the economy (see in particular Lester, 1964). This case study approach has several advantages. Most importantly, it offers the possibility of a quasi-experimental "control group," consisting of sectors of the economy unaffected by the minimum wage. Despite the

Author's Address: Department of Economics, Princeton University, Princeton, NJ 08544.

potential for clear-cut findings, the interpretation of the evidence from the available case studies remained a highly contentious issue (see for example Peterson, 1959; Lester, 1960). From the present perspective, however, one cannot help but note the absence of strong and systematic disemployment effects in the case study literature.

In the late 1980s, several states responded to the decade-long decline in the real value of the federal minimum wage by establishing state wage floors above the $3.35 per hour federal rate. These state-specific increases provide a new opportunity for the case study method of evaluating the effects of minimum wage statutes. The timing of the recent state legislation is particularly convenient. The late 1980s was a period of slowly declining unemployment, with only modest rates of wage and price inflation. In a relatively stable economic environment like this, the effects of minimum wage laws are more likely to stand out from other labor market developments.

Among the dozen states that raised their minimum rates above $3.35, California enacted the most notable change. Following a year-long sequence of legislative and administrative actions, California's minimum wage rose to $4.25 per hour on July 1, 1988. In the previous year, 11 percent of all workers in the state and *50 percent* of California teenagers earned between $3.35 and $4.25 per hour. The law was also remarkable for the breadth of its coverage, which extended even to tipped employees in the food and drink industry.

In this paper I used data from the Current Population Survey (CPS) and other sources to study the effects of the California minimum wage on the teenage labor market in the state. Following the case study methodology, I formed a comparison group of teenagers in other states to predict what would have happened to employment, wages, and unemployment in the absence of the law. The evidence is strongly inconsistent with the widespread view that higher minimum wages reduce teenage employment. In fact, the minimum wage raised both wages and employment of California teenagers.

The Situation Before the Rise in the Minimum Wage

Table 1 presents data from the 1987 monthly files of the CPS on teenagers (i.e., individuals age 16 to 19) in California and a group of comparison areas: Florida, Georgia, New Mexico, and Dallas-Fort Worth, Texas. Ideally, one might have preferred to use individuals in states such as Nevada, Oregon, or Washington to form a comparison group for California teenagers. Following California's lead, however, all these states raised their minimum wage rates in 1988 or 1989. Thus,

TABLE 1
Characteristics of Teenage Workers in California and Comparison Areas, 1987

	California	Comparison Areas
Percent Hispanic	25.8	13.6
Percent Black	8.0	21.4
Percent in Central City	34.0	24.6
Percent Employed	42.0	46.4
Percent Enrolled	55.8	49.5
Average Hourly Wage	$4.58	$4.21
Percent with Wage < $3.35	5.3	7.3
Percent with Wage Between $3.35 and $4.24	52.0	55.3
Percent of Workers In:		
Retail Trade	50.9	49.0
Services	26.1	25.9
Construction	4.3	5.5
Agriculture	3.0	3.5

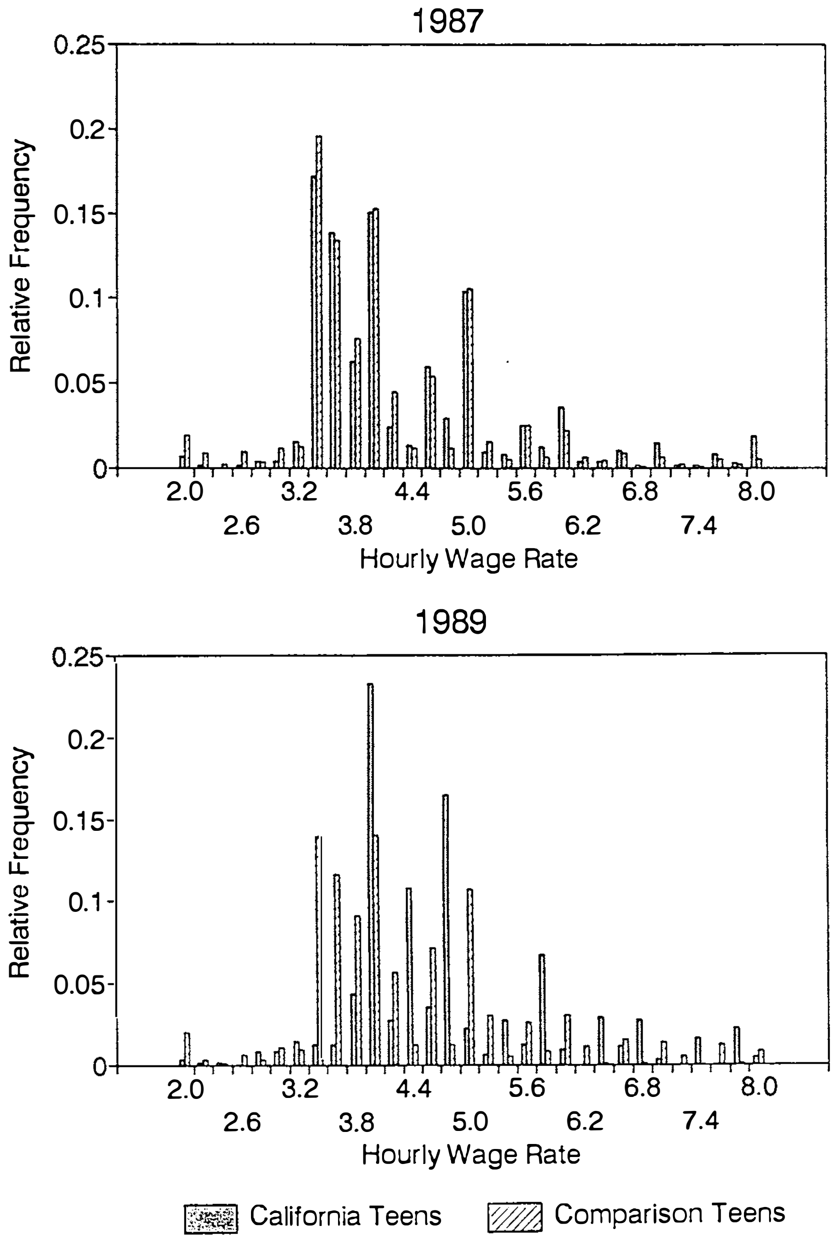
Note: Data are taken from CPS files for 1987. See text for definition of comparison areas.

I have selected a comparison sample from southern and western states that did not raise their minimum wage rates.

California has more Hispanics and fewer blacks than the comparison area. It also has a higher concentration of its population in central cities. In 1987, the employment-population ratio of California teenagers was 42 percent, compared with a rate of 46.4 percent in the comparison area. Correspondingly, school enrollment rates were about 5 percent higher in California. The wage distributions in the two groups were fairly similar in 1987, with just over 50 percent of teenagers earning between the federal minimum ($3.35) and the new California minimum ($4.25). The rather narrow wage differential between California teens and those in the comparison areas is potentially puzzling. In the labor market as a whole, average hourly wages were $10.69 per hour in California and $8.77 in the comparison areas. Thus, the age profile of wages was much steeper in the California labor market than in the comparison labor market. In both markets, one-half of teenagers were employed in retail trade, and another one-quarter in service industries.

Further information on the distribution of wages in 1987 is provided in the upper panel of Figure 1. The California and comparison distributions show a large "spike" at the minimum wage ($3.35), and at other round wage figures ($3.50, $4.00, and $5.00 per

FIGURE 1
Hourly Wage Distributions: Teenage Wage and Salary Workers



hour). There is some evidence of either noncompliance with, or incomplete coverage of, the federal minimum rate: 5.3 percent of California teens and 7.3 percent of those in the comparison area earned less than $3.35 per hour. In the comparison sample some of this may reflect a lower rate ($2.00 per hour) that is legally allowed for tipped employees under the federal law. California state laws, however, applied the $3.35 rate to these employees in 1987.

The Effects of the New Minimum Wage

The effect of the new California wage law is illustrated in the lower panel of Figure 1. Whereas the 1989 distribution of wages in the comparison sample is fairly similar to the 1987 distribution, the 1989 distribution in California is shifted to the right. The previous spike at $3.35 is replaced by an even larger spike at the new state minimum rate of $4.25. In California, the fraction of teenagers earning between $3.35 and $4.25 per hour fell from 52 percent in 1987 to 9 percent in 1989. In the comparison sample, the corresponding change was from 55 to 48 percent. On this basis I conclude that the new wage law raised the wages of at least one-third of California teenagers.

Table 2 provides a summary of other relevant changes for teenagers in California and the comparison area. Using the 1987 to 1989 changes in the comparison area as a basis, any differential change in California can be attributed to the effects of the higher minimum wage. These relative changes are presented in the right-most column of the table, together with their sampling errors. The data suggest that the increase in the minimum wage raised wages and weekly earnings of California teenagers by 10 percent. More importantly, however, they indicate an *increase* in the employment and labor force participation of California teens, along with a corresponding decrease in the fraction of youths reporting school attendance as their main activity in the survey week. These relative changes are exactly the opposite of those predicted by conventional economic models.

The patterns revealed in Table 2 raise the question of whether some other factors can explain the relative changes in the teenage labor market in California. For example, were teenage employment rates simply following an earlier trend induced by differential growth rates in California and the comparison areas? To answer this question I have assembled published employment-population rates for 1985 to 1989 in Table 3. The upper rows of the table present data for all individuals in the labor force, while the lower rows present data for teenagers. The data for all workers suggest that overall employment

TABLE 2
Wages, Employment, Enrollment and Unemployment for Teenagers
California and Comparison Areas: 1987 and 1989
(standard errors in parentheses)

	California Teens		Comparison Teens		Difference in Differences[a]
	1987	1989	1987	1989	
Percent with Wage Between $3.35 and $4.25	52.00 (1.82)	8.54 (1.12)	55.32 (1.62)	48.05 (1.62)	−36.46 (3.13)
Mean Wage ($/hr)	4.59 (0.07)	5.40 (0.12)	4.21 (0.04)	4.55 (0.07)	0.48 (0.16)
Mean Log Wage	1.46 (0.01)	1.62 (0.01)	1.40 (0.01)	1.46 (0.01)	0.10 (0.02)
Usual Hours per Week	26.2 (0.4)	26.7 (0.5)	27.9 (0.4)	28.1 (0.4)	0.3 (0.8)
Usual Earnings per Week	125.6 (3.5)	149.8 (4.3)	121.3 (2.4)	132.1 (2.6)	13.4 (6.6)
Enrollment Rate (%)	55.8 (1.1)	50.4 (1.3)	49.5 (1.0)	49.6 (1.1)	−5.5 (2.3)
Employment Rate (%)	42.0 (1.1)	47.4 (1.3)	46.4 (1.0)	46.1 (1.1)	5.6 (2.3)
Labor Force Part. Rate (%)	50.5 (1.1)	54.2 (1.3)	56.9 (1.0)	54.8 (1.1)	5.9 (2.3)
Unemployment Rate (%)	16.7 (1.2)	12.6 (1.2)	18.5 (1.1)	15.9 (1.1)	−1.5 (2.3)
Sample Size	2032	1381	2354	2206	—

Notes: Data are taken from CPS files for 1987 and 1989. See text for definition of comparison areas.

[a] Difference in variable between 1989 and 1987 for California teens minus corresponding difference for comparison area teens.

rates followed the same trends in California and the comparison areas between 1985 and 1989. For teenagers, however, there is a sharp break in the trend in 1988. Although employment rates were 4 to 5 percentage points lower in California in 1985, 1986, and 1987, they were marginally higher in 1988 and 1989. This pattern suggests a discrete change concentrated among teenagers in the California labor market in 1988. While nonexperimental data can never prove a causal link to the minimum wage rate, they are remarkably consistent with such a link.

I have also examined the changes between 1987 and 1989 for Hispanic and non-Hispanic teenagers and for 16 and 17 year olds and 18 and 19 year olds (see my 1990 paper). Difference-in-differences

TABLE 3

Employment-Population Ratios for Teenagers and All Workers
California Versus Comparisons: 1985-1989
(approximate standard errors in parentheses)

	Employment-Population Ratio (Percent)				
	1985	1986	1987	1988	1989
All Age 16+:					
California	61.3	62.0	63.1	63.8	64.2
	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)
Comparisons	60.0	61.0	61.9	62.7	62.3
	(0.3)	(0.3)	(0.3)	(0.3)	(0.3)
California-comparisons	1.3	1.0	1.2	1.1	1.9
	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)
Teenagers:					
California	41.0	41.2	43.0	47.1	47.1
	(1.3)	(1.3)	(1.3)	(1.3)	(1.3)
Comparisons	45.3	46.1	47.2	46.4	46.8
	(1.3)	(1.3)	(1.3)	(1.3)	(1.3)
California-comparisons	−4.3	−4.9	−4.2	0.7	0.3
	(1.8)	(1.8)	(1.8)	(1.8)	(1.8)

Note: Employment-population rates are taken from U.S. Department of Labor Bureau of Labor Statistics "Geographic Profiles of Employment and Unemployment," 1985-1989 editions. Data for comparisons represent a weighted average of rates for Florida, Georgia, New Mexico, and Dallas-Fort Worth, using 1988 population counts as weights. Standard errors are based on published sampling errors (Tables B23 and B35 of the 1989 edition of "Geographic Profiles").

calculations similar to those in Table 2 for Hispanic teenagers show even larger effects on wages and employment rates. Relative to Hispanic teens in the comparison area, wages of Hispanic teens in California rose 17 percent between 1987 and 1989. Over the same period the relative employment rate of Hispanic teens rose 6.3 percent, the relative labor force participation rate rose 4 percent, and the relative unemployment rate fell 6 points. The sample sizes of Hispanics are relatively small, and none of these changes are statistically different from the overall changes. At a minimum, however, the data suggest that Hispanic teenagers fared as well as other teens after the increase in the minimum wage.

A comparison of the experiences of 16- and 17-year-olds with those of 18- and 19-year-olds is especially interesting because under California law, 16- and 17-year-olds can be paid a subminimum rate of \$3.60. One might have expected employers to take advantage of the youth subminimum by substituting 16- and 17-year-olds for 18- and 19-year-olds after the increase in the adult minimum rate. If anything, however, the data suggest the opposite. The younger group of California teens had larger relative wage increases (15 percent versus 6 percent) and smaller relative employment increases (3 percent versus 7 percent). Nevertheless, it should be noted that the youth subminimum provision is apparently rarely used. There is no evidence of a spike in the wage distribution of 16- and 17-year-olds at $3.60 per hour, nor is the fraction of 16- and 17-year-olds earning less than $4.25 very much bigger than the fraction of 18- and 19-year-olds. Despite the legal provision of a youth subminimum, labor market participants seem to view the adult minimum as the relevant wage floor.

In light of these results, one is led to ask where the added jobs originated in the California economy. A comparison of industry distributions shows little relative change in the industrial composition of teenage employment in California between 1987 and 1989. From this it can be inferred that employment in retail trade and services actually expanded with the increase in the minimum wage. Indeed, employment in California's trade sector (which is over 80 percent retail trade) grew roughly 2 percent faster between 1987 and 1989 than would have been predicted on the basis of national employment growth rates and 1985 to 1987 patterns. Similar growth was also registered in the state's service industries. A closer look at the retail trade sector shows that mean log wages grew about 5 percent faster in California than in the comparison areas between 1987 and 1989. Contrary to the usual predictions, however, these higher wages were not associated with any relative reduction in average weekly hours of employees in the industry, nor with any relative reduction in the fraction of teenagers in the industry.

Conclusions

The increase in California's minimum wage from $3.35 to $4.25 in July 1988 led to wage increases for roughly one-third of California teenagers and raised their average hourly earnings by approximately 10 percent. Rather than leading to a decrease in employment, the teenage employment-population rate in California increased by some 5 percentage points between 1987 and 1989. There was a corresponding increase in labor force participation and a small net decrease in unemployment. The increase in the labor force came largely at the expense of schooling: the fraction of teenagers reporting their major activity as "in school" fell by roughly 5 percent. One-half of the higher employment was created in retail trade industries, which registered approximately one percent higher employment growth rates in 1988 and 1989 than would have been predicted on the basis of earlier data and national trends.

This evidence is inconsistent with standard predictions made by economists regarding the effects of minimum wage legislation. It is not inconsistent with the findings in the earlier "case study" literature (Lester, 1964; Chapter 16), which tended to find diverse responses to moderate increases in legislated minimum wages. In modern discussions, most of this earlier evidence has been supplanted by evidence from aggregate time series data. Perhaps the time has come for a re-evaluation of the earlier evidence.

References

Baumol, William J., and Alan S. Blinder. *Economics Principles and Policy*. Second Edition. New York: Harcourt, Brace, Jovanovich, 1988.

Brown, Charles, Curtis Gilroy, and Andrew Kohen. "The Effect of the Minimum Wage on Employment and Unemployment." *Journal of Economic Literature* 20 (June 1982), pp. 487-528.

———. "Time Series Evidence on the Effect of the Minimum Wage on Youth Employment and Unemployment." *Journal of Human Resources* 18 (Winter 1983), pp. 3-31.

Card, David. "The Effects of Minimum Wage Legislation: A Case Study of California, 1987-89." Princeton University Industrial Relations Section Working Paper Number 278, December 1990.

Lester, Richard A. "Employment Effects of Minimum Wages." *Industrial and Labor Relations Review* 13 (January 1960), pp. 254-64.

———. *Economics of Labor*. Second Edition. New York: Macmillan, 1964.

Peterson, John M. "Employment Effects of State Minimum Wages for Women: Three Historical Cases Re-examined." *Industrial and Labor Relations Review* 12 (April 1959), pp. 406-22.

Welch, Finis. Statement to US Senate Labor and Human Resources Committee, July 17, 1987. Reprinted in Bureau of National Affairs *Daily Labor Report*, 1987, No. 127. Washington, D.C.: Bureau of National Affairs, 1987.

Minimum Wages in Puerto Rico: Textbook Case of a Wage Floor?

ALIDA CASTILLO-FREEMAN
National Bureau of Economic Research

RICHARD B. FREEMAN
Harvard University and NBER

The minimum wage is the classic textbook example of government setting the price of labor and one of the few clear tests of the economics of derived demand. If we can't determine the employment effects of exogenous changes in the minimum, we are in trouble. While the extensive literature on the U.S. minimum wage has generally found that the minimum reduces the employment of teenagers (Brown, Gilroy, and Kohen, 1983), the estimated reduction is often imprecisely determined or "smaller than (one) would have supposed" (Brown, 1988, p. 144). Time series analyses that extend the regressions through the 1980s find, in fact, little relationship between the minimum and teenage employment (Wellington, 1990), despite the relatively good "pseudo-test" created by the sharply falling real value of the minimum.

There are three explanations consistent with labor demand analysis for why research yields weak results on the employment effects of the U.S. minimum. One is that there is considerable noncompliance with the minimum wage, making the law ineffective. Another is that employers respond to the minimum by reducing fringe benefits, training, and quality of work conditions to a greater extent than employment. Third, the minimum may have been so low, particularly in the 1980s, that it disemployed too few workers to be detectable in a world where shifts in supply and demand schedules create considerable random variation in employment. To find a clear employment effect, one needs to examine a minimum wage that bites rather than nibbles at the edges of the job market. Enact a $10.00

Freeman's Address: Economics Department, Harvard University, Cambridge, MA 02138.

minimum tomorrow, the argument goes, and surely employment would decline with a vengeance.

The extension of the U.S. federal minimum to Puerto Rico in the 1970s provides as good a case of a minimum with genuine economic bite as one could imagine. Average hourly pay on the island is roughly half that of the mainland, so that the effects of the minimum should be roughly equivalent to doubling the minimum in the U.S.

Does the minimum in Puerto Rico have the clear-cut effects of textbook diagrams? The analysis in this paper suggests that it does.

The Minimum Wage in Puerto Rico

The 1938 Fair Labor Standards Act (FLSA) first introduced the mainland minimum wage ($0.35) to Puerto Rico, but Congress soon recognized that this would devastate the island's economy and established instead industry committees to set separate minima "that would not substantially curtail employment" but also would not allow Puerto Rico to obtain "an unfair competitive advantage over mainland competitors" (U.S. Department of Commerce, p. 633). Ensuing amendments to the FLSA expanded coverage but maintained the industry committee mode of setting minima until 1974 when Congress increased coverage and enacted automatic increases in industry minima to bring them to the U.S. level. The 1977 Amendment required industries whose minima were at U.S. levels to follow the scheduled mainland increases and those whose minima were below U.S. levels to increase wages by $0.30 per year until they reached the federal minimum. By 1983 Puerto Rico was essentially at the U.S. minimum.

Table 1 records levels of the minimum wage and coverage on the island and in the U.S. in each year that Congress changed the law. As there was no single minimum in Puerto Rico until the 1980s, the pre-1983 "average minimum" in Column 1 is the employment-weighted average of 44 industry minima (based in some cases on averages of occupation minima within industries as described in Castillo, 1983). Column 2, which gives the ratio of the minimum to average hourly earnings in manufacturing, shows that since the mid-1950s industry boards set rates on the order of 60 to 70 percent of average hourly earnings in manufacturing. This compares to rates in the U.S. (Column 6) that were 40 to 50 percent or so of average manufacturing earnings in most years, and that fell to 34 percent in 1987. Column 3 presents estimates of the ratio of the number of workers covered by the minimum to civilian employment. Because agriculture, government, and much of the trade and service sectors were not covered until 1967,

TABLE 1
Minimum Wage, Minimum/Hourly Earnings in Manufacturing and Coverage

Year	Puerto Rico Min	Puerto Rico Min/Mfg	Puerto Rico Cov	United States Min	United States Min/Mfg	United States Cov
1950	$0.20	.47	.29	0.75	.52	.36
1956	0.45	.70	.29	1.00	.51	.38
1961	0.61	.62	.29	1.15	.50	.43
1963	0.72	.64	.29	1.25	.51	.44
1967	0.97	.70	.44	1.40	.50	.55
1968	1.10	.71	.44	1.60	.53	.54
1974	1.68	.72	.47	2.00	.45	.62
1975	1.87	.73	.66	2.10	.44	.60
1976	2.03	.73	.64	2.30	.44	.60
1978	2.51	.75	.64	2.65	.43	.62
1979	2.77	.75	.64	2.90	.43	.63
1980	3.00	.75	.64	3.10	.43	.63
1981	3.26	.74	.64	3.35	.42	.63
1987	3.35	.63	.64	3.35	.34	.64

Note: Cov = number of covered nonsupervisory employees divided by civilian employment

Sources: Puerto Rico, minimum calculated from U.S. Department of Labor; average hourly earnings in manufacturing, from International Labor Organisation; coverage, based on unpublished estimates from U.S. Department of Labor, Employment and Standards Administration. For details see Castillo-Freeman and Freeman.

United States, Minimum wages, U.S. Department of Commerce, *Statistical Abstract of the United States* 1990, Table 675; Manufacturing Earnings, Council of Economic Advisors, *Economic Report of the President*, 1990; Coverage, estimated from F. Welch by multiplying by ratio of nonagricultural private employees to total employment.

coverage was relatively low; 29 percent compared to 43 percent in the U.S. Hence, the effect of the minimum on the aggregate Puerto Rican labor market was modest. Indeed, through 1967 the ratio of the coverage weighted minimum to average earnings—a crude measure of the overall strength of the minimum wage—was lower in Puerto Rico than in the U.S. After Congress applied the U.S. minimum to Puerto Rico, however, the coverage weighted minimum to average earnings ratio rose sharply in Puerto Rico, so that by 1987 when the island and mainland minimum and coverage are essentially the same, the ratio was a remarkable 85 percent higher in Puerto Rico.

Effect of the Minimum on Wages

An effective minimum wage should produce spikes in the distribution of earnings in the area of the minimum. Our analysis of earnings data for Puerto Rico shows just such a pattern for the island.

First, industry earnings distributions for the period when industry boards set minimum wages show that an extraordinary proportion of workers in low wage industries were paid exactly their industry minimum. For example, in 1964 the hourly minimum was $0.83 in shoes and related products industries and 41 percent of workers were paid $0.83; in 1968 the industry minimum was $1.17 and 84 percent were paid $1.17. Similarly, in 1964 when the hourly minimum in the women's and children's underwear industry was $0.96, 49 percent of workers received that rate; whereas in 1972 41 percent received the $1.45 minimum of that year. In each year, in many covered industries, large proportions of workers were paid the minimum in their industry (U.S. Department of Labor).

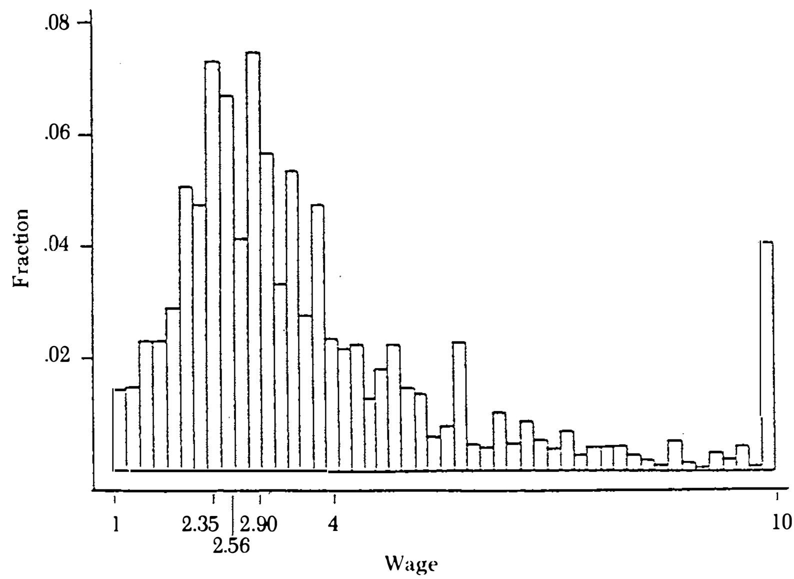
Second, earnings data from the 1980 Census of Population for Puerto Rico show that during the transition to the U.S. minimum the distribution of earnings on Puerto Rico was concentrated in spikes at pay levels where different minima covered many workers. In 1979 about 50 percent of covered workers had the prevailing U.S. minimum of $2.90; 13 percent had a minimum within 10 cents of that value; and 25 percent were covered by industry minimum in the $2.50 to $2.60 range. The distribution of earnings per hour (= annual earnings/weeks worked × usual hours worked per week) for full-time workers in Puerto Rico in 1979 reveals two spikes: one around $2.90 and a smaller one around $2.50 to $2.60 (Fig. 1A).

Third, in 1983 when Puerto Rico reached the U.S. minimum of $3.35, the distribution of usual hourly earnings (= usual weekly earnings/usual hours worked) from the 1983 Puerto Rican Current Population Survey shows that 25 percent of the workers on the island were paid $3.30 to $3.40 (Fig. 1B). The change in the shape of the earnings distribution from one centered at $2.50 to $2.60 and $2.90 in 1979 to one centered on $3.35 in 1983 indicates that imposition of the U.S. minimum in Puerto Rico altered the overall distribution of pay on the island.

As a final test of the effect of the minimum on earnings in Puerto Rico, we regressed the ln of average hourly earnings for all workers and for manufacturing workers on the ln of the minimum, a time trend, ln real GNP, ln coverage, and ln GNP deflator from 1951 to 1987 in an AR(1) model and obtained coefficients on the minimum of 0.27 for overall hourly earnings (0.24 Fn manufacturing hourly earnings) with standard errors of 0.07. By contrast, a comparable regression for the U.S. yields an estimated effect of the minimum on average hourly earnings insignificantly different from zero.

Granting that the U.S. level minimum wage affected earnings in Puerto Rico, did the minimum also take the "bite" out of employment that textbook discussions of wage-fixing laws lead one to expect?

FIGURE 1A
Distribution of Hourly Earnings in Puerto Rico in 1979



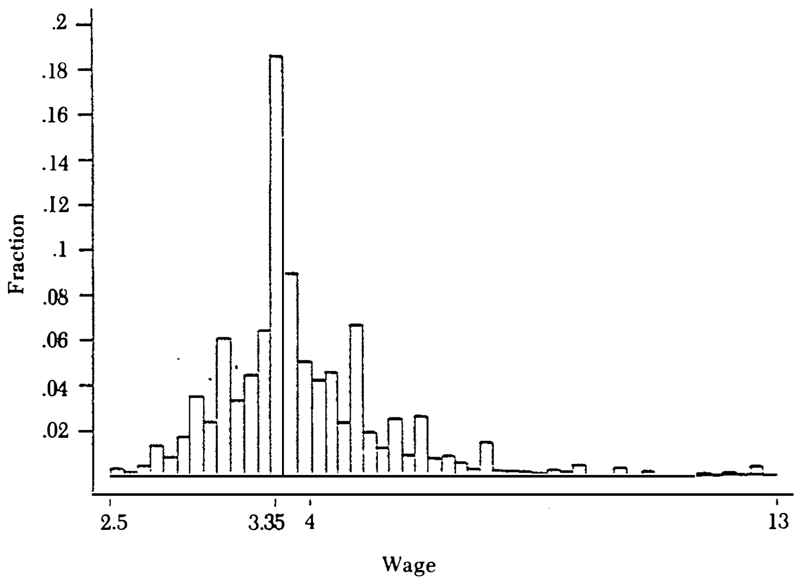
Source: 1980 Puerto Rican Census.

Employment Effects of the Minimum Wage

To determine the employment effects of the minimum in Puerto Rico, we: (1) applied the basic time series model used in U.S. minimum wage studies (Brown et al., 1983) to the island's aggregate employment-population rate; and (2) estimated a cross-section time series model linking industry employment to industry minima.

The columns under "aggregate time series" in Table 2 show the results of our time series analysis. The dependent variable is ln employment/population. Independent variables include ln Puerto Rican GNP and ln U.S. GNP in constant dollars and a time trend, and two related measures of the minimum wage. In Column 1, the minimum variable is the widely used "Kaitz" employment-weighted average of coverage × minimum/hourly earnings: $\Sigma a_i (m/w)_i c_i$, where a_i is the share of employment in industry i, m_i is the minimum in industry i, w_i is average hourly earnings in industry i and c_i is the coverage in that industry. In Column 2 our minimum variable is the coverage weighted ratio of the minimum to average earnings in the economy: $c(m/w)$, where c is an economywide coverage measure

FIGURE 1B
Distribution of Hourly Earnings in Puerto Rico in 1983



Source: 1983 Puerto Rican Current Population Survey.

Note: The Census data arebasedon annual earnings. We deleted observations when weeks worked was less than 20, hours worked last week was less than 10 or equal to 99, and when the wage was less than 50 cents an hour.

(obtained from a different source than the industry coverage data) and m is the average minimum in the economy and w is a weighted average of hourly earnings in each sector. Because residuals were highly serially correlated, the calculations are based on an AR(1) model (OLS estimates gave the same pattern of results, with larger estimated coefficients for the minimum).

Both measures show a significant effect of the minimum on the employment-population rate, with elasticities of 0.15 (Column 1) and 0.11 (Column 2), that are of comparable magnitude to those found on teenage employment to the minimum in the U.S. (Brown et al., 1983). To see if the effect of the minimum changed after the 1974 law, we estimated the equations in Table 2 for 1951 to 1973 and 1974 to 1987 separately. While the number of observations was too small to yield anything definitive, the results yielded large significant coefficients on the minimum in the latter period and effectively zero coefficients in

TABLE 2

Regression Coefficients (Standard Errors) for the Effect of the Minimum Wage and other Variables on Ln Employment-Population, 1951-1987, and on Ln Employment by Industry, 1956-1987

	Agg Time Series		Cross-Industry		
	1951-1987		1956-87	1956-73	1974-87
	(1)	(2)	(3)	(4)	(5)
Minimum	−.15 (.07)	−.11 (.04)	−.59 (.13)	.20 (.12)	−.91 (.24)
PR GNP	.25 (.11)	.25 (.12)			
US GNP	.38 (.22)	.32 (.22)			
YR	−.024 (.006)	−.022 (.006)			
Ind Dummies			41	41	41
Year Dummies			30	17	12
Const	−5.51	−5.07			
Sample Size	37	37	1301	755	545
R^2	.92	.92	.87	.95	.95
Auto-Correl	.65	.68			

Note: Column 1 minimum is the Kaitz employment weighted average of coverage times minimum/hourly earnings by industry. Column 2 minimum is the multiplicand of coverage for the entire economy times minimum/average hourly earnings in the entire economy. Columns 3-5 minimum is the multiplicand of coverage for industry times minimum/hourly earnings in the industry. They exclude 1982 due to absence of Survey of Manufacturers. The regressions cover 42 industries with agriculture and government excluded.

Source: See text and Castillo-Freeman and Freeman.

The detailed industry data for Puerto Rico are obtained from the Census of Manufacturing Industries of Puerto Rico; the U.S. Department of Labor Wage and Public Contracts Division; and the Departamento del Trabajo y Recursos Humanos.

the former period—a result we pursued with our cross industry data set. In addition to these calculations, we performed several additional time series analyses of the data: adding lagged dependent variables in the regressions, estimating Arima models with various lag structures, estimating models with differently constructed measures of coverage and manufacturing hourly earnings; and examining the effect of the real minimum (minimum/gdp deflator); and obtained comparable findings to those in the table (Castillo-Freeman and Freeman, 1992). Thus our basic time series result is reasonably robust to the precise way one models the relation or measures the variables (Santiago [1986] finds similar minimum wage effects with yet another set of data and models).

The elasticities of employment to the minimum in Columns 1 and 2, while modest in size, imply that Puerto Rico experienced massive job losses as a result of the application of the U.S. minimum to the island. This is because the minimum is so high relative to average earnings. In 1987, for example, the coverage weighted minimum/manufacturing earnings in Table 1 was 0.63 ln points higher in Puerto Rico than in the U.S.; the coverage weighted minimum/economywide earnings used in the Column 2 regression was 0.65 ln points higher in Puerto Rico; and a Kaitz index of the minimum for Puerto Rico comparable to the U.S. Kaitz index was 0.64 ln points higher in Puerto Rico than in the U.S. (since the U.S. Kaitz index relates to nonagricultural private wage and salary employment, whereas our measure for Puerto Rico was based on total employment, we estimated a Kaitz for Puerto Rico based solely on private nonagricultural wage and salary workers in Puerto Rico for this comparison). These differences imply that, even with the relatively modest estimated elasticities for the effect of the minimum in Columns 1 and 2, island employment would have been 8 to 10 percent (.07-.09 ln points) higher in 1987 than if the relationship between the minimum and pay had been at U.S. levels. For the period 1973 to 1987, our analysis suggests that the increased minimum reduced the employment-population rate in Puerto Rico by .017 to .022 points, accounting for over one-third of the .052 point actual drop.

Cross-Industry/Time Series Analyses

The pattern of separate minima for industries throughout most of the period under analysis, and the correspondingly different rate of increase in industry minimum toward U.S. levels, provide a potentially stronger test of how the minimum wage affects employment than does the aggregate time series. To exploit the industry variation in minimum wages, we created a cross-industry time series data set for Puerto Rico from 1956 to 1987 by matching employment and earnings data for 37 manufacturing industries from the Puerto Rican Survey of Manufacturing (with 1982 excluded due to the absence of a Survey of Manufacturing in that year) and for 5 one-digit non-manufacturing industries (excluding government and agriculture) from Departmento del Trabajo y Recursos Humanos, with minimum wages from the industry reports of the U.S. Department of Labor, and industry coverage from U.S. Department of Commerce (Table 1, p. 634).

We used the industry data to estimate the relation between minimum wages and employment in an analysis of covariance framework:

$$\text{(1)}\quad \text{Ln EMP}_t^i = a + b \ln[c(m/w)]_{it} + T_t + IND_i + u_{it}$$

where T_t is a vector of year dummy variables to control for cyclical or trend factors; IND_i is an industry dummy variable to control for the scale of employment; and u_{it} is the error term.

This analysis has three virtues compared to the aggregate time series. First, it contains more observations, so that results are not subject to the vagaries of a single short time series. This allows us to assess carefully the hypothesis that the minimum has its greatest effect when Congress rather than industry committees determined its level. Second, by including year and industry dummy variables, the analysis isolates within-industry, within-year variation in employment that is potentially more difficult to explain than pure time series variation. Third, the concentration in manufacturing reflects "the major focus of the FLSA minimum wage order program" (U.S. Department of Commerce, p. 935).

Equation 1 differs from the aggregate time series regression equation in two other ways. The dependent variable, employment in detailed industries, measures the movement of workers from industries with large increases in minima to those with small increases as well as from employment to nonemployment. The exclusion of output from the list of independent variables allows the minimum wage to capture changes in employment due to minimum wage-induced changes in industry output as well as changes in employment with output fixed. These differences should produce greater elasticities in the cross-industry analysis than in the aggregate time series analysis.

The columns under "cross-industry" in Table 2 give the regression coefficients and standard errors from this analysis. In Column 3, which covers the entire period, the minimum/average times coverage variable obtains a highly significant coefficient of −0.59. When we ran separate regressions for the period before 1974 (Column 4) and after 1974 (Column 5) we found that the effect of the minimum occurs entirely in the latter period. The elasticity of employment to the minimum is −0.91 after 1974 compared to an estimated positive 0.20 coefficient on the minimum before 1974. This supports our inference from the time series that the minimum reduced employment as it moved to U.S. levels, but had little effect before that. Finally, as in the time series analysis, we experimented with moderately different measures and specifications of these equations and obtained results like those in Table 2.

Underlying the sizeable minimum wage effects in the industry data is a substantial reallocation of Puerto Rican workers from industries where minima had to increase greatly to reach U.S. standards to industries whose minima were already close to U.S. levels. In industries at the U.S. minimum in 1973, employment grew by one percent from 1974 to 1983. In industries where the minimum was within 10 cents of the U.S. minimum in 1973, employment increased by two percent over the same period. But in industries where the 1973 minimum was more than 10 cents below the U.S. minimum, employment dropped by 32 percent from 1974 to 1983!

Interpretation

In his 1988 overview piece on the minimum, Charles Brown asked if minimum wage laws were overrated, and he concluded that in the U.S. the answer is "yes." What accounts for the very different picture of the effects of the minimum wage in this study? In our view the major reason is that the minimum wage affects such a high proportion of workers in Puerto Rico (in 1983 an incredible 44 percent of the work force was paid at or below the minimum; and two-thirds of the work force was paid $3.50 or less—Figure 1B) compared to modest proportions in the U.S. (published data for 1988 show that just 6.5 percent of workers in the U.S. and 23.1 percent of 16 to 19 year-olds were paid less than or the minimum in that year (U.S. Bureau of the Census, Table 676)), making the disemployment effects of the minimum more sizeable and thus easier to detect in time series data. Formally, statistical power analysis implies that even if the minimum had the same proportionate effect in the U.S. as in Puerto Rico, the chance that we would reject the "true" hypothesis of a substantial minimum effect was much smaller for Puerto Rico because the minimum affects such a larger proportion of the population. Minimum wages are not overrated when they have real economic bite, as in the Puerto Rican case studied here.

References

Brown, C. "Minimum Wage Laws: Are They Overrated?" *Journal of Economic Perspectives* (Summer 1988), pp. 133-45.

Brown, C., C. Gilroy, and A. Kohen. "Time Series Evidence of the Effect of the Minimum Wage on Youth Employment and Unemployment." *Journal of Human Resources* (Winter 1983), pp. 3-31.

Castillo, A. J. "Jobless in the Sun: A Study of the Effects of the Federal Minimum Wage on Employment in Puerto Rico." Harvard undergraduate thesis, 1983.

Castillo-Freeman, A., and R. Freeman. "When the Minimum Wage Really Bites." *The Economic Effects of Immigration in Source and Receiving Countries* (ed. G. Borjas and R. Freeman) NBER Conference Volume, University of Chicago Press, 1992.

"Census of Manufacturing Industries of Puerto Rico." (San Juan), 1956-1987.
Council of Economic Advisors, *Economic Report of the President*, February 1990.
Departamento del Trabajo y Recursos Humanos. "Seria Historica Del Employeo y Grupo Trabajador en Puerto Rico"; "Salario Semanal Mediano de los Empleados Asalariodos por Grupo Industrial."
International Labor Organisation, *Yearbook of Labor Statistics 1989*.
Santiago, Carlos. "Closing the Gap: The Employment and Unemployment Consequences of Minimum Wage Policy in Puerto Rico." *Journal of Development Economics* 23 (1986), 293-311.
U.S. Department of Commerce, *Economic Study of Puerto Rico* (USGPO, Dec. 1979), vol. 2.
———, *Statistical Abstract of the United States 1990* (Washington, D.C.: USGPO).
U.S. Department of Labor, Wage and Public Contracts Division, Office of Wage Determinations and Regulations, reports on Puerto Rican industries. (Washington, D.C.).
———, Employment Standards Administration, Unpublished Tabulation, 1977. (Washington, D.C.).
Wellington, Allison. "Effect of the Minimum Wage on the Employment Status of Youths: an Update," University of Michigan, mimeo, 1990.
Welch, F. *Minimum Wages Issues and Evidence*. American Enterprise Institute (Washington, D.C. 1978).

The Effect of the New Minimum Wage Law in a Low-wage Labor Market

Lawrence F. Katz
Harvard University

Alan B. Krueger
Princeton University

After nearly a decade without change, legislation that affected the minimum wage in two significant ways took effect on April 1, 1990. First, the new legislation increased the hourly minimum wage from \$3.35 to \$3.80 on April 1, 1990, and to \$4.25 on April 1, 1991. Second, the legislation enables employers to pay a subminimum wage to teenage workers for up to six months. The youth subminimum was enacted for a three-year trial period and is to be evaluated by the Department of Labor at the end of the trial period. Although the Federal Labor Standards Act (FLSA) has permitted a limited subminimum wage for full-time students since 1961, the new legislation covers all teenagers and is much easier to administer. Essentially, employers may pay a subminimum wage to new teenage employees for up to 90 days without providing any additional training. The subminimum wage can be extended an additional 90 days if the employer's training plan meets the Department of Labor's requirements, but no employee may be paid a subminimum wage for more than 180 days.

The subminimum wage was an important component of the Bush administration's minimum wage policy. Indeed, in June of 1989 President Bush abruptly vetoed the Kennedy-Hawkins amendments to the FLSA explaining, "I made it clear that I could accept an increase [in the minimum wage] only if it were a modest one, and only if it were accompanied by a meaningful training wage for new employees of a firm, to help offset the job loss" (Bureau of National Affairs, 1989).

Katz's Address: Department of Economics, Harvard University, Littauer Center, Cambridge, MA 02138.

The recent amendments to the FLSA provide the basis for three issues examined in this article: first, how extensively do employers utilize the subminimum wage?; second, what was the effect of changes in the minimum wage on the wage structure?; and third, were nonwage offsets induced by the minimum wage?

The Minimum Wage Increase of 1990 and the Wage Structure

To describe the impact of recent changes in the minimum wage on the wage structure, we first analyze CPS data for April to August 1989, and for April to August 1990, the most recent months for which data are available. We restrict the sample to workers who are between ages 16 and 21 and who live in the 25 states that did *not* have a state minimum wage exceeding $3.35 per hour on April 1, 1990. (The 25 states are: Alabama, Arizona, Arkansas, Colorado, Florida, Georgia, Indiana, Kansas, Kentucky, Louisiana, Michigan, Mississippi, Missouri, Nebraska, Nevada, New Jersey, New Mexico, North Carolina, Ohio, South Carolina, Tennessee, Texas, Virginia, West Virginia, and Wyoming.)

Figure 1 contains a histogram of the hourly wage distribution for workers aged 16 to 19 in 1989, and Figure 2 contains a histogram for workers in the same age group in 1990. Since the new minimum wage law took effect the spike in the wage distribution at $3.35 has declined, and a new spike at $3.80 has emerged. In fact, between 1989 and 1990 the share of workers earning within $0.05 of $3.35 an hour fell from 17.4 to 4.1 percent, while the share earning within a similar window of $3.80 increased from 5.6 to 15.9 percent.

Because employers are permitted to pay a subminimum wage between $3.35 and $3.80 only to workers under age 20, we can investigate whether this new provision is being used by comparing the change in the share of workers earning $3.35 or more but less than $3.80 between 1989 and 1990 for potentially eligible workers (those aged 16 to 19) and for ineligible workers (those aged 20 to 21). The following tabulation shows the percentage of workers in the subminimum-wage range (with standard errors in parentheses), before and after the new subminimum took effect, by age group:

	1980	1990	Change 1990-1989
Age 16-19	33.4%	10.5%	−22.9%
	(1.2)	(0.8)	(1.4)
Age 20-21	17.0%	4.2%	−12.8%
	(0.9)	(0.5)	(1.1)

FIGURE 1

Histogram of Hourly Wage Rate
16-19 Year Olds, April-August 1989

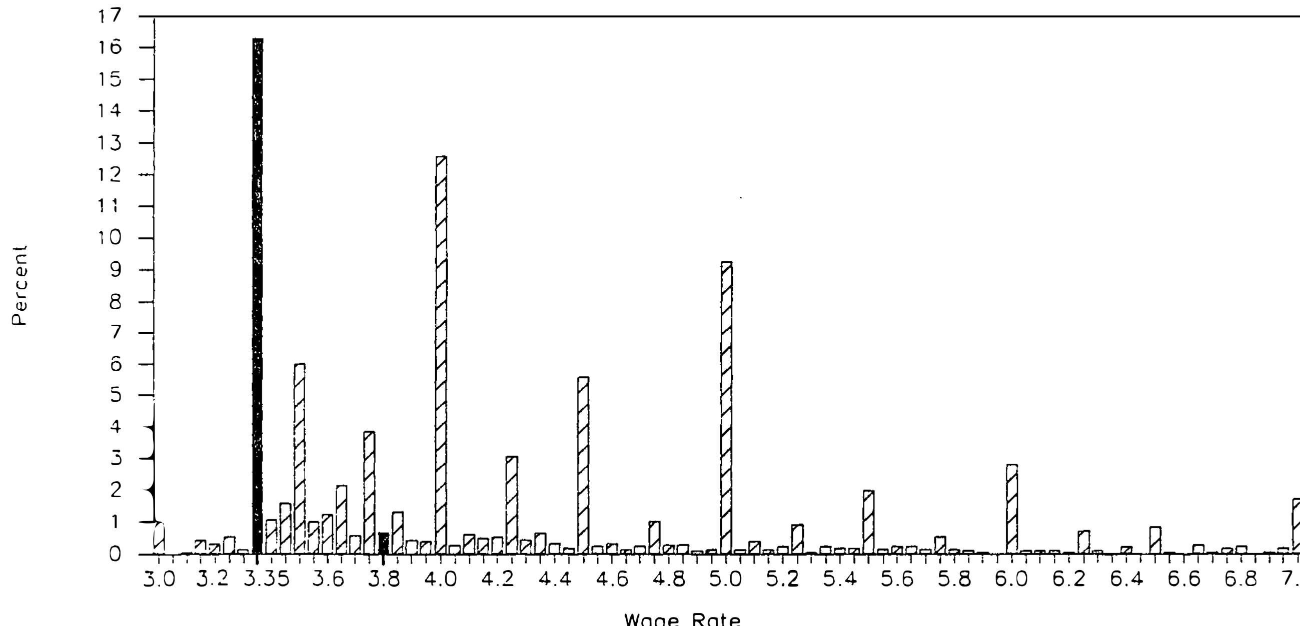
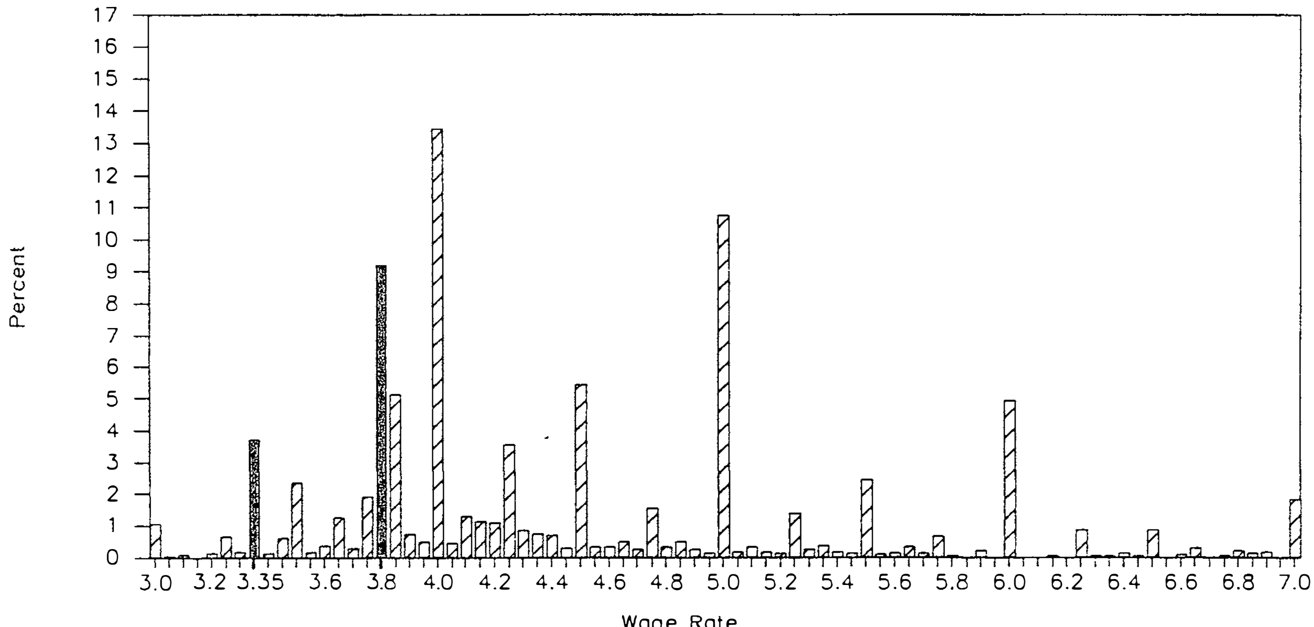


FIGURE 2

Histogram of Hourly Wage Rate
16-19 Year Olds, April-August 1990



The share of workers earning between $3.35 and $3.80 per hour fell substantially both for workers who are eligible for the subminimum wage and for those who are not. Moreover, the share fell by an even greater amount for those who, on the basis of their age, were eligible to be paid a subminimum wage, suggesting that the youth subminimum is not being widely used. These numbers are difficult to interpret, however, because the CPS files we are using lack job tenure information, which is necessary to determine whether workers in the eligible age group are actually new employees who could be paid the new subminimum. Furthermore, a comparison between 16- to 19-year-olds and 20- to 21-year-olds may not be appropriate because relatively few of the 20- to 21-year-olds were initially in the $3.35 to $3.80 range, so the maximum decline in this earnings group is 17 percent. These ambiguities suggest the need for a more direct approach to estimate utilization of the youth subminimum wage.

Survey Design

To study more directly the impact of recent changes in the minimum wage on a labor market where we would expect the minimum wage to have a large impact, we conducted a survey of fast-food restaurants in Texas. We selected Texas because it is a low-wage state, and because its $3.35 per hour state minimum wage law does not override the FLSA. Moreover, the fast-food industry is a low-wage industry that has lobbied against increases in the minimum wage and has been a staunch supporter of a subminimum wage for youths (BNA, 1985). And the fact that the fast-food industry has extremely high turnover (estimated as high as 300 percent per year [BNA, 1985]), and hires many first-time workers makes it more likely that fast-food restaurants can take advantage of the youth subminimum.

We designed a questionnaire to collect retrospective (pre-minimum wage increase) and current information on starting wages, as well as information on the utilization of the new subminimum wage and on nonwage responses to the minimum wage. (A copy of the questionnaire, containing tabulations of responses to each question, is available from Alan Krueger.)

The survey was conducted as follows. We first collected the phone numbers of every Burger King, Kentucky Fried Chicken, and Wendy's restaurant listed in the 1990 Yellow Pages of the metropolitan phone books for Texas. We then drew a systematic sample consisting of every other phone number listed in the Yellow Pages. After deleting duplicate numbers (6), disconnected numbers (25), and wrong numbers (10), this yielded 294 potential observations. We then attempted to interview the manager or assistant manager of each of these outlets by phone between December 12 and December 18, 1990. If a restaurant did not respond on the first call, an interviewer called back as many as two more times to elicit a response.

We obtained a total of 167 responses, for a response rate of 57 percent. Although there may be some concern about possible differences between respondents and nonrespondents, our tabulations did not reveal any systematic differences between restaurants that responded on the first call and those that required at least one follow-up phone call before responding. Finally, to each respondent we attached information on the city unemployment rate and city size using data from the *County and City Data Book, 1988*.

Survey Results

In much of our analysis, we focus on part-time workers because over two-thirds of fast-food workers are part-time workers and because we have more complete wage data for part-time jobs. Table 1 cross-tabulates the starting wage for part-time workers of sampled restaurants before and after the minimum wage increase. The table indicates that 72.5 percent of the restaurants in our sample were compelled to increase their starting wage by the rise in the minimum

TABLE 1

Cross-tabulation of Starting Wage for Part-time Employees Before and After Minimum Wage Increase

	Wage in December, 1990		
Wage Before April 1990	\$3.80	> \$3.80	Row Total
Wage = \$3.35	52 (32.5%)	8 (5.0%)	60 (37.5%)
\$3.35 < Wage < \$3.80	23 (14.4%)	33 (20.6%)	56 (35.0%)
Wage = \$3.80	2 (1.3%)	10 (6.3%)	12 (7.5%)
Wage > \$3.80	0 (0%)	32 (20.0%)	32 (20.0%)
Column Total	77 (48.1%)	83 (51.9%)	160 (100%)

Note: Table gives the number of restaurants in each cell, with the percentage of the total underneath in parentheses. Data are from the authors' survey of fast-food restaurants in Texas.

wage. Furthermore, one-third of the restaurants moved their starting wage from exactly the old minimum to exactly the new minimum. (The eight restaurants that initially paid $3.35 and increased their wage above $3.80 all paid exactly $3.85, and some of the managers of these restaurants maintained that the new minimum was $3.85, not $3.80.) It is clear that the survey encompasses a universe of employers that is affected by the minimum wage, and that has potential to use the youth subminimum.

Utilization of the Youth Subminimum Wage

Table 2 reports a variety of survey results breaking the sample into two groups: those paying a starting wage less than $3.80 and those paying $3.80 or more prior to the minimum wage increase last April. Only 1.8 percent of the restaurants in our sample reported that they have used the youth subminimum. Of the restaurants that paid newly hired part-time workers less than the new minimum wage, three percent utilized the youth subminimum. Finally, if we limit the sample to franchisee-owned restaurants that previously started workers at less than $3.80, the fraction of restaurants using the youth subminimum is 4 percent. (In contrast, none of the company-owned restaurants in the sample utilized the subminimum.) These figures suggest that even in a low-wage industry in a low-wage labor market hardly any employers are using the youth subminimum.

Why are fast-food employers so reluctant to use the youth subminimum? Our survey elicited several possible explanations. Perhaps most important, 83 percent of restaurant managers reported that they believed they could not attract qualified teenage workers at a subminimum. This figure declines only slightly, to 78 percent, when we limit the sample to restaurants that previously paid workers less than $3.80 to start. *Thus, a large fraction of managers appear to believe that the increase in the minimum wage coincided with an increase in workers' reservation wages.*

Nevertheless, nearly 20 percent of managers who were not utilizing the subminimum reported they could attract qualified workers at a subminimum wage. About half of those who thought they could attract qualified workers for less than $3.80 reported that they did not know about the new subminimum wage option. Although it seems plausible that store managers or even small franchisees might be unaware of the subminimum wage amendments, it seems implausible to us that company-owned restaurants fail to use the subminimum because of lack of information. Three other reasons were frequently given for not using the subminimum wage: (1) managers believed it

TABLE 2

Responses to Change in Minimum Wage by Whether Starting Wage Was Above or Below New Minimum Wage on April 1, 1990

	(1) Starting Pay for Part-Time Workers < $3.80 Prior to April 1, 1990	(2) Starting Pay for Part-Time Workers ≥ $3.80 Prior to April 1, 1990	(3) t-statistic for Difference (1) - (2)
1. Proportion using the youth subminimum	0.03	0.00	1.07
2. Average starting wage before April 1, 1990	$3.43	$3.95	−22.26
3. Increase in starting pay from April 1 to December 1990	$0.42	$0.19	10.53
4. Proportion maintaining wage hierarchy[a]	0.41	NA	NA
5. Proportion decreasing amount of first pay raise	0.13	0.00	1.92
6. Proportion increasing time to first pay raise	0.04	0.00	0.97
7. Proportion that cut fringe benefits	0.11	0.19	−1.32
8. Proportion that reduced workers on a shift	0.18	0.16	0.10
9. Proportion that reduced shifts per day	0.08	0.10	−0.32
10. Sample size	116	44	—

Note:

[a] Proportion maintaining the wage hierarchy is the proportion of restaurants that after April 1, 1990, paid a wage above the restaurant's new starting wage to workers who prior to April 1, 1990, had earned between the restaurant's starting wage and $3.80.

wasn't fair to pay a subminimum wage to some workers; (2) the restaurant did not employ teenage workers; (3) the manager believed the law was administratively difficult to apply.

Perhaps our finding of a low take-up rate for the youth subminimum wage should not be surprising in light of Freeman, Gray, and Ichniowski's (1981) finding that only three percent of students' work hours were covered by the subminimum wage permitted for full-time students in the late 1970s. However, the new youth subminimum wage is much easier to use than the full-time student exemption. Notably, the youth subminimum applies to all teenage workers (not just full-time students), and carries less cumbersome restrictions on the hours of employees who can be covered by the subminimum. In spite of its advantages for employers vis-à-vis the full-time student subminimum wage, utilization of the new youth subminimum wage appears to be quite rare. Thus, it is unlikely that the youth subminimum wage will have an important impact on the training of young workers.

Wage Compression and the Minimum Wage

Table 2 shows that between April and December of 1990 the restaurants that were required to increase their starting wage by the minimum wage hike increased their starting wage by 12.2 percent (42 cents) on average, while those already above the new minimum wage increased their starting wage by a 4.8 percent (19 cents) on average. There are two potential explanations for why firms that were already paying above the new minimum wage increased their starting wage after the minimum wage increased. First, as Grossman (1983) and Akerlof and Yellen (1990) contend, relative wages may influence work effort so firms already above the minimum wage may adjust their wages to maintain effort levels. Second, a more neoclassical explanation is that market forces would have led to an increase in wages in the fast-food industry in Texas even in the absence of the minimum wage increase. However, the case for market forces is weakened because the quarterly unemployment rate in Texas was relatively stable throughout 1990.

Nevertheless, the increase in the minimum wage led to a substantial reduction in the dispersion of starting wages across restaurants. For example, the coefficient of variation of starting pay for part-time workers decreased by a third, from .074 to .049. The between-restaurant reduction in dispersion is also evident from the wage regressions reported in Table 3. For example, the regressions show that company-owned resaurants pay more for starting pay than franchisee-owned restaurants (see also Krueger, 1991), and that restaurants in areas with a higher unemployment rate have lower wages. Both of these effects are roughly halved after the increase in the minimum wage.

Perhaps of more interest is information gathered by the survey on within-firm wage policy in response to the increase in the minimum wage. In particular, suppose a firm originally paid \$3.35 per hour to new workers and then increased its starting wage to \$3.80. What did such a firm do to the pay of incumbent workers whose wages had risen to a rate of say \$3.50? The survey found that 44 percent of firms in this situation increased the wage of the worker earning \$3.50 to above \$3.80, and thus maintained its wage hierarchy. Of all restaurants that

TABLE 3
Log Wage Equations for Starting Wages Before and After the New Minimum Wage

Variable	Starting Wage Prior to April 1, 1990 (1) Part-Time	(2) Full-Time	Starting Wage in December 1990 (3) Part-Time	(4) Full-Time
Intercept	1.241 (0.091)	1.147 (0.123)	1.374 (0.064)	1.381 (0.077)
Company owned (1 = Yes)	0.038 (0.013)	0.032 (0.017)	0.020 (0.009)	0.022 (0.010)
Wendy's (1 = Yes)	0.025 (0.014)	0.018 (0.018)	0.016 (0.010)	0.009 (0.012)
Kentucky Fried Chicken (1 = Yes)	0.055 (0.017)	0.057 (0.022)	0.020 (0.012)	0.010 (0.014)
Log number of employees	−0.001 (0.018)	0.023 (0.023)	−0.013 (0.013)	−0.009 (0.014)
City unemp. rate in 1986	−0.535 (0.206)	−0.679 (0.247)	−0.139 (0.146)	−0.373 (0.157)
Log population of city in 1986	0.003 (0.005)	0.006 (0.007)	0.002 (0.004)	0.003 (0.004)
R^2	0.292	0.280	0.168	0.191
S.E. of regression	0.061	0.062	0.044	0.040
Sample size	134	93	136	94

Note: Standard errors are shown in parentheses.

were initially paying less than $3.80 to new hires, 40 percent maintained their wage hierarchy, and the remainder compressed whatever wage differentials existed between long-service workers and new hires.

A related issue is whether firms delay the time until workers receive their first pay raise or reduce the amount of the first raise in response to an increase in the minimum wage. Rows 5 and 6 of Table 2 provide some information on these questions. First, it is clear that the restaurants that were forced to increase their starting wage by the rise in the minimum wage are more likely to delay the first raise they give to workers and to reduce the amount of the first raise. On the other hand, 85 percent of restaurants that were forced to increase their starting wage *did not* change *either* the amount of, or time until, the first pay raise.

Nonwage Responses to the Minimum Wage Increase

The final issue we consider is the extent to which fast-food restaurants offset increased labor costs caused by the higher minimum wage by reducing fringe benefits or employment. Rows 7, 8, and 9 of Table 2 indicate that less than one-fifth of the restaurants reported that they cut fringe benefits and less than one-fifth reported that they cut employment, despite the fact that over 70 percent of these firms were constrained to increase their starting wages because of the minimum wage increase. One further finding from Table 2 is that there appears to be little difference in these nonwage responses between those directly constrained by the new minimum wage and those paying starting wages above $3.80 prior to April 1, 1990. In summary, fully 73 percent of firms that were forced to increase pay to satisfy the new minimum wage did not report cutting employees, shifts, or fringe benefits to cushion their mandated wage increase.

Conclusion

Several tentative conclusions can be drawn from our analysis. First, it appears that few employers have elected to use the new youth subminimum wage, even in an industry where many employers could probably readily attract teenage workers at a subminimum wage. Second, a sizeable minority of fast-food restaurants increased wages for workers by an amount exceeding that necessary to comply with the higher minimum wage. In other words, many employers appear to pay a wage premium in order to maintain their internal wage hierarchy. Finally, the majority of fast-food restaurants in Texas that were directly affected by the minimum wage increase did not report that they attempted to offset their mandated wage increase by cutting fringe benefits, reducing employment, reducing the amount of workers' first pay raise, or delaying the time until workers' first pay raise.

This behavior seems difficult to explain with the standard model that economists use to evaluate the impact of a minimum wage. On the other hand, it may be more consistent with models of wage determination that emphasize relative compensation, horizontal equity concerns, and effort incentives.

Acknowledgments

Lawrence F. Katz is an Associate Professor of Economics at Harvard University and a Research Associate at the National Bureau of Economic Research and Alan B. Krueger is an Assistant Professor of Economics and Public Affairs at Princeton University and a Faculty Research Fellow at the National Bureau of Economic Research. Research assistance by Carrie Cornwell, Kathy Larin, Jonathon

Rapping, Sameer Srivastava, Kainan Tang, and Gary Thelan is gratefully acknowledged. We are also grateful to David Card for inspiring us to conduct a survey on the impact of the minimum wage. Krueger acknowledges research support from the Industrial Relations Section of Princeton University.

References

Akerlof, George, and Janet Yellen. "The Fair-Wage Effort Hypothesis and Unemployment." *Quarterly Journal of Economics* 105 (May 1990), pp. 255-84.

Bureau of National Affairs. "Employee Relations in the Fast Food Industry." Supplement to *Retail/Services Labor Report*. Washington, D.C.: Bureau of National Affairs, June 1985.

Bureau of National Affairs. *Daily Labor Report* 113 (June 14, 1989).

Freeman, Richard, Wayne Gray, and Casey E. Ichniowski. "Low Cost Student Labor: The Use and Effects of the Subminimum Wage Provisions for Full-Time Students." In *Report of the Minimum Wage Study Commission*, Vol. 5. Washington, D.C.: U.S. Government Printing Office, 1981, pp. 305-35.

Grossman, Jean B. "The Impact of the Minimum Wage on Other Wages." *Journal of Human Resources* 18 (Summer 1983), pp. 259-78.

Krueger, Alan. "Ownership, Agency and Wages: An Examination of Franchising in the Fast Food Industry." *Quarterly Journal of Economics* 106 (February 1991), pp. 75-102.

U.S. Bureau of the Census. *County and City Data Book, 1988*. Washington, D.C.: U.S. Government Printing Office, 1988.

Minimum-Wage Youth: Training and Wage Growth

BRADLEY R. SCHILLER
The American University

Controversy about minimum wage (MW) legislation has focused on two central issues, namely (1) the extent to which minimum wages reduce job opportunities, and (2) the extent to which minimum wage jobs trap people in poverty. The disemployment debate was quieted by a rash of empirical studies in the 1970s and early 1980s (see Brown, Gilroy, and Cohen (1983) for a review). The poverty debate intensified, however, particularly as the real value of the federal MW declined in the 1980s. Indeed, the low MW floor became a key issue in the larger debate about "good jobs" versus "bad jobs" (see Loveman and Tilly (1980); also papers in Burtless (1990)). Many critics argued that the net creation of 20 million jobs in the 1980s was a hollow achievement, since many (most) of the jobs were dead-end endeavors paying low wages and offering little opportunity for advancement (e.g., Harrison and Bluestone (1988)). From this perspective, the wage floor had to be lifted to alleviate the hardships of a growing and permanent underclass.

Contrasting Models

The good jobs/bad jobs debate is rooted in contrasting models of labor market behavior. The bad jobs perspective is a direct corollary of dual labor market models that posit an impassable barrier between primary (good) jobs and secondary (bad) jobs. In this view, the well-being of workers trapped in the secondary market by reason of race, sex, or socioeconomic status can be improved only by raising wage floors.

Human capital theory offers a more optimistic view of advancement opportunities. This view emphasizes the potential for workers to move up the wage ladder as they acquire skills and experience. Higher

Author's Address: School of Public Affairs, The American University, 4400 Massachusetts Avenue NW, Washington, D.C. 20016-8070.

wage floors may act as an impediment to advancement by reducing job and related training opportunities. Low wage floors, by contrast, maximize short-run job opportunities and, via training and experience, possibilities for higher long-term ("permanent") income.

This is a debate that can be resolved empirically. Are MW workers actually "trapped" in low-wage jobs? Or do such workers move up the wage ladder as they gain experience?

The National Longitudinal Survey of Youth (NLSY) identifies young people entering the labor market and tracks their subsequent employment experience. Approximately 40 percent of the NLSY youth cohort (aged 16 to 24 in 1980) got their first paid employment in 1980 (17.4%) or later (21.5%). This paper focuses on those 1980 entrants who were paid the minimum wage or less on their first job.

Just over half of the 1980 entrants were paid at or below the federal minimum wage. Age at entry is highly correlated with MW status (Table 1). Roughly two-thirds of the youngest entrants (ages 15-17) started out with wages at or below the federal minimum. The proportion of entrants commanding above-minimum wages, however, does not exceed 60 percent until age 21.

TABLE 1

Entry Age and Wage (1980)

	Percentage with Wage		
Age At Entry	At or Below MW	Above MW	Total
15	71.0	29.0	439,762
16	70.6	29.4	1,235,141
17	64.4	35.6	1,153,204
18	52.8	47.2	927,068
19	46.2	53.8	569,409
20	40.4	59.6	418,399
21	29.0	71.0	428,879
22-23	29.5	70.5	632,840
Totals, Ages 15-23	54.4	45.6	5,804,703

MW = Minimum Wage

The overwhelming majority of young MW workers are still attending school. Hence, their work experience tends to be part-time or part-year (e.g., summer vacations). Traditionally, this early work experience is ignored in empirical research, with most analysts focusing on out-of-school youth, household heads (Mincer, 1988) or even the smaller subgroup of full-time workers [Haber and Lamas (1988)].

However, in-school work experience is often substantial and may be a significant source of training and job information.

Minimum Wage Employers

Almost half (49.2%) of all MW jobs are located in very small businesses, i.e., single-establishment firms with fewer than 100 employees. These are the firms most likely to be exempt from federal MW wage statutes, and perhaps state statutes as well (Schiller, 1990a). They are thus uniquely positioned to offer (below) MW jobs and benefit from the displacement of inexperienced workers from the covered sector.

The dominance of retail jobs in the MW youth market is confirmed in the NLSY data; nearly half of all the MW jobs are in the retail/wholesale trade group. Other industries (e.g., services, recreation, agriculture), however, have just as high an *incidence* of MW employment.

Perceived Training

The NLSY asks respondents to relate their perceptions about the extent and value of their current training and experience (see Schiller 1990b for a discussion of alternative measurement approaches). Some of the key questions asked include:

- Do you think that your experience on this job will help you get a particular kind of job you want later?
- Would you say that it is very true, somewhat true, not too true, or not at all true that:

  -You are given a chance to do the things you do best?

  -The skills you are learning would be valuable in getting another job?

  -The chances for promotion are good?

Other questions assess job satisfaction, anticipated tenure, job goals, and other subjective elements of the job. These more detailed questions about job satisfaction and training were asked only about jobs held during the survey week, and only of those youths working twenty hours or more.

All Minimum Wage Youth

The subjective perceptions of MW youths seem to dispel the notion that MW jobs offer low wages and nothing more. Only one out of eight

MW youths perceive a total lack of on-the-job training—a condition compatible with the notion of dead-end jobs. In general, these young people not only like their jobs, but they believe those jobs are valuable stepping stones to better jobs and wages.

Over 85 percent of these young MW workers stated that they liked their jobs and over 60 percent felt that they were learning skills that would be valuable in attaining better jobs (Table 2). Over half (55.7%) perceived opportunities for promotion with the same employer.

TABLE 2

Perceptions of Minimum-Wage Youth

	Percentage of Young Workers		
Response	Learning Valuable Skills	Opportunity For Promotion	Like The Job
Very True	24.6	22.7	32.8
Somewhat True	36.5	33.0	52.4
Not Too True	25.7	26.4	11.0
Not At All True	13.2	18.0	3.9
	100.0	100.0	100.0

N = 2,250,709 youth aged 15-23 working at least twenty hours per week at private sector job (1980).

Importantly, those youths who were already out of school and working at MW jobs were even more convinced that they were acquiring valuable skills. Sixty-five percent of these young workers perceived that they were receiving valuable skill development. Only one of eight felt their job offered no skill training.

The training perceptions of all MW youth and 1980 MW entrants were subjected to regression analysis to isolate potential determinants of training. The standout determinant of perceived training among entrants is firm size, with entrants employed in large firms (over 1,000 workers) much (0.269) less likely to perceive on-the-job training (see Schiller, 1990b for detailed results). This observation reinforces suggestions that informal (and more general) training is more prevalent in small firms.

Wage Growth

The critical issue in the good jobs/bad jobs debate is the *permanency* of low wages. Are MW workers forever locked into low-wage jobs? Or, do they move up the wage ladder with the accumulation of work experience?

Duration of Minimum Wage Experience

The best evidence on the duration of MW can be collected from the experience of labor market entrants. Table 3 summarizes the subsequent incidence of MW jobs among the 1980 MW entrants, with *any* job paying MW or less in a subsequent year counting as a MW experience. Hence, an individual might hold other, higher-paying jobs during the same year. By the same token, the MW job may be part-time or part-year. This stringent measure is intended to identify an upper-limit estimate of the duration of MW experience.

TABLE 3

For 1980 Labor Market Entrants Earning MW or Less

Duration of MW Experience	Percentage of Entrants	In-School Entrants	Out of School Entrants
Less than one year	33.0	32.1	36.0
1-2 years	31.9	32.0	31.8
2-3 years	20.1	10.9	17.0
Over 3 years	15.0	14.9	15.1

MW = Minimum Wage

As Table 3 reveals, one of three young people who had entry wages at or below the MW were consistently earning above-minimum wages within one year. Sixty percent of the MW entrants had surpassed the MW threshold within two years. Only 15 percent of the 1980 entrants still had any MW experience after three years.

In assessing these experiences, it should be recalled that all these entrants held at least one job that paid *below* the federal minimum. Hence, the continuance of so-called "MW experience" may in fact conceal upward mobility. In addition, the eight percent hike in the federal MW in 1981 also conceals upward wage mobility for workers who stayed in the MW category. Accordingly, the data in Table 3 should be regarded as highly conservative indices of upward mobility.

Job Retention

The duration of the typical MW job is shorter than the average MW experience. Nearly 60 percent of labor-market entrants who start at the MW (or less) leave their initial employer within a year. Only 15 percent stay with their initial employer for at least three years. This outcome is fully consistent with the *anticipated* retention of these MW entrants; over half of the MW workers expect to leave, and actually do leave, within a year. Apparently, young people themselves view MW jobs as brief transitions to higher-paid employment.

Wage Increases

Although it appears that the MW job experience is relatively brief, no evidence on the extent of subsequent wage gains has been presented. Table 4 fills this gap. The low initial wage rate ($2.70 an hour) reflects the exemptions in both state and federal coverage noted earlier.

TABLE 4
Wage Growth for MW Entrants

Year	All 1980 MW Entrants	Those out of School in 1980	Those in School in 1980
1980	$2.70	$2.65	$2.72
1981	3.54	3.48	3.56
1982	4.00	3.80	4.05
1983	4.53	4.50	4.54
1984	4.95	4.56	5.05
1985	5.58	4.93	5.72
1986	6.35	5.30	6.59
1987	7.18	5.67	7.52
Percentage gain, 1980-87	+166% (N=2,503,919)	+114% (N=530,785)	+176% (N=1,973,133)

MW = Minimum Wage

*Note: Individuals with recorded wage rate below $1.50 or above $25.00 per hour excluded from computations.

The wages of youthful MW workers rise very sharply over time; by 1987, they were earning $7.18 per hour. This represents a nominal wage increase of 166 percent, or an average of roughly 15 percent per year. During the same period, the average hourly wage of all U.S. workers grew by only 3.6 percent. Thus, the young people who started at the MW scored substantial wage gains, both in absolute and relative terms.

The wage gains of MW job entrants were experienced by both men and women, although not equally. Females attained an average wage increase of 145 percent (13.7% per year) significantly below the wage gain of young males (188%, or 16.3% a year).

The age of entry into MW employment appears to have relatively little effect on the size of subsequent wage gains. Those who start working for minimum wages at age 19 score the largest wage gains (181%). But those who first start working at other ages score comparable gains.

The sharpest differences in career paths are related to school status. Young people who take their first MW job while still in school start out with slightly higher wages ($2.72) than those who enter the labor market after leaving school (average wage of $2.65). In addition, they receive much more rapid wage increases in subsequent years. By 1987, the in-school entrants of 1980 receive substantially higher wages ($7.52) than the out-of-school entrants ($5.67) (Table 4).

School status at the time of MW employment is not only a good predictor of later wage gains but also appears to be a strong signal of underlying ability. Those who take MW jobs after finishing school are either dropouts or high school graduates having low earning power. Hence, their low wages are a greater reflection of their *learning* ability as well as their earning ability. This is independently reflected in intelligence scores, with out-of-school MW entrants scoring well below (60.54) their in-school counterparts (73.43) on the Armed Forces Qualifications Test (AFQT).

Determinants of Wage Gains

The observed wage gains of young MW workers refute the notion that all MW jobs are inherently dead-end ones. The substantial variations around those average gains, however, merit explanation. What factors promote large wage gains for some MW youth and much smaller gains for others? Conceptually, the answer must reside in a general model that incorporates human capital characteristics, structural variables, and a random element.

The reduced form of the model used here attempts to relate individual changes in wage rates to: sex (0,1), race (0,1), marital status (0,1), school status (0,1), age (15-23), IQ score (AFQT test score), geographic location (four regions), firm size (small, medium, large), industry (retail, services, other), and training (0,1). All measurements were taken at the time of the first job.

The extent of work and school experience *after* labor market entry are reflected in two further variables, i.e., work experience (1-8) and additional schooling (1-8). Work experience (WorkExp) reflects the number of years for which the respondent was employed for at least 35 weeks of the year. Forty percent of these 1980 youth entrants had accumulated at least five years of such full-year work experience by 1987.

The measure of additional schooling (AddED) refers to the change in highest reported grade between 1980 and 1987. Twenty percent of those entrants who self-reported as "out of school" in 1980 actually acquired additional schooling during the observation period. Not so surprising is the continued educational attainments of 97 percent of those entrants who were still in school in 1980. Their mean schooling increment was 3.26 years.

All of the foregoing variables are used to explain the change in individual wages from the entry job (1980) to the job held seven years later (1987). The dependent variable is the natural logarithm of the 1987 wage/1980 wage ratio. The analysis was conducted separately for in-school and out-of-school entrants in recognition of their different circumstances and wage growth patterns (Table 4).

Table 5 summarizes the results of the regression analyses. The mean values for wage growth confirm the greater obstacles to upward mobility confronting out-of-school MW entrants. It also appears that the *determinants* of wage growth are somewhat different for that group. The age at entry into MW employment is another signal of labor market potential for out-of-school entrants, but not for in-school entrants. The initial industry affiliation is also important for out-of-school entrants but not for in-school entrants.

Race does not appear to exert an influence on wage growth of either group, a result consistent with other studies showing diminished race differentials for more recent labor market entrants (O'Neill, 1990). Gender does make a big difference, however, at least for in-school entrants.

The measures of human capital acquisition—AddED and WorkExp—perform pretty much as expected. AddED is worth more than WorkExp for entrants still in school. Both forms of human capital acquisition appear to have greater impact, however, for out-of-school entrants. This likely reflects both their lower initial endowments of human capital and the signaling effects (credentialism?) of educational attainments.

There are no surprises in these results. Essentially they reveal that young people who take MW jobs are propelled up the wage scale by the same factors that determine wage growth for other workers. Additional analyses also show that perceived training on the entry job is correlated with wage gains during the following two years. Schiller (1990) and Mincer (1988) report similar findings. Unfortunately, the NLSY surveys do not include questions on training perceptions each year; hence, no cumulative assessment of training impact is possible.

TABLE 5
Determinants of Wage Growth

	In-School MW Entrants		Out-of-School MW Entrants	
	Mean	Coefficient	Mean	Coefficient
Dependent Variables				
Log (1987/1980 wage)	0.949		0.733	
Independent Variables				
1. Intercept	—	.075	—	1.217
2. Age 1980	16.922	.014 (.020)	19.100	−.043° (.021)
3. Male	.500	.198° (.037)	.321	NS
4. AFQT	73.425	.005° (.001)	60.544	.005° (.002)
5. Minority	.183	NS	.279	NS
6. South	.346	.050 (.039)	.387	NS
7. HS Grade 1980	.180	.080 (.072)	.628	.084 (.104)
8. Retail 1980	.457	NS	.439	−.136 (.077)
9. Add Educ	3.257	.018 (.012)	.509	.029 (.038)
10. Work Exp	4.363	.015 (.009)	4.065	.049° (.018)
R^2	.130		.095	
F	12.29		3.66	
N	582		180	

NS = did not pass significance threshold.
MW = Minimum Wage

Summary and Implications

The debate over MW thresholds and the larger controversy about good jobs versus bad jobs share a common concern; namely whether low-wage jobs are inherently dead end. The observations reported here suggest that that concern is ill-founded, at least with respect to younger workers. Young labor market entrants certainly don't perceive their MW jobs in that way. A substantial majority of MW youth believe they are acquiring valuable skills, have opportunities for promotion, and even say they like their jobs.

The longitudinal experiences of MW youth provide an even more compelling refutation of the notion that MW jobs are inherently dead end. Since virtually all young people hold a job paying the MW or less at some point in their work history, that blanket assertion can be dismissed out of hand. The evidence shows further that youths entering the labor market in the 1980s did particularly well. Specifically, those who started at the MW in 1980 enjoyed impressive wage gains over the subsequent seven years. Insofar as young workers are concerned, MW jobs are correctly viewed as transitions to better jobs, not dead-end endeavors.

References

Brown, Charles, Curtis Gilroy, and Andrew Kohen. "The Effect of the Minimum Wage on Employment and Unemployment." *Journal of Economic Literature* 20, 1 (1983), pp. 3-31.

Burtless, Gary, ed. *A Future of Lousy Jobs?* Washington, D.C.: Brookings Institution, 1990.

Haber, Sheldon E., and Enrique Lamas. "*Training, Wage Growth, Firm Size.*" George Washington University, June 1988.

Harrison, Bennett, and Barry Bluestone. *The Great U-Turn.* New York: Basic Books, 1988.

Loveman, Gary W., and Chris Tilly. "Good Jobs or Bad Jobs?" *International Labour Review* 129 5 (1988), pp. 593-611.

Mincer, Jacob. "*Job Training, Wage Growth, and Labor Turnover.*" NBER Working Paper 2690, August 1988.

O'Neill, June. "The Role of Human Capital in Earnings Differences Between Black and White Men." *Journal of Economic Literature* 4, 4 (1990), pp. 25-45.

Schiller, Bradley R. *State Minimum Wage Laws: Coverage and Impact on Youth.* The American University, October 1990a.

Schiller, Bradley R. *Moving Up: The Experience of Minimum-Wage Youth.* American University, December 1990b.

DISCUSSION

Charles Brown
University of Michigan
National Bureau of Economic Research

Policy makers' interest in the minimum wage was rekindled in the late 1970s, as some legislators pushed for a lower minimum wage for youth while others sought a minimum wage automatically linked to wages in the rest of the economy. That interest was reflected (with the customary lag) in a number of papers about the minimum wage. For most of the 1980s, the minimum wage remained in the background, both in Congress and in academic journals. The recent amendments to the minimum wage law seem to have re-kindled academic interest. The two papers discussed below represent genuine contributions to an extensive but still lively literature.

David Card's paper looks at the consequences of California's 1988 decision to increase its minimum wage from \$3.35 (the level of the federal minimum) to \$4.25. He does not find the expected reduction in employment for teenagers and retail-trade workers, two groups with low average wages and significant fractions of workers paid exactly the new minimum.

The empirical methodology for analyzing teenage employment is to compare changes between 1987 and 1989 in California to those in comparison areas, chosen to be similar to California but which did not enact minimum-wage increases. While the standard models of the minimum wage (and previous empirical studies) lead us to expect a reduction in teenage employment, in fact teen employment rose by five percentage points in California while remaining roughly constant in the comparison areas. Similarly, employment in retail and wholesale trade grew slightly faster in California than in the rest of the U.S.

Given the unexpected results, a natural reaction is to probe the adequacy of the comparison-area approach. I have two concrete suggestions. First, one could check whether differences in *industrial* structure might have led to greater employment of teenagers in

Author's Address: Department of Economics, University of Michigan, Ann Arbor, MI 48109.

California than in the comparison areas. For example, one could weight national increases in employment by industry by the share of teenagers employed in each industry, first for California and then for the comparison areas. Second, instead of a "differences in differences" estimator (California's 1987 to 1989 change minus those of the comparison areas), one could calculate a "difference in second differences" estimator: California's 1987 to 1989 change minus its 1985 to 1987 changes, minus a comparable second-difference for the comparison areas. This alternative has the advantage of correcting for any *pre-existing* more-favorable trend in California teen employment.

My suspicion is that the unexpected finding will survive such experiments, and so it is natural to ask how one ought to interpret it. One possibility is the textbook monopsony model. I too am skeptical this is the right answer, for the reasons Card mentions. But it also seems hard to square with the evidence on restaurant-food *prices*. In the textbook model, where entry and exit are not considered, if the minimum wage raises employment it should reduce prices, since someone has got to buy what the extra workers produce. Allowing for entry and exit might reverse that result, but the mixture of no change and some increase in prices Card reports does not line up in an obvious way with such a model.

While I am at least as puzzled as Card as to how to interpret the increased employment he finds, I have two thoughts about where to look for an interpretation. First, teenage school enrollment fell by roughly five percentage points between 1987 and 1989. That is a *huge* reduction, and I doubt it was caused by the minimum wage. If one could determine why teenagers left school in such numbers, one might have a fair clue about why their employment increased, since enrolled teens are less likely to be employed than their out-of-school counterparts. Second, standard theoretical models do not satisfactorily explain how two teenagers whose value to employers differed by 50 cents on the eve of a minimum wage increase (say, \$3.35 and \$3.85 per hour) can both receive the same wage (the new minimum) the next day. Understanding why the spike survives (Shouldn't employers be willing to pay a bit more than the new minimum to attract the teen who *was* worth 50 cents more?) might lead to a richer class of models for analyzing consequences of the minimum wage.

Alida Castillo-Freeman and Richard Freeman analyze the historical evidence on minimum wages and employment in Puerto Rico. Their underlying premise—that it makes sense to look for minimum wage effects in contexts where those effects are large and hence won't be swamped by noise in the data—is a very sensible one. And it is rewarded by strong evidence that the minimum wage reduced employment in Puerto Rico.

The first part of the paper presents a time-series analysis of employment, using equations which are (deliberately) quite similar to those used to analyze teenage employment in the U.S. The main finding is that the elasticity of employment with respect to the minimum wage is similar to what one finds in those U.S. studies, but here we are talking about the whole economy (not just teenagers) and the average wage in Puerto Rico is significantly lower so that a given elasticity has a much larger effect.

My main suggestion here is to consider extensions of the analysis that would further highlight U.S.-Puerto Rican comparisons: estimating separately the effects of changes in the level and coverage of the minimum wage, if feasible studying Puerto Rican *teenager* employment, and perhaps controlling for other variables often included in U.S. studies (age distribution, slots in training programs, etc.) It would also be worth highlighting the 1980s: in the U.S., the real minimum wage fell in the 1980s, but teenage employment did not benefit in an obvious way; the real minimum also fell in Puerto Rico over this period, making me curious what happened to employment over this period. Finally, my impression from the paper is that in Puerto Rico as in the U.S., increases in the minimum wage probably raise wages more than they reduce employment. Would that impression be confirmed by the analysis in this paper?

The remainder of the paper presents a pooled cross-industry time series of employment. The main finding is that low-wage industries, which might be expected to suffer most from increases in the minimum wage, do in fact experience dramatically more negative employment changes. It is worth stressing, however, that this analysis assumes that the time trend on the logarithm of employment is the same in all industries. If that underlying trend were less favorable in low-wage industries, the harm done by the minimum wage would be overstated. Constructively, I suggest that the comparison of employment in high- and low-wage industries be extended to see what happened to employment in U.S. industries, classified as high- or low-wage based on the Puerto Rican data. If mainland low-wage industries were also faring poorly, I would be more concerned that the "minimum wage" effects in this paper are in fact "low-wage industry" effects.

Both the aggregate time series and the pooled analysis find significantly more negative employment elasticities for the years since 1973, when the transition from industry-specific minimum wages set by local wage boards to the mainland minimum was begun. I'm not sure what interpretation to place on that difference. If minimum wage increases were genuinely exogenous in both periods, their effect shouldn't depend on who was responsible for them. Nor is it obvious that a non-uniform minimum should have dramatically smaller effects than a uniform minimum with the same average level.

Unfortunately, having found relatively little to complain about in either paper, I have no ready explanation for their quite different findings.

DISCUSSION

LISA M. LYNCH
Massachusetts Institute of Technology and
National Bureau of Economic Research

Before I begin my comments let me make a general comment on all the papers presented in this session on minimum wages. The topic of minimum wages is certainly not a new subject in labor economics and some would argue has been studied to the point of diminishing marginal returns. Personally, I thought that I would never see another interesting paper on this subject—until this session. While all of the papers are worth careful attention my discussion will focus on the contributions and limitations associated with the papers by Schiller, and Katz and Krueger. Schiller tries to answer two questions associated with minimum wages—are minimum wage workers "trapped" in low wages (or low-wage jobs)? Are minimum wage workers receiving skill training? The sample Schiller uses is from 1980 entrants into the labor market (from the NLSY) who earn the minimum wage in their first jobs. While the sample numbers in the tables are reported as weighted values, the initial sample used here is approximately 1,200 youths. Schiller finds that 15 percent of workers that started working at the minimum wage in 1980 are still in a minimum wage job in 1983, only 15.4 percent of the sample are still with their initial minimum wage employer, and there appears to be substantial wage growth for these workers over the 1980-1987 period. He concludes that "the observed wage gains for young workers refutes the notion that all minimum wage jobs are inherently dead-end ones." Actually, I think that Schiller has shown that minimum wage jobs are dead end. Instead, what is true is that many young workers are able to advance into better paying jobs in a relatively short period of time (especially for those who are still in school). However, there remains a non-trivial number of young workers (especially those who have "completed school" and are employed in a minimum wage job) who are not particularly mobile. In addition, if one examines the wage

Author's Address: Sloan School of Management, Massachusetts Institute of Technology, 50 Memorial Drive, Cambridge, MA 02139.

growth over 1980-1987, the year with the largest annual wage increase is 1980-1981, which was the last year in this period in which minimum wages were increased before 1990. This should be taken into account in the discussion of the observed wage growth over this period. More importantly, when the author examines the factors that determine wage increases he finds that for in-school youths only being male and having a high AFQT score increase earnings and for the out-of-school youths only age, AFQT scores, and work experience increase wages. The author argues that post-entry acquisition of education is more valuable than work experience, but I would conclude from the tables presented in the longer version of this paper that just the opposite is true. I was surprised at the lack of significance of the variables included in the estimation and would suggest that the author include other variables such as the local SMSA unemployment rate.

The second set of results the author presents relates to training and minimum wages. There are two types of training questions included in the NLSY. One set examines spells of formal training provided by the private sector and the government. The other set of questions relates to what the author calls "informal training"—answers to the question, "Do you think that you are learning valuable skills on your job?" This question is only asked to those working at least 20 hours a week (presumably many in his original sample are lost but actual sample sizes are not reported). Schiller concludes that since 60 percent of the sample answer that they are learning something valuable that this is evidence of substantial on-the-job training in minimum wage jobs. However, I conclude just the opposite, since 40 percent of the sample do not answer that they are learning much on their job. I found this number very high given the broad nature of the question. Schiller then tries to estimate (using OLS rather than estimating a logit or probit) the determinants of answering "somewhat true" or "very true" to this question. He finds only two determinants of informal training—those in the North Central are less likely to receive training and those in large firms are *less* likely to receive training. This second finding is very surprising since we know (as even the author argues) that large firms are more likely to provide formal training than small firms. I can only conclude that since we also know that large firms are more likely to pay higher wages, the large firms in this sample that pay minimum wages are a very rarified group and not necessarily representative of large firms in general. In conclusion, I think that Schiller has presented some evidence that minimum wage employment is not an absorbing state for most young workers. However, there is a percentage of young workers, especially those who finish school and begin working in minimum wage jobs, for whom the minimum wage job does appear to be a dead end. It is not clear, however, how much of this is due to the job per se versus the characteristics of the individual worker. It is even less clear from this paper whether or not minimum wage workers are receiving skill training. The data used do not allow one to examine the amounts of training actually used. Preliminary analysis does suggest that this training is not general since there is no impact of this training on wage growth.

In the Schiller paper we learn that 50 percent of minimum wage youths are in small firms of less than one hundred employees and most of the remainder are in small establishments that are part of larger firms, e.g., Burger King, McDonalds, etc. In the Katz and Krueger paper these latter workers are the focus of their analysis of the impact of the most recent changes in the minimum wage. This paper is an extremely interesting and innovative analysis that is elegant in its simplicity. This paper is an excellent example of how by thinking carefully about an empirical problem it is sometimes possible to construct a relatively straightforward field analysis to study a policy issue of interest. We learn a great deal from this paper, especially that the debate about the subminimum training wage seems somewhat pointless because it does not appear to be used by employers, even in market conditions where we would have expected it. The authors probe the reasons behind this finding and conclude that many employers are reluctant to use the subminimum wage because either they did not know it existed or that they thought it was unfair. I think the fact that so many employers thought the subminimum was unfair reveals a great deal about the amount of training that actually goes into these jobs. If workers took a long time to get up to speed and be trained and productive on the job, the issue of equity associated with this two-tiered wage system would not be great because workers would perceive that they were doing "different" jobs. However, in the fast-food industry where the training periods are much shorter this clearly does become an issue. Relying on the subminimum wage to induce more training in jobs where more training is not necessary seems futile, especially in this sector.

This paper is also interesting in its documentation of how an increase from $3.35 an hour to $3.80 did not seem to affect fringes and employment. The finding on fringes may not be that surprising because the percent of total employment costs of fringes in this industry for these workers is much smaller than in other sectors.

However, the employment effect, or lack of employment effect, is a nice complement to the findings in Card's paper. It might have been interesting to have asked whether or not the hiring criteria had changed with the increase in the minimum wage. When the minimum wage goes up again in 1991 to $4.25 it will also be interesting to see whether or not the results found after this first round of increases remain or if we begin to see findings similar to what Castillo-Freeman and Freeman found for Puerto Rico. More specifically, it might be interesting to see if employers that said they did not know about the subminimum begin to use it and if there are negative employment effects as the wage increases even further. When I finished reading this paper I was convinced that using a subminimum wage to encourage greater training of young workers has not worked in the U.S. Therefore, other methods will need to be found to ensure that workers obtain the training they need in order to increase their productivity and guarantee that they can move out of minimum wage jobs.

XI. RESEARCH ON UNIONS: AGENDA FOR THE 1990S

Union Growth and Decline: A Research Agenda for the 1990s

JACK FIORITO
Florida State University

Do trends and patterns in union growth (and decline) research from the 1980s tell us something about the directions research might take in the 1990s? Does an assessment of our cumulative knowledge about union growth tell us what should (or will) be studied in the 1990s? It should be easier to forecast where we are going if we know where we are and have been. This premise, coupled with time and space constraints, motivated a *cursory* review of the union growth literature. This effort will necessarily only skim the surface and omit numerous potential citations. (My apologies to the authors.)

Where Have We Been?

Papers published in *Industrial and Labor Relations Review*, *Industrial Relations*, and the *Journal of Labor Research* between 1980 and 1990, inclusive, were examined. Valuable research is published in other outlets, but this sample provides a meaningful reference frame. These journals would appear in most lists of the top five U.S. IR journals. They are peer-reviewed, and each has allocated substantial space to union growth and related matters over the 1980-90 period. All three journals recently were ranked among the top 15 among 54 considered in the broad domain of "management" (Extejt and Smith, 1990).

Author's Address: Department of Management, College of Business, Florida State University, Tallahassee, FL 32306.

The review began with a list of about a dozen union growth topics, but a few were subsequently added. Prior familiarity, titles, abstracts, and text- and table-skimming were used to assign papers to one of the categories or to an "all other" group. Following the initial tabulation, the original union growth categories were collapsed into six. To analyze or present the tabulations in more detail suggests spurious precision.

Category 1 includes studies of union satisfaction, commitment, and participation. These predominantly focus on *member* attitudes and behaviors, but are clearly relevant: What causes current members to support their unions is potentially of critical importance for organizing the *un*organized. Category 2 includes National Labor Relations Board (NLRB) election analyses. Category 3 encompasses examinations of individual voting intentions, attitudes toward unions, and correlates (possible causes) of individual membership. These are generally at least one step removed from actual voting or joining decisions, but they often tell us much about the individual psychology underlying the unionization decision. The fourth category includes both time-series and cross-sectional (and pooled) studies of membership. The commonality is that these stress macro-level influences, such as unemployment rates, industry composition, varying legal frameworks, etc. Category 5 includes studies stressing a union-as-organization perspective, and is the most nebulous "specific" category. It includes historical studies, case studies, comparative analyses of union organizing and political expenditures, and both abstract and more practical analyses of union goals and strategies (e.g., "corporate campaigns"). The final category is a residual, and includes studies of first contract attainment, employer opposition, and general literature reviews.

Summary Results: Patterns and Trends in Union Growth Research

Table 1 summarizes the results of the tabulations using the categories described above, and for a "total" category relative to all papers. This yielded a count of roughly 180 articles on union growth and related matters, out of approximately 1,000 articles published by the three journals since 1980. Thus union growth (broadly defined) is indeed a central topic in industrial relations, accounting for nearly 20 percent of journal space.

The nebulous "unions as organizations" category alone accounted for roughly one-fourth of the union growth literature. But even excluding this and the (some might argue peripheral) "union

TABLE 1

Patterns of Research on Union Growth and Decline in Three Industrial Relations Journals[a], 1980-90

	Percent of Articles			
Category	1980-90	1980-84	1985-89	1990[b]
1. Satisfaction, commitment, participation	7.6%	5.3%	9.9%	7.7%
2. Certification and decertification	20.9	22.2	22.3	7.7
3. Individual vote, attitudes, membership	21.7	21.9	23.5	11.5
4. Aggregate cross-section, time-series	12.6	12.1	11.1	23.1
5. Unions as organizations, strategies, etc.	28.3	30.7	24.9	34.6
6. Miscellaneous	8.7	7.8	8.3	15.4
Total	100%	100%	100%	100%
Union Growth Articles Relative to All Articles	18.2%	16.7%	17.8%	28.0%

[a] The journals included are *Industrial and Labor Relations Review, Industrial Relations*, and the *Journal of Labor Research*.

[b] Excludes two issues not located.

satisfaction, etc." category from the count still leaves the union growth literature with roughly a 12 percent share of journal space. There was a slight (insignificant) upward trend in the union growth share, and in 1989 and 1990, it was 25 and 28 percent respectively.

The detailed breakdown for the early versus late 1980s in Table 1 indicates a high degree of stability in union growth research topics for the past decade. (Inferences based on the 1990 data or any one year are hazardous because of the small numbers involved.) The upturn in "union satisfaction, etc." studies may be real, most likely due to growing popularity of union commitment studies. The decline in "unions as organizations" studies appears more fleeting, based on 1990 data.

The overall picture of stability and importance (judging by "market share" in this particular market for ideas) is both reassuring and deceiving. It is reassuring in that researchers have devoted considerable effort to what is clearly a fundamental topic in industrial relations and there is little evidence of faddishness. It is deceiving in that even the six detailed categories conceal more than they reveal.

They conceal the progress being made in both theories and methods. It is probably fair to say that some of the articles published in the early 1980s would be judged unacceptable on theory or method grounds today. Also concealed are shifting topical emphases within categories, and these in large part reflect the cumulative nature of research: An earlier study raises new questions or directs our attention to different questions (old or new). For example, early certification election studies identified some correlates of union success, but also revealed that measures found in NLRB data tapes accounted for only a small part of the variance. Subsequent studies have placed more stress on understanding the causal forces giving rise to the observed correlations and on augmenting the readily-available data (e.g., unit size) with additional measures (e.g., company characteristics) to improve understanding. In terms of method, the decade began "just this side of bivariate correlation," and ended with multiple regression (including quantal choice techniques) being challenged by path-analytic methods as the state of the methodological art.

Where Are We Now, Or What Have We Learned?

Each of the six union growth study categories contributes to overall understanding of union growth and decline, despite cynics who would argue that most or all of the research has merely demonstrated or even obscured that which we already knew. Any one category could be (or has been already) the subject of a lengthy literature review. (See Fiorito, Gallagher, and Greer [1986] for a fairly comprehensive recent review.) The summary following can only touch on some highlights (from the three journals and elsewhere).

Studies on union satisfaction, commitment, and participation (Category 1) tell us mainly why union members feel the way they do about their unions and how these feelings translate into behavioral intentions and actual behavior. They indicate that most members are satisfied with their unions and that the union's relations with its members and its perceived performance in bettering wages, benefits, and fairness are of paramount importance. An important and not-so-obvious finding is that how the member is treated by the union (being given a say in union decisions, grievance handling, etc.) may be even more important than union wage effects. Commitment studies suggest that many members are committed to their union *and* company, and that early socialization into the union may have lasting influences. Implications abound for union growth in terms of campaigning for unions rather than against employers and for the hazards of taking new members for granted, perhaps especially in union shop situations. Participation studies tell us it can be useful to distinguish between active and passive union participation and that attitudes account for much more of participation differences than do demographics, a result echoed in union voting studies.

Studies of certification and decertification (Category 2) indicate that unions have greater success in small units (but are also more likely to ultimately lose them; decertification is mainly a small-unit phenomenon), that company, union, and environmental characteristics affect election results, as does employer opposition, despite earlier misconceptions. They also reveal that unions are more successful in multi-union elections, but that this probably stems from the unit's "organizability" rather than from interunion competition. They also show that union organizing via NLRB elections declined dramatically in the 1980s, but not why.

Analyses of individual voting intentions and attitudes indicate that job satisfaction, union effectiveness (instrumentality) perceptions, and general attitudes toward unions are principal determinants of union support, at least in the abstract (e.g., in a hypothetical vote). But adding consideration of actual membership patterns to this category (Category 3) suggests that other influences (e.g., differential employer opposition by industry or occupation) mediate strongly between abstract intentions and membership, as well as the more obvious point that membership patterns at a point in time reflect history and inertia. That is, demographics offer little unique explanatory power in understanding voting intentions, but still correlate strongly with membership.

Aggregate level investigations (Category 4) also suggest demographic (e.g., industry, occupation) effects, that favorable economic conditions encourage unionization, and that public policies toward unionization and some other employment matters do indeed affect union growth. They also indicate that the decline in U.S. unionization is less unique than thought earlier and that growing union wage premia in the 1970s probably spurred greater employer opposition and consequent union decline.

Studies of unions as organizations (Category 5), as noted earlier, are a diverse lot. They provide conceptual frameworks for thinking about unions, explain varying political activism across unions, and provide case studies of particular unions which at their worst prove that academic hindsight is 20/20 (or nearly so), but at their best may help both unions and academics to learn from mistakes. This category also includes studies reminding us that unions differ importantly from one another, and that regardless of failed efforts at public policy reform, there remain internal policy options that unions can exercise in attempting to cope with their environments. (However, no one has yet found the magic formula that might lead us in the year 2000 to ask why unions grew so rapidly in the 1990s.) Perhaps most pertinent in this broad category are studies of union organizing strategies and tactics. They suggest that organizing remains a good investment for unions while at the same time reminding us that unions are political as well as economic organizations (i.e., simple cost-benefit analysis alone may not explain much of organizing behavior). They also indicate that new strategies and organizing tactics are slowly emerging as we enter the 1990s. Evaluations of these are still quite tentative.

The "miscellaneous" category (Category 6) is unsurprisingly diverse in its contributions to knowledge about union growth. Among other things it indicates that many factors affecting election outcomes also affect securing first contracts, that employer opposition to unionization is systematic, and that employers' human resource policies influence union success in organizing, i.e., "progressive" employers are difficult to organize. General reviews of unionization's determinants and recent union decline fall in this category, but often appear outside the three journals sampled earlier. Some of these stress findings for specific predictors, offering many of the same observations made here (but in detail). Others identify more basic causal factors rather than specific measures, and attempt to assess relative importance of say, employers' opposition versus structural shifts in the industry or occupations or changes in values. Most such reviews suggest a prominent role for employer opposition (both "hardball" and "softball" varieties), limited roles for structural factors and "government substitution" (reduction of worker needs for unions due to expanded government protections), and somewhat more varied opinions about worker value changes and union policies.

Where Are We Going in Union Growth and Decline Research?

There are at least two distinct approaches to this question. On one hand, it would be fairly safe to extrapolate from research patterns and trends from the 1980s. On the other is a needs-based approach, stressing where we need to go (what we need information about). Ideally, the two are the same, but the reality is that the two often diverge. Unionists often see the two alternatives as mutually exclusive. My crystal ball indicates some convergence.

First, we will almost certainly see increased methodological sophistication in union growth research. An encouraging factor here is that there are fairly recently minted researchers who appear adept at both quantitative and qualitative methods. This is reason for optimism because these researchers are able to apply *appropriate* methods to the question at hand, rather than try to fit all questions into a predetermined methodological framework. Even so, the seductive potential of elegant quantitative methods must be recognized, and 1990s researchers will need to take care to ensure that relevance does not come second to rigor and that results and implications are communicated effectively.

Second, and also partly in the spirit of trend extrapolation, we are likely to see more studies of union commitment and the like. One does not have to accept assertions that union leaders are out of touch with their members to recognize the vast and relatively untapped potential of current union members. Commitment studies hold hope for better understanding of why so many members are passive, and thereby understanding how to activate more of them to assist in organizing, among other union tasks. Extensions to organizing committees could be valuable.

Third, there have been, and will be in the future, attempts to assess the relative importance of alternative explanations for the decline in unions in the 1970s and 1980s. Previous efforts such as Freeman and Medoff's chapter on "slow strangulation" (1984, pp. 221-45) provide good models, but this area needs to be updated, more detailed (e.g., differentiating between employer opposition strategies; suppression versus substitution), and more comprehensive (e.g., are value or belief changes a factor?). Perhaps more than narrow empirical studies, these efforts provide a big picture perspective and policy guidance.

Speaking of the big picture, there were in the 1980s and into the 1990s calls for unions to alter their goals and/or strategies in fundamental (and various) ways. Some urged a more political orientation, others recommended more of a community orientation, some called for refocusing on new potential constituencies, and still others urged major role changes (with or without changes in goals). Some of these recommendations have been implemented to a degree, or at least subjected to limited experimentation. There is little as yet in the way of research to assess the union growth implications of any of this. For example, have unions which have given greater stress to politics fared any better or worse in organizing campaigns?

Fourth, beliefs per se need further study. It is well established that beliefs and attitudes are critical. We need to know more about their formation. Why do workers perceive unions as effective or ineffective? There has been a smattering of studies in this vein so far, but not enough to provide much clarity as to the role of alternative information sources or the types of information which are most salient. Consequently, efforts such as the "Union Yes" ad campaign are of uncertain value.

Fifth, despite the relatively large size of the "unions as organizations" literature, there is not much guidance as to union decision making in organizing matters or on the effects of particular union policies on union growth and decline. Voos' studies on organizing (e.g., 1983) provide a good starting point for the former, and Reed's (1989) analysis of organizers' effects on organizing success is an indicative starting point for the latter. But these studies also expose our ignorance about organizing generally and the many specific union policies that likely influence organizing outcomes (e.g., organizer selection and training, decision criteria for initiating or abandoning organizing campaigns, choice of organizing targets, effects of particular tactics, etc.). Despite the size of this literature, there is not one published study that systematically examines the comparative growth performance of different national unions (Heneman and Sandver [1989] provide a step in this direction, however).

This lack seems a particularly glaring omission since careful and detailed analyses of different union policies and tactics, controlling for varying organizing environments, potentially could reveal a great deal about "best practice." Such studies would unquestionably advance understanding of unions and union growth and would almost certainly provide considerable practical value to unions. Many will respond understandably that the data requirements for such an undertaking are prohibitive, given the reluctance of unions to turn loose academic researchers in their organizations, and the lack of any comprehensive "census" beyond the Landrum-Griffin financial reports.

But recently we have witnessed two related developments that bode well for investigations of this sort and will help to bring convergence between research trends and needs. The first development is a dramatic increase in experimentation by unions, reflected in, and possibly in part caused by, the AFL-CIO Committee on the Evolution of Work Report (1985). Associate memberships, the "Union Yes" ad campaign, an accelerated merger pace, coordinated organizing campaigns, one-on-one organizing and political mobilization, and new organizer training approaches are prominent "experiments" underway, but they probably represent more widespread innovation.

The second development is a noticeable increase in the willingness of unions to expose themselves to academic investigation and to listen to academics. Illustrative of this are the involvement of academics in the Committee on the Evolution of Work, the AFL-CIO Fellowship advertised recently, increased dialogues between union officials and academics, and even direct support for academic research on unions.

Kochan, Katz, and McKersie (1986, p. 227) noted that the industrial relations scene has been "opened up to experimentation." Since their writing, the truth of this observation and its applicability to unions have become more apparent. The implication is that 1990s union growth researchers have many new issues to investigate and greater access to data and sites than did researchers at the start of the 1980s. Hopefully, these opportunities and the new openness of unions will result in research that is not only rigorous, but also useful.

Acknowledgments

I thank Susan Fiorito and Lee Stepina for helpful comments on earlier drafts.

References

AFL-CIO Committee on the Evolution of Work. *The Changing Situation of Workers and Their Unions*. Washington, DC: AFL-CIO, 1985.

Extejt, Marian M., and Jonathan E. Smith. "The Behavioral Sciences and Management: An Evaluation of Relevant Journals." *Journal of Management* 16 (September 1990), pp. 539-51.

Fiorito, Jack, Daniel G. Gallagher, and Charles R. Greer. "Determinants of Unionism: A Review of the Literature." *Research in Personnel and Human Resources Management* 4 (1986), pp. 269-306.

Freeman, Richard B., and James L. Medoff. *What Do Unions Do?* New York: Basic Books, 1984.

Heneman, Herbert G. III, and Marcus H. Sandver. "Union Characteristics and Organizing Success." *Journal of Labor Research* 10 (Fall 1989), pp. 377-89.

Kochan, Thomas A., Harry C. Katz, and Robert B. McKersie. *The Transformation of American Industrial Relations*. New York: Basic Books, 1986.

Reed, Thomas F. "Do Union Organizers Matter? Individual Characteristics and Representation Election Outcomes." *Industrial and Labor Relations Review* 43 (October 1989), pp. 103-19.

Voos, Paula B. "Union Organizing: Costs and Benefits." *Industrial and Labor Relations Review* 36 (July 1983), pp. 576-91.

Behavioral Studies: Union Research Agenda for the 1990s

Michael E. Gordon
Rutgers University

Daniel G. Gallagher
James Madison University

Behavioral scientists have required both encouragement and direction in order to become involved in the study of unions and union-management relations. Consequently, the turning of each of the past four decades has been marked by the publication of one or more articles intended to stimulate research activity. Indeed, for a great while these introspective papers were more widely known than the empirical studies that followed (e.g., Ash, 1970; Brett, 1980; Gordon and Nurick, 1981; Kornhauser, 1949, 1961). Given the volatile business environment of the 1990s, it is altogether appropriate to reconsider research on unions in these turbulent times. Our purpose in this paper is twofold. We want to comment on a variety of institutional matters associated with research on unions and recommend a few substantive issues that deserve attention by researchers.

Institutional Issues

Our remarks deal with behavioral study of unions and union members. Other agendas might be more salient for researchers from other disciplines such as economics, law, or sociology that comprise industrial relations. This diversity of academic specialties gives rise to our first institutional concern, viz., the desirability of interdisciplinary research in industrial relations. Unfortunately, we do not see many manifestations of such research, and Lewin and Feuille's (1983) characterization of industrial relations still seems apt:

> Specialists in particular disciplines rarely combine research forces with specialists in other disciplines. Rather, much of this work is *multidisciplinary*, as researchers selectively borrow from different disciplines. (p. 357)

Gordon's Address: School of Business, Rutgers University, Avenue D & Rockefeller Rd., New Brunswick, NJ 08903.

Interdisciplinary research necessitates special training and, above all, patience in order to legitimize one's methods, constructs, and meanings to colleagues with different academic backgrounds. Left to their own devices, individuals in this heterogeneous group will continue to pursue questions that may be phrased in terms of independent and dependent variables which are familiar to them and compatible with their own idiosyncratic research methods. Our first recommendation for the 1990s is the conscious development of organic structures within industrial relations institutions to promote research that is based more broadly in social, economic, and behavioral sciences. Team-taught courses and the conscious staffing of dissertation committees to bring together faculty with different training are examples of such organic structures. Most importantly, the reward matrix must be altered in universities. For example, incentives should be established for submitting grant proposals across traditional disciplinary lines and disincentives removed for publishing in journals outside of one's narrow discipline. The implementation of organic structures normally requires organizational development activities that break down traditional organizational barriers by building trust and facilitating communications, and thereby, promoting cooperation. Such activities generally are overlooked in academic organizations which ostensibly want to transcend mechanistic lines between departments and encourage interdisciplinary research.

A second institutional issue is access to union members which, in turn, necessitates the approval of the union. Brett's admonition in 1980 about the difficulty in securing such approval holds true: "Getting access to a unionized research site may be the most formidable task for organizational behavior researchers" (p. 208). Union officials (as well as managers of employer organizations) are reluctant to participate in behavioral research when the only incentive is the advancement of science. Rather, participation must promise results that are politically safe, i.e., the project is *un*likely to produce findings which may be embarrassing to the officials or jeopardize the interests of their constituents. Also, union participation is *un*likely if the project does not address a topic of interest to the labor organization. Researchers must provide feedback and interpretation of the findings that stress the applications of the results for the participating local(s). Finally, international officials ought to be informed of findings that may be generalized more broadly in terms of stewardship of locals throughout the union. In sum, "The role he (the field researcher) adopts must be one that will gain acceptance by others, yet allow him to do the research" (Gullahorn and Strauss, 1954, p. 28).

One factor that should *not* hinder research is prohibitive costs for the technical expertise. Bargains can easily be struck with faculty members whose academic careers are dependent upon access to data. Consequently, technical information can be gained by unions at relatively modest costs. Institutional constraints can be transformed easily into a win-win situation for both parties. In 1963, Strauss reported that cooperation between unionists and intellectuals has occurred only in those situations when "the visionary interest of the liberal overlapped the practical interest of the labor leaders" (p. 234). While there are still some visionaries remaining within academic ranks, the following transposition of Strauss's remarks is more suitable for today's university environment and its pragmatic professoriat: "Cooperation between unionists and intellectuals should occur because the practical interests of labor leaders overlap the practical interests of the academic."

It is all well and good that academics identify a new research agenda for the 1990s that is potentially useful to trade unions. However, if the agenda for the 1990s is anything like those formulated for previous decades, academics will largely be talking to one another about their social, behavioral, legal, and economic proposals for research. Few of them will make any impact on unions. At least two transference problems diminish the impact of published research on organized labor. First, the research topics that comprise the agenda are generally identified by behavioral and social scientists. With the exception of one agenda-proposing paper, the subjects recommended for study were prepared by academics whose suggestions appear to have been guided more by the technological possibilities of the discipline than by actual organizational and/or member needs. Only Huszczo, Wiggins, and Currie (1984) based their recommendations for an agenda on a survey of officials from 48 national, international, and independent unions concerning their perceptions of psychologists and psychological services. Among Huszczo et al.'s most salient findings was the fact that unionists were generally not well informed about behavioral scientists and their services. Our second argument is consistent with this finding, viz., that trade unionists and members of the academic community have long needed one or more publications to share work of scholarly merit and exchange views about timely (and timeless) matters. Two developments bode well for increasing the amount of communication between unionists and academics.

(a) The AFL-CIO created *Work Place Topics* (*WPT*), a bulletin published twice a year by the Research Department, the goal of which is the establishment of a respected communication channel between the academic community and trade union practitioners. Each issue of *WPT* is devoted to a single subject such as training, employee selection, or grievance systems. New developments on a specific topic are discussed in terms of their relevance for the stewardship of unions. Gratifyingly, leading lights in industrial psychology and industrial relations have contributed articles in their fields of expertise. *WPT* is an important source of information about the behavioral and social sciences, especially since other union publications deal with the dark side of our profession [e.g., RUB (Report on Union Busters) sheets that publicize the activities of management consultants, some of whom are behavioral scientists, and occasional articles that disseminate unflattering propositions about applied behavioral and social science (e.g., Payne, 1977)].

(b) The *Labor Studies Journal* (*LSJ*), published by the University and College Labor Education Association, is intended for an audience that is directly involved with the education of trade unionists, often through university labor extension programs. In recent years, *LSJ* has published studies that attempt to synthesize academic research into a form that has potential practical applications for the labor movement and labor educators. For example, Gallagher and Clark (1989) used *LSJ* as a vehicle for disseminating recent findings about union commitment.

Despite their utility, practitioner journals in all fields typically are accorded relatively low status among academics. Consequently, there is little incentive for many young faculty members who must surmount tenure hurdles to publish their work in these journals. Rather, they are encouraged to publish their research in journals having primarily academic readerships. In order to deal with this unfortunate communication barrier, we hope that the 1990s are witness to changes in two traditional policies. First, we recommend a loosening of publication policies by the leading academic journals in industrial relations that would permit submission of research findings to practitioner journals at the same time the former consider those manuscripts for publication. Although such parallel submissions would necessarily differ in important stylistic characteristics, they would afford trade unionists access to important substantive findings in a timely manner. Second, we urge academics pondering the fate of their younger colleagues to judge the substance of the research instead of simply the outlets for the work. Hence, a research record that contains publications in *WPT* or *LSJ* would be judged less favorably than one that contained the same number of entries in purely academic journals. Worthwhile, thought-provoking pieces have appeared in journals whose reputations belie the quality of the candidate's ideas. Candidates would be more inclined to publish findings in journals having practitioner readerships were they confident that the substance of their work was going to be the basis of promotion decisions, and not simply where that work was published.

Our concerns about the dissemination of research are related to the broader issue of how colleges and universities can improve their educational programs to meet the needs of the labor movement. Given tight state budgets and corresponding lean appropriations to state colleges and universities and the declining enrollment in many labor study programs, there are no quick solutions to this complex problem. While it may be a long shot, the Labor/Higher Education Council might be one avenue in which to pursue these issues at a national level. The primary objective of this organization, which brings together trade union leaders, university presidents and chancellors, and CEOs of higher education associations, is to advance mutual understanding between the American labor movement and American higher education by serving as a forum for ideas. It would seem appropriate for this body to consider means to strengthen labor education by making industrial relations research more relevant and accessible to trade unions.

Substantive Issues

A common theme over the years in the papers that have suggested behavioral research agendas, has been union organizing. For example, Stagner and Rosen (1965) were the first to recognize organizing as a viable topic, while Brett (1980) presented a carefully developed system of propositions on union organizing to illustrate the interface between organizational behavior theories and industrial relations issues. Organizing remains the most salient issue confronting unions in the 1990s given that the number of new members acquired through the certification election process has not been sufficient to offset the loss of unionized jobs.

Studies of union organizing have been conducted at the macrolevel and microlevel (Heneman and Sandver, 1983). The primary focus of microlevel studies has been predicting the outcome of union certification elections. During the 1970s, theoretical articles were propositional and the empirical research was distinctly atheoretical (Brett and Hammer, 1982). More recent articles have abandoned the purely actuarial approach and have employed more elaborate theories of social behavior as a basis for predicting voting behavior. For example, Brief and Rude (1981) published a conceptual paper that discussed Fishbein and Ajzen's (1975) theory of reasoned action in the context of voting in a union certification election. Montgomery (1989) empirically verified a number of propositions derived from this model. This stream of research illustrates the usefulness of deductive models in the discovery of scientific knowledge and, we hope, serves as a paragon for behavioral research in industrial relations in the 1990s.

The organizing process itself has largely been ignored. Although management campaign tactics have been investigated at the macrolevel (e.g., Cooke, 1985; Lawler and West, 1985), there has been virtually no behavioral research on union campaigns. Gordon (1988) reformulated the organizing process as the social construction of reality. This approach suggests that organizers shape employees' perceptions of their working conditions by creating contexts in which events at the job site acquire meaning. Strategies that might be used to help enact a unionized work environment include the creative use of stories and the development of language, rituals, and symbols. Only the research of Reed (1989) has examined the impact of individual organizer tactics on campaign effectiveness. However, behaviors to enact environments were not assessed directly. Instead, organizers' artfulness in manipulating people (i.e., Machiavellianism) was measured, but it was not examined in relationship to reports of campaign tactics used. We hope that others will follow Reed's bold lead in investigating the interrelationships among organizer characteristics, behaviors, and campaign outcomes.

Organizing research serves to highlight the need for additional research on process variables. These studies would focus on how unions influence a variety of worker attitudes and behavior. A good example of such research is Berger, Olson, and Boudreau's (1983) evidence that differences in job satisfaction between union and nonunion employees could be attributed to the ability of labor organizations to influence perceptions of the value attached to various facets of work. Little knowledge exists concerning the behavioral processes involved when unions are responsible for the reformulation of worker perceptions. Future research should go beyond comparative studies of union-nonunion differences. Instead, effort should be made to examine the processes occurring within the "black box" which influences worker perceptions. In the context of recent research, investigations of how unions create loyalty to their organizations, socialize members, and influence willingness to participate in locals' activities may be more revealing and valuable than the simple measurement of the levels of these attitudes and behaviors.

Given the recent attention to nontraditional forms of work organization, it is important to consider their impact on unions. Many companies are redesigning jobs and changing authority systems to make organizations more responsive to current market forces. The organizational behavior (OB) literature is replete with research on the environmental, technological, and behavioral factors that influence the success of new forms of work organization. Most of this research has been conducted in nonunion work environments. Consequently, we know little about the influence of job and organization restructuring on unionized employees, nor is there much information regarding workers' expectations of their unions in the context of job redesign and changing authority. For example, while many workers recognize the advisability of changing traditional work rules and job assignments, they are at the same time justifiably concerned about how such changes in customary work organization will affect their job security and the viability of their unions. Recently, Eaton, Gordon, and Keefe (in press) reported that the threat to unions from one form of nontraditional work organization, viz., a quality of work life (QWL) program, was influenced by perceptions of the justice afforded by the grievance system. Members who were confident that the grievance system offered fair means for resolving disputes over contract interpretation and equitable outcomes also believed that participation in a QWL program was unlikely to undermine the ability of the union to represent workers and negotiate reasonable contracts. This study highlights the importance of research on the role of justice in creating new forms of work organizations as Americans in all walks of life are asked to make changes in order to help assure the economic viability of their country.

Finally, it is a fact of life that many organizations have been forced by competitive pressures to reduce the size of their workforces. Consequently, company downsizing has become a subject of considerable interest to behavioral researchers (e.g., Greenhalgh, Lawrence, and Sutton, 1988). Whereas voluntary withdrawal from the organization has been a subject of long-standing interest to behavioral scientists (e.g., Mobley, Horner, and Hollingsworth, 1978), involuntary terminations is a new concern. Brockner's (1988) research on the effects on survivors of different layoff strategies represents an important stream of research. However, this work does not give proper emphasis to the role of seniority in layoff decisions. There is indirect behavioral evidence that suggests that seniority is a valid basis for retaining employees if there is no change in job duties. Gordon and Fitzgibbons (1982) and Schmidt, Hunter, and Outerbridge (1986) reported that job performance was significantly related to the time one has spent on the job. However, if reductions in force are accompanied by significant shifts in job duties, there is evidence that suggests that the most senior employees will not learn the job as quickly (e.g., Gordon, Cofer, and McCullough, 1986) or perform as well on the new job. These are matters that require additional study.

We would also hasten to add that survivors' relationships with their union is a subject requiring study. Although Kochan, Katz, and McKersie (1986) predict increased frustration among labor leaders and consequent increases in aggressive union behavior, Mellor (1990) was the first to examine member adjustments to declining employment. His results suggest that membership decline is inversely related to union commitment. These studies should be broadened to address the impact of commitment on the willingness of surviving members to rescue laid-off workers and/or the organization through mechanisms such as financial (e.g., ESOPS [Employee Stock Ownership Program]), managerial (e.g., worker representation on boards of directors), or job restructuring (e.g., flexible work rules). The success of such rescue attempts might also be related to members' commitment to their union.

Conclusions

It is, of course, far easier to recommend than implement change. Admittedly, most of our recommendations about institutional issues are beyond the control of individual researchers and will require attention in broader forums. However, without some movement on the institutional matters, it may be difficult to commence work on the substantive research agenda. For example, without increased cooperation between unions and academics, there can be little progress in investigating process variables, an undertaking that requires great engagement between researcher and union members. By our reckoning, the year 2000 will produce another review the tone of which will reflect how well these institutional/substantive issues have been resolved.

References

Ash, P. "The Parties to a Grievance." *Personnel Psychology* 23 (1970), pp. 13-37.
Berger, C. J., C. A. Olson, and J. W. Boudreau. "Effects of Unions on Job Satisfaction: The Role of Work Related Values and Perceived Rewards." *Organizational Behavior and Human Performance* 32 (1983), pp. 289-324.
Brett, J. M. "Behavioral Research on Unions and Union-Management Systems." In *Research in Organizational Behavior* 2, eds. B. Staw and L. L. Cummings. Greenwich, CT: JAI Press, 1980.
Brett, J. M., and T. H. Hammer. "Organizational Behavior and Industrial Relations." In *Industrial Relations Research in the 1970s: Review and Appraisal*, eds. T. A. Kochan, D. J. B. Mitchell, and L. Dyer. Madison: Industrial Relations Research Association, 1982.
Brief, A. P., and D. E. Rude. "Voting in Union Certification Elections: A Conceptual Model." *Academy of Management Review* 6 (1981), pp. 261-67.
Brockner, J. *Self-Esteem At Work*. Lexington, MA: Lexington Books, 1988.
Cooke, W. N. "The Rising Toll of Discrimination Against Union Activists." *Industrial Relations* 24 (1985), pp. 421-42.
Eaton, A. E., M. E. Gordon, and J. H. Keefe. "Quality of Work Life Programs, Union Commitment, and Confidence in the Grievance System." *Industrial and Labor Relations Review*, in press.
Fishbein, M., and I. Ajzen. *Belief, Attitude, and Behavior: An Introduction to Theory and Research*. Reading, MA: Addison-Wesley, 1975.
Gallagher, D. G., and P. F. Clark. "Research on Union Commitment: Implications for Labor." *Labor Studies Journal* 14 (1989), pp. 52-71.
Gordon, M. E. "Discussion." *Proceedings of the Fortieth Annual Meeting of the Industrial Relations Research Association*. Madison, WI: IRRA (1988), pp. 167-71.
Gordon, M. E., J. L. Cofer, and P. M. McCullough. "Relationships Among Seniority, Past Performance, Interjob Similarity, and Trainability." *Journal of Applied Psychology* 71 (1986), 518-21.
Gordon, M. E., and W. J. Fitzgibbons. "Empirical Test of the Validity of Seniority as a Factor in Staffing Decisions." *Journal of Applied Psychology* 67 (1982), pp. 311-19.
Gordon, M. E., and A. J. Nurick. "Psychological Approaches to the Study of Union-Management Relations." *Psychological Bulletin* 90 (1981), pp. 293-306.
Greenhalgh, L., A. T. Lawrence, and R. I. Sutton. "Determinants of Work Force Reduction Strategies in Declining Organizations." *Academy of Management Review* 9 (1988), pp. 438-48.
Gullahorn, J., and G. Strauss. "The Field Worker in Union Research." *Human Organization* 13 (1954), pp. 28-33.
Heneman, H. G., and M. H. Sandver. "Predicting the Outcome of Union Certification Elections: A Review of the Literature." *Industrial and Labor Relations Review* 36 (1983), pp. 537-59.
Huszczo, G. E., J. G. Wiggins, and J. S. Currie. "The Relationship Between Psychology and Organized Labor: Past, Present, and Future." *American Psychologist* 39 (1984), pp. 432-40.
Kochan, T. A., H. C. Katz, and R. B. McKersie. *The Transformation of American Industrial Relations*. New York: Basic Books, 1986.
Kornhauser, A. *Psychology of Labor-Management Relations*. Madison, WI: Industrial Relations Research Association, 1949.
Kornhauser, A. "Observations on the Psychological Study of Labor Management Relations." *Personnel Psychology* 14 (1961), pp. 241-49.
Lawler, J. J., and R. West. "Impact of Union-Avoidance Strategy in Representation Elections." *Industrial Relations* 24 (1985), pp. 406-20.
Lewin, D., and P. Feuille. "Behavioral Research in Industrial Relations." *Industrial and Labor Relations Review* 36 (1983), pp. 341-60.
Mellor, S. "The Relationship Between Membership Decline and Union Commitment." *Journal of Applied Psychology* 75 (1990), pp. 258-67.
Mobley, W. H., S. Horner, and A. T. Hollingsworth. "An Evaluation of Precursors of Hospital Employee Turnover." *Journal of Applied Psychology* 63 (1978), pp. 408-14.

Montgomery, B. R. "The Influence of Attitudes and Normative Pressures on Voting Decisions in a Union Certification Election." *Industrial and Labor Relations Review* 42 (1989), pp. 262-79.

Payne, P. "The Consultants Who Coach the Violators." *AFL-CIO American Federalist* 84 (1977), pp. 22-29.

Reed, T. F. "Do Union Organizers Matter? Individual Differences, Campaign, Practices, and Representation Election Outcomes." *Industrial and Labor Relations Review* 43 (1989), pp. 103-19.

Schmidt, F. L., J. E. Hunter, and A. N. Outerbridge. "Impact of Job Experience and Ability on Job Knowledge, Work Sample Performance, and Supervisory Ratings." *Journal of Applied Psychology* 71 (1986), pp. 432-39.

Stagner, R., and H. Rosen. *Psychology of Union-Management Relations*. Belmont, CA: Wadsworth Publishing, 1965.

Strauss, G. "Labor and the Academicians." *Proceedings of the Sixteenth Annual Meeting of the Industrial Relations Research Association*, Madison, WI: IRRA (1963), pp. 234-44.

Union Research Agenda for the 1990s: International Comparisons

SAROSH KURUVILLA AND LOWELL TURNER
Cornell University

Reviewing the progress of international and comparative industrial relations (IR) research in the 1970s, Scoville (1982) expressed doubts about the future attraction of this area for young scholars. Since then, however, a growing interest in international and comparative issues has emerged at IR schools, business schools, across the social sciences, and within the ranks of labor, employers, and government. Simply put, the world has changed, in some ways rather dramatically. The intensification of world market competition, deregulation, privatization, the growing international mobility of capital, managerial campaigns to raise productivity, product quality and product and process flexibility, new production and work organization, a decentralization of bargaining and new pressure on unions and IR systems everywhere, union decline in many countries, adaptive strategies such as new forms of labor-management cooperation, and contrasting cross-national outcomes for IR and for unions—all of these have combined to drive a heightened interest among those concerned with unions in understanding and learning from differences across countries.

At center stage today in this dynamic international environment are the political changes in Europe: the transformation of East European economies and the drive toward a single European market. These changes have produced a host of interesting questions regarding political, institutional and IR transformations. In addition, the rise of Japan as a world economic power has produced an important and continuing interest in the role of IR in the Japanese industrial success. The formation of Rengo, a new central union federation, suggests the possibility of fundamental change in the structure of Japanese trade unionism—a question for ongoing research. And the decline of the

Authors' Address: NYSSILR, Cornell University, Ives Hall, Ithaca, NY 14851.

U.S. and other labor movements, along with new union strategies (such as associate membership in the U.S. and U.K.), and the spread of labor-management cooperation require continued attention.

Unfortunately, the traditional Western neglect of unions in developing nations continues. The age of research on third-world trade unions as partners in the struggle for independence noted by Kassalow and Damachi (1978) and Essenberg (1985) is over. Attention now properly focuses on the role of unions in economic and social development; and a critical research need here is to contrast the role of labor in NICs (newly industrializing countries such as South Korea and Taiwan) and other developing nations. Fortunately, the decline in Western-based scholarship in this area has been accompanied by a rise in third world based studies (cf. Fashoyin and Damachi, 1988).

Despite dynamic changes in the world economy and in national patterns of IR, the number of scholarly works on international and comparative issues published in contemporary U.S.-based IR journals is few.[1] There is, however, substantial comparative research on unions and labor movements in other disciplines such as political science and economics, often under the rubric of "comparative political economy," and in sociology and social psychology.[2] Industrial relations scholars would do well to follow this literature and to engage in greater interdisciplinary collaboration with colleagues in these disciplines.

Comparative Analysis, Theory, and Method

"International industrial relations" denotes the study of IR in countries other than one's own; "comparative industrial relations" refers (or should refer) to comparisons across two or more countries. While there are many examples in the former category (cf. Blum, 1981), we require more of the latter—for theory building and policy development; as unions, employers, and governments seek to learn from abroad. Contemporary studies at the macro level (e.g., Freeman, 1988), the meso level (the industry; cf. Katz and Sabel, 1985; Turner, 1990), the micro level (the firm), and even at the level of individuals (Klandermans, 1989), illustrate the range of possibilities.

Adams (1988), in an article entitled "Desperately Seeking Industrial Relations Theory," notes an international consensus on the relative absence of appropriate theories for examining changing IR phenomena. The absence of theory is acutely felt when we look for frameworks within which to understand European integration. While there is agreement that the implications of Europe 1992 for labor and for industrial relations demand study, there is little consensus regarding research approaches. An examination of the relative efficiency of available theoretical frameworks (e.g., Dunlop, 1958; Kochan, Katz, and McKersie, 1986; Bean, 1985; Poole, 1986) in explaining contrasting cross-national outcomes in union growth and structure is necessary. Poole's framework is especially promising in this regard, although empirical tests of his ideas remain to be done.

The development of theory should result in the generation of propositions or hypotheses that are valid within specific national boundaries and those that are valid cross-nationally, within a given scope and time frame (e.g., the transformation of industrial relations in Europe in the 1990s). Obviously, the testing of hypotheses across nations requires data that are truly comparable. Much of current comparisons at the macro, meso, and micro levels involve only one or two countries in any single study (Freeman [1989] is an exception, although he notes that not all the data are reliable). Comparative work involving numerous countries requires a research program involving considerable effort and expense, usually beyond that available to a single researcher. We require, as Beaumont (1990) suggests, more international collaboration to overcome these problems.[3]

In addition to the macro level (labor movements, countries), comparisons at the level of the firm, union, and individual are required. Comparable surveys of individuals can enhance our understanding of the differences between union members across countries. For instance, one of the key aspects of the transformation of industrial relations has been a recent emphasis on high commitment human resource systems, designed to increase worker trust and loyalty at the firm. Whether workers can sustain dual commitment, to employer and union, demands an individual-level examination.

Union and Bargaining Structures: Centralization, Decentralization, Multinational Bargaining

"Structure" is used broadly here to encompass centralization and decentralization of authority and bargaining, concentration in the structure of national unions, national-local union relations, and multinational unionism. In 1981, Windmuller noted an international trend toward concentration in national unions via mergers and acquisitions in response to changes in technology and economic environments. World market changes and the formation of Europe 1992 provide added incentives for concentration, or at least close collaboration, on a multinational basis. What are the prospects for multinational unionism? Are current developments in Euro-consultation (cf. Kuruvilla [1990] for an elaboration of these developments) the first steps toward genuine multinational bargaining? Will the varying density of unionization in different European countries enhance or restrict the development of centralized bargaining structures? Will the weakening of employer organizations and associations (Windmuller and Gladstone, 1986) be reversed as a result of such changes?

Most importantly perhaps, will Europe 1992 result in a move away from countries to firms as the primary unit of analysis? If so, can we anticipate an increased role for works councils (both at the plant and corporate levels) in various nations and/or multinationally? How will national union influence be affected by these developments? Will the (employer-led) deregulation drive at the core of Europe 1992 efforts undermine both national union institutional bases and efforts at European-level bargaining—thereby promoting a continuing decentralization of industrial relations in an economically unified Europe? How are bargaining structures changing in other parts of the world? What insights can we gain on the changing relations between local and national unions in the U.S. from the experiences in other countries?

Union Decline

There is considerable debate regarding the causes of declining union influence in the U.S. and elsewhere. One view holds that union decline is unique to the U.S., caused primarily by aggressive employer opposition (Freeman, 1988; compare Kochan et al., 1986). A related view suggests the uniqueness of American values as the important causal variable (Lipset, 1986). A third view suggests that the structural changes in the labor market are primarily responsible; Troy (1990) notes that although structural changes have differed across Western European countries, these changes have, after a lag, reduced union density in the private sector. Yet another view emphasizes contrasting cross-national outcomes, locating the sources of variation in the fate of contemporary unions in the way in which worker interest representation is institutionalized (Turner, 1990). Of primary importance for additional research in this area is the relative importance of economic, cultural, political, institutional, and social variables in the development, growth, and adaptability of trade unions—in developing, advanced industrial, and newly industrializing societies, and in comparative historical development. Propositions tested rigorously across nations can yield important insight into the causes, consequences, and possible remedies for union decline. This is especially promising when one compares situations of decline (U.S., U.K.) with cases in which union influence in the recent period is maintained or expanded (Germany, Sweden).

The Role of the State

Kochan et al. (1986) highlight the influence of strategic decisions by employers on industrial relations outcomes in the U.S., but down-play the role of government. In fact, the state's role in IR has suffered considerable neglect (but see Dabscheck, 1983; Giles, 1988). Recent research (cf. Lange, Ross, and Vanicelli, 1982; Gourevitch, Martin, Ross, Allen, Bornstein, and Markovits, 1984) suggests important cross-national differences in the impact of governments on IR and union organization. State structure and capacity, domestic political coalitions, government policies, and legislation are all important in this regard. Current research in this area identifies contrasting state structures and roles, making the distinction, for example, between a neo-corporatist and a neo-conservative state apparatus in the industrialized West (Müller-Jentsch, 1988).[4] But testable hypotheses regarding the state's impact on unions and IR still need to be generated, and the state's impact on IR (notably on bargaining structures and wages) in the third world merits much additional attention. A theory of the state's role in IR may hold considerable promise as an integrative framework for the study of comparative union phenomena.

Conclusion

Space has permitted only a brief discussion of a few important themes. There are many other international issues that are equally important such as: dramatic IR transformation in Eastern Europe; rapid production reorganization including the introduction of advanced microelectronic technologies, with profound effects on unions and IR; the spread of worker participation in management and its effects on unions, firms, and employees; the rise of innovative Japanese production and IR models, from which managers in the U.S. are so intent to learn; and contrasting "social-democratic" models of strong unionism in Germany and Sweden, with which U.S. unionists might want to become more familiar.

We could conclude with a shopping list of additional significant research targets. Rather, we prefer to end with a plea both for theory and for relevance. One advantage of the IR literature from its inception has been its concern with real world events and policy implications. The close interaction between practitioners and scholars has benefited both sides. But with the prolonged decline of the U.S. labor movement, our theories have tended to decay; much work has become descriptive and/or focused on explanations of fairly narrow phenomena. The growing interest in comparative research offers a way out: the chance to look anew beyond our own borders, to examine union capacities and responses in different national contexts, to sort out the critical from the less important variables, to learn lessons from abroad for policy purposes at the same time that we develop new theory.

For international union research, it is perhaps more important now than ever to frame research strategies and use findings in ways that contribute to the policy discussions among union officials and activists, as they seek, in this country and abroad, to grapple with the intense new challenges of a changing world economy and to reverse union decline.

Endnotes

[1] For example, during 1989, the *Industrial and Labor Relations Review* published two articles related to international IR and one article that was comparative, out of a total of 38 articles published in the ILRR that year. During 1990, ILRR published three international IR articles out of a total of 40 articles, with no article that was comparative in nature. Of the six articles mentioned above, only three dealt with unions.

[2] See, for example, the insightful and wide-ranging comparative studies done by political scientists such as Lange et al. (1982), Gourevitch et al. (1984), and Swenson (1989); and the innovative work by sociologists such as Streeck (1984).

[3] Our European colleagues do better at cross-national data collection efforts. See, for instance, the DUES project under way at the University of Mannheim. See also the statistical compendia by Visser.

[4] And see the earlier "literature on corporatism" for innovative analyses of the contrasting ways in which states, societies and labor movements are organized (Schmitter, 1974; Wilensky, 1976).

References

Adams, Roy. "Desperately Seeking Industrial Relations Theory." *International Journal of Comparative Labor Law and Industrial Relations* 4 (1988), pp. 1-10.

Bean, Ron. *Comparative Industrial Relations: An Introduction to Cross National Perspectives*. New York: St. Martin's Press, 1985.

Beaumont, P. B. "Major Research Issues Facing Industrial Relations in the 1990's: The British Case." *Proceedings of the Second Bargaining Group Conference, Cornell University*, May 1990 (forthcoming).

Blum, Albert (ed). *International Handbook of Industrial Relations*. Westport, CT: Greenwood, 1981.

Dabscheck, Braham. "Of Mountains and Routes over them: A Survey of Theories of Industrial Relations." *Journal of Industrial Relations* 25 (1983), pp. 485-506.

Dunlop, John T. *Industrial Relations Systems*. New York: Holt and Company, 1958.
Essenberg, B. *The Interaction of Industrial Relations and the Political Process in Selected Developing Countries in Asia and Africa: A Comparative Analysis*. Geneva: International Institute for Labour Studies, Research Series No. 81, 1985.
Fashoyin, Tayo, and U. G. Damachi. "Labor Relations and African Development." *Nigerian Journal of Industrial Relations* 2 (Dec. 1988).
Freeman, Richard B. *On the Divergence of Unionism Among Developed Countries*. Cambridge, MA: National Bureau of Economic Research, Working Paper No. 2817, 1988.
Freeman, Richard B. "The Changing Status of Unionism Around the World." In *Organized Labor at the Crossroads*, ed. Wei-chiao Hung. Michigan: Upjohn Institute for Employment Research, 1989.
Gourevitch, Peter, Andrew Martin, George Ross, Chris Allen, Stephen Bornstein, and Andrei Markovits. *Unions and Economic Crisis*. Allen and Unwin, London, 1984.
Giles, Anthony. "Industrial Relations Theory, the State and Politics." In *Theories and Concepts in Industrial Relations*, ed. Jack Barbash. Columbia, S.C., 1988.
Kassalow, Everett M., and Ukandi G. Damachi. *The Role of Trade Unions in Developing Societies*. International Institute for Labour Studies: Geneva, 1978.
Klandermans, Bert. "Union Commitment: Replication and Testing in the Dutch Context." *Journal of Applied Psychology* 74 (1989), pp. 869-75.
Kochan, Thomas A., Harry C. Katz, and Robert McKersie. *The Transformation of American Industrial Relations*. New York: Basic Books, 1986.
Kuruvilla, Sarosh. "Comments on the Implications of Europe 1992 for Labor Management Relations by James Dworkin and Barbara Lee." *Proceedings of the Second Bargaining Group Conference, Cornell University* (May 1990) (forthcoming).
Lange, Peter, George Ross, and Maurizio Vanicelli. *Unions, Change and Crisis*. London: Allen and Unwin, 1982.
Lipset, Seymour Martin. "North American Labor Movements: A Comparative Perspective." In *Unions in Transition: Entering the Second Century*, ed. S. M. Lipset. San Francisco: ICS Press, 1989.
Müller-Jentsch, Walter. "Industrial Relations Theory and Trade Union Strategy." *International Journal or Comparative Labor Law and Industrial Relations* 4, 3 (1988), pp. 177-90.
Poole, Michael. *Industrial Relations: Origins and Patterns of National Diversity*. London: Routledge and Kegan Paul, 1986.
Schmitter, Philippe. "Still the Century of Corporatism?" *Review of Politics* 39 (1974).
Scoville, James. "A Review of International and Comparative Research in the 1970s." In *Industrial Relations, Research in the 1970s: Review and Appraisal*, eds. Kochan, Mitchell, and Dyer (1982), pp. 1-39.
Streeck, Wolfgang. *Industrial Relations in West Germany: A Case Study of the Car Industry*. New York: St. Martin's Press, 1984.
Swenson, Peter. *Fair Shares: Unions, Pay and Politics in West Germany and Sweden*. Ithaca: Cornell University Press, 1989.
Troy, Leo. "Is the U.S. Unique in the Decline of Private Sector Unionism?" *Journal of Labor Research* XI, 2 (1990), pp. 112-43.
Turner, Lowell. *Democracy at Work? Labor and the Politics of New Work Organization*. Ithaca: Cornell University Press (1991) (forthcoming).
Visser, Jelle. *European Trade Unions in Figures*. Kluwer: The Netherlands, 1989.
Wilensky, Harold W. *The "New Corporatism," Centralization, and the Welfare State*. London: Sage, 1976.
Windmuller, John. "Concentration in Union Structure: An International Comparison." *Industrial and Labor Relations Review* 35, 1 (1981), pp. 43-57.
Windmuller, John, and A. Gladstone (eds.). *Employers Associations and Industrial Relations: A Comparative Study*. 2nd Edition. Oxford, 1986.

Structure: Union Research Agenda for the 1990s

George Strauss
University of California-Berkeley

This is a sales pitch for studies of union structure, a topic that has been largely ignored by recent industrial relations scholars in the U.S. By contrast, British union structure has been researched fairly intensively. Further, Organizational Behavior (OB) specialists have studied the evolution of structure in other kinds of organizations—businesses, governments, and non-profit agencies—and much has been written assessing the merits and demerits of various forms of organizational structure. With some translation, much of this research is directly relevant to unions.

Let me suggest some anomalies which may tempt you to the field.

- The only unionized Silicon Valley plant I'm familiar with (Xerox) was organized by the Amalgamated Clothing Workers (ACW).
- When I studied the ACW's Rochester Joint Board some 40 years ago there were separate locals for cutters, Italians, vestmakers, and Xerox workers, illustrating four different principles for aggregating members.
- The Typographers merged, not with the other printing unions in the Graphic Arts Union, but with the Communications Workers.
- The Furniture Workers split off from the Upholsterers in the 1930s for ideological reasons. Over the years their differences declined, but rather than merge with each other, one joined the Electrical Workers (IUE) and the other joined the Steelworkers.
- Though New Zealand has one-twentieth the population of Germany, it has ten times as many unions.

Author's Address: Institute of Industrial Relations, University of California, Berkeley, CA 94720.

- Manufacturing plants in the U.S. are organized generally by industrial unions, while construction and railroads have craft unions. Somewhat the reverse is true in Britain and Australia, where most manufacturing plants have multiple unions, but there are fewer construction and railway unions than we have.
- Until recently State, County, and Municipal Workers were considerably more centralized than were the Service Workers in dealing with its public sector workers. Similarly, the Autoworker's structure in dealing with the aircraft industry is quite different than is the Machinist's.

Were these examples merely curiosities, they would be of only passing interest. Though more research is needed, at least some of these examples may illustrate broad problems which beset the union movement generally. For example, it may be a waste of very scarce union resources for a dozen different unions to be organizing nurses or social workers. On the other hand, competition may improve effectiveness.

From the point of view of academicians we may ask: How did unions evolve the way they did? More importantly, particularly from the practitioners' perspective: How can they be structured better? Suppose we had complete freedom to restructure the labor movement as we felt appropriate, ignoring past history, present personal rivalries, and all questions of political realism. What would we do? What does research to date tell us, and what additional research is required? We should examine both formal de jure structure and informal de facto structure. There may be different structures for different purposes, for example, as Alice Cook (1963) observed, one structure for bargaining and another for other union activities. Finally research should be concerned with structure at all levels, from peak federations to local unions, and it should compare structure in different countries.

These may not be totally academic questions—given recent proposals for restructuring the labor movement, proposals ranging from the Donahue Committee's rather restrained suggestions to the more radical views of Heckscher, Piore, and Kochan.

Two sets of issues make this whole area complex. In the first place, a union has a variety of objectives, among others organizing new members, negotiating contracts, handling grievances, mobilizing membership support, and influencing the government. A structure which is ideal for one purpose may not be ideal for another. Trade-offs must constantly be made, and as the relative importance of these competing objectives change, so should union structure. Example: Major structural changes are apparently occurring in Solidarity as its strategy shifts from revolution-making to contract negotiation and grievance handling.

Secondly, there is the so-called democracy dilemma, the tension between efficient administration and membership commitment/participation. Although these two objectives don't *necessarily* conflict (especially in the long run), at least in the short run, structures which maximize efficiency may not be particularly democratic. The trick is to develop structures that are both reasonably efficient and reasonably democratic. It is far too easy for structure to be neither.

With this, let me suggest some fundamental structural questions affecting unions, all of which deserve research. (In a separate publication I will discuss some propositions derived from OB as to why union structure developed as it did and also comment on research strategy.) In my view structure includes the following dimensions: (1) size, (2) jurisdiction, (3) centralization, (4) dispersion, and (5) structuring or rules.

Size

Size presents some classic organizational problems. The main advantages of large size are economies of scale. Larger unions can hire their own experts; they have greater bargaining clout (especially if they can organize a considerable part of their labor market); they are more effective in organizing; further, if the union represents members from several plants or industries, they are more likely to survive when part of the industry shuts down.

On the other hand, the classic disadvantages of size include greater difficulty of communication and reduced sense of member commitment (especially at the local level, if the local's jurisdiction fails to correspond with the occupational community). Participation in larger locals tends to be lower, percentagewise. Locals of more than 5,000 members, for example, are too large to provide opportunities for individual participation in local-wide meetings for many members. Key positions in larger unions are more likely to be filled by full-time specialists than by volunteers, something which has both advantages and disadvantages.

What is happening to union size? Since the number of national unions is falling even faster than union membership, average union size is increasing. On the local level it is less clear. Many locals have lost membership, but some have completely disappeared and many national unions have pushed vigorously to amalgamate their locals, often against considerable local resistance. Research on the size-distribution of locals would be helpful.

As national unions get larger they need strong intermediate bodies for both competent administration and effective representation of subgroup interests. As locals get larger they also need subunits, again for both effective administration and democratic expression.

I see no major problem with national unions getting larger, not if other things remain equal (especially if membership homogeneity is maintained). I am not convinced by the argument that larger national unions are inevitably less democratic than small ones—after all, the federal government is not necessarily less democratic than are state governments. Participation at the national union level is inevitably representative rather than direct.

On the other hand, there are segments of the labor movement where local-level direct participation still thrives. (Research is required to discover how extensive they actually are.) In any case I would zealously seek to protect and expand these segments wherever they exist. From my viewpoint, the push toward local amalgamation may incur severe costs in terms of reduced membership commitment and opportunities for direct participation. To counter this tendency, locals need strong subunits with their own budgets, elected officers, and meaningful subunit meetings. When this happens, the subunit is really the local and the local becomes the equivalent of an intermediate body. Research on the strengths and weaknesses of various forms of subunits is badly needed.

Jurisdictional Structure

This is the issue which organizational theorists call departmentation, but the British call job territoriality and Americans know as jurisdiction. It is whether members are organized by industry or occupation or by some other principle, such as geography, ethnicity (as in the needle trades language locals), politics (as in some European countries), or religion (as in the Netherlands).

The jurisdictional issue is best known at the national level, but it exists at other levels as well. The UAW has three sorts of intermediate bodies, as exemplified by the Skilled Trades Department, the General Motors Department, and geographical districts. At the local level the issue is illustrated by the four kinds of locals which once comprised Amalgamated's Rochester Joint Board.

Jurisdictional structure can become seriously obsolete. In the U.K. there are still unions in which branch membership is determined by the location of the member's residence, so that two members working side by side may belong to different branches. This may have made sense when the branch played a significant social role and branch meetings occurred after supper. But to deal with workplace problems, a separate shop-level structure developed based on stewards (some representing members of more than one union) and "mass meetings" often held on the shop floor or at the plant gate. Thus in some U.K. unions there is little relationship between the formal union and enterprise- and shop-level collective bargaining.

In the U.S. craft-industrial distinctions are becoming out of date. Reacting to current pressures, unions are moving out of their jurisdictional cores to organize every prospect they can find. Consequently an increasing percentage of national unions can best be described as general unions. To a lesser extent, the same developments are occurring at the local level. Indeed, as Cornfield (1987) has remarked, if we first had an age of craft unions and then one of industrial unions, we may be entering an age of general unions.

Or are we? An alternative hypothesis is that occupational unions will become more common. Hospital and government employees are being organized on an occupational basis rather than one single union organizing all employees. Also, the number of temporary, contingent employees is increasing. These workers badly need unionization, but if they are organized it will be (or should be) on an occupational basis. Though the age of industrial unions may be over, the new age's nature is far from clear.

General unions have the advantage of spreading risks, so that the union is more likely to survive the loss of a major strike or a downturn in employment in one craft or industry. On the other hand, general unions suffer from major disadvantages, including many that Chandler (1990) ascribed to conglomerate companies. For example, top officers may lack the intimate knowledge of shop floor traditions and conditions that officers of national craft unions normally possess. It was said, for example, that Hoffa thought like a Teamster. Perhaps. But did he also think like the members of the many other occupations which the Teamsters organized?

A related point: one of the characteristics of a strong union is the sense of occupational community which binds its members together. Sense of community is far more likely to develop in a homogeneous (either industrial or occupational) union than in a general one. Weak sense of community may be particularly a problem in large amalgamated locals containing members from a variety of occupations and several unrelated employers with unrelated contracts. Membership identification and participation (and perhaps democracy) will be greater when the local's jurisdiction corresponds with occupational community.

As Lipset, Trow, and Coleman (1956) said, differences within homogeneous unions center over foreign policy. These differences may be vigorous but they don't threaten the union's fundamental sense of community. By contrast, political life in heterogeneous unions tends to be rather apathetic. But when differences occur they may lead to schism (Cornfield, 1987).

Thus, as unions absorb members outside their core jurisdictions they may need special machinery to provide representation for the interests of their newer non-core members and also to allow these members to *feel* that they are participating in decisions important to them. As the union's constituency changes, so should its structure (at the very least informally).

All this confirms the Donahue Committee's wisdom in recommending that mergers be made on the basis of "community of interest." Unfortunately, however, there may be a variety of communities of interest in any given situation.

Centralization

Centralization involves the distribution of power *among* levels, for instance, between national and local unions. As to this dimension of centralization, I have little to add to the fine work done by earlier scholars and more recently by Fiorito, Gramm, and Hendricks (1991). Power should be located at the level at which the most serious problems occur. Industrywide bargaining requires that power be concentrated at the national level. Local unions are better in handling quality of work life and work rule issues.

Bargaining is becoming increasingly decentralized in much of the world. How have unions in various countries adjusted? Presumably bargaining decentralization has (or should have) strengthened the relative power of lower-level representation structures (local unions or works councils). The danger, of course, is that local-level organizations will seek to protect scarce jobs through competitive reduction of standards. Ideally the national union should retain sufficient power to keep such competition in check. But doing this may be much easier where local unions are relatively well integrated into the overall union structure—as they are in the U.S. and Sweden—than in countries, such as Australia and the U.K., where the shop floor union has traditionally been either weak or largely autonomous, or in the European continent, where works councils are subject to only indirect control. Much research is needed.

Centralization is an issue at the local level too. What should be the power of the steward as opposed to the business agent? There appears to be a tendency in the San Francisco Bay Area for unions which once relied entirely on BAs for grievance handling to seek now to develop strong stewards. Is this the trend elsewhere? Harvard clerical workers seem to have developed an extraordinarily participative, decentralized union. How long can this initial enthusiasm survive?

Though collective bargaining needs may dictate centralization, decentralized organizations provide greater opportunities for participation and probably commitment and democracy. Even where attendance at local meetings is trivial, a strong steward system should help build commitment. Again, more research would be useful.

Dispersion

Dispersion involves the distribution of power at any *given* level. For example, is power concentrated in the hands of the national president or widely distributed among a number of national officers? Dispersion is an issue studied chiefly in Britain where there are dramatic differences among unions (Undy, Ellis, McCarthy, and Halmos, 1981). The Transport Union, for instance, is structured to give the general secretary broad powers. The Engineers, by contrast, have an elaborate system of checks and balances which spread power broadly.

Edelstein and Warner (1975) argue that union democracy is facilitated by the existence of *independent* power centers from which electoral attacks on the incumbent leadership may be mounted. Dispersion may increase the members' ability to pick among alternative policies and candidates. On the other hand, dispersion may be inefficient, especially in the short run.

A classic issue at the local level is whether to elect all business agents separately or to elect a head BA, who is given the power to appoint assistant BAs. If BAs are elected separately the union may suffer from lack of coordination. Further, all incumbents may be blamed for the mistakes of a few. But unions with appointed BAs may be less democratic. In heterogeneous general unions it may be better (on some counts, worse on others) to allow each occupational group to elect its own BA.

To what extent has dispersion increased or decreased in the U.S. in recent years? A question worthy of study is whether professional staff departments have become autonomous power centers, independent of the top leadership. Another issue: some unions have two relatively independent sets of officers, one for collective bargaining and the other for ordinary union business. A third power structure may be emerging, this one devoted to joint union-management cooperation issues. A researchable question is how the relative powers of these structures differ in various circumstances. For example: Which hierarchy provides the best route to top union leadership?

Structuring

Structuring, the role of rules and operating procedures, has been an issue of considerable importance in OB but hardly studied in industrial relations (the exceptions are again British). OB research suggests that structuring tends to be inversely correlated to centralization, and British union research confirms this. As unions get bigger they get less centralized and more structured. The impact of structuring on democracy is unclear. It works both ways. Rules provide coordination and uniformity. They may also protect members from arbitrary leadership actions. On the other hand, they slow things down. More research on these trade-offs is needed.

Many unions today are the product of countless mergers. The Food & Commercial Workers are a good example. Mergers have been occurring at a rapid rate in both U.S. and the U.K. The Donahue Committee suggested guidelines as to which U.S. mergers might be most appropriate.

Ideally mergers represent a means of bettering the match between strategy and structure. In terms of external structure, merger makes the union bigger and extends its jurisdiction. A merger also provides an opportunity to improve internal structure. Unfortunately, these opportunities are too rarely taken. The selection of union merger partners has too frequently been motivated more by officers' career opportunities than by long-run strategic needs. To take one example (out of many) the recent merger of the Tile, Marble, and Terrazzo Finishers into the Carpenters rather than the Plasterers union maintains an unnatural split among the "mud trades."

Further, in many mergers the merged union is guaranteed substantial autonomy, thus leaving internal problems unaddressed. Indeed, the net effect of recent merger activities may have been to make both internal and external structures less, rather than more, rational. The internal jurisdictional map of the SEIU reminds one of the 18th century Holy Roman Empire (though strenuous efforts are being made to change this).

By contrast the Australian Council of Trade Unions has a master plan designed to consolidate its 300 existing unions into 20. This master plan calls for the exchange of membership between unions so that there are no more than two unions in any plant. Among the plan's objectives are to reduce demarcation disputes, to remove overly narrow jurisdictional lines, and to encourage cross-training. The original plan having met some opposition, the current proposal would eventually deny representation rights to unions with less than 20,000 members. A 1987 New Zealand law sets the minimum at 1,000. Since two-thirds of that country's unions are smaller than this, there will be many mergers. A useful research project would compare merger experiences throughout the world. What has been the impact of various forms of mergers? Which have been most effective? What is the best way of introducing them?

There is much to study. Go to it!

References

Chandler, Alfred. *Scale and Scope*. Cambridge: Harvard, 1990.

Cook, Alice. *Union Democracy: Practice and Ideal*. Ithaca: Cornell University Press, 1963.

Cornfield, Daniel B. "Decline and Diversification: Causes and Consequences for Organizational Governance." *Research in the Sociology of Organizations* 5 (1987), pp. 187-216.

Edelstein, J. David, and Malcolm Warner. *Comparative Union Democracy*. London: George, Allen and Unwin, 1975.

Fiorito, Jack, Cynthia Gramm, and Wallace Hendricks. "Union Structure." In *The State of the Unions*, eds. George Strauss, Daniel Gallagher, and Jack Fiorito. Madison: Industrial Relations Research Association, 1991.

Lipset, Seymour, Martin Trow, and James Coleman. *Union Democracy*. New York: Free Press, 1956.

Undy, R. V. Ellis, W. E. J. McCarthy, and A. Halmos. *Change in Trade Unions*. London: Hutchinson, 1981.

XII. STATUTORY WORKS COUNCILS

Universal Joint Regulation: A Moral Imperative

Roy J. Adams
McMaster University

At present, we North Americans are behaving in a manner inconsistent with values we consider to be fundamental. We are doing the wrong thing. We are behaving immorally. And perhaps our lessened capacity to compete internationally is retribution for our sins.

It is fundamental that all citizens in a democratic society have a right to participate (either directly or indirectly through representatives of their own choosing) in decisions that critically affect their personal interests. When applied to employment the proposition becomes: In a democratic society all employees have a right to participate in decisions that critically affect their working lives. One of the standards against which any society claiming to be democratic may be judged is the extent to which it provides, "opportunities for individuals to participate in the making of decisions affecting them as citizens, as workers, as consumers," (Dunlop, Harbison, Kerr, and Meyers, 1975, p. 39). In North America, today, democratic participation is receding instead of expanding.

Both Canada and the U.S. have chosen collective bargaining as their "route to industrial democracy." (Derber, 1977, p. 83). The specific vehicle on which the route was to be travelled was the Wagner Act which, according to Senator Wagner, was intended to produce, "democracy in industry as well as in government. . . ." (Derber, 1970, p. 321).

Author's Address: Faculty of Business, McMaster University, Hamilton, Ontario L8S 4M4 Canada.

On adopting the Act it became American government policy to foster the democratization of American industry by encouraging the practice and procedure of collective bargaining. It is now clear that the Wagner Act model has failed to accomplish that objective. Fewer than one in five American workers are covered by collective agreements. In Canada, where governments have more forcefully implemented a version of the model, still less than 50 percent of the workforce engage in collective bargaining (Bruce, 1990).

We need a new policy that will be more effective in bringing about a situation truer to our principles. First, however, we need to be sure that we understand why the Wagner Act model failed.

During the past decade a very large literature has emerged that focuses on the question: Why do workers join unions? (see e.g., Lawler, 1990). That question is, it seems to me, uninteresting. We know the answer to it and have known the answer for many decades. Nearly 100 years ago the Webbs taught us that the inferior bargaining power of individual workers means that they must accept conditions offered to them by their employer or withdraw from the relationship altogether (Sidney and Beatrice Webb, 1897). Even labor market stars who have substantial bargaining power are effectively precluded from co-determining many issues because those issues are collective in nature (Adams, 1986). Thus no matter how great the bargaining power of the individual employee each individual cannot separately negotiate organization policy with regard to issues such as pensions, training, health and safety, technological change, and the application of human rights laws. These are issues which may be developed unilaterally by the employer or through a collective mechanism, but they cannot be individually negotiated. It is simply not feasible for companies of any size to negotiate separate policies with each individual.

One common belief is that the Wagner Act failed because the majority of employees decided that they preferred individual to collective bargaining. To accept the statement as true one must hold that employees prefer not to be involved by right in the establishment of policies that critically affect their working lives. They prefer instead to defer to a greater authority. If that is true then we should not rest content with the demise of collective bargaining as many employment relations experts would have us do. A widespread deferral to authority suggests that we have a serious political problem. We have a citizenry with authoritarian attitudes, and if that is so the very foundations of our democracy are at risk.

But I do not believe that the statement is true. When provided with a cost-free, unfettered option, workers, almost without exception, choose to participate in industrial rule making through representatives of their own choosing. Very rarely, however, are workers provided with such an unfettered choice. Faced with a decision to take action to establish industrial democracy or to remain with industrial autocracy, today's worker must contend with the likely consequences. The path to industrial democracy is not lined with roses as it should be in nations that exalt democratic principles. Instead, it runs perversely through a forest dense with obstacles.

We, in North America, have allowed a convention to take root which holds that an employee initiative to establish collective bargaining is an indicator of management failure (Raskin, 1979, Wheeler, 1985). Thus, we place enormous social pressure on employers to avoid collective bargaining and thereby to suppress industrial democracy. Towards that end some try to behave as good and wise sovereigns in hope that their employee-citizens will remain benign and passive. Others make it clear that any attempt to change from unilateral to bilateral decision making will be regarded as sedition and the proposer will be treated as a traitor.

Within this culture the intrepid democrat is almost certain to alienate her or his employer who very well may, in retaliation, fire her or him. If collective bargaining is established, the employer is not unlikely to engage in surface bargaining and if a strike occurs may (in the U.S.) permanently replace the determined democrat. Like a political rebel of the past, by daring to challenge the right of management to rule unilaterally, the modern day employee-citizen faces exile.

Spokespersons for business interests often argue that managers need to be free of egregious constraints or they will not be able to react quickly and flexibly to an increasingly turbulent environment. Collective bargaining, they tell us, is synonymous with exorbitant wages and with inflexible, productivity-strangling rules. It is true, moreover, that American unions have been able to win for their members a substantial economic premium over nonunion workers and that the web of rules regulating the unionized workplace has become increasingly dense during the past half century (Kochan, McKersie, and Cappelli, 1986).

Clearly, however, to anyone willing, even casually, to investigate the experience of employers under individual and collective bargaining in North America and other economically advanced countries, the argument that joint regulation is synonymous with business failure must be judged without merit. Despite (or because of) universal collective bargaining Sweden has one of the highest standards of living in the world and Swedish firms are among the most competitive internationally. Despite (or because of) universal co-determination Germany is the economic engine of Europe. The careful work by Richard Freeman and others on the effects of unions and collective bargaining in the United States, although subject to continuing debate, has made it clear that there is no general, systematic negative effect of joint regulation on productivity. Instead, there is considerable evidence of a positive effect under many conditions (e.g., Freeman and Medoff, 1984).

Not only does the Wagner-Act model permit employees to choose autocracy, but also the culture it has spawned legitimizes employer opposition to freedom of association. This aspect of North American labor policy is incredible in comparative perspective. Few advanced democratic societies condone open opposition by employers to unionization. International standards of appropriate conduct forbid the type of virulent antiunionism that is commonplace in the U.S. Most democratic nations would consider scandalous news that employers choose to break the law by discharging trade unionists after consciously calculating the costs and benefits of the consequences (Greer and Martin, 1978).

Outside of North America the general attitude toward freedom of association is similar to the attitude of North Americans toward the right to vote. Any tampering with it is unacceptable and subject to moral condemnation.

In the 1950s and 1960s there was a general consensus among North American industrial relationists that collective bargaining under the Wagner-Act model was, "self-evidently good." (Reynolds, 1988, p. 123). In time all employees would become conscious of its manifest benefits. Eventually, "collective bargaining would dominate the employment scene." (Reynolds, 1988, p. 124). Indeed, up until the late 1970s the "predominant view" was that "industrial democracy in the United States [had] been widely achieved through the system of collective bargaining." (Derber, 1977, p. 84). That is no longer the view. Collective bargaining is in retreat. But even if the rout could be halted, industrial democracy in North America would still be inferior to that existing in other advanced democratic countries because of additional flaws of Wagner model bargaining.

First, under collective bargaining as it is practised in North America, bargaining rounds take place periodically and decisions must be made on all negotiable issues. In between bargaining rounds negotiations are suspended and management is free to interpret the collective agreement in the first instance subject to a union appeal to arbitration. Management may also take unilateral action on all issues not included in the collective agreement. This latter right is all but non-existent in other economically advanced, democratic nations. It ensures that issues of critical importance to employees will not be co-decided. Typically many issues are traded off in bargaining rounds in favor of higher wages (Adams, 1986). As a result a large number of collective agreements have no provisions with regard to such critical aspects of employment as health and safety, technological change, and equal employment opportunity. In other advanced countries continuous bargaining over such issues as they arise is the general pattern.

Second, under Wagner Model collective bargaining, in the event of an impasse, employees have the right to accept management's offer or to go out on strike. The strike threat is the force driving the parties towards each other. If that threat is removed then there is no pressure on the part of the employer to concede anything and there is reversion to unilateral decision making. While the strike threat is an effective lubricant to negotiations in some parts of the economy, it is not a credible option for many low-skilled employees of small employers (Beatty, 1987). Consequently, real co-determination via collective bargaining is precluded. For such employees a dispute resolution mechanism other than the strike threat is required if the right to participate is to be made effective.

In short, if the right of North American citizens to participate in key employment decisions that critically affect their personal interests is to become a reality then a scheme will have to be created which has the following basic traits:

1. It must be universal. Its implementation must not be left to employee choice. Any scheme that requires employees to take action to put it into effect ensures that many people will be left out if for no other reason than because of the nuisance cost of the organizing effort. Such arrangements also ensure that opposition (either clandestine or overt) will emerge. Perversely, they encourage instead of discourage antidemocratic behavior.

Nor may reliance be placed on employers to unilaterally establish participative plans as many human resource management experts currently urge (e.g., Walton and Lawrence, 1985). While management initiated schemes may be beneficial where they actually permit employees to influence important aspects of their work experience, evidence from around the world, gathered over the past 100 years, indicates that they are unstable (the employer may change his or her mind; the company may change owners to ones with other ideas) and subject to manipulation (Wells, 1987, Adams and Aryee, 1989). Even employers with the best of intentions must contend with pressures from other constituencies such as shareholders and consumers who may compel the neglect or abandonment of unilaterally instituted participation (Herrick, 1990). Any design which an employer may terminate at will is an example, not of democracy, but rather of autocracy, enlightened and benevolent perhaps, but autocracy nevertheless.

2. It must be collective. Individuals, no matter how much support or power they are given by government cannot co-decide *policies* and once the policies are set individual deals usually cannot be negotiated outside the policy framework.

3. It must have dispute resolution procedures that are effective in compelling co-determination of key issues. Schemes without this feature are not likely consistently to produce decisions considered by the participants to be of high quality (Adams and Wheeler, 1987). Any scheme in which the final decision reverts to the discretion of one party fails this test.

In 1985 I recommended to a national commission in Canada the establishment of the following model:

a. Works councils would be required in all enterprises above a certain size.

b. Works councils would have the mandate of co-determining a list of issues (e.g., technological change, training) specified in the legislation and would be responsible for the implementation of legislation regarding issues such as equal employment opportunity, health and safety, and employment standards.

c. Disputes could be submitted to binding arbitration on an issue-by-issue basis (Adams, 1986).

In unionized companies, unions would have the right to appoint councillors. In other enterprises the employees would elect the council. Unions would continue to have the right to bargain collectively as under the current system.

Paul Weiler, of Harvard Law School, has just published a book in which he recommends a model similar to the one I first developed but different on certain dimensions (Weiler, 1990). He would also require the universal establishment of works councils. As in my proposal, they would be charged with the implementation of various employment statutes. They would also be entitled to recieve, from the employer, a good deal of information and some financing. The employer would be required to meet regularly with the committee to discuss a range of employment issues. Weiler would not provide worker representatives with the arbitration option. Instead, if harmonious discussions with management failed, the councils could organize a strike since under the U.S. National Labor Relations Act both union and nonunion employees have the right to strike.

Weiler's variant of the "universal joint regulation" model (Adell, 1988) may be more acceptable than mine to American policy-making elites, but it does not meet the criteria I proposed above. In my judgment, it would not perform as well as the one I suggest. It is closer to the French system and mine is closer to the German. There is a general consensus among students of industrial democracy that the German system has outperformed the one in France by a wide margin (Sturmthal, 1983). The French approach afforded managers the opportunity to avoid mutuality with regard to strategic decisions and generally they took it. The German system left management no choice but to adjust to co-determination, with generally good results for all concerned stakeholders (see, e.g., Adams and Rummel, 1977). The German experience supports the proposition that mutuality may be compelled, contrary to the protests of many business spokespersons that participation can only come about voluntarily. In practice, voluntarism in North America is generally equivalent to unilateralism and insistence on voluntarism is a contrivance for the defence of industrial autocracy.

One problem with the works council approach is that it shares with employer-initiated representation plans the potential to undercut the attractiveness to employees of independent representation by trade unions. I believe that it would have the opposite effect. By providing employees with practice in co-determination with regard to some issues it would whet their appetite for collective bargaining through independent trade unions on others. Moreover, to be effective the councils would need resources and the unions would be the natural providers of those resources, as they are in Germany.

No doubt there are many other models of which one might conceive. More important than potential solutions is the need for the fundamental problem to be recognized. The problem is the persistence of industrial autocracy largely because of employer conduct improper in a democratic nation. But employers behave as they believe they are expected to behave. If society makes it clear that such behavior is not acceptable (as it has with respect to racism and sexism, for example) employers will (grudgingly perhaps) conform (see Edelman, 1990). No less than other actors, they want to be regarded as good citizens.

Democracy is a fragile system of governance. Autocracy is much more natural. Thus for democracy to prosper, citizens must be eternally vigilant against the appearance and spread of autocratic forms and attitudes. Autocracy is on the march in North America today while the defenders of democracy are weak, disorganized, and confused by clever but spurious rhetoric. If economic democracy collapses, can political democracy stand on its own? (Barbash, 1984 and Herrick, 1990 pose similar questions.) I am not at all sanguine at the prospect.

References

Adams, Roy J., and C. H. Rummel. "Workers' Participation in Management in West Germany: Impact on the Worker, the Enterprise and the Trade Union." *Industrial Relations Journal* 8, 1 (1977), pp. 4-22.

Adams, Roy J. "Two Policy Approaches to Labour-management Decision-making at the Level of the Enterprise: A Comparison of the Wagner Model and Statutory Works Councils." In *Labour-management Cooperation in Canada*, ed. Craig Riddell. Toronto: University of Toronto Press, 1986.

Adams, R. J., and H. Wheeler. "Dispute Resolution and the Quality of Labour-Management Decision Making." In *The Business Corporation in the Democratic Society*, ed. W. Dorow. Berlin: deGruyter, 1987.

Adams, R. J., and S. Aryee. "Economic Crisis and Industrial Relations: A Review of Global Trends." *Nigerian Journal of Industrial Relations* 3 (1989), pp. 45-53.

Adell, Bernard. "Law and Industrial Relations: The State of the Art in Common Law Canada." In *The State of the Art in Industrial Relations*, eds., G. Hebert, H. C. Jain, and N. M. Meltz. Kingston and Toronto: Queen's University Industrial Relations Centre and Centre for Industrial Relations-University of Toronto, 1988.

Barbash, Jack. "Discussion of 'U.S. Industrial Relations in Transition: A Summary Report.' " *Proceedings* of the 37th annual meeting, Industrial Relations Research Association. Madison, WI: IRRA, 1985, pp. 291-294.

Beatty, David M. *Putting the Charter to Work, Designing a Constitutional Labour Code*. Kingston and Montreal: McGill-Queen's Press, 1987.

Bruce, Peter. "The Processing of Unfair Labour Practice Cases in the United States and Canada." *Relations Industrielles* 45 3 (1990), pp. 481-511.

Derber, Milton. *The American Idea of Industrial Democracy 1865-1965*. Urbana: University of Illinois Press, 1970.

Derber, Milton. "Collective Bargaining: The American Approach to Industrial Democracy." *The Annals of the American Academy of Political and Social Science* 431 (May 1977), pp. 83-94.

Dunlop, John T., Frederick H. Harbison, Clark Kerr, and Charles A. Myers. *Industrialism and Industrial Man Reconsidered*, Princeton, N.J.: The Inter-university study of human resources in national development, 1975.
Edelman, Lauren B. "Legal Environments and Organizational Governance: The Expansion of Due Process in the American Workplace." *American Journal of Sociology* 95 6 (1990), pp. 1401-1440.
Freeman, Richard B., and James L. Medoff. *What do unions do?* New York: Basic Books, 1984.
Greer, Charles R., and Stanley A. Martin. "Calculative Strategy Decisions During Union Organization Campaigns." *Sloan Management Review* 19 (1978), pp. 61-74.
Herrick, Neal. *Joint Management and Employee Participation.* San Francisco: Jossey-Bass, 1990.
Kochan, Thomas A., Robert B. McKersie, and Peter Cappelli. *The Transformation of American Industrial Relations.* New York: Basic Books, 1986.
Lawler, John J. *Unionization and Deunionization.* Columbia: University of South Carolina Press, 1990.
Raskin, A. H. "Management Comes Out Swinging." *Proceedings* of the 31st annual meeting, Industrial Relations Research Association. Madison, WI: IRRA, 1979.
Reynolds, Lloyd G. "Labor Economics Then and Now." In *How labor markets work*, ed. B. Kaufman. Lexington: Lexington Books, 1988.
Sturmthal, Adolf. *Left of Centre.* Urbana: University of Illinois Press, 1983.
Walton, R. E., and P. R. Lawrence. *Human Resource Management, Trends and Challenges.* Boston: Harvard University Business School Press, 1985.
Webb, Sidney and Beatrice. *Industrial Democracy.* London: Longmans Green and Company, 1897.
Wells, Donald M. *Empty Promises.* New York: Monthly Review Press, 1987.
Wheeler, Hoyt N. *Industrial Conflict: An Integrative Theory.* Columbia: University of South Carolina Press, 1985.
Weiler, Paul. *Governing the Workplace.* Cambridge, MA: Harvard University Press, 1990.

Employee Councils, Worker Participation, and Other Squishy Stuff

Richard B. Freeman
Harvard University

Employee councils—the subject of an economics paper? What is there in such a squishy industrial relations or organizational behavior topic to interest a devotee of the supposedly hardheaded (hearted?) social science?

My interest in employee or works councils is rooted in the seemingly inexorable fall in union density in the United States that has left the vast majority of private sector workers without organized representation at their workplace (only 12% unionized in 1989). Absent an economic cataclysm or totally revamped labor laws, the only way a non-negligible proportion of private employees is likely to have a workplace labor organization in the foreseeable future is if the country develops new institutional arrangements in the labor market. From this perspective works councils, of the form found in Western Europe, are an obvious institutional innovation to consider.

To be sure, many unorganized workers neither want nor need representation at their workplace. There are those for whom the exit option of the market suffices: if they don't like what goes on at their plant or office, they will quit and find a new job elsewhere. Some workers in firms with "positive" personnel and labor relations practices may have all the due process and voice on the job that they want. Others—women, minorities, the elderly, the handicapped—may find that growing legislative and court intervention in employment relations suffices to protect their interests. But for the roughly one-third of nonunion workers who say they would vote union in a NLRB election but cannot organize in the current environment (Harris Poll, 1984) and the 90 percent of workers who believe "employees should have an organization of co-workers to discuss and resolve legitimate

Author's Address: Economics Department, Harvard University, Cambridge, MA 02138.

concerns with their employer" (Gallup Poll, 1988) employee councils might improve their working lives without adversely affecting (and possibly improving) economic efficiency.

Employee councils of various forms have been around for a long time (Cole, 1923; Sturmthal, 1964). Germany established councils during World War I and made them a major part of the country's revamped industrial relations system after World War II. The role of councils (soviets) was an issue in the 1917 Russian Revolution (recall the "all power to the soviets" slogan). In the United States, employer-sponsored shop committees flourished in the 1920s, covering 1.4 million workers (Chamber of Commerce) or roughly 10 percent of the work force in manufacturing, mining, transportation, and public utilities (U.S. Department of Commerce (1925), p. 137). Today, councils are an intrinsic part of enterprises in Western Europe, where they often serve as plant level unions (Crispo, 1978). Beginning with Saskatchewan in 1972, Canadian provinces have instituted councils to deal with occupational health and safety issues (Clarke, 1982), while the federal government has developed labor-management committees to enhance reemployment assistance. The Communist regimes of Eastern European experimented unsuccessfully with various councils arrangements as part of "reform socialism." With the demise of Communism, works councils have achieved independent authority in many establishments and will influence the road to private ownership. In short, analytic squishiness notwithstanding, employee councils are found in enough economies to deserve attention even from economists.

What are the basic forms of works councils? How do they affect the operation of firms? How do they influence the development of genuine unionism?

Typology of Employee Councils

Employee or works councils (enterprise of shop committees) are employee-elected bodies at the workplace, plant, or firm that meet and discuss workplace issues with management but do not negotiate collective agreements on wages; are not members of broader labor organizations; and do not engage in industrial conflict. Whereas collective bargaining is structured along adversarial grounds (dividing the pie), works councils are designed to foster cooperation between workers and employers (increasing the pie). This is explicit in the labor laws of Belgium ("Works Councils exist to promote collaboration between employer and employee") and Germany (the "Works

Councils exist to work with employers in a spirit of mutual trust"), among others (Docksey, 1985).

There are two fundamentally different forms of councils, according to their impetus and source of authority: **employer-established councils** that exist at the sufferance of the employer and lack independent legal standing, exemplified by the 1920s U.S. shop committees; and **legislatively-mandated councils** which employers are legally obligated to establish at workplaces, exemplified by the councils in Western Europe. In some countries councils were originally set up through collective agreements and received legislative mandates years later (Denmark, Sweden, Norway). In others, including Germany and France, legislation created the councils.

In the United States the law gives no legal recognition to works councils in the private sector and makes employer-established councils face potential legal problems as "company unions" (U.S. Department of Labor, 1987). Still, some companies have employee councils with elected worker representatives that meet and discuss establishment-level issues with management but do not sign collective contracts. Polaroid is a case in point. Some independent unions may also be closer to works councils than to genuine plant-level unions. In the public sector, U.S. labor law has followed a different path. In the 1960s many states enacted "meet and confer" provisions that required public employers to discuss labor issues with employee associations but not to bargain collectively. Unlike works councils, associations enrolled members at many work sites and were heavily into lobbying legislatures. In the 1970s most states superseded the meet and confer regulations with Wagner Act-type laws that established collective bargaining and helped transform the associations into genuine unions. Thus it is to Western Europe that I look to see how legally mandated works councils operate as a stable element of an industrial relations system.

Works Councils in Western Europe

Most countries in Western Europe (the United Kingdom and Ireland are prominent exceptions) have legislatively mandated works councils. National law requires elected works councils in establishments above certain sizes (100 workers in Belgium; 5 workers in Germany; etc.); often specifies the size and structure of the councils (requiring that large firms have enterprise-level as well as establishment-level councils); determines rules for council elections (separate districts for white-collar or higher-level workers, for instance) and nominating procedures (Belgium makes recognized unions the nominating body for councillors); and may even mandate the way councils bring management and labor together (Belgian councils are joint labor-management bodies with the chief executive chairing the council).

Works council laws generally place three obligations on employers: to give councils information about the economic situation of the firm on a regular basis; to discuss/consult with the council on various workplace and personnel issues, particularly layoffs or dismissals and introduction of new technology; and, in some cases, to share decision making with the council on social and personnel affairs within the firm, including layoffs and dismissals.

The specifics of the laws requiring firms *to disclose information* to councils varies among countries, but their purpose is the same: to guarantee that workers are informed about economic developments likely to affect the firm. The 1988 U.S. Worker Adjustment and Retraining Notification Act, which requires advance notice of plant closings/layoffs, is a limited step in the same direction, but it requires that the nonunion firm give notice to workers rather than to an elected representative body.

The mandate that management *consult with works councils* on specified issues creates a new communication channel and network of influence within firms that in principle changes the firm's decision-making process. Management must justify planned actions in the labor area to its employee council and must listen to alternative plans proposed by the council. Though management maintains the final say, councils can influence decisions, at the least by delaying implementation of policies that workers find objectionable. More positively, managers' perceptions of the options facing the firm and of the benefits/costs of those options are likely to change as a result of discussions with its works council, leading to different decisions. By creating a forum for reconciling differences, moreover, councils should also improve the labor-management climate. The voice of a legally mandated works council may be weak compared to that of a union but it is still a voice that management will hear.

Provisions that management *obtain the agreement* of works councils to policy decisions in certain areas, with outside arbitration settling disputes (as in Germany) or that give councils the right to take independent action in health and safety (as in Canada) make councils into something akin to plant-level U.S. unions that operate under firm or industry collective bargaining agreements. It is no surprise that employers most strongly object to these provisions.

Works Councils and the Operation of the Firm

The first question an economist asks about virtually anything is how it affects efficiency. Do works councils alter the output of firms or of the more inclusive measure of social production?

When European countries first considered mandatory works councils, most managements opposed them as an infringement on managerial authority that would reduce flexibility and productivity. As recently as the early 1980s, the French employers association fought tooth and nail the Auroux legislation creating participative enterprise committees inside French firms (Brown, 1989, p. 4). Unions have also been uneasy about councils (of which more in a moment). Once councils are in place, however, participants and outside observers tend to view them positively. The 1984 report of the Belgian tripartite National Labor Council states: "both sides of industry admit that after 30 years' experience, works councils have a positive track record" (Monat and Sarfati, 1986, p. 191). German employers do not seek to remove their councils (Adams and Rummel, 1977). In his assessment of the German economy, Giersch has questioned "Whether these arrangements (councils) helped to increase the economy's productivity potential" (1990, p. 8), but he does not suggest they had any adverse productivity effects. After the Auroux law, French management discovered "that it could communicate more effectively with workers through their elected delegates" (Brown, 1987, p. 7).

Subjective impressions must, of course, be taken gingerly, and I would be more comfortable with the generally favorable assessment of councils in the literature if it was backed by econometric studies of the effects of councils on productivity, turnover, and other aspects of firm performance. Because works councils are legally mandated, however, it is not possible to compare otherwise similar enterprises with/without works councils in a country. And no one has, to my knowledge, undertaken the difficult task of comparing similar plants between countries with and without councils (say, for the same multinational in the U.S. and Germany) and tried to isolate the effect of councils or compared the same enterprise before/after it introduced councils. A 1984 German survey of 2,800 establishments found that the administrative costs of councils, including holding elections and giving time off for the work of council members, amounted to perhaps an hours' pay per worker per year (Monat and Sarfati, 1986, p. 41), so we do know that administrative costs are slight. If, as is likely, councils increase worker participation, the higher productivity in firms with greater participation (Blinder, 1990) suggests that councils raise productivity. When evidence is scarce, theory can sometimes help us figure out what is going on, or at least indicate where to look in our thinking and empirical work. Although there is no accepted theory of within-enterprise behavior (the black box of neoclassical analysis), modern concern with information, strategic behavior, hierarchies, and contractual modes of motivating workers does suggest issues to consider in assessing works councils.

Analyses of the role of information in decision making—of the effect of asymmetric information on market outcomes and the ways bargaining agents can exploit information for strategic gains—direct attention to how works councils laws alter the information structure of the labor market and how changes in information structures affect outcomes. To the extent that the laws reduce information asymmetries, I expect social output to rise—in part because asymmetries often create inefficient bargains and in part because more information enables workers to adjust better to changes in the market (as the Deere and Wiggins [1990] analysis of mandatory advance notice of plant closure demonstrates). Whether the profitability of the firm would increase or decrease is less clear because of the firms' loss of their monopoly on information. I look forward to theoretical investigations of the economic effects of the information provisions of works councils laws in particular market settings.

Requiring management to consult with works councils is likely to increase information flows from workers to managers and to alert managers to worker concerns that might otherwise escape their attention. From the perspective of the "two faces" of unionism, councils that offer workers effective voice but lack the power to raise labor costs can increase enterprise and social well-being by improving compensation packages, lowering turnover, and so on, without any adverse effects on resource allocation. Here, I would look for guidance in model-building to theories that recognize the divergent interests and information of decision makers in firm hierarchies (Tirole, 1986), and the need to monitor labor and motivate effort (Lazear and Rosen, 1981). I can envisage principal-agent models in which the council's acting as the agent for workers yields better outcomes than other internal firm structures.

Finally, works councils can be analyzed from a property rights perspective. Legal requirements that councils approve firm policies in the labor area shift within-firm property rights in favor of employees. Even requirements to meet and consult may have a similar de facto effect. The Coase theorem suggests that works council laws which change property rights clearly will have no effect on the efficiency of the enterprise while redistributing "profits" toward workers; whereas laws that blur the rights to make a decision are likely to lower productivity. Changing property rights in firms may, however, have more far-reaching and interesting effects by altering the firms' maximand and competitive strategy—favoring the goal of increased market shares as opposed to short run profit maximization, for instance. Aoki's (1988) analyses of the Japanese firm may be relevant here.

There is one final economists' argument to address: If councils have positive economic effects, why don't firms establish them voluntarily, making mandatory regulations irrelevant? There are three answers. First, firms may not establish socially productive councils because social productivity is not profitability. Firms may not want councils that demand better health and safety conditions if the gains accrue to the worker and society (through lower medical costs) but not to the firm. A second reason for firms eschewing councils is that management, particularly at lower levels, may prefer the "easy life" of an authoritarian managerial structure to the increased value of the firm that may result from greater worker participation. Company-initiated participatory programs, such as quality circles, often run into this problem. Third, and most importantly, employer-initiated councils may function poorly because workers do not feel free to express their views when the council exists at the sufferance of management.

Works Councils and Unions

Just as management has viewed works councils with a jaundiced eye, so too have unions. The union case against councils is based on three fears: that management will use councils as company unions to prevent unionization; that councils will provide workers with enough legitimate voice to substitute for genuine unionization; and that councils will produce jurisdictional problems with unions and reduce the loyalty of workers to their union.

The U.S. experience with the shop committees of the 1920s underscores the danger that employer-initiated councils will serve as company unions to deter genuine unionism. The difficulty in organizing firms that instituted quality circles in the 1980s shows that this is not a point simply of historic interest. Still, employer-dominated shop committees were the nucleus for rapid unionization of some sectors in the 1930s, and public sector associations have become the backbone of unionism in the public sector. French experience with the Auroux law enterprise committees shows, on the other hand, that it is possible for management to dominate even legally mandated councils (Brown, 1989).

The potential substitutability between councils and unions has long made unionists suspicious of councils. In the United Kingdom "it was often contended that 'works unionism' was the worst enemy of Trade Unionism" (Cole, 1923, p. 7). In the U.S., the AFL came out against shop committees at its 1921 Convention (French, 1923, p. 31). Paul Douglas took a more favorable view of shop committees in his 1921 *JPE* article, arguing that "the creation of a shop committee is a real step forward in (nonunion) plants . . . (but) shop committees are not and cannot be a just substitute for unionism" (p. 101). The problem of substitution arises because heterogeneous workers will have different desires for representation at their workplace: some will want a full-scale union while others might be satisfied with a weaker organization. Given the choice between no union and union, a majority might prefer a union, but if enough workers want only the (weak) voice of a council a majority might prefer no union if the choice was between workers council/no union and workers council/union.

The third concern of unions has been that when councils work well workers may come to prefer their council to their union. One survey of West German workers showed in fact that more workers viewed works councils as "representing worker interests" and having "done a lot to help workers" than unions and thus were more favorable to increasing the power of worker councils than the power of unions (Hobson and Dworkin, 1986). Such divided loyalties reflect the weak plant-level organization of unions in Germany, where works councils—the majority of whose councillors are union members—perform the functions of American local unions. My guess is that American workers evince similar higher opinions of their local union than of their international. In any case the issue for the U.S. is not how works councils and unions compete in the same establishment but rather whether councils can improve the working lives of the unorganized.

Conclusion

The apparent success of mandated works councils in giving workers representation in their establishment without adversely affecting the performance of firms in Western Europe does not, of course, mean that councils would succeed in the U.S. In settings where unions bargain at an industry or regional level and where settlements are extended to all firms or where multiple unions compete for membership, as in many parts of Western Europe, works councils arise naturally as the institution bringing plant-level representation to workers. In the U.S., where unions have exclusive representation at workplaces and are nonexistent elsewhere, works councils are not needed in organized plants and might be ineffective in nonunion plants due to management's opposition and the absence of any union presence at those work sites. The imperfect "fit" between councils and U.S. industrial relations does not, of course, mean that councils might not be worth trying. Paul Weiler (1990), for one, has made a cogent argument that the country should indeed seek to introduce "employee representation councils" as part of any labor law reform. Rather than mandating councils for all firms as in Europe, however, I would suggest that any U.S. legislation require councils only in firms that choose voluntarily to establish the employee stock ownership plans for which Congress already gives tax breaks expressly to increase workers' commitment and participation in their firm.

Acknowledgment

I have benefited from the assistance of Anne J. Panneels.

References

Adams, R., and C. Rummel. "Workers' Participation in Management in West Germany: Impact on the Worker, the Enterprise, and the Trade Union." *Industrial Relations Journal* 8 1 (1977), pp. 4-22.
Aoki, M. *Information, Incentives, and Bargaining in the Japanese Economy*. Cambridge: Cambridge University Press, 1988.
Brown, B. "Worker Democracy in Socialist France." Center for Labor-Management Policy Studies Occasional Paper 7, City University of New York, 1989.
Blinder, A. (ed.). *Paying for Productivity*. (Brookings, 1990).
Chamber of Commerce. *Employee Representation or Works Councils*. Washington, D.C., 1927.
Clarke, R. D. "Worker Participation in Health and Safety in Canada." *International Labor Review* (March-April 1982), pp. 199-205.
Cole, G. D. H. *Workshop Organisation*. Oxford, 1923.
Crispo, J. *Industrial Democracy in Western Europe*. Toronto: McGraw-Hill Ryerson, Lmtd. 1978.
Deere, D., and S. Wiggins. "Plant Closings, Advance Notice, and Private Contractual Failure." Texas A&M mimeo, 1990.
Docksey, C. "Employee Information and Consultation Rights in the Member States of the European Communities." *Comparative Labor Law* (Fall 1985), pp. 32-69.
Douglas, P. "Shop Committees: Substitute for, or Supplement to, Trades-unions?" *Journal of Political Economy* (February 1921).
French, C. *The Shop Committee in the United States*. Johns Hopkins, 1923.
Gallup Poll, 1988.
Giersch, H. "Lessons from West Germany." OECD Conference on The Transition to a Market Economy in Central and Eastern Europe." Mimeo, OECD, November 1990.

Harris Poll, 1984.
Hobson, C., and J. Dworkin. "West German Labor Unrest: Are Unions Losing Ground to Worker Councils?" *Monthly Labor Review* (Feb. 1986), pp. 46-48.
Lazear, E., and S. Rosen. "Rank Order Tournaments as an Optimum Labor Contract." *Journal of Political Economy* 89 (October 1981) 841-64.
Monat, J., and H. Sarfati (ed.). *Workers' Participation: A Voice in Decisions, 1981-85.* International Labor Organisation, Geneva, 1986.
Sturmthal, A. *Workers Councils.* Cambridge, MA: Harvard, 1964.
Tirole, J. "Hierarchies and Bureaucracies: On the Role of Collusion in Organisations." *Journal of Law, Economics, and Organisation* (Fall 1986), pp. 181-214.
U.S. Department of Labor. *U.S. Labor Law and the Future of Labor-Management Cooperation.* Washington, D.C., October 1987.
U.S. Department of Commerce. *Historical Statistics of the United States Part I.* USGPO, Washington, D.C., 1975.
Weiler, P. *Governing the Workplace: The Future of Labor and Employment Law.* Harvard, 1990.

Universal Workers' Participation Via Works Councils: The West German Experience

Otto Jacobi
Laboratorium Europa and European Observatory of Industrial Relations

The turbulence in Europe has reached truly historical dimensions. The rapid fall of the Soviet empire and the simultaneous return of political, nationalist, separatist, and religious movements in pre-modern fundamentalist garb were unforeseen. By contrast, a fascinating dynamic is driving forward the process of European integration in the western part of the continent. The European Community (EC) with its Single European Market (SEM) is already today the dominant center of movement in all of Europe and European events are affecting the Federal Republic of Germany (FRG) in a twofold manner. It has regained its unity as a single state and at the same time has become the forerunner of European political union.

Political, economic, and social models for the future are involved in all these transformation processes. As far as German-German unity is concerned, the West German model of free collective autonomy, works constitution, codetermination, and participation through trade unions and works councils will be, without question, carried over to the eastern areas of the country. On the European level, the German model has gained quite a reputation for having proved itself to be more robust, stable, and flexible than either the Anglo-Saxon or southern European models of industrial relations. For this reason, a comparative perspective informs this paper. It can be shown that different levels of the "institutionalization of the class struggle" played a large role in the patterns of socioeconomic development. In the FRG, economic expansion and social cooperation grew together to form a "virtuous circle." In Great Britain, feeble growth rates and

Author's Address: Institute for Social Research, Senckenberganlage 26, D-6000 Frankfurt/Main 1, Germany.

turbulent labor relations resulted in a "vicious circle." And in Italy, the process of transition from a threshold country to a leading industrial nation led to a "virulent circle," characterized by a high degree of political and social conflicts.

The FRG success story consists in the intelligent, or perhaps only the fortuitous, combination of a free market economy and a social welfare state. The secret of this socioeconomic model of development consists in the fact that the high-efficiency syndrome enjoyed by the FRG is characterized by the regulation of opposing social interests through a "conflict partnership" of employers and trade unions as well as management and the works councils. The participation of the workforce through works councils can only be understood in connection with the system of collective bargaining autonomy since they complement each other in an overall division of labor.

In the FRG there was, and still is, an interclass consensus concerning a model of economic development and growth centered on modernization and export. This alliance found essential pillars: (a) in a trade union system whose combined authority at the summit of the labor federations was limited neither by party-oriented unions nor by trade- or plant-based competing organizations or powerful shop floor committees, and (b) in a system of industrial relations with a high level of institutionalization and legal formalization. Equipped with monopoly-like resources, the German trade unions grew to be powerful organizations functioning as the "encompassing organizations" described by Olson. Their willingness, in cost-benefit calculations, to balance their organizational interests with the need to safeguard industrial and national economic efficiency is a central explanatory variable for a generally peaceful conciliation of interests between capital and labor.

The institutional backbone of the collective bargaining system is the dual structure of workers' representation, characterized by the following elements: (a) *The separation of the institutions into trade unions and works councils.* Works councils are elected from the workforce in companies with a minimum of five employees; they can be formed at the plant, company, and trust levels. The term of office is four years. Members of the works councils are partially or completely exempted from work for the carrying out of their official tasks and duties; they enjoy special protection against termination of employment, downgrading of job assignments, and cuts in wages. The works councils in large companies are served by an extensive organizational apparatus with completely furnished offices. An overwhelming majority of more than 75 percent of works council members are at the same time members of a trade union within the German Trade Union Federation (DGB). (b) *The separation of their powers in the representation of union members' interests through the union's monopoly on the right to collectively negotiate and settle agreements, on the one hand, and the representation of plant or company-centered interests through works agreements by works councils, on the other.* Particularly in economic matters, but also in relation to social and personnel affairs, the works councils have extensive rights with respect to initiative, control, participation, consultation, veto, and co-determination; the latter rights mean that employees can establish a regulation only with the agreement of the works council. Works councils are so firmly established today (with the exception of many small companies) that employers seek out such cooperation as a means to realizing their own interests in securing the most conflict-free relations possible. In case of a negotiating stalemate, a conciliation committee is formed which consists of equal numbers of representatives from management and the works council and a neutral outsider. The committee decisions are binding on both sides. (c) *The separation of spheres of influence and instruments of power into a sectoral negotiating market, distant from the workplace and equipped with the right to strike, and a negotiating market close to the workforce and removed from industrial actions, oriented toward labor peace.* This dual system is distinguished by a flexibility in treating problems and a great capacity for compromise. It ensures that the point of production of goods and services remains undisturbed and does not become an arena of struggle.

The works constitution, separated from collective bargaining powers, allocates autonomous workplace-related authority and duties to the works council, which is by law institutionally independent of the trade union. This arrangement represents an additional resource for the establishment of social peace because it comprises, in conjunction with the union's authority in the policy spheres of wages and working conditions, a regulating system based on a formalized division of labor. In the normal case of collective negotiations, the workplace and the workforce are not involved, because the works constitution sets an institutional barrier against a spillover into open conflict. Additional elements of the comparatively superior regulatory capacity of this system are the mutual contractual commitment to agreements, with a subsequent obligation to labor peace; a well-constructed mediation agreement on the part of the collective bargaining parties; and a framework for industrial action formed by laws enacted by labor courts which grants a graded and flexible use of strike and lockout measures.

These are precautions meant to handle divergent interests at the lowest possible level of conflict and to keep industrial disputes an exceptional occurrence.

Furthermore, the works constitution relieves the strain on the collective bargaining policy of the unions in a number of ways. The works councils keep check on adherence to the contract. They take charge of fine-tuning the collective agreements to the needs of the particular firm or workplace. Through their professionalized daily routine they prevent a backlog of unresolved problems from arising. They fill gaps in regulations and, by concluding work agreements to deal with newly arisen problem situations later adopted in a modified form on the sectoral level by the collective bargaining parties, they often act as trailblazers of policies dealing with wages and working conditions. It is important, however, to the collective bargaining parties that the collectively negotiated standards that they set are not circumvented by work agreements. A high degree of flexibility is possible with this two-track system of representation because the macro-, intermediate- and micro-levels can be integrated into a common structure. In the course of the 1980s, a new trend of industrial relations being centered at the plant level has emerged and led to a growth in works council jurisdiction but not at the expense of the trade unions. It is much more a matter of a new mix of relationships within the overall organized structure, dedicated to the representation of employee interests. The trade unions can negotiate a trendsetting framework of collective agreements with the counterpart employers' associations and transfer a high degree of operational implementation to management and works councils at the company level through supplementary reopening clauses and work agreements. The parties concerned with collective agreements (employers' associations and trade unions) increasingly become actors with strategic, coordinating, and advisory functions, while the parties at the company level (management and works councils) increasingly take over the tasks associated with the decentralized and differentiated fine-tuning of labor relations. Altogether a system of negotiated, but not deregulated, flexibilization is emerging.

Decisive for the role of the works councils in this complex regulatory system is an institutionally guaranteed and practically exercised autonomy which provides an equal distance, or better, an equally close integration, with each of the collective bargaining parties and prevents them from becoming one-sided. Even if works council members can be ascribed to the camp of the trade union on the basis of their social position and their function as employees' representatives, they are still, as part of the social management of the company, obligated to promote its welfare and peace and therefore, come what may, the discussion and cooperation partners of the employers. At the plant or company level, management and works councils act as private interest governments just as unions and employers' associations do at the macro level. This form of representative and institutionalized participation and co-determination is nothing short of a distinguishing feature of the German system of industrial relations.

Free collective autonomy and the works constitution have produced—if we condense the results of the argument into a thesis—such a high degree of self-regulation that beyond its field of operation, tripartite-corporativist forms of "political exchange" remain relatively underdeveloped. In contrast to Great Britain and Italy, the political market is not overloaded with problems of remedying deficiencies in the system of industrial relations.

The comparatively under-institutionalized British system of industrial relations couldn't solve its structural problems, so the questions involved in the regulation of interests were shifted to the political arena, where they constantly stood at the center of heated clashes.

The inclination of British enterprises to single plant or employer agreements corresponds to the workplace-focused trade union structure, but both together contradict the overall need for regulation. In contrast to the FRG, a separation between the right to bargain collectively and a works constitution is missing, so that a single-element system dominates the representation of employee interests. Additionally, in contrast to Italy and the FRG, the guiding and correcting influence on company-level negotiations by central leaders is largely absent. The consequences are that the production sites are also always the direct sites of struggle, and the perspective of the work-site negotiators is narrowed by the focus on the shop in question.

Repeated attempts to set guidance data and guidelines for wage development through tripartite agreements regularly foundered on a double obstacle. On the one hand, such agreements were not worthwhile because of the already chronic weak economic performance. On the other hand, the British Trade Union Congress (TUC) umbrella organization, as well as the top committees of the individual unions, were lacking a sufficient degree of strategic freedom necessary to internally enforce agreements reached on the external political market and to bind the shop negotiating delegations to these arrangements. The Achilles heel of tripartite agreements was the extremely fragmented and particularistic structure of trade union interest representation, which drained all attempts at global management. Due to the insufficient authority of the trade-union generals, there was no pause on the social front; instead, numerous little wars, which the ordinary soldiers could wage, flared up thanks to a splintered negotiation and strike authority.

While it may have been possible to establish solidarity in a favorable labor-market situation, it becomes all too clear that under conditions of mass unemployment previous solidarity has turned to inner- and intra-union competition with often ruinous consequences, and that earlier militance has turned to impotent protest. Since institutional safeguards are missing, the position of the unions, like that of its shop floor structure (the shop stewards), depends primarily on the prevailing political and social balance of power. This explains why their dependence on, and influence on, the economic conjuncture is far more cyclical than in the FRG.

In comparative terms, the most lasting changes occurred in Italy. A vehement industrialization and a dynamic economic development, with corresponding transformations in social structure, turned the previously agrarian country into an industrial nation in a relatively short period. The replacement of the fascist dictatorship with its compulsory associative structure by a democratic regime and free trade unions was the second element in the exceedingly conflict-ridden adjustment process of a latecomer.

In Italy there were repeatedly abrupt and cyclically alternating thrusts toward socioeconomic innovation and modernizations brought about through violent social conflicts with a clear winner emerging in each. In the 1980s an "antagonistic cooperation" has been developed and indicates that the "virulent circle" of a latecomer is approaching its end and new forms of regulation and control on a significant higher level of institutionalization and juridification are opening up.

On the whole it appears that the FRG seems most likely to be armed against reversals and an erosion of its participation and codetermination system. In contrast to Great Britain with its pent-up requirement for renewal, or Italy with its uncompleted phase of consolidation, the FRG can look forward to unequivocal comparative advantages in industrial relations which favors Germany's competitive position on the world market.

References

Baglioni, Guido, and Colin Crouch, eds. "European Industrial Relations." London: Sage Publications, 1990.

Edwards, Richard, Paolo Garonna, and Franz Tödtling, eds. "Unions in Crisis and Beyond." Dover/Mass., and London: Auburn House Publishing Company, 1986.

Juris, Hervey, Mark Thompson, and Wilbur Daniels, eds. "Industrial Relations in a Decade of Economic Change." Madison, Industrial Relations Research Association Series, 1985.

Olson, Mancur. *The Rise and Decline of Nations*, New Haven and London, 1982.

DISCUSSION

JOEL ROGERS
University of Wisconsin-Madison

I basically like these papers, which I think do a good job in opening a discussion on the potential appeal of works councils in North America.

Beginning with Roy Adams, I certainly agree—who could not?—that North American labor policy, U.S. labor policy certainly included, generally fails to secure workers meaningful representation in their places of employment. I also agree that such representation is a requirement of democratic order. I think Adams exaggerates the strength of past policy commitment to workplace democratization (as against labor market regulation) and picks some unnecessary fights with those who have emphasized the economic functions of collective bargaining. Much as I favor the formal collective representation of workers, I also don't think the species of management found in its absence is usefully characterized as "autocracy." As Adams well knows, even in the U.S., even in the absence of councils or unions, significant limits on managerial discretion are imposed by public regulation, as well as the de facto private regulation that comes of employee exit threats. Questions of rhetorical excess aside, suggesting otherwise risks confusion, as most current discussion is not about the fact, but the degree and the form, of workplace regulation.

Only briefly suggested in Adams' paper, but of great importance I think in understanding their potential appeal even in liberal systems such as the U.S., is their regulatory potential. As we all know, there are many sorts of workplace regulations where the number and heterogeneity of the regulated object precludes effective command and control regulation enforced through inspectorates. Occupational safety and health is a case in point. And there are many areas of potential regulation where the absence of effective regulative mechanisms is commonly cited as a reason not to embark on policy efforts. Work-based training programs are a case in point. One thing the European experience

Author's Address: Faculty of Law, Room 306 Law Building, University of Wisconsin, Madison, WI 53706.

does make clear is that councils have great potential utility as on-the-ground monitoring and enforcement mechanisms for workplace regulation. Their existence also encourages a state policy more flexible about the means of compliance and more ambitious about standards. Especially in the U.S., where there are grave doubts that government is capable of doing *anything*, this potential should not be overlooked. European councils not only routinely perform these functions but have grown from such functions. The present German system, for example, began from a mandate to supervise the implementation of industrial collective agreements.

Moving to Otto Jacobi, I think his paper provides a good description of the structure of the German system and the useful role of councils within it. I am less certain about exactly what is being claimed about the conditions under which councils can perform that role, and about whether it is their absence—as against the absence of a strong encompassing union—that explains the vagaries and pathologies of the British case or whether the reading of Italy (where councils are now enjoying an important comeback) is right.

These quibbles aside, I believe one aspect of union-council relations suggested by Jacobi in the German case is more generally true in North (continental) European systems and perhaps worth emphasizing. In recent years, the major organizational problem for unions in these systems, characterized by much higher levels of union centralization and density than in the U.K. or Italy (or, of course, the U.S. or Canada), has been to respond to employer (and, increasingly, member) pressures for decentralized bargaining. These pressures emanate from many sources—including relatively straightforward competitive pressures on labor costs and the recruitment of skilled labor, increased multinationalization (and thus weakened national employer federations), and greater variation across firms in their choice of product markets, training needs, and specifics of work organization—all usually summed up, inscrutably enough, as pressures for "flexibility." Full decentralization of bargaining, however, would be an obvious disaster for these union movements' incomes policies and national social agenda.

The availability of a strong council system can help centralized movements navigate these troubled waters (a fact that now appears to be dawning, perhaps belatedly, even on Swedish labor leaders). It permits a more controlled and directed decentralization, which bends to these pressures without breaking the central structure. In the ideal case for unions, of course, the council system is essentially a local arm of the centralized union movement, permitting it not only to withstand the pressures that arise from employer restructuring, but to insert itself into the restructuring process at the appropriate "micro" level—in, for example, the provision of training or other union initiatives in supply-side industrial policy. The point here is simply that opening the "second channel" of council is often useful to the "first channel" of unions themselves, at least when those unions are highly centralized.

Richard Freeman's paper lays out what I take to be the central economic and strategic questions about councils in the U.S. I was uncertain why he was as diffident as he was about the productivity contribution of "voice," a claim that I had thought had now safely migrated from the left to the mainstream of the economics profession (e.g., Blinder, 1990). I was also puzzled about the precise source of his disagreement with Weiler (1990)—that is, whether it is mere political expediency (a fair consideration, to be sure), or something else, that leads him to draw the initial boundaries of mandated councils around ESOP establishments.

But I think his map of the relevant issues is clearly right. Most recent work on councils considers their operation under conditions of relatively high-density and centralized unionism. There, they appear to have a variety of positive effects. The questions are: are these effects real; if so, what produces them; how context-dependent are they; how likely is it (assuming away questions of political will) that they can be reproduced in the different context of the U.S.?

In considering these questions, Freeman correctly observes, we should be more concerned with the quality and extent of worker representation than with its form. If the introduction of councils were shown on balance to be a good thing for worker representation but a bad thing for unions, that should not count as an argument against councils but against unions. I agree with the general principle here that existing organizations, merely as existent, should not be accorded special respect. But I would emphasize that unions traditionally serve functions—in wage setting, and in representing workers in arenas more encompassing that those of the individual firm—that councils traditionally do not. So long as there is need for worker representation in these areas, which is to say forever, even the most expansive system of council representation will not close the "representation gap" in the U.S. Unions, or some descendant organizations looking like unions, will still be necessary. And at least in those areas where unions represent workers in ways that councils cannot, the effect the introduction of councils would have on their ability to do so, or the ability of some hypothesized successors, *is* relevant in gauging the appeal of that reform.

References

Blinder, Alan S., ed. *Paying for Productivity: A Look at the Evidence.* Washington, D.C.: The Brookings Institution, 1990.

Weiler, Paul. *Governing the Workplace: The Future of Labor and Employment Law.* Cambridge: Harvard University Press, 1990.

XIII. TRAINING POLICY: PUBLIC AND PRIVATE

High-Cost Services: The Challenge for Welfare-to-Work Programs

Daniel Friedlander
Manpower Demonstration Research Corporation

The Job Opportunities and Basic Skills Training (JOBS) Program, enacted as part of the welfare reform act of 1988 and implemented by all states by October 1990, provides states with incentives to restructure their employment programs for recipients of Aid to Families with Dependent Children (AFDC). Among other things, JOBS offers opportunities for states to expand participation in basic education, occupational training, and other relatively intensive and costly activities, which could supplement or replace lower-cost approaches emphasizing job search assistance and unpaid work experience. Local decisions about how much to use higher-cost services will, however, be made under tight program budget constraints. Information about their effectiveness—and about trade-offs between low- and higher-cost approaches—is therefore critically important in planning welfare-to-work programs for the 1990s.

This paper examines the findings from a set of social experiments that used random assignment to evaluate welfare-to-work programs. The goals are to reveal what the findings from these experiments say about the relative effectiveness of low- and higher-cost services and to identify key issues for future experiments. At the outset, two cautions are in order. First, to perform this analysis, more must be asked of these experiments than was intended by their original designs, which

Author's Address: Manpower Demonstration Research Corporation, 3 Park Avenue, 32nd Floor, New York, NY 10016.

were chosen to evaluate the feasibility and impact of specific program approaches and not to compare alternative approaches. Second, although some experiments did test higher-cost activities, these were for the most part occupational skills training or wage subsidies, not basic education, which will play a significant role under JOBS.

Findings and Interpretation

The first generation of experimental evaluations of welfare-to-work programs comprised a diverse group of interventions. This diversity was important in confirming that a number of specific approaches can be successfully implemented and can yield positive effects in a variety of settings. In judging the relative effects of alternative services, however, one would ideally wish to hold constant several confounding factors, including target group attributes and the characteristics of local welfare and labor market environments. Noncomparabilities across studies on these and other dimensions will preclude firm conclusions on several issues.

Systems and Services

The most critical source of noncomparability across experiments is not the target groups or environment but the scope of the programs under study. Of the 13 experiments reviewed in this paper, nine evaluated complete service delivery systems, encompassing both client activities and the related administrative functions (such as procedures for assigning enrollees to activities and for monitoring their participation). Because these systems were intended to reach a wide range of program-eligible AFDC recipients, we refer to them as *broad-coverage programs*. To achieve broad coverage, most of these programs made participation mandatory and could sanction refusal to participate with a temporary, partial reduction of the AFDC grant.

The other four experiments focused on particular services or clusters of services that might be components of a larger system. In addition, these experiments were not evaluations of ongoing programs but were, instead, one-time demonstrations, with special operating authority and special funding. In all cases, participation was voluntary. Numbers of enrollees were limited, and selectivity was typical, both on the part of welfare recipients in deciding whether to participate and on the part of program staff in screening potential participants. We therefore call these *selective-voluntary demonstrations*.

In the selective-voluntary category, the expressed client desire to obtain services, along with certain features of the research designs, meant that nearly all sample members of the experimental group—hereafter referred to as "experimentals"—actually participated in employment and training activities. In contrast, in the broad-coverage category, half the experimental group typically did not participate in program activities. Such large participation rate differences across study categories obviously affect differences in average cost per experimental sample member, which must be accounted for in making comparisons. Further, the voluntariness, selectivity, and small numbers of enrollees that have characterized the selective-voluntary demonstrations increase uncertainty about their potential aggregate impact, since it may not be possible to expand their scale of operations much. For these reasons, it will often be appropriate to distinguish results for broad-coverage programs from those for selective-voluntary demonstrations.

Average Earnings Impact per Experimental

Table 1 summarizes the experimental results on program effectiveness, with the programs arranged in order of increasing cost within study category (Gueron and Pauly, 1991). The table gives net program costs and net program impacts on earnings and AFDC payments. Each of these estimates is calculated as the average dollar amount per experimental sample member minus the average amount per control sample member. In accordance with the experimental designs, the averages include all sample members. Thus, within the experimental group, both program participants and nonparticipants are included; within the experimental and control groups, sample members with zero earnings or zero AFDC payments are also included. It may be noted that the four selective-voluntary demonstrations all subsidized the wages of participants during their training, and such payments made up more than 40 percent of net costs in three of the four demonstrations and 20 percent of net costs in the fourth (Maine).

The impact estimates shown are for the last available year of follow-up for all sample members; Year 1 is the year in which an individual was randomly assigned. Eleven of the experiments yielded earnings increases, representing gains of 10 to 40 percent relative to means for the corresponding control groups. Eight of the experiments produced welfare reductions, ranging from about 10 to 15 percent relative to the control means.

These estimates will be used to examine four measures of effectiveness: average earnings impact per experimental, cost-effectiveness

TABLE 1

Results of the AFDC Welfare-to-Work Experiments

Program	Requirements and Activities	Net Cost per Experimental	Annual Impact per Experimental: Follow-Up Year	Earnings	AFDC Payments
Broad-Coverage Programs					
Arkansas WORK	M: JS	$ 118	Year 3:	+$337	−$168
Louisville I[a]	M&V: JS	136	Year 3:	+435	−184
Cook County WIN	M: JS, WE	157	Year 1:	+10	−40
Louisville II[a]	M&V: JS	230	Year 1:	+464	−40
West Virginia	M: WE	260	Year 1:	+16	+0
Virginia ESP	M: JS, WE	430	Year 3:	+268	−111
San Diego I	M: JS, WE	636	Year 1:	+443	−226
San Diego II: SWIM	M: JS, WE, E&T	919	Year 2:	+658	−553
Baltimore Options	M: JS, WE, E&T	953	Year 3:	+511	−31
Selective-Voluntary Demonstrations					
New Jersey OJT	V: WS-OJT	787 [439][b]	Year 2:	+591	−238
Maine OJT	V: WE, WS-OJT	2,019 [1,635][b]	Year 3:	+941	+80
AFDC Homemaker-Home Health Aide Demonstrations	V: ST-SE	9,505 [5,684][b]	Year 3:	+1,121	−343
National Supported Work Demonstration[a]	V: PWE	17,981 [9,447][b, c]	Year 3:	+1,076	−401

Source: Gueron and Pauly, 1991.

Notes: Net costs and annual impacts are in nominal dollars except where noted. Services abbreviations are: V = voluntary; M = mandatory; JS = job search assistance; WE = unpaid work experience; PWE = paid work experience; E&T = education and skills training; ST-SE = skills training with subsidized employment; WS-OJT = wage subsidy for on-the-job training positions.

[a] Amounts adjusted to 1985 dollars.

[b] The bracketed figure excludes wage subsidy payments for participants.

[c] Another $4,352 of Supported Work costs were offset by project revenues.

for earnings impacts, taxpayer savings, and impact on household income and poverty. The first measure is the "average earnings impact per experimental," the number usually cited as the primary estimate of program impact. The estimates for broad-coverage programs suggest that the increasing costs accompanying the addition of more intensive, more costly activities lead to increased average earnings impacts. Weighting each study equally, the simple correlation coefficient between net cost and net earnings impact is +0.62.

This correlation estimate may understate the true relationship between cost and impact. The estimate hinges in large part on the earnings impacts of three low-cost programs in low-grant states, namely, the two Louisville experiments and the Arkansas experiment. Programs operated at such low cost in high-grant states and states with higher hourly program staff costs might not produce impacts as large. In high-grant states, higher earnings levels are needed to induce an individual to shift from welfare to work, and a program may have to work harder to place enrollees at those earnings levels. Higher hourly staff costs would result in less real service per dollar of net cost.

Two of the low-cost programs were ineffective in increasing earnings. In Cook County, a heavily burdened program staff spent more of its time sanctioning noncompliant enrollees and closing the cases of those who were employed, and less time providing actual services, than did staff in other programs. The results of this experiment suggest that spreading resources quite thinly in an attempt to cover a large urban caseload may undercut the chance for any program impact on earnings. The West Virginia program, implemented in a rural setting with very high unemployment, was designed to involve enrollees in unpaid public sector or nonprofit work positions for as long as they remained on welfare. In this respect, the program was idiosyncratic: Increasing regular, unsubsidized employment was not the primary program goal, and this was the only program without a formal job search activity.

Findings for the selective-voluntary demonstrations are consistent with the broad-coverage results. The least expensive of the four selective-voluntary demonstrations (New Jersey) had costs and earnings impacts similar to those of the most expensive broad-coverage programs. And the greater per-experimental costs for the other three selective-voluntary demonstrations produced still greater per-experimental earnings impacts. The simple correlation coefficient between net cost and net earnings impact for all 13 experiments is +0.72.

Cost-Effectiveness for Earnings Impacts

Dividing each impact estimate by the corresponding net cost figure gives an estimate of cost-effectiveness, the second measure of program effectiveness. Programs with larger impact/cost ratios would tend to yield a larger aggregate impact for a given, limited program budget, other things being equal.

Although the higher-cost programs appeared to produce larger average earnings impacts per experimental, the second measure of effectiveness suggests that intensive services may be subject to decreasing returns. For programs with the greatest cost (Supported Work, Homemaker-Home Health Aide, and Maine), the earnings impact/cost ratios were at, or substantially below, 50 cents on the dollar. Ratios for the middle-cost programs (Virginia, San Diego I, Baltimore, SWIM, and New Jersey) were between 50 and 75 cents on the dollar. Ratios for three low-cost programs (both Louisvilles and Arkansas) were above two dollars; and even if these are combined with the poor earnings results for Cook County and West Virginia, the ratio for low-cost programs is greater than one to one.

Welfare Reductions and Taxpayer Savings

Along with increased earnings, the other usual objective of welfare-to-work policy is reduced welfare receipt. Judging from the results of the experiments, there is a weaker relationship between net costs and net AFDC savings than between net costs and earnings increases. The simple correlation coefficient between average welfare reduction per experimental and net cost per experimental is only +0.47 for the broad-coverage experiments and the same value for all experiments. This weaker relationship stems in part from the finding that earnings increases were not consistently reflected in welfare reductions. For example, the Baltimore and Maine programs, which produced some of the largest earnings impacts per experimental, had virtually no welfare savings. A number of explanations for the observed earnings/AFDC impact patterns have been put forward (Friedlander and Gueron, 1990).

This brings us to the third measure of program effectiveness: taxpayer savings. Each of the studies estimated the fiscal benefit to taxpayers as the present value of reductions in AFDC payments (and Food Stamps and Medicaid), reductions in other social services, and increases in taxes paid on earnings, less the net cost of the welfare-to-work program. Inspection of these results indicates that the most costly (selective-voluntary) services produced returns for taxpayers less consistently than did low- to moderate-cost broad-coverage approaches and, when they did, required a much longer payback period to recoup the initial investment in training.

Household Income and Poverty

Improvement of family well-being is the fourth measure of effectiveness and the most complex to analyze. The effect of employment and training services on household income depends, in part, on the rules that govern reduction of AFDC payments as earnings increase. In addition, work by a single parent creates new expenses, such as child care, and may entail psychic costs (e.g., increased family stress) or psychic benefits (e.g., increased self-confidence and self-esteem). Effects on family income also depend on the interaction between the primary program impact and potential secondary impacts on the formation of stable two-parent family units. More broadly, effects on income are conditioned by child support enforcement, subsidies such as the Earned Income Tax Credit, and other social policies.

We can simplify matters considerably, however, if we adopt the viewpoint of many advocates and define one objective for welfare-to-work programs as increasing the employment of welfare recipients in "better" jobs, meaning jobs with hourly wage rates above those typical for this population and with weekly hours and stability sufficient to produce annual earnings above a certain target level. Unfortunately, evidence on job quality from the experiments is incomplete: Funding limitations ruled out the use of follow-up surveys to obtain wage rates and other job characteristics in all but the National Supported Work Demonstration and the Homemaker-Home Health Aide Demonstrations. Only the amounts of earnings and AFDC payments, collected from automated administrative records, were available as outcome measures in the other research projects.

The evidence from the National Supported Work Demonstration is probably the most complete. The survey evidence there indicates that wage rates and hours of work did increase for that program and accounted for 42 and 18 percent, respectively, of the total long-term increase in earnings (Masters, 1981). The dollar amount of the wage increase was not large, however, and there was only a modest reduction (not statistically significant) in the percent of families living below the poverty line (Manpower Demonstration Research Corporation, 1980). Less-detailed evidence from the other studies supports the conclusion that program success in moving enrollees out of poverty through their own earnings was not great, especially for the low-cost programs.

Coordinating Coverage and Targeting

The experience of local programs over the past 25 years indicates that no states will have the resources to provide high-cost services to all program enrollees who might need or want them. Thus, most local administrators will see themselves as having to choose between two options: (1) covering the caseload as broadly as possible using only low-cost services and (2) targeting a narrowly defined group with higher-cost services and leaving the bulk of the caseload unserved.

Value judgments will strongly condition the choice. Administrators who advocate a general program participation obligation as a precondition for AFDC receipt, who view job entry (even at low wages) as a positive outcome, and who emphasize the importance of cost savings, or at least fiscal neutrality, will lean towards the first option. Those who see welfare-to-work programs primarily as a tool for helping families out of poverty will lean towards the second option, relying on education and training as a route to higher-wage, more stable jobs that will increase living standards.

There may, however, exist a third option: a *mixed strategy* of coordinating broad and narrow approaches within a single service delivery system. Under this strategy, more intensive services, such as remedial and basic skills education, are reserved for *the most disadvantaged* enrollees in an effort to raise their low earning power above a minimum threshold required for a shift from welfare to work. For these disadvantaged groups, low-cost services have not been consistently successful (Friedlander, 1988). Careful targeting of higher-cost activities on long-term and potential long-term welfare recipients may be the only affordable method of reaching significant numbers of these individuals with such services within the constraints of tight program budgets. The mixed strategy combines this targeted use of higher-cost activities with the use of low-cost activities to cover a larger, more readily employable share of the program-eligible population. Implicit in the third option is the notion of a trade-off, suggested but not proved by the research, between maximizing aggregate earnings gains and welfare savings through low-cost coverage and increasing the living standards of a relatively small number of disadvantaged welfare recipients through higher-cost targeting.

A few variants of this coordinated mixed strategy appear feasible. For example, some localities "route" enrollees into a low- or higher-cost set of activities as they enter a program, based on background characteristics or a staff assessment. Other localities have tried a low-cost job search "filter" as the first assigned activity for enrollees, reserving higher-cost services for whoever completes this initial activity and is still on welfare and without a job.

Future Research

Efficient integration of higher-cost services into the welfare-to-work programs of the 1990s will present difficult challenges to administrators. The challenge for future experimental field research will be to answer these questions: Can investment in higher-cost education and training services, particularly for the most disadvantaged, prove effective enough to justify the increased outlays? How should such services be organized and targeted? Are higher rates of participation, particularly when achieved by an obligation to participate, associated with greater effectiveness? To provide more conclusive answers to these questions, several field experiments now under way or being planned are focusing on broad-coverage programs that assign significant numbers of enrollees from the key subgroups to the higher-cost services of interest.

Acknowledgments

This paper was inspired in large part by discussions with Dr. Judith M. Gueron and draws heavily on work done jointly with her. I am grateful to the Ford Foundation for supporting the preparation of this paper; its findings and conclusions do not necessarily represent the official positions or policies of the funder.

References

Friedlander, Daniel. *Subgroup Impacts and Performance Indicators for Selected Welfare Employment Programs*. New York: Manpower Demonstration Research Corporation, 1988.

Friedlander, Daniel, and Judith M. Gueron. "Are High-Cost Services More Effective Than Low-Cost Services? Evidence from Experimental Evaluations of Welfare-to-Work Programs." Paper presented at a conference on "Evaluation Design for Welfare and Training Programs," sponsored by the Institute for Research on Poverty of the University of Wisconsin-Madison and the Office of the Assistant Secretary for Planning and Evaluation of the U.S. Department of Health and Human Services, Airlie, Virginia, April 19-21, 1990.

Gueron, Judith M., and Edward Pauly. *The Effects of Welfare-to-Work Programs: A Synthesis of Recent Experimental Research*. Publisher not announced at this time, 1991.

Masters, Stanley. "The Effects of Supported Work on the Earnings and Transfer Payments of Its AFDC Target Group." *Journal of Human Resources*, 16 (Fall 1981), pp. 600-36.

Manpower Demonstration Research Corporation. *Summary and Findings of the National Supported Work Demonstration*. Cambridge, MA: Ballinger, 1980.

Role of the Federal Government in Training America's Workers

VICTOR J. TRUNZO
U.S. Department of Labor

Training as a Determinant of International Competitiveness

Classical economic theorists believed that a nation's competitiveness was based primarily on its relative endowment with the factors of production—land, labor, and capital. A basic underlying premise, factor immobility, was challenged by the massive influx of labor and capital from Europe experienced by the U.S. in the 19th century. As a result of this foreign investment, the U.S. entered an era of economic growth that continued until the 1970s. Then, the nation experienced mounting merchandise trade deficits that peaked in 1987 at $171 billion.

If the mobility of the traditional factors of production preclude them from consideration, what caused this apparent erosion in U.S. global competitiveness? Michael Porter has concluded that, "The only meaningful concept of competitiveness at the national level is national productivity" (Porter, 1990). Productivity of the U.S. workforce had been growing at about three percent a year in the 1960s and 1970s. By the end of the 1980s, productivity growth slowed to one percent; while, in Japan, productivity expanded by six percent in the 1980s, and in the Newly Industrialized Countries (NICs), growth was about ten percent.

Productivity enhancement depends on research and capital equipment spending, utilization of productive capacity, and energy costs; but, clearly, the education and training of the workforce is pivotal. The U.S. can only remain competitive through the participation of highly educated and highly skilled workers (BLS, 1990). Thus, human capital in the form of the skills level of the workforce may be the "factor of production" that determines national competitiveness in the global economy of the 1990s and beyond.

Author's Address: USDL, Room N4649, 200 Constitution Avenue NW, Washington, D.C. 20210.

Workforce Training in Other Countries

Other industrialized countries, including Germany, Japan, Sweden, and Denmark, have a stronger national commitment to worker training than the U.S. Workforce quality has been an important national priority in these nations for many years. Their employment and training systems feature high academic expectations for all students; school-to-work transition programs that provide solid, recognized occupational skills; front-line worker skills that are highly valued; and agreement by government, business, and the general society on the need to promote adoption of high performance work organizations.

In Germany, two-thirds of the workforce has completed an apprenticeship program which is financed jointly by public and private investments. The Federal and Lander (State) governments also supply substantial incentives to firms for worker training. The Lander usually provides the formal schooling component of the apprenticeship program at no cost to the employers. The Federal government also picks up half the cost of special training centers set up by trade associations to provide apprenticeship and other training for the workers of small businesses (Pelavin, 1990).

In Japan, central government involvement in training is less intense, limited to some subsidies provided by the Ministry of Labor to firms and industries with approved skill development plans. The Prefectures, or local governments, subsidize vocational colleges, skill development and training centers, and testing and certification programs. The hiring firms then provide the specific job-related skills. Because of their strong bias toward employment for life, Japanese employers tend to place a greater emphasis on the student's academic performance as an evaluative factor in hiring.

After finishing compulsory education at age 15 or 16, the majority of students in Sweden and Denmark enter a two- to four-year professional program to prepare them for working life. Unlike Germany, most of the instruction occurs in the school, but students also receive some workplace training (Pelavin, 1990). The four countries maintain comprehensive, well-funded public labor market systems to assist adult workers in finding training and employment. The services are carefully integrated, providing a 'one stop shop' for training and employment needs (Skills Commission, 1990).

Workforce Training Under State-Run Programs

In the U.S., the states are more active in encouraging and funding upgrade training for employed workers than the federal sector. Forty-six states operate upgrade training programs for employed workers, with total fiscal 1989 funding of about $316 million. Expenditure per employed worker ranged from $7.88 in Wisconsin to $.08 in Louisiana (Pelavin, 1990). Most of the programs are aimed at attracting new industries and firms to the states. However, recently there has been a movement toward funding customized training programs for upgrading the skills of existing workers to retain firms and industries in the state. This movement is driven by the recognition that the prevention of dislocation is more cost effective than dealing with its consequences.

Several states, including Maryland, Pennsylvania, California, and Michigan, are developing comprehensive employment and training systems. For example, the Michigan Human Investment System was developed under the assumptions that such a system should be customer-driven, emphasize shared responsibility of the stakeholders, empower individuals to invest in themselves, be user-friendly, and be accountable. The Michigan Modernization Service (MMS) is a state-funded and state-managed consulting organization designed to assist manufacturing firms. Its mission is to help strengthen the competitive position and growth potential of Michigan's small- and medium-sized manufacturers. Services are provided at no cost to the firm and include market analysis, deployment of technology, and workforce development. The MMS is funded at more than $4 million annually by Michigan's Department of Commerce.

The California Employment and Training Panel provides upgrade training to workers of small firms through grants to training consortia including community colleges, training agencies, or trade associations. Between July 1987 and April 1989, the Panel supported 32 consortia to train 4,032 individuals for about 700 small businesses. The Individual Training Assistance Program (ITAP), operated by the Illinois Prairie State 2000 Authority, provides individuals with training vouchers, redeemable at certified providers such as community colleges and other institutions, for up to $1,000 in retraining over a one-year period.

Workforce Training Under Private Sector Programs

Several large corporations, like IBM and Motorola, have a strong commitment to providing comprehensive and extensive in-house training to their employees. Last December, Motorola formed Motorola University, which has responsibility for designing and implementing a plan to provide each of the firm's 104,000 employees with a minimum of 40 hours of training per year. Motorola's training investment is equivalent to more than 2.4 percent of its payroll (Carnevale, 1990).

Unfortunately, Motorola and IBM are exceptions to the prevailing U.S. attitude toward training investment. Employers spend only around $30 billion, or about one percent of payroll, annually on formalized training. According to the American Society for Training and Development, $27 billion of the $30 billion is spent by 15,000 employers, or one-and-one-half percent of U.S. firms. Only 100 to 200 firms spend more than two percent of their payroll on training. Remarkably, only eight percent of production workers receive formalized training (Skills Commission, 1990).

What is the Appropriate Federal Role in Training U.S. Workers?

The federal government has traditionally funded "second-chance" training for dislocated workers and training targeted specifically to disadvantaged youth. However, national policymakers are coming to recognize that the federal sector has a vital stake in the upgrade training of employed workers. Unless U.S. firms act decisively to upgrade the skill level of the American workforce, high-skilled, high-paying jobs will flow from this country to nations with better-trained workers. The Commission on the Skills of the American Workforce summed up America's choice quite clearly: High skills or low wages!

If more federal involvement in upgrade training is appropriate, what form should that involvement take? The options include the traditional remedies: direct expenditure on training in the form of grants; tax deductions or tax credits to encourage training investment; mandating training by regulations; tax incentives and subsidies for individuals; and training subsidies for firms. A non-traditional approach would be for the federal government to act as a catalyst to encourage training investment, rather than mandate or regulate.

A tax policy option is the "obligation to spend" program used in France. Each employer would be faced with a specified level of training expenditure (1.2 percent of payroll in France). If the firm does not spend this full amount on training, the remainder is due as a tax payment (Pelavin, 1990). Australia has recently enacted a training incentive program in which the firm can take advantage of the tax incentive only if the training is certified by the nation's Ministry of Labor.

The federal government could also consider a tax credit program for targeted training dealing with an identified gap in the training of U.S. workers. Mississippi, for example, offers employers a 25 percent tax credit against their state income tax liability for basic skill training (Pelavin, 1990).

From a federal training policy perspective, programs offering tax credit to individual firms may be too rigid to allow for the development of a truly efficient and responsive national training system. For small- and medium-sized employers, an approach in which each firm individually furnishes its workers with basic or upgrade training may not be an efficient allocation of training resources. The development of industry-specific training consortia may emerge as the most viable solution to the nation's training needs. Individual firm credits could have the effect of discouraging cooperative approaches to upgrading the skills level of the American workforce.

Another option is to establish and enforce a level of "minimum training" for each worker in the same sense that the government enforces a "minimum wage." This approach would encounter difficulty in defining a "minimum training" level of training, and require the creation of a bureaucracy to enforce the regulations.

Federal action to encourage training could target individuals rather than firms by providing loans and grants directly to individuals to cover tuition, books, and other expenses incurred in the pursuit of upgrade training. Tax incentives allowing the deduction of training expenses from taxable income could be made more generous. Individual Training Accounts (ITAs), in which individuals would be allowed to accumulate savings on tax-deferred or tax-exempt basis as is done with Individual Retirement Accounts (IRAs), could be established. These savings would be withdrawn by the workers to cover the costs of retraining.

Department of Labor Initiatives to Improve Workforce Quality

In response to the impending workforce crisis described in Workforce 2000, DOL developed and launched a seven-point initiative designed to improve the quality of the American workforce: (1) Defining the skills needed in the workplace; (2) Assisting youth in the transition to work; (3) Enhancing the skills of employed workers; (4) Intensifying efforts to utilize available workers; (5) Increasing labor market efficiency; (6) Recognizing exemplary practices; and (7) Increasing volunteer efforts.

The Office of Work-Based Learning (OWBL) was established within the Department's Employment and Training Administration (ETA) in January 1990 to coordinate activities related to the expansion of work-based learning in the workplace.

Improving the quality of the American workforce requires, as an essential first step, the development of guidelines or standards by which to measure workforce quality. Implementation of the concept that schools should graduate students who possess the basic skills needed for successful performance in the workplace of the 1990s requires that such skills first be identified and then be widely disseminated among those in a position to effect change.

Not surprisingly, one of the first actions taken under the initiative was the formation of the Secretary's Commission on Achieving Necessary Skills (SCANS). Created on February 20, 1990, SCANS is intended to identify generic workplace abilities that all high school graduates need if they expect to find meaningful employment. The Commission consists of 30 distinguished leaders; 13 from the business sector, 6 from labor, and 11 from state government and education.

SCANS has been conducting research and discussions, laying the groundwork for the achievement of the Commission's fourfold charge: Recommend the skills required by high school graduates to achieve work readiness; suggest the most effective ways to measure individuals' abilities; propose acceptable levels of proficiency; and develop options for dissemination of skills guidelines and measurement techniques. The Commission plans to issue an interim report in May 1991. The final report will be published in February 1992.

The nature and extent of the school-to-work transition problem is partially reflected in the fact that the teenage unemployment rate is more than triple the national average. For black teenagers, unemployment is six times the national average for all workers (BLS, 1990). In addition to the school-leavers who become unemployed, there are countless others who obtain jobs that do not offer a meaningful career path. The unemployment and underemployment problems are worse for dropouts.

The Departments of Labor and Education co-sponsored a May 1990 national conference on the school-to-work transition problem in Washington, DC. The 165 participants included educators, business and labor leaders, federal and state officials, and other experts in the education and training field. In addition to hearing presentations by individuals who have made significant contributions in the work transition area, the attenders formed working groups to discuss and analyze the problem. The results of the conference, including these discussions, have been used by DOL to develop the subsequent phases of the initiative.

In September 1990, DOL awarded two-year grants to six organizations for projects designed to explore and evaluate various innovative approaches for assisting youth in entering the workforce. DOL's contribution of $3.2 million is being leveraged into a $10.5 million effort because cost-sharing was one of the criteria used in evaluating the projects. Other organizations contributed $7.3 million to the effort. The effectiveness of the programs will be monitored and evaluated. DOL plans to disseminate information on successful program models to state governments, local communities, business leaders, and other interested parties.

The projects feature the inclusion of work-based learning within the educational program of the participants and redesign of the high school curriculum to complement that training. The efforts are being undertaken by collaborations involving federal and state government, businesses, and the school districts. DOL has assumed the role of a catalyst and influencer under the assumption that real, constructive change must originate at the local or state level. In 1991, DOL plans to provide seed money for a second round of school-to-work demonstration projects to explore variations on the types of partnerships, the industries involved, and program design.

Also in 1991, DOL plans to develop a network for coordinating school-to-work activities across the broad spectrum of organizations and agencies concerned with this issue and for disseminating information down to the state and local levels. The role of DOL will be a facilitator and influencer in the formation and operation of this umbrella coalition of organizations and agencies. DOL is working on a white paper which will guide state and local officials, businesses, schools, and others in developing local programs.

The Department is funding research and demonstration projects designed to examine options to increase private sector investment in skills training. The training-productivity-prosperity linkage compels us as a nation to be vitally concerned with the amount and quality of training provided to the U.S. workforce. The issue facing DOL and the nation is how to most effectively raise both the quantity and quality of training supplied by American firms. DOL is looking at incentives, payroll taxes, and other programs operated both by states and other countries.

Demonstration projects have been funded to test various approaches for promoting the development and proliferation of upgrade training programs in private sector firms. In the summer of 1989, grants totalling $1.8 million were awarded to three organizations to develop demonstration programs incorporating work-based learning as a method for training employed workers. The grants are designed to explore ways of expanding the apprenticeship concept of training beyond the scope of the traditional U.S. apprenticeship program into new industries and occupational categories.

An Advisory Commission on Work-Based Learning has been formed to advise DOL on the development of a national strategy for the advancement of work-based learning as a training technique for upgrading the skills of the workforce. The Commission consists of business representatives, labor leaders, and influential individuals from the worlds of education and non-profit organizations. Its primary mission is to explore the feasibility of developing a voluntary national system for accrediting industrywide training programs. This system would represent an expansion of the apprentice concept beyond the construction trades where it has been proven to be a successful training method. The Advisory Commission will also attempt to develop a means of providing individuals who complete the training programs with portable credentials reflecting the level of skills attained.

The Bureau of Labor Statistics and ETA are considering the establishment of an annual survey designed to obtain additional information on employer-provided training. The survey would identify gaps in access to training by industry, occupation, and type of establishment. Three basic questions would be answered by the survey: How much training is provided by employers? How much are firms spending on training? What is training's impact on workers, firms, and society? The survey could help fill the information gap by allowing users to establish trends and explore the links between training investment and outcomes as measured by wages, unemployment rates, productivity, and company profitability.

A research project planned to start in 1991 will analyze the training needs implicit in the transformation of work organizations from low-performance to high-performance. Front-line workers moving from routine, limited-responsibility jobs to empowered positions in high-performance organizations will need to acquire new types of skills. The DOL study will identify these skills and the recommendation training programs to instill them in workers.

Also in 1991, DOL plans a Workforce Development and Technology Resource Center to provide computer-based information processing support for the workforce initiates. Its primary mission will be to improve the ability of ETA staff and others to effectively access and utilize information on issues associated with workforce training including literacy, basic skills development, and the application of technology to the workplace.

References

Bureau of Labor Statistics. "Employment and Earnings." November 1990.

Bureau of Labor Statistics. "Outlook 2000." Fall 1989.

Carnevale, Ellen S. "Motorola Sets the Benchmark for Training." Technical & Skills Training, October 1990.

Commission on the Skills of the American Workforce. "America's Choice: High Skills or Low Wages!" National Center on Education and the Economy, June 1990.

Pelavin Associates, Inc. "Upgrade Training for Employed Workers." Report prepared for the U.S. Department of Labor, August 1990.

Porter, Michael E. "The Competitive Advantage of Nations." Park Avenue Press, 1990.

Internal Labor Markets and General Training

BERNARD ELBAUM
University of California

According to standard economic theory, the profit-maximizing firm should be unwilling to invest in providing workers with skills that are transferable to other enterprises. The firm, lest it prove unable to recoup its investment, should leave workers themselves to pay for training of general applicability.

A significant qualification for the theory is necessary, however. Workers may be constrained from investing in their own training. The potential constraints include limited access to finance, the riskiness of training investment and the inability to diversify one's own human capital or insure it against loss in value, informational asymmetries regarding the market value of job training that is not subject to formal certification, and rigidities in pay structure that block workers from paying for training by accepting a lower wage (Kodde and Ritzen, 1985; Parsons, forthcoming; Kodde, 1986; Ritzen, 1989; Spence, 1981; Ryan, 1984).

Provided labor is imperfectly mobile, enterprise investment in general training may then offer attractive returns. In fact, firms often finance such investments.

General training by firms suggests some need to modify our understanding of the economic rationale of internal labor markets. According to the standard story, internal labor markets find their main economic justification by providing human capital that is specific to the enterprise, in the form of on-the-job training, search and screening costs, or matches between workers and employers (Wachter and Wright, 1990). But internal labor markets may have another rationale just as, or more, important than such "match-specific" human capital. They may serve as a device for tying workers to the firm so as to facilitate enterprise investment in general training.

Author's Address: Economics Department, Crown College, University of California, Santa Cruz, CA 95064.

Evidence of general training by firms also suggests some need to assess the overall adequacy of training provision. If workers are constrained from investing in their own training, firms too are constrained by the possibility of labor mobility. Since labor mobility is considerably greater in the United States than in other advanced economies, market incentives for general training provision may elicit a response from U.S. firms that is relatively limited.

Finally, to the extent that there is a training gap that firms are constrained from filling, there are good economic grounds for public intervention. Government measures could either aim to encourage additional training directly, or could aim, more indirectly, to promote greater employment stability and longer terms of attachment between workers and enterprises.

The Evidence

There is a growing body of historical, case study, and statistical evidence which suggests that firms often pay for general training. The historical evidence suggests as well that internal labor markets and apprenticeship institutions have served employers as alternative devices for increasing the economic feasibility of financing investments in general human capital.

The History of Apprenticeship and Internal Labor Markets

In Japan the origins of internal labor markets date back to the early twentieth century, when they were established in a few advanced firms for skilled and white-collar employees. Leading Japanese firms were then very much concerned about the mobility, scarcity, and bargaining power of workers with general skills. They introduced extensive in-house training programs with the particular aim of replacing those run for apprentices by independent master artisans, or *oyakata*, who were highly mobile between firms and often unionized. Firm training programs were also a response to the limited capacity of existing education and training arrangements to meet steeply increasing demand, at the outset of industrialization, for new, as well as established, varieties of human capital. In the 1920s internal labor markets for skilled and white-collar workers spread throughout large-scale industry in Japan, spurred by severe scarcity and high mobility of skilled workers during W.W.I. Larger firms established in-house training schools in order to produce their own "key workers," and attempted to tie workers to the firm by offering "permanent employment" as well as supplementary compensation based on tenure within the enterprise (Okayama, 1983; Jacoby, 1979; Dore, 1973).

In Great Britain during the nineteenth and early twentieth century, apprenticeship arrangements served as a means by which youths exchanged indentured labor services in return for employer investments in general training. The vast majority of youths honored their indenture obligations mainly because it was difficult to obtain employment as a journeyman without skill certification. In Britain, it should be noted, the firm that provided the apprenticeship training was often not the firm that eventually provided skilled employment. Apprenticeship training was disproportionately provided by small firms, while large enterprises trained relatively few of the artisans they employed (Elbaum, 1989).

Although British apprenticeship practices were transplanted into colonial America, U.S. training arrangements wound up taking a different form. By the late nineteenth century apprenticeship had largely broken down within the external U.S. labor market. United States firms had yet to adopt the bureaucratic rules characteristic of today's internal labor markets, but they did already fill a substantial percentage of skilled jobs through internal promotion (Sundstrom, 1988). A number of larger U.S. firms also maintained their own in-house apprenticeship programs for the recruitment, as well as training, of skilled workers. In the early years of these programs firms expressed concern about losing their investments in training, and often took special measures to try to reduce worker mobility, requiring bonds at the outset of apprenticeship that were refundable upon completion, or otherwise paying completion bonuses (Elbaum, 1989).

Contemporary Case Study Evidence

In more recent years there have been continuing signs of problems with the training of skilled craftsmen in the U.S. In construction, large nonunion firms have developed their own in-house programs to train workers in skills taken from several crafts, with the deliberate intention of limiting worker mobility by bundling the various skill components together in a way that was specific to the enterprise (Bourden and Levitt, 1980, p. 76).

A local labor market study of the training of welders in shipbuilding found that rigidities in union pay structure blocked worker financing of investments in general training. As a result firms were led to bear training investments themselves, which in light of worker mobility involved a substantial cost burden (Ryan, 1984).

In research-intensive sectors, case study evidence suggests that firms initially invest in training workers for new sorts of job skills. As the technology becomes more widely adopted and equipment standardized, skills become more transferable. Firms then seek to shift training out of the workplace and into the schools, where the government or students will pay for it. Examples of this sort of technology-cycle in job training include computer programming, keypunching, word processing, and the set-up and operation of numerical control equipment (Flynn, 1988).

International comparison suggests a broadly prevailing contrast between the contemporary Japanese and U.S. labor markets. In Japan, within the context of the *nenko* system, labor mobility poses relatively little constraint on firm investment activity. In the U.S., firms more rarely enjoy such freedom from competitive constraint. In the U.S. insulation from competitive pressure is liable to be of a comparable sort only where job skills are industry-specific and internal promotion rules prevail throughout the particular industry. Such industrywide adherence to internal promotion rules may be enforced by union contracts or by implicit cooperation among a few dominant firms (Elbaum, 1984).

Statistical Evidence

Market underprovision of training should show up in high rates of return to training investments. Caution must be exercised, however, in using existing rate of return estimates as a guide to market scarcity conditions, as they are usually not based on any direct measure of the cost of on-the-job training or its incidence.[1] Of the various possible sources of underinvestment in training, only the minimum wage has been subject to econometric scrutiny, with conflicting findings (Brown, 1989).

The issue of who pays for training is addressed by relatively recent econometric literature, summarized in Table 1 below. The studies are limited both in number and in the data sets they analyze. All confront significant difficulties in discerning empirically the incidence of training costs and in distinguishing general from specific training. For these various reasons, the current econometric evidence must be regarded as suggestive rather than definitive.

There are two main sorts of econometric findings. Several studies report that workers who receive training paid for by the employer make no apparent sacrifice in wage earnings.

TABLE 1

Econometric Evidence on Who Pays for Training

Author	Data Set	Principal finding
Barron, Black & Lowenstein (1989)	Employment Opportunity Pilot Project (EEOP) Survey (1982)	No relation between starting wage and amount of subsequent training.
Bishop & Kang (1990)	EEOP Survey (1982)	Productivity increases much faster than the wage in the initial two years of employment.
Feuer, Glick, Desai (1987)	Bureau of the Census 1972-78 National Survey of Natural and Social Scientists and Engineers	1971 wages were no lower for individuals who report that employers paid for subsequent general training.
Holzer, Harry (1990)	EEOP Survey (1982)	Productivity increases faster than the wage during initial two years of employment.
Levine, David (1990)	1982 Surveys of manufacturing establishments in Indianapolis and in Atsugi region in Japan	No relation between starting wage and training opportunities at firm.
Parsons, Donald (1985)	National Longitudinal Sample 1979 cohort of young men	No relation between starting wage and amount of subsequent on-the-job learning.

From the standpoint of the standard human capital model, it is possible to interpret this sort of finding as being due to unobserved differences in worker ability and productivity. More able workers may be paid less than their marginal product, and as recompense receive training that is paid for by their employer. The study by Parsons (1989), however, finds no relation between starting pay and training even though it includes as a measure of worker ability the extensive aptitude and achievement information in the Armed Services Vocation Aptitude Battery.

The other principal finding in the econometrics literature is that, at least in certain employment situations, pay goes up less rapidly than worker productivity. This suggests that workers tend to be paid more than their marginal product upon job entry and less than their marginal product subsequently. The studies by Bishop and Kang (1990) and by Holzer (1990), that report this finding, both draw from a data set that is limited to new hires and that overrepresents small and low-wage establishments. These studies suggest that even small firms make substantial investments in training and do so even for workforce groups with high prospective rates of labor mobility. Bishop and Kang find a discrepancy between pay and productivity growth that holds when training is almost entirely general, and that is too large to be explained by specific training alone.

Conclusions

For some two centuries the U.S. has been a nation of marked geographic and job mobility with a rate of labor turnover which far exceeds that of other advanced economies. Some analysts have seen in the greater flux of the U.S. labor market a healthy responsiveness and flexibility to economic conditions.

But labor market flux may have significant costs as well as benefits. Recently, intensified international competition, particularly from Japan, has spurred growing concern over the adequacy of job training provision in the U.S. The evidence on general training suggests that there may be justification for such concern and reason for renewed consideration of remedial public policies.

Acknowledgments

Research for this paper is part of a larger project supported by the U.S. Department of Labor, Office of Work-Based Learning. I am grateful to David Levine and David Stern for helping to guide me to relevant literature and to Peter Doeringer, Paul Osterman, and the editor of this journal for useful comments.

Endnote

[1] Only a few data sets contain any information that directly bears on training costs; the principal information they report is the hours spent by individuals in training. Using such data, Mincer (1989) calculates rates of return by assuming that workers bear investment costs equal to the wage times hours spent in training and earn returns in the form of higher subsequent wage earnings. His estimates suggest returns to on-the-job training that on the whole exceed the rates usually found for schooling investments. But the estimates rest on questionable assumptions regarding the incidence of training costs.

References

Barron, John M., Dan A. Black, and Mark A. Loewenstein. "Job Matching and On-the-Job Training." *Journal of Labor Economics* 7 (1989), pp. 1-19.

Bishop, John H., and Suk Kang. "Why Are Wage Profiles So Flat During the First Year on a Job?" Cornell University, New York State School of Industrial and Labor Relations, Center for Advanced Human Resource Studies Working Paper No. 89-18, March 1990.

Bourden, Clinton C., and Raymond E. Levitt. *Union and Open Shop Construction.* Lexington, MA: D. C. Heath and Company, 1980.

Brown, Charles. "Empirical Evidence on Private Training." In *Investing in People: A Strategy to Address America's Workforce Crisis, Background Papers.* Vol. 1. U.S. Department of Labor, Commission on Workforce Quality and Labor Market Efficiency, 1989.

Dore, Ronald. *British Factory, Japanese Factory.* London: George Allen and Unwin, 1973.

Elbaum, Bernard. "Why Did Apprenticeship Persist in Britain But Not in the United States?" *Journal of Economic History* 49 (June 1989), pp. 337-49.
Elbaum, Bernard. "The Making and Shaping of Job and Pay Structures in the Iron and Steel Industry." In *Internal Labor Markets*, ed. Paul Osterman. Cambridge, MA: MIT Press, 1984.
Feuer, M., H. Glick, and A. Desai. "Is Firm-Sponsored Education Viable?" *Journal of Economic Behavior and Organization* 8 (1987), pp. 121-36.
Flynn, Patricia M. *Facilitating Technological Change*. Cambridge, MA: Ballinger, 1988.
Holzer, Harry. "The Determinants of Employee Productivity and Earnings." *Industrial Relations* 29 (Fall 1990), pp. 403-22.
Jacoby, Sanford. "The Origins of Internal Labor Markets in Japan." *Industrial Relations* 18 (Spring 1979), pp. 184-96.
Kodde, David A. "Uncertainty and the Demand for Education." *Review of Economics and Statistics* 68 (August 1986), pp. 460-67.
Kodde, David A., and Josef M. M. Ritzen. "The Demand for Education Under Capital Market Imperfections." *European Economic Review* 18 (1985), pp. 347-62.
Levine, David. "Worth Waiting For: Tests of Human Capital Theory." University of California, Berkeley, Center for Research in Management Working Paper, Nov. 1990.
Mincer, Jacob. "Job Training: Costs, Returns, and Wage Profiles." National Bureau of Economic Research Working Paper 3208, 1989.
Okayama, Reiko. "Japanese Employer Labor Policy: The Heavy Engineering Industry in 1900-1930." In *Managerial Strategies and Industrial Relations*, eds. Howard F. Gospel and Craig R. Littler. London: Heinemann, 1983.
Parsons, Donald. "On-the-Job Learning and Wage Growth." Draft. Economics Department, Ohio State University, 1989.
Parsons, Donald. "The Firm's Decision to Train." *Research in Labor Economics*. 11, JAI Press, forthcoming.
Ritzen, Joseph M. M. "Market Failure for General Training and Remedies." Paper prepared for the Robert M. LaFollete Symposium on Market Failure for Training, May 11-12, 1989.
Ryan, Paul. "Job Training, Employment Practices, and the Large Enterprise: The Case of Costly Transferable Skills." In *Internal Labor Markets*, ed. Paul Osterman. Cambridge, MA: MIT Press, 1984.
Spence, Michael. "Signaling, Screening, and Information." In *Studies in Labor Markets*, ed. Sherwin Rosen. University of Chicago Press for the National Bureau of Economic Research, 1981.
Sundstrom, William. "Internal Labor Markets Before W.W.I: On-the-Job Training and Employee Promotion." *Explorations in Economic History* 25 (Oct. 1988).
Wachter, Michael L., and Randall D. Wright. "The Economics of Internal Labor Markets." *Industrial Relations* 29 (Spring 1990), pp. 240-62.

XIV. ALTERNATIVE APPROACHES TO EMPLOYEE PARTICIPATION: IMPLICATIONS AND EFFECTS

Employee Ownership: An Overview of Its Growing Incidence Around the World

AVNER BEN-NER
University of Minnesota

DEREK JONES
Hamilton College

This paper presents summary information on the growing scope and nature of diverse forms of employee ownership around the world. After defining employee ownership in terms of employee participation in returns and control, we overview the extent of different forms and degrees of employee ownership. Our survey of a large body of literature, as much as it identifies the scope and nature of employee ownership, points to the lacunas in empirical knowledge about the extent of employee ownership.

Definitions

In another study (Ben-Ner and Jones, 1991) we developed a conceptual framework for the analysis of employee ownership and its effects on organizational performance. The framework is based on the notion of ownership of an asset (or a company) as a bundle of rights (1) to enjoy financial or physical returns from the asset, and (2) to control the use of the asset. Employee ownership schemes can be distinguished according to variations in the ways in which employees exercise the rights to returns and control, the restrictions applied to the

---

Ben-Ner's Address: IR Center, 537 Management and Economics, University of Minnesota, 271 19th Avenue South, Minneapolis, MN 55455.

exercise of these rights, and the diverse ways in which these rights are combined.

Focusing first on *participation in economic returns*, we identify six of the most common schemes or plans (we exclude unionization from our discussion). As we show in Ben-Ner and Jones (1991), differences among some of these plans entail small or no differences in organizational performance. Employee ownership rights generally are greater in plans as we move down the list.

(A) Profit Sharing Plans (PSPs), whereby some employees share in profits;

(B) Gain Sharing Plans (GSPs), whereby rewards are both team-based and related to some success indicators other than profits (e.g., savings in labor costs);

(C) Employee Stock Ownership Plans (ESOPs), whereby employees are enabled to become individual owners of company stock;

(D) Asset Accumulation Plans (AAPs), whereby savings schemes allow employees to save part of their earnings in blocked individual accounts;

(E) Wage Earner Funds (WEFs), whereby company revenue is used to purchase equity for the benefit of (primarily) collective ownership by employees;

(F) Cooperatives and Employee Owned Firms (EOFs), whereby employees own collectively the entire (or a share of the) company in which they work.

A large number of schemes emphasize *participation in control.* Reducing the control variable to a single dimension, these schemes may be arranged from those that provide for minimal employee influence on how a company is run to those that entrust dominant control in workers' hands. The six most common schemes include:

(A) *Quality Circles*, whereby employees are required to participate in certain activities (traditionally, product quality control) in addition to their production functions;

(B) *Work Teams and Autonomous Work Groups*, whereby groups of employees make decisions about some parts of the production process;

(C) *Joint Consultation*, whereby employee representatives are consulted (but their opinion is not binding for management) on a wide range of issues;

(D) *Works Councils*, whereby decisions are made on certain production and employment variables, typically in negotiation with management;

(E) *Co-Determination*, whereby employees have near parity representation on the board of directors of the company; (F) *Labor-Managed Firms*, whereby employees enjoy dominant control.

Many employee ownership schemes combine *employee participation in both returns and control*; such combinations represent greater employee ownership rights than one right or the other alone.

Researchers and agencies that collect information about employee ownership do not have a commonly accepted classification scheme of employee ownership. The 12 plans identified above are often lumped together; furthermore, it is rare that both return and control rights are documented in the same survey.[1]

The Scope and Nature of Employee Ownership

We concentrate our survey on schemes concerning participation in returns for three pragmatic reasons. First, space restrictions. Second, the control dimension is better documented (see, for example, Szell, forthcoming). Third, change in employee ownership via participation in direct economic returns seems to have accelerated in recent years more than participation in control.

Each of the six main plans of employee participation in returns may be implemented differently in different places. For example, for PSPs, the profit share may be a cash- or a stock-based plan; rewards may be paid currently or be deferred; and participants may share in both profits and losses, or just in profits.[2] Similarly, ESOPs may vary along important matters such as: the existence of tax benefits to the company and the employee; the identity of employees that are eligible to participate; whether employee ownership is acquired through individual purchases or some pooling (e.g., a trust); the degree of liquidity for the employee's ownership stake; and the ability of individual employees to vote their stock (see Jones and Kato, 1990, for a comparison of U.S. and Japanese ESOPs). The performance attributes of different plans of employee ownership are likely to differ.

The difficulties in obtaining consistent and comprehensive data on employee ownership via participation in returns imply that our survey provides an imprecise picture (and probably an underestimate) of employee participation in returns. We report information about different types of employee ownership, orienting the survey towards geopolitical regions. We draw upon other valuable recent surveys, notably articles in Blinder (1990), Uvalic (1990), Perry and Kegley (1990), Rosen, Dorso, and Rothblatt (1990), as well as on our own work (e.g., Ben-Ner and Jones, 1991; Jones and Kato, 1990; Ben-Ner, 1988a; Jones and Pliskin, forthcoming; and Jones, 1991).

A. Profit Sharing Plans

In the U.S. reliance on PSPs appears to be growing and to vary positively with company size and unionization (Mitchell, Lewin, and Lawler, 1990; Smith, 1988). The Bureau of Labor Statistics (Department of Labor, 1981) surveyed major union contracts (with more than 1,000 workers) and found that in 1980 only 2 percent of firms covered by such contracts had PSPs. But a year later a survey found that 26 percent of firms with 50 or more workers had PSPs (Department of Labor, 1982). However, a 1984 study by Freund and Epstein (1984) found that only 8 percent of U.S. firms with 500 or more employees had PSPs. A study by Cheadle (1989), concentrating only on PSPs of a deferred type (linked to employee pensions), found that 24 percent of U.S. firms had a deferred PSP in 1981, while the American Productivity Centre (O'Dell and McAdams, 1987) found that 32 percent of firms had PSPs in the mid-1980s. As for the number of plans, Smith (1988) reported estimates by the Profit Sharing Research Foundation of more than 555,000 plans, almost doubling during 1977-1987.

In Canada, the growth in PSPs was also rapid: whereas in 1984 bonuses and profit sharing amounted to 1.7 percent of total payroll costs, this figure rose to 3.1 percent two years later (Current Industrial Relations Scene in Canada, 1988). However, much of this growth is explained by the growth of performance-based compensation plans targeted primarily towards executives. Thus in 1985, whereas for executives 24 percent of compensation typically was in the form of contingent incentives, for other managers the corresponding figure was 8.5 percent and for other employees only 4 percent.

Uvalic (1990) has assembled a considerable amount of information on participation in economic returns in the European Economic Community (EEC).[3] This study suggested that, while in some countries (Belgium, Spain, Portugal and Greece) profit sharing is only a marginal phenomenon, elsewhere it has assumed a significant presence. In both cash and deferred forms, profit sharing seems to be most common in France: whereas in 1971 there were only 219 cash-based profit sharing schemes (covering about 100,000 employees), by

1988 there were 4,600 known plans covering almost one million workers (Uvalic, 1990, pp. 82-93). The role of profit shares has increased in France during the 1980s from about 3 percent to 4.1 percent of average earnings. Most French firms that share profits with employees are small and tend to be concentrated in services, trade, and transport. As with other PSPs, the incidence of deferred profit sharing is greatest in France with about 4.5 million workers covered in over 12,000 companies in 1988. Under these plans the average employee receives an amount equal to about 3.5 percent of wages.

Spurred by various tax concessions, profit sharing has also grown rapidly in the U.K. Whereas in 1979 only 78 schemes of a deferred nature were recorded, by 1990 there were more than 7,000 such plans in operation covering more than 2 million employees (Perry and Kegley, 1990).

In other Western European countries outside the EEC, the limited data suggest that the phenomenon is not widespread (see Jones, 1991, for Sweden). This is apparently the case in Eastern Europe, too.

By contrast, in some Asian countries, in particular Japan, profit sharing is widespread (see, e.g., Hashimoto, 1979; Freeman and Weitzman, 1987). Cash bonuses equalling on average about 4 weeks pay (including overtime) are paid in twice yearly cash bonuses to most employees. In Korea profit shares in the form of cash bonuses have grown rapidly and now average about 2 weeks pay—roughly the ratio prevailing in Japan in the 1950s (Ito and Kang, 1989). The bonuses are paid in four installments and more than 60 percent of all manufacturing workers receive these payments.

While profit sharing seems to be quite rare in less developed countries, there are some important examples. Thus in rural industries in China, it seems that about 13 percent of firms used a compensation system in which bonuses or dividends supplemented fixed wages (Byrd and Lin, 1990, p. 244).

B. Gain Sharing Plans

GSPs appear to be most evident in North America. There are several forms of GSPs, with the main forms known as Rucker, Scanlon, and Improshare Plans (see Mitchell et al., 1990 for details). The 1987 survey by the American Productivity Centre (O'Dell and McAdams, 1987) found GSPs in 13 percent of firms; two years later the Hewitt Associates (1989) survey revealed that 16 percent of firms surveyed had GSPs. In both cases GSPs were found to be more prevalent in (1) manufacturing than in service industries, (2) larger than in smaller firms, and (3) nonunionized than in unionized settings. About one in three plans includes all employees. The idea of GSPs also is catching on with larger firms in Canada (Booth, 1987, and Mitchell et al., 1990).

C. *Employee Stock Ownership Plans*

A strong growth of ESOPs was recorded in the U.S. during the last decade. According to recent estimates (Rosen et al., 1990), there are about 10,000 companies with ESOPs, covering approximately 11.5 million employees. In the median company with an ESOP, employees own about 30 to 40 percent of total stock. Employees in public companies own only a small share of stock, about 14 percent, much less than in privately held companies. Although earlier estimates by the General Accounting Office (1987) showed that ESOPs thus far have not, on average, led to large capital accumulations by employees, the average employee in an ESOP may expect to accumulate an ownership stake equal to twice annual earnings within ten years (Rosen et al., 1990, p. 7). For the vast majority of ESOP participants, Rosen et al. (1990) found that ownership constitutes an additional element in the compensation package that seldom substitutes for some other components of compensation, such as pension or current earnings. In Canada ESOP-like plans have also grown considerably: in 1986, 23 percent of all firms listed on the Toronto Stock Exchange offered their employees a share purchase plan (Toronto Stock Exchange, 1987).

Uvalic (1990) and Rosen et al. (1990) have shown that ESOPs have grown rapidly in many West European economies during the last decade, especially in Germany and the U.K. For example, in West Germany Rosen et al. (1990) reported that 5 percent of all workers own shares in the company for which they work. Outside the EEC there has also been substantial growth. For example, stock ownership by individual employees of all skill levels has grown rapidly in large Swedish companies since 1985. Indeed, from preliminary data it appears that, in companies with plans during the late 1980s, the average employee obtained 10 percent of total earnings through stock ownership (Jones, 1991).

Jones and Kato (1990) have shown that employee ownership is an important and growing phenomenon in Japan. While ESOPs were virtually nonexistent in 1960, by 1988, 91 percent of all firms listed on the Japanese stock exchange had an ESOP, and almost half of the labor force in firms with plans participated in the scheme. The average employee participating in the plan owned stock worth about $16,000 in the U.S. This contrasts with Australia, where apparently fewer than 2 percent of all employees receive shares in their company (Jensen and Lansbury, 1989).

In their search for alternatives to both conventional private and state enterprises, the possibilities presented by some forms of employee ownership have attracted attention in Eastern and Central European economies and in the Soviet Union (Ben-Ner and Neuberger, 1990). Several experiments with employee ownership have been introduced in the Soviet Union (e.g., the Moscow Experimental Plant in Catering; Ellerman, 1990) and in Hungary and Czechoslovakia (Rosen et al., 1990). There is no substantial degree of actual employee ownership in any of these economies, however.

An increasing number of ESOP-like plans are found in less developed countries. For example, Rosen et al. (1990) discussed ESOPs in Egypt, Costa Rica, and the Philippines. In Costa Rica, since 1947, more than 2,000 companies (involving 24 percent of the labor force) have introduced ESOPs. In Chinese rural industry there is recently a remarkable degree of experimentation, with collective (rather than individual) ownership by employees being the chosen new form of ownership, usually in conjunction with substantial collective ownership by communities (Byrd and Lin, 1990).

(D) Asset Accumulation Plans

AAPs enable individual employees to save some of their earnings in an account that is blocked for a specified purpose and is managed by the employer. Sometimes the employer supplements the employees' contribution. While in many countries the available data make it difficult to distinguish AAPs from other schemes, notably ESOPs, for the U.S. Perry and Kegley (1990) observed that such plans have grown rapidly during the last decade, especially because of the introduction of 401 (K) plans in 1983. Whereas in 1983 less than 40 percent of companies with more than 5,000 workers offered such plans, by 1987 more than 90 percent of companies did. During the same period the participation rate for employees in companies with plans has increased from 40 percent to about 65 percent.

Elsewhere it seems that AAPs are much less in evidence. The principal exceptions are Germany and the Netherlands, where Perry and Kegley (1990) documented the existence and growth of similar schemes.

(E) Wage Earner Funds

WEFs as actually implemented in Sweden are a far different proposition than originally envisaged by Meidner and others (Jones, 1991). While revenues from profit and payroll taxes are used to purchase equity in companies, the extent of collective ownership for each of the five regional WEFs is limited to 8 percent of ownership stakes in companies quoted on stock markets. Also, the special taxes apply only from 1983 to 1990. However, the 8 percent restriction does not apply to ownership positions in non-quoted companies. In other countries, there are no signs that similar schemes will be soon implemented.

(F) Cooperatives and Employee-Owned Firms

This is the strongest form of employee ownership, including dominant employee rights in both returns and control. The extent of growth in various forms of EOFs has been widely noted but poorly documented. In the U.S., in about 30 percent of all firms with ESOPs, the majority of stock is in fact owned by employees (Rosen et al., 1990). Although these are mostly small companies, there are several large companies that are majority-owned by employees (e.g., Avis, O&O Supermarkets, and Weirton Steel). Since the mid-1970s there also seems to be a minor surge in small- and medium-sized non-ESOP EOFs in various industries, especially services (e.g., taxi cabs and food services; see Jackall and Levin, eds., 1984). In Canada a similar growth in EOFs (and comparable lack of information) can be discerned. Thus, Mungall (1986) observed a near doubling of worker cooperatives during the first half of the 1980s.

In the EEC, Ben-Ner (1988a) reported nearly 14,000 EOFs in 1981, employing more than half a million. The rapid growth of EOFs that began in the mid-1970s in many countries, notably Italy, France, Spain, and the U.K., apparently has continued (see, for example, Hobbs, 1989). Recent developments in Eastern Europe and the Soviet Union may lead to significant future growth in EOFs.

While quantitative information on EOFs in LDCs is very fragmentary, their incidence is apparently smaller than in more developed countries (see Abell and Mahoney, 1988; Attwood and Baviskar, 1988). Agricultural cooperatives have been the main form of EOFs; with the exception of a few countries where they received state support (e.g., Mozambique) or were mandatory (e.g., China), they do not account for an important proportion of agricultural activity. There is insufficient information to detect a trend in the importance of EOFs in LDCs.[4]

Conclusions and Research Issues

The ownership of the firm—the allocation of rights to economic returns and control to different parties—is undergoing important changes in many parts of the world. Unfortunately, because the available data are incomplete, the prevalence of the various types of employee ownership plans is not known with confidence. Improved data about employee ownership are a prerequisite for answering a number of important research questions raised (but not answered) by our survey, such as: Why are there different levels and forms of employee ownership across countries, and what explains the timing of the recent growth of employee ownership around the world? So far there has been little work which casts light on these issues.[5]

Another critical area of investigation concerns the effects of diverse forms of employee ownership. Progress has been made on some related issues, especially concerning the effects of employee ownership on productivity (see essays in Blinder, 1990).[6] On other issues, such as the effects of employee ownership on investment, employment variability, and job satisfaction, the need for additional research is acute. To aid investigation on these matters, cross-national studies that employ comparable research methods are required. The first step toward this goal, however, is to improve the theoretically guided information base about the scope and nature of employee ownership.

Acknowledgments

We acknowledge helpful comments by John F. Burton, Jr., John Fossum and Jeffrey Pliskin. Jones' work was facilitated by a grant from the Arbetsmiljfounden, for which he is grateful.

Endnotes

[1] For example, some surveys focus on "incentive schemes," combining without distinction PSPs, GSPs, and incentive schemes such as individually based piece rates and commission schemes. Similarly, surveys of employee participation in control often do not identify the precise role of employees as individuals or collectively in the control of firms, and therefore, the degree of their participation in ownership via control is hard to assess. Again, in surveys on return rights it is rare to find information about the control rights dimension of employee ownership, and typically no information is provided about return rights in surveys of employee participation in control rights.

[2] In 1986 in the U.S., for instance, 46 percent of plans classified as PSPs entailed a bonus based on employer discretion (Hewitt Associates, 1987).

[3] Most of Uvalic's (1990) data come from governmental sources. However, as the author acknowledges, the data are not always very reliable and comprehensive.

[4] For case studies of EOFs in Peru, Senegal, and India see Abell and Mahoney (1988), and for Chile see Espinosa and Zimbalist (1978).

[5] See Ben-Ner (1988a and b) for attempts to answer similar questions for the case of EOFs. Econometric methods are particularly useful in testing hypotheses on incidence; see Jones and Pliskin (forthcoming).

[6] The main conclusion is that for sustained improvements in company performance a well-designed employee ownership scheme coupled with employee participation is needed. See also Ben-Ner and Jones (1991), where the effects of the interaction between employee rights to returns and to control are emphasized.

References

Abell, Peter, and Nicholas Mahoney. *Small-Scale Industrial Producer Co-operatives in Developing Countries.* Delhi: Oxford University, 1988.

Attwood, D. W., and B. S. Baviskar. *Who Shares? Co-operatives and Rural Development.* Delhi: Oxford UP, 1988.

Ben-Ner, Avner. "Comparative Empirical Observations on Worker-Owned and Capitalist Firms." *International Journal of Industrial Organization* 6 (1988a), pp. 7-31.

———. "The Life-Cycle of Worker-Owned Firms in Market Economies: A Theoretical Analysis." *Journal of Economic Behavior and Organization* 10 (1988b), pp. 287-313.

Ben-Ner, Avner, and Derek C. Jones. "On the Effects of Employee Ownership: A New Conceptual Framework and a Review of the Evidence." Working Paper. Industrial Relations Center, University of Minnesota, and Department of Economics, Hamilton College, 1991.

Ben-Ner, Avner, and Egon Neuberger. "Privatization and Entry of New Firms in Eastern Europe and the Soviet Union." *Jahrbuch der Wirtschaft Osteuropas* 14 2 (1990), pp. 178-81.

Blinder, Alan (ed.). *Paying for Productivity.* Washington, D.C.: Brookings, 1990.

Booth, P. *Paying for Performance: The Growing Use of Incentive and Bonus Plans.* Ottawa: The Conference Board of Canada, 1987.

Byrd, William, and Quingsong Lin. *China's Rural Industry: Structure, Development and Reform.* Oxford University Press, 1990.

Cheadle, A. "Explaining Patterns of Profit Sharing." *Industrial Relations* 28 3 (Fall 1989), pp. 387-400.

Department of Labor. *Characteristics of Proper Collective Bargaining Agreements Jan. 1, 1980.* Bulletin 2095. Washington, D.C.: U.S. Bureau of Labor Statistics, 1981.

———. *Employee Benefits in Small and Large Firms.* Washington: U.S. Bureau of Labor Statistics, 1982.

Ellerman, David. *The Democratic Worker-Owned Firm: A New Model for the East and West.* Unwin and Hyman. London, 1990.

Espinosa, Juan G., and Andrew S. Zimbalist. *Economic Democracy: Workers' Participation in Chilean Industry, 1970-1973.* New York: Academic Press, 1978.

Freeman, Richard, and Martin Weitzman. "Bonuses and Employment in Japan." *Journal of the Japanese and International Economics* 1 (1987), pp. 168-94.

Freund, William C., and E. Epstein. *People and Productivity.* New York: Dow-Jones and Irwin, 1984.

General Accounting Office. *Employee Stock Ownership Plans: Benefits and Costs of ESOP Tax Incentives for Broadening Stock Ownership.* Washington, D.C.: United States Congress, 1987.

Hashimoto, Masanori. "Bonus Payments, On-The-Job Training and Lifetime Employment in Japan." *Journal of Political Economy* 87 (1979), pp. 1086-104.

Hewitt Associates. *Compensation Trends and Practices.* Lincolnshire, IL: Hewitt Associates, 1989.

Hobbs, P. "The UK Worker Cooperative Movement in 1988." *Annals of Public and Cooperative Economics* 60 4 (1989), pp. 475-83.

Ito, Takatoshi, and Kyonngsik Kang. *Bonuses, Overtime and Employment: Korea Vs. Japan.* NBER Working Tape No. 3012, 1989.
Jackall, Robert, and Henry Levin (eds.). *Worker Cooperatives in America.* Berkeley: University of California Press, 1984.
Jensen, Anthony, and Russell Lansbury (eds.). *Employee Financial Participation and Industrial Restructuring in Australia.* Department of Industrial Relations, University of Sidney, 1989.
Jones, D. C. "The Scope, Nature and Effects of Forms of Economic and Industrial Democracy in Sweden." Department of Economics, Hamilton College, 1991.
Jones, D. C., and Jeffrey Pliskin. "The Effects of Worker Participation, Employee Ownership and Profit Sharing on Economic Performance." Eds. V. Rus and R. Russell. *International Handbook of Participation in Organization.* Oxford: Oxford UP, in press.
Jones, D. C., and T. Kato. "On the Scope, Nature and Effects of Employee Ownership in Japan." Working Paper, Hamilton College, 1990.
Mitchell, Daniel J. B., David Lewin, and Edward E. Lawler. "Alternative Pay Systems, Firm Performance and Productivity." In *Paying for Productivity: A Look at the Evidence*, ed. Alan S. Blinder. Washington: The Brookings Institution, 1990.
Mungall, Constance. *More Than Just a Job: Worker Co-operatives in Canada.* Ottawa: Steel Rail, 1986.
O'Dell, Carla, and Jerry McAdams. *People, Performance and Pay.* American Productivity Center. Houston, Texas, 1987.
Perry, Charles, and Delwyn Kegley. *Employee Financial Participation: An International Survey.* Philadelphia: Wharton School of Management, 1990.
Rosen, Corey, Gianna Durso, and Raul Rothblatt. *International Developments in Employee Ownership.* Oakland, California: National Center for Employee Ownership, 1990.
Smith, Stephen C. "On the Incidence of Profit and Equity Sharing." *Journal of Economic Behavior and Organization* 4 (1988), pp. 45-58.
Szell, Gyorgy. "The Concise Encyclopaedia of Participation." *De Gruyter.* Forthcoming.
Toronto Stock Exchange. *Employee Share Ownership at Canada's Public Corporations.* Toronto: Toronto Stock Exchange, 1987.
Uvalic, Milica. *The Pepper Report.* Florence and Brussels, 1990: Commission of the EEC.

Union-Management Cooperation: Choice, Implementation, and Effects

William N. Cooke
Wayne State University

David G. Meyer
University of Akron

This report provides a brief summary of several investigations about union-management cooperation conducted by the authors. (See Cooke, 1989b for a synthesis of existing literature.) Our highlighted findings address three broad issues: (1) corporate choice to pursue cooperation strategies, (2) perceived changes in plant-level performance and labor-management relations, and (3) the effects of cooperative strategies vis-à-vis other labor relations strategies on corporate financial performance.

Data

A random sample of 350 unionized manufacturing plants drawn from 1982 Bureau of Labor Statistics files of collective bargaining agreements was surveyed in 1986. The 194 respondents to this plant-level management survey about a wide range of labor relations activities were asked to identify the top labor relations or human resource executive at company headquarters. Executives identified were then surveyed about labor relations and operational activities on a companywide basis. Responses were obtained from 121 headquarters representing 135 of the 194 plant management responses. Only 107 headquarters represented unique parent companies, however, since some headquarters were subsidiaries or divisions of the same parent company. Although 90 companies could be matched with COMPUSTAT financial records, only about 60 corporations in our sample reported all the data needed for some analyses. Data used in the construction of product and labor market and other variables were compiled from U.S. Department of Commerce industry files.

Cooke's Address: School of Business, University of Michigan, Ann Arbor, MI 48109.

Corporate Choice Model

A discrete choice multinomial logit model of three grand labor relations strategies (union avoidance, cooperation, and a mixed strategy including both union avoidance and cooperation) was developed and estimated (Cooke and Meyer, 1990). Factors affecting these companywide strategic choices in the early 1980s include company specific financial pressure, operational structure, extent of union representation, and product and labor market trends. Statistical support was found for the following inferences. The cooperation strategy was more likely chosen, the greater the proportion of plants unionized and the higher the ratio of cost of goods to sales. The more severe the market conditions (depicted by rising import penetration and declining industry employment), the lower the labor intensity of production, and the smaller the average plant investment, the more likely a union-avoidance or cooperation strategy was chosen over a mixed strategy; and the more likely a union avoidance strategy was chosen over a cooperation strategy. Everything else the same, the greater the number of plants the more likely a mixed strategy was chosen.

Plant-Level Outcome Models

Of the 194 plant manager responses, 111 reported they had established joint programs designed largely to improve performance and labor-management relations. Of those engaged in joint activities, managers were asked to compare productivity and quality performance and the degree of adversarial relations between supervisors and employees before and after formalized joint programs had been established. Ordered probit estimations against these ordinal perceived changes yield substantial support for a number of hypotheses (Cooke, 1989a; 1990a). First, with respect to cooperative structure, team-based joint programs in which teams meet frequently (at least every two weeks) lead to greater improvements to productivity, quality, and employee-supervisor relations than less active team-based programs. Committee-based joint programs also have greater positive effects on performance than less active team-based programs; but appear to have no effect on improving employee-supervisor relations. The larger the number of union representatives on top steering committees, the greater the improvement in productivity, quality, and relations. Importantly, the effect of joint programs on improvements in quality and employee-supervisor relations (but not productivity) begins to decline after three or four years.

Second, with respect to management's exercise of relative power options, subcontracting out bargaining unit work seriously impedes any improvements in performance and employee-supervisor relations. Technological displacement on the other hand, is associated with productivity improvements but has no independent net effects on changes in quality or employee-supervisor relations. No evidence was obtained that, on net, concession bargaining affects performance or employee-supervisor relations.

Third, with respect to union strength and security, the greater the proportion of production employees represented by unions, the greater the improvements in productivity and quality (but not in employee-supervisor relations). Fourth, with respect to organizational constraints, reductions in force are negatively associated with improvements in performance. Severe reductions, or substantial growth in employment, however, are associated with improvements in employee-supervisor relations. Average years of experience does not appear to be associated with performance improvements. Employee-supervisor relations appear to improve, on the other hand, with greater average years of experience up to about 10 years but worsen with greater average years of experience. Lastly, plant size is negatively related to improvements in productivity; and employee-supervisor relations appear to improve more in middle-sized plants than in either relatively small or very large plants.

Effects of Corporate Strategies on Financial Performance

Next, the effects of implementing various labor relations strategies on corporate financial performance are examined. At one level of aggregation, we can trace various bundles of activities that depict three grand strategies (Cooke, 1990b, pp. 74-79). Further disaggregation of these bundles of activities allows us to identify six fairly distinguishable strategies within the three grand strategies (Meyer and Cooke, 1990). To simplify our summary, the key findings of our analysis at the more aggregated level are presented.

Toward estimating the effects of key restructuring activities on company financial performance, we constructed a change in performance equation. The independent effects of key restructuring activities on performance changes over the 1975 to 1985 period were estimated. Because of limitations on the availability of financial data for our sample, OLS regression estimates were made against data for a subsample of 56 corporations. The performance indices are (1) percent change in return on sales, and (2) percent change in added value per employee. The restructuring activities examined include the extent of opening or acquiring nonunion facilities, closing unionized facilities, union decertification activity, and joint union-management programs established across unionized facilities. Differences in industry market conditions and other contextual factors are controlled for, in addition.

One cannot predict a priori which of the various restructuring activities or which combination of activities yield the greatest performance improvements. The parties are assumed to have chosen strategies expected to optimize performance given their specific financial, operational, and collective bargaining structures, as well as market constraints. There are many unknowns, however, about the potential costs, benefits, and risks associated with each strategy. In particular, the degree of union retaliation to various union-avoidance and deunionization activities and the costs incurred therefrom would be difficult to accurately predict. The same can be said about the returns to joint efforts at the plant level. Hence, instead of testing hypotheses about the effect of chosen strategies, we attempt to simply estimate effects using a before-after analysis.

The results of the estimations can be summarized as follows. The greater the extent of nonunion plants opened and/or acquired, the greater the increase in return on sales. Changes in added value per employee appear unaffected. The greater the extent of unionized plants closed, the greater the decrease in return on sales (but changes in added value per employee appear unaffected). Decertification activity sharply reduces return on sales and added value per employee. The greater the extent that joint programs have been established in unionized plants (and especially where joint activities are widespread), the greater the return on sales and added value per employee. The results of estimation additionally indicate that market conditions have a significant bearing on performance outcomes.

Estimates of the cumulative or combined effect of these strategic activities indicate that cooperators have gained, on average, the most from their efforts. The change in return on sales rose 1.4 percent and the change in added value per employee (using nominal dollars) rose approximately 19 percent over the 1974-75 to 1984-85 period. Union-avoiders, on the other hand, gained the least from their efforts; on average, increasing return on sales by .5 percent and reducing added value per employee by 15 percent. In comparison, those corporations pursuing mixed strategies increased return on sales by .6 percent and added value per employee by 1.7 percent (Cooke, 1990b, pp. 129-33).

The evidence strongly supports the conclusion that union-management cooperation yields positive gains with respect to productivity, quality, and labor-management relations at the plant level; where these efforts, that is, are sufficiently intensive. The evidence also strongly implies that these plant level gains are translated into companywide financial gains where cooperative efforts are fairly extensive. Importantly, these financial gains exceed those derived from union avoidance or mixed labor relations strategies. These conclusions, however, are tentative. Although the data and analyses provide, we hope, important information beyond the existing literature, the data have many limitations, and the theory underlying the inferences drawn remains in a formative stage. Cooperative efforts, furthermore, did not become widespread until the 1980s, and it remains to be seen whether the fairly short-run gains observed are sustainable and yield long-run returns to both employers and unions.

References

Cooke, William. "Factors Influencing the Effect of Joint Union-Management Programs on Employee-Supervisor Relations." *Industrial and Labor Relations Review* 43 **5** (July 1990a), pp. 587-603.

Cooke, William. *Labor-Management Cooperation: New Partnerships Or Going in Circles?* Kalamazoo, MI: W.E. Upjohn Institute for Employment Research, 1990b.

Cooke, William. "Improving Productivity and Quality Through Collaboration." *Industrial Relations* 28 **2** (Spring 1989a), pp. 299-319.

Cooke, William. "Cooperative Efforts to Solve Employment Problems." In *Investing in People: A Strategy to Address America's Workforce Crises*, Vol. II, U.S. Government Printing Office, Washington, D.C., September, pp. 2057-2129, 1989b.

Cooke, William, and David Meyer. "Structural and Market Predictions of Corporate Labor Relations Strategies." *Industrial and Labor Relations Review* 43 **2** (January 1990), pp. 280-93.

Meyer, David, and William Cooke. "Labor Relations in Transition: Strategic Activities and Financial Performance." (working paper, July 1990).

Employee Participation and Mental Health: A Test of a Mediational Model

PAUL D. SWEENEY, DEAN B. MCFARLIN, AND JOHN L. COTTON
Marquette University

The willingness of firms to involve employees in decision making seems to be on the rise (see Lawler, 1986). Reasons for this trend include concerns about productivity and foreign competition. As a result, a good deal of research has examined the effect of participation, both actual and perceived, on a variety of outcomes. Naturally, a good deal of the research has focused on productivity measures (Cotton, Vollrath, Froggatt, Lengnick-Hall, and Jennings, 1988; Guzzo, Jette, and Katzell, 1985; Lawler, 1986; Locke and Schweiger, 1979). Some research, however, has studied the link between participation and job satisfaction. This research has generally found a positive, albeit smaller than expected, correlation between participation and satisfaction (see Spector, 1986). Those employees who perceived themselves to be more involved in decision making were also more satisfied with their jobs.

Unfortunately, very little research has examined the health-related consequences of increased employee participation. In addition, the research that does exist presents a bit of a mixed picture about the health effects on employees. In one review, for example, Katz and Kahn (1978) conclude that "jobs . . . tending toward simple and repetitive activities are associated with more symptoms of depression and lower satisfaction with life." To the extent that jobs involving simple and repetitive work also are associated with little control, then these data are important to consider. Similarly, Fraser (1947, cited in Wall and Clegg, 1981) found much higher rates of neurosis for workers who perceived that they had "impoverished" jobs, and recommended "more variety and scope for initiative" for workers. Presumably, this would increase the participation and control employees might perceive over work. Likewise, Gardell (1977) found that restrictions in

Authors' Address: College of Business Administration, Marquette University, Milwaukee, WI 53233.

the perceived amount of freedom and control on the job were related to increased work alienation and lower levels of mental health.

In contrast, Margolis, Kroes, and Quinn (1974) found that perceptions of non-participation were only weakly related to negative health indices, such as poor physical health, depressed mood, job dissatisfaction, and more. Karasek (1979) found the same overall relation between participation and health but claimed it was necessary to consider other variables that might condition the relationship. Similarly, Spector's (1986) recent meta-analysis found that while the general zero-order relationship between participation and mental health measure was not statistically significant, the standard deviation was quite large, indicating that sometimes the relation held, whereas at other times it did not.

We are aware of only one study that examined potential mediators of the participation-mental health relation. Jackson (1983) tested a complicated causal model of this relation. The model was composed of perceived influence, several role variables, communications measures, social support, a measure of overall mental health, and several other variables unrelated to this discussion. The findings were complex. Perceived influence significantly predicted overall job satisfaction, as did the mental health index. Also, the role variables affected quality of communication ratings. Unfortunately, communication did not predict any other variable. This research is noteworthy in that it is the only one to test a mediator model.

Despite its many positive aspects, there are several ways the research could be improved. First, although Jackson hypothesized an indirect effect of participation on mental health via role conflict, the data did not support the path. This could be explained by some other data in the literature. Participation or perceived influence can often result in an increased opportunity for communication to occur between and among workers. Thus, if the model were to be respecified to include this path, then perhaps more support for the predictions would have been found. Second, the model predicted that social support would be a mediator of the communication-mental health relation. However, once the other variables were controlled for, social support did not affect any of the other variables and was therefore dropped from the model altogether. Since this is an important variable in this literature, it seems unlikely that it exerts a null effect on this set of variables. Indeed, if anything, one would expect positive communications to result in a larger and perhaps better social support base. Finally, this in turn should result in more positive mental health (see House, 1981).

Thus, we will test a modified causal model. We predict that perceived influence will affect mental health indirectly through communication quality, which in turn will affect social support, which will directly affect health. Also, we test the more parsimonious "direct effect" model, which predicts an unmediated effect of participation on mental health. We will test these hypotheses using a larger sample of production workers. And, we will use LISREL, a formal model testing procedure that integrates reliability information into the path analysis framework used by Jackson (1983).

Method

Production workers (n = 189, 70% response rate) in a large consumer products manufacturing company responded to a questionnaire that was completed on company time. We measured perceived participation with a seven-item scale (alpha = .90) that assessed involvement in a variety of work decisions (Seashore, Lawler, Mirvis & Cammann, 1983). Respondents were given a list of work decisions and then were asked to indicate how much say they felt they had in those decisions on a 1 (no say at all) to 7 (a very great deal of say) scale. An example item is: "How much say do you have in decisions about how you do your own work?".

Communication was measured using a six item scale (alpha = .92) similar to that used by Frone and McFarlin (1989). The actual items were adapted from the International Communication Association (ICA) communication audit (Goldhaber and Rogers, 1979), and assessed the degree to which one's immediate boss and co-workers provided timely, accurate, and useful information (e.g., "To what extent is the information you get from your boss usually accurate (you can rely on the information—it is generally correct"; 1 = to a very little extent to 5 = to a very great extent).

Social support was measured by using six items (alpha = .80) from House's (1981) scale. These items measure the degree to which respondents' supervisors and co-workers will listen to, and are helpful to, the respondent with their work problems (e.g., "How much can your immediate supervisor be relied on when things get tough at work?", 1 = not much, to 4 = very much).

Finally, mental health was measured by using the short form of the General Health Questionnaire (GHQ). This is a 12-item scale that measures a variety of psychological feelings (alpha = .85). It has been validated on a variety of samples (Banks, Clegg, Jackson, Kemp, Stafford, and Wall, 1980) and is useful for identifying people with mental distress and health, particularly work samples (Banks et al., 1980).

Results

We used LISREL to estimate the structural model that was described above. Since we were most interested in the path coefficients specified by theory and previous research, each construct (e.g., social support) was analyzed as a single indicator. Accordingly, our analyses controlled for the effects of measurement error by setting the random error variances in the model to the product of the variance of each variable and the quantity one minus the reliability for each variable (see Joreskog and Sorbom, 1982). Table 1a presents the reliabilities and error variances used in our analyses.

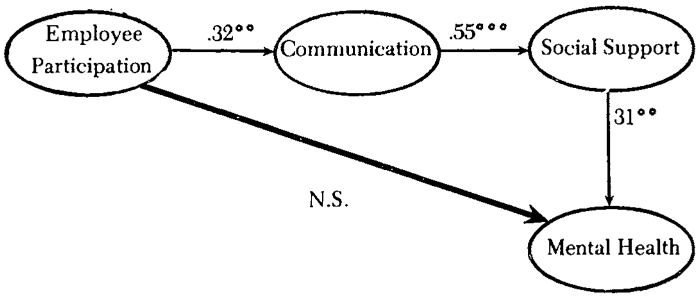
TABLE 1a
Measurement Model Characteristics

Factor	Alpha	Lambda Values	Theta Values
Participation	.90	.949	.100
Communication	.92	.959	.080
Social Support	.80	.894	.200
Mental Health	.85	.922	.150

First, we used LISREL to estimate the paths that were predicted (see Figure 1). We found support for our chain model of the perceived influence—mental health relation: perceived influence significantly predicted communication quality ($p < .001$); communication quality predicted social support ($p < .001$); and social support was a significant predictor of mental health ($p < .01$). Unfortunately, the overall model did not result in a good fit to the empirical data [X^2 (7) = 27.54, $p < .001$]. As several researchers have noted, however, with large samples virtually any model will be rejected by this test (Bentler and Bonett, 1980). And, since this statistic is not appropriate for small samples, several other tools for evaluating model adequacy have been suggested.

First, we evaluated our theoretical model in relation to a null model—a model that specifies variables to be independent of one another (see Table 1b). The X^2 value for this null model is 110.37 (df = 10). The difference in X^2 values between the null and the theoretical model is significant [X^2 (3) = 82.83, $p < .001$]. This test

FIGURE 1
A Mediational Model of Employee Participation and Mental Health



° p < .05
°° p < .01
°°° p < .001

indicates that the model is a significant improvement in fit over an unspecified null model. Second, we calculated several measures of relative model fit. Table 1b presents those indices; they generally show that this mediator model represents a good fit to the data.

Third, although the null model comparison and fit indices support our prediction, it is not a sufficient test since other related models also probably represent a good fit over a null model. Accordingly, it would be valuable to show that other related paths (models) do not result in a better fit to the data. Therefore, we asked LISREL to estimate the direct path between perceived influence and mental health, since this

TABLE 1b
Model Evaluation Indices

Model	df	chi-square	RMSR	AGFI	NFI
Null	10	110.37	.266	—	—
Mediator Model	7	27.54	.130	.915	.980
Mediator + Direct path	6	27.41	.130	.915	.980
Saturated Model	4	25.02	.126	.927	.984

Note: RMSR is the root mean square residual; the lower this error term, the better the model accounts for the data. AGFI is the adjusted goodness of fit index provided by LISREL; the larger the value the better the model fit. Finally, NFI is the normed fit index of Benter & Bonett (1980). Higher values of the NFI also indicate good model fit.

is a plausible alternative hypothesis. This specification, however, did not result in a better fit to the data (see Table 1b, row 3). Thus, it appears that mediators are necessary to fully specify the relationship between participation and mental health. Finally, along the same lines we asked LISREL to estimate all remaining structural paths—the saturated model (see Table 1b, row 4). This model also did not result in a significantly better fit to our data.

Discussion

We began by pointing out that the relationship in the literature between participation and mental health is inconsistent. Based on these studies and Jackson (1983), we predicted that a mediational model might better explain this relationship. Our model predicted that participation would lead to better quality communication at work. The better communications in turn would allow one to receive support from co-workers and supervisors for the extra burdens that may come with increased participation. And, based on existing evidence (House, 1981), we expected to find that social support from others at work would directly affect mental health.

We found a good deal of support for these predictions with our structural modeling analyses. All predicted structural paths were significant. Thus, our data indicate that participation can indeed have the predicted benefits on mental health that are often difficult to observe in the literature. Our data show that the difficulty might come from expecting a direct relationship between participation and health. Instead, the effect appears to operate indirectly through other, related variables. This is useful information for those who are considering such participation programs, although clearly alternative models of the relationship are possible. We encourage future research, particularly that which studies the effect of popular participation programs, like self-directed work teams. Work that compares the health of groups who are and are not involved in such programs would be a valuable addition to the literature.

References

Banks, M. H., C. W. Clegg, P. R. Jackson, N. J. Kemp, E. M. Stafford, and T. D. Wall. "The Use of the General Health Questionnaire as an Indicator of Mental Health in Occupational Studies." *Journal of Occupational Psychology* 53 (1980), pp. 187-94.

Bentler, P. M., and D. G. Bonett. "Significan e Tests and Goodness of Fit in Analysis of Covariance Structures." *Psychological Bulletin* 88 (1980), pp. 588-606.

Cotton, J. L., D. A. Vollrath, K. L. Froggatt, M. Lengnick-Hall, and K. R. Jennings. "Employee Participation: Diverse Forms and Different Outcomes." *Academy of Management Review* 13 (1988), pp. 8-22.

Frone, M. R., and D. B. McFarlin. "Chronic Occupational Stressors, Self-focused Attention and Well-being: Testing a Cybernetic Model of Stress. *Journal of Applied Psychology* 74 (1989), pp. 876-83.

Fraser, R. *The Incidence of Neurosis Among Factory Workers*. London: Industrial Health Research Board, 1947.

Gardell, B. "Autonomy and Participation at Work." *Human Relations* 30 (1977), pp. 515-33.

Goldhaber, G. M., and D. P. Rogers. *Auditing Organizational Communication Systems: the ICA Communication Audit*. Dubuque, IA: Kendal/Hunt, 1979.

Guzzo, R. A., R. D. Jette, and R. A. Katzell. "The Effects of Psychologically Based Intervention Programs on Worker Productivity: A Meta-analysis. *Personnel Psychology* 38 (1985), pp. 275-91.

House, J. S. *Work Stress and Social Support*. Reading, MA: Addison-Wesley Publishing Co., 1981.

Jackson, S. E. "Participation in Decision Making as a Strategy for Reducing Job-related Strain." *Journal of Applied Psychology* 68 (1983), pp. 3-19.

Joreskog, K. G., and D. Sorbom. "Recent Developments in Structural Equation Modeling." *Journal of Marketing Research* 14 (1982), pp. 404-16.

Karasek, R. A. "Job Demands, Job Decision Latitude and Mental Strain: Implications for Job Design." *Administrative Science Quarterly* 24 (1979), pp. 285-08.

Katz, D., and R. L. Kahn. *The Social Psychology of Organizations*. New York: Wiley, 1978.

Lawler, E. E. *High-involvement Management*. San Francisco, CA: Jossey-Bass, Inc., 1986.

Locke, E. A., and D. M. Schweiger. "Participation in Decision Making: One More Look. In *Research in Organizational Behavior*, ed. B. M. Staw. Greenwich, CT: JAI Press, 1979.

Margolis, B. L., W. H. Kroes, and P. R. Quinn. "Job Stress: An Unlisted Occupational Hazard." *Journal of Occupational Medicine* 16 (1974), pp. 654-61.

Seashore, S. E., E. E. Lawler, P. H. Mirvis, and C. Cammann. *Observing and Measuring Organizational Change: A Guide to Field Practice*. New York: Wiley & Sons, 1983.

Spector, P. E. "Perceived Control by Employees: A Meta-analysis of Studies Concerning Autonomy and Participation at Work. *Human Relations* 39 (1986), pp. 1005-16.

Wall, T. D., and C. W. Clegg. "A Longitudinal Field Study of Group Work Design." *Journal of Occupational Behavior* 2 (1981), pp. 31-49.

Worker Representation and Industrial Adjustment in Germany

KIRSTEN WEVER
Northeastern University

Germany combines striking successes in international markets with an elaborate and widespread network of worker representation institutions. As such, it merits more attention from American scholars and practitioners with regard to the link between the democratic effectiveness of its labor representation and industrial relations systems and its economic performance (cf., Adams, 1985; Wever, 1989b; Weiler, 1990; Kochan and Wever, 1991). This work continues in the tradition of various recent accounts of the viability, durability, and implications of experiments with changes in the role of labor and the organization of work in all the advanced industrial countries (cf., MIT, 1988; Wever, 1989a; Kochan and McKersie, 1990).

This paper briefly considers evidence from six case studies conducted between September 1989 and September 1990 in (then West) Germany, concerning whether, and how, works councils can "add value" to firm-level adjustment processes by facilitating or easing changes in the organization of work and production. This research proceeds from the idea that works council experiences outside the "best practice" metal-working sectors are more suggestive about the possibilities for such developments in other settings. The paper first situates works councils in their legal and historical contexts, then quickly characterizes the main critiques of the council system, describes the six cases, and lastly considers the relevance of these findings to the U.S. case.

Background and Literature

Seventeen major industrial unions are affiliated with the German Union Federation (DGB), which represents about 90 percent of the 40 percent of the workforce that is unionized. Collective bargaining is

Author's Address: Hayden Hall 325, Northeastern University, Boston, MA 02115.

conducted at the regional and industry levels with employer associations. Contracts are implemented at the enterprise level, where the councils operate, and where the unions exert mostly indirect influence. The councils can be elected at any workplace employing more than five permanent employees. They are formally independent of the unions and may not strike, and they are bound to cooperate with the employer for the good of the plant and its employees. Disputes are resolved through arbitration boards and state and federal labor courts. The councils' consultative, informational, and codetermination rights are laid out in Figure 1. They often negotiate for workplace agreements which typically tailor contracts to the needs of the enterprise and its workforce.

FIGURE 1

Works Council Rights: Co-determination, Consultation, Information

Co-determination Rights:	*Consultation/Information Rights:*
Plant Wage/Salary Structure, Wage Premiums	Integration of Disabled, Elderly, Foreign Ee's
Workplace Safety	Work/Production Processes
Workplace Changes	Personnel Planning
Job Descriptions	Employee Training and Development
Performance Review Criteria/Process	Changes in the Org. of Work and Production
Hiring, Firing, Promotions, Layoffs	Economically Motivated Changes in Personnel
Implementation of (Re)Training Measures	

Source: Adapted from Dachrodt, Heinz. *Unternehmensfuehrung und Betriebsrat.* Koeln: Bund Verlag, 1988.

In the 1970s some observers challenged the councils' capacity to meet even basic democratic criteria for employee representation (Streeck, 1979 and 1981). The "plant egoists" lamented the excessively close structural ties between the works councils and their enterprises, fearing that (a) because their interests are tied so closely to those of the enterprise, they must conflict fundamentally with those of the unions, (b) necessary bureaucratization threatens their democratic functions, and (c) they can simply be coopted by employers into performing functions otherwise assigned to personnel departments (cf., Kotthoff, 1981; Hohn, 1989; Miller, 1982).

A more recent body of work allows for strategic labor choices about adjustment processes, rather than viewing the processes themselves as being out of reach of employee interest representation (Thelen, 1987; Bosch, 1990). These works imply that the councils can at least hypothetically innovate to add value to management adjustment processes while maintaining their democratic functions as the independent representatives of their employee constituencies. The present work assesses six cases in the light of these contrasting approaches, and against the backdrop of the union and its role.

The Cases

The Commerzbank

Figure 2 describes the cases. The Koeln branch of this bank employs 640 people. The union (the *Gewerkschaft Handel, Banken und Versicherung*, or HBV), has an extremely proactive technology policy. It vigorously markets its technology consulting to its works councils. The local council vice-chair thinks the attainment of local goals would be impossible without the presence of an activist union. Together, the council, the union, and local employees developed an alternative to management's plans to separate technical work from customer service activities (a response to the introduction of microcomputers at all branches). The employees developed a plan whereby multi-skilled service groups using job rotation would be created to enhance productivity and broaden skills and thus restructure the internal labor market.

The central works council never proposed the plan to the bank's management, citing the inability of councils at smaller branches to implement it. However, the innovation of the Koeln employees illustrates the potential for a union to project its influence beyond what its numbers would reflect (the HBV represents about 25 percent of the employees at the bank), and for councils and unions to cooperate in the development of innovations to structure the impact of new technology introduction on the organization of work.

Betrix Cosmetic

On September 1, 1989, this cosmetics producer with about 1,000 employees was acquired by Revlon. The IG Chemie (the Chemical Workers Union, the only union present) is famous for its lack of interest in labor-initiated innovations at the workplace. However, this works council is well known in the industry for its activism and confrontationalism.

FIGURE 2

Case Descriptions

	Betrix	Commerzbank	Digital	Bayer	Siemens	Henkel
Number of Ee's.	1,100	640	500	36,000	2,600	13,000
Ee. Skill Level	25% clerical, professional; 32% trained retail/sales; 43% un/semi-skilled blue collar	33% semi-skilled clerical; 66% admin. & white collar professional	33% tech. service; 33% software development; 33% sales & distribution	45% skilled & semi-skl'd blue collar; 55% white collar, prof., clerical, administrative	60% clerical, white collar professional; 40% blue collar & technical	45% skilled & semi-skilled blue collar; 55% clerical, administrative & professional
Council Size	3 full time 15 total	2.5 full time 11 total	1 full time 9 total	25 full time 49 total	3 full time 19 total	13 full time 35 total
Councilor to Ee Ratio	1:73	1:58	1:55	1:734	1:136	1:371
Union	IG Chemie	HBV	IG Metall	IG Chemie	IG Metall	IG Chemie
Percentage Unionized	33% ee's 100% council	25% ee's 60% council	10% ee's 100% council	45% ee's 78% council	32% ee's 70% council	11% ee's 100% council
Industry Branch	Cosmetics	Banking	Software & Computer Servicing, Sales	Chemicals (Pharmaceuticals, etc.)	Software & Computer Servicing, Sales	Chemicals, (Cleaning Products, etc.)
New Tech.	MRP & updated assembly line	Centralization of Data Processing	Multiple, Continuing Soft/Hardware	MRP, CAD-CAM, data centralization	Multiple, Continuing Soft/Hardware	MRP, CAD-CAM, data centralization

In response to the firm's introduction of a manufacturing resource planning system, the council chair pushed for the development of more training programs, which all but one of the managers interviewed said were of vital importance to the system's effective implementation. Several managers cited other examples of how the chair of the council had challenged (and prevented) the implementation of "badly thought out" operational decisions. More recently, the chair of the council has sought a job rotation program to parallel assembly line rationalization proposed by Revlon. The local management is positively inclined toward this idea. Taken together, these examples show how a council can introduce innovations in work organization (again in response to new technology introduction) even in the absence of active union support, and in a fundamentally adversarial setting.

Digital Equipment Corporation

DEC distributes and services software and hardware in Koeln, where it employs about 500 people. The local council members are all affiliated with the IG Metall. In the last five years, organization has increased from about 2 to 10 percent (compared to less than 4 percent at its local competitor, Siemens, despite the latter's higher percentage of blue-collar workers). In council elections earlier this year, the members reelected with the highest percentage of votes (between 80 and 95 percent—the three local members interviewed for this work) ran specifically as union candidates. One of them claimed that "four years ago we would never have been able to win as union candidates."

The union has devoted a disproportionate amount of resources to organizing and politicizing the councils and employees at key firms, including DEC. The works council has enhanced the image of the union, for instance by publicizing the discrepancy between the union contract's 37- and DEC's 40-hour workweek. By politicizing this issue it was able to get management to shorten the work week.

This case illustrates the potential for the union to use its consulting expertise to empower a weak and inexperienced works council, and thereby to gain new members and learn about how to represent the interests of an unfamiliar and non-traditional constituency.

Bayer

Bayer is one of the three big chemical companies in Germany, with 36,000 employees in Leverkusen. The ratio of councilors to employees is thus considerably worse than at the other case considered so far. The councilors interviewed tended to complain of their heavy work loads and the inability to interact more frequently with the employees they represent. The main union present is the IG Chemie.

One manager characterized the council as "interest aggregators who mediate confidence in the process of change." Another sees the council as "a positive productivity factor" in that it alone can get employees to see new technologies as being in their long-run interests. This manager and others cited recent examples of how the council had prevented the implementation of short-sighted staffing and training decisions.

The council has a list of concrete demands regarding the linkage of skills development with the introduction of new technologies, about which it is negotiating with management. In this area as in others, it regularly challenges management and forces changes and adaptations in Bayer's plans. Thus, while excessive bureaucratization is an obvious problem, it does not appear to be associated with the cooptation of the council or any inability to represent either traditional (personnel-related) or new (technology and skills-related) employee interests.

Siemens

Siemens is the largest firm in Germany, frequently referred to as a quasi-public sector operation, and known popularly as a massive bureaucracy. The IG Metall is the only union present at the Koeln branch. The council has fewer full-time members than it is legally entitled to; its chair justifies this in terms of a limited work load consisting mainly of "routine." (It is much more common for councils to negotiate for more full-time representation than legally prescribed, as at the Commerzbank and Henkel, for instance.)

This council chair is also less enthusiastic about the union than the others, claiming, "I never learn anything at these union seminars that I don't know already. . . ." Neither did this person see the employees as requiring any very vigilant interest representation at the workplace. The local administration and personnel managers also aggressively touted the "unproblematic" nature of management-works council relations at Siemens, specifically in relation to technology and skills questions.

Regarding Siemens' recent acquisition of Nixdorf Computers, the council chair thought that because he represented the employees of the acquiring firm it was the "duty" of the Nixdorf works council chair to come introduce himself, and it would be improper for the Koeln council to "make the first move." The central council chair's view was similar. Both appear to be more strongly identified with the firm than with their new fellow employees and employee representatives. The union and its politics played no visible part in these matters. That is, this council exhibited no signs of proactive interest representation and appears to bolster the skeptical "plant egoist" account.

Henkel

The IG Chemie is the only union present at this large, family-owned chemical concern with 13,000 employees in Düsseldorf. The management there would only see me after I had clarified the nature of my interests with the council. The technology representative of the council assured me this screening was a "standard formality;" and that the council frequently performed such functions for management.

Both councilors had quite skeptical views of the union, stating that there was "no problem in this house that we can't solve ourselves" and claiming that this was management's position as well. (Management agreed.) The technology representative of the council pointed with pride to the fact that the council has never had to take any issue to arbitration or the labor courts. Both parties agreed that their common interests outweighed differences. It was for this reason, said the personnel director, that "typically the council reacts rather than acting." This case contains no examples of any proactive interest representation regarding new technology or related skills issues. Indeed, this council appears in some ways to have been coopted by the employer. It certainly defines its interests in opposition to those of the union.

Conclusions

The plant egoist critique of the councils is supported in part by the experiences of the councils at Siemens and Henkel, and to some extent Bayer—the larger cases. This suggests that perhaps the democratic functions of the councils require a certain low councilor-to-employee ratio.

The Commerzbank case is heartening from the American standpoint in that it illustrates how the councils might become an instrument of disproportionate organized labor influence at the workplace. The DEC case suggests how such an institution could enlist new members for the union, not on the basis of traditional bread and butter union appeals (e.g., to employees' raw job dissatisfaction or the promise of economic benefits), but simply by applying the distinctive expertise and advice of the union in the resolution of mundane workplace problems and commonplace negotiations with management. The Betrix case shows how even given a history of confrontational relations and an uninvolved union, council innovations can be accepted by management. The Bayer case illustrates the capacity of a council to ease firm adjustment processes despite bureaucratization.

The cases taken together support the notion that there is nothing inherently contradictory about representing distinctive employee interests while at the same time offering independent innovations about how work and technology should best be organized. Given the narrowing reach of traditional worker representation in the U.S., and given the growing democratic and economic deficits in our institutions of labor and industrial relations in the U.S., it is worth our while to explore the works council alternative more fully.

Acknowledgments

This research was funded by a grant from the German Marshall Fund of the U.S. During the first six months of the research I was a visitor at the Economic and Social Research Institute of the German Trade Union Federation in Düsseldorf; during the second portion of the research trip I was a guest scholar at the Institute of Work and Technology of the Research Institute of North Rhein Westphalia in Gelsenkirchen. I am indebted to all three institutions for their support of this work.

Thanks to Tom Kochan and Bob McKersie for helpful comments on an earlier draft.

A more detailed account of this research is found in Wever, 1990.

References

Adams, Roy. "Should Works Councils Be Used as Industrial Relations Policy?" *Monthly Labor Review* (July 1985), pp. 25-9.

Bosch, Gerhard. *Qualifizieren Statt Entlassen: Beschaeftigungsplaenne in der Praxis.* Opladen: Westdeutscher Verlag, 1990.

Hohn, Hans-Willie. *von der Einheitsgewerkschaft zum Betriebs-syndikalismus.* Berlin: Edition Sigma, 1989.

Kochan, Thomas, and Robert McKersie, *Human Resources, Organizational Governance and Public Policy: Lessons from a Decade of Experimentation.* MIT Sloan School of Management Working Paper 3184-90-BPS. Cambridge, MA, July 1990.

Kochan, Thomas, and Kirsten Wever. "American Unions and the Future of Worker Representation." Forthcoming in *The State of the Unions: Annual IRRA Research Volume.* Madison, WI: Industrial Relations Research Association, 1991.

Kotthoff, Hermann. *Betriebsraete und Betriebliche Herrschaft: eine Typologie von Partizipationsmustern im Industriebetrieb.* Frankfurt: Campus Verlag, 1981.

MIT Industrial Relations Section, Sloan School of Management. *Institutionalizing and Diffusing Innovations in Industrial Relations.* Washington, D.C.: U.S. Department of Labor Bureau of Labor-Management Relations and Cooperative Programs Monograph BLMR 128, 1988.

Miller, Doug. "Social Partnership and the Determinants of Workplace Independence in West Germany." 20 *British Journal of Industrial Relations* 1 (March 1982), pp. 44-66.
Streeck, Wolfgang. "Gewerkschaftsorganisation und industrielle Beziehungen." Berlin: WZB/IIM Discussion Paper 79-30, 1979.
Streeck, Wolfgang. "Qualitative Demands and the Neo-Corporatist Manageability of Industrial Relations." *British Journal of Industrial Relations* 2 (July 1981), pp. 149-69.
Thelen, Kathleen. *Continuity in Crisis: Labor Politics and Industrial Adjustment in West Germany 1950-1987*. Ph.D. Thesis, Department of Political Science, University of California at Berkeley, Berkeley, CA, 1987.
Weiler, Paul. *The Law at Work: The Past and Future of Labor and Employment Law*. Cambridge, MA: Harvard University Press, 1990.
Wever, Kirsten. "Towards a Structural Account of Union Participation in Management: The Case of Western Airlines." 42 *Industrial and Labor Relations Review* 4 (July 1989a), pp. 600-609.
Wever, Kirsten. "Works Councils." Washington, D.C.: Internal memorandum, Office of the Secretary Treasurer, AFL-CIO, January 1989b.
Wever, Kirsten. "Works Councils, Industrial Democracy and Industrial Adjustment in Germany: Six Unspectacular Cases." Working Paper, Northeastern University College of Business Administration, November 1990.

XV. CONTRIBUTED PAPERS—COLLECTIVE BARGAINING

What Happens When Arbitration Is Not the End of the Road?

Peter Feuille
Michael LeRoy
University of Illinois

Timothy Chandler
Louisiana State University

Alternative dispute resolution (ADR) procedures are useful if they provide equitable and final alternatives to litigation or other high-cost disputing methods (such as strikes, boycotts, etc.). Grievance arbitration is a useful ADR procedure because it provides for equitable and final resolutions of grievances in a much less disruptive manner than work stoppages, and it is much faster and cheaper than litigation. These attractive features have produced a workplace ADR system in which unions and employers regularly comply with their negotiated promises to arbitrate unresolved grievances and to accept arbitration awards as final and binding (Nolan and Abrams, 1983).

However, some recent evidence indicates that union and employer noncompliance with the arbitration process has been increasing in recent years (Feuille and LeRoy, 1990). This noncompliance often takes the form of a lawsuit that is filed in federal district court and challenges some element of the arbitration process, especially the arbitrator's award. In this paper we analyze almost one thousand of these lawsuits to better understand this arbitration appeal process.

Feuille's Address: Institute of Labor and Industrial Relations, University of Illinois, 504 East Armory, Champaign, IL 61820.

Background

In 1960 the U.S. Supreme Court issued its landmark *Steelworkers Trilogy* decisions on the legal status of grievance arbitration. In two of these decisions (*Steelworkers v. American Manufacturing Co.*, 363 U.S. 564; *Steelworkers v. Warrior and Gulf Navigation Co.*, 363 U.S. 574) the Court emphatically enforced the contractual promise to arbitrate grievances in response to employer refusals to arbitrate in these two cases. In its third decision (*Steelworkers v. Enterprise Wheel and Car Corp.*, 363 U.S. 593) the Court enforced an arbitration award in response to an employer's refusal to comply with it.

In these three decisions the Court strongly encouraged union, employer, and lower court compliance with the promise to arbitrate unresolved grievances, and also with the promise to accept awards as final and binding. The Court's rulings, however, were not absolute. Regarding pre-arbitration appeals of refusals to arbitrate, in its *Warrior and Gulf* decision the Court recognized that certain subject matters could be excluded from arbitration. Regarding post-arbitration appeals of disputed awards, in its *Enterprise Wheel and Car* decision the Court said that the arbitrator's award "is legitimate only so long as it draws its essence from the collective agreement." When the arbitrator dispenses "his own brand of industrial justice" contrary to the agreement, the "courts have no choice but to refuse enforcement of the award." The federal courts are the appropriate forum for filing and resolving these private sector pre-arbitration and post-arbitration challenges. There is considerable concern, especially among arbitrators and among unions, with the increasing number of these appeals (Gottesman, 1989; Jones, 1983; Morris, 1981).

Data Collection

In 1988 and 1989 we used the LEXIS and WESTLAW computerized legal reporting services to locate as many published federal court decisions as possible which involved post-arbitration appeals (challenges to an arbitrator's award) and which were decided after the June 23, 1960, date of the Supreme Court's *Trilogy* decisions. (We also collected data on pre-arbitration appeals (refusals to arbitrate), but those results are not reported here.) Our search yielded 1,068 unduplicated federal district court decisions issued during the 1960-89 period which involved private sector employers and unions (including the U. S. Postal Service). We limit our analysis to 987 cases in which the federal district courts either clearly upheld or clearly vacated the award ("other" decisions are excluded). We believe that this sample includes most of the published federal district court post-arbitration appeal decisions issued since the *Trilogy*.

After locating the pertinent cases, we used a survey form to extract standardized information from the text of each court decision. This data collection effort was preceded by a pilot study to ensure that the survey items corresponded to the information available in the court decisions, and to ensure consistent responses across the three coders.

Analytical Framework

Our multivariate framework enables us to analyze the influence of several institutional factors upon the outcomes of these noncompliance attempts. In our empirical model, the dependent variable (DISTDEC) takes the value of 1 if the federal district court upholds the award in its entirety (the noncompliance effort is denied) and 0 if the court vacates the award in whole or in part (the noncompliance attempt is successful). Because of the dichotomous nature of the dependent variable, ordinary least squares regression analysis is not appropriate. Instead, we use multiple logit analysis to estimate the coefficients.

Our independent variables fall into three categories. The first category includes two variables that describe important aspects of the arbitrated dispute. The first variable, which is our key variable of interest, is a dummy variable (AWFAVUN) that measures whether the award favors the union (the award sustains the grievance in full or in part) or the employer (the award denies the grievance in its entirety). Based on published commentary (Gottesman, 1989; Irving, 1989; Trumka, 1984), and based on our descriptive results (Feuille and LeRoy, 1990; Feuille, LeRoy, and Chandler, 1990), we expect that the courts will be more likely to vacate union-favorable awards, all else equal. The second dispute variable deals with the subject matter of the arbitrated grievance. The most frequently arbitrated issue in this sample of cases involves unjust discipline claims (which usually involve discharge). Consequently, we include a dummy variable (DISC) that differentiates discipline awards (40 percent of the sample) from awards on all other matters. Research suggests that most of these appealed disciplinary awards involve arbitrator reversals of managerial disciplinary actions (Gottesman, 1989; Irving, 1989). However, we are unsure if the courts will be more likely to vacate awards dealing with disciplinary matters than with contract interpretation issues, and thus we do not specify direction.

The second category of variables deals with noncompliance strategy. The two variables in this category measure the primary reason advanced by the reluctant party (i.e., the party that believes the award does not merit compliance) regarding why the award should be vacated. The Supreme Court has specified two key reasons (other than arbitrator fraud, collusion, etc.) why an award might warrant noncompliance (Gottesman, 1989). The first is that the arbitrator erred by issuing an award which does not draw its "essence" from the labor contract, and the second is that the award violates public policy. As a result, we include two dummy variables (ARBERR, PUBPOL) that measure the contract essence violation or the public policy violation rationale when either is offered as the primary reason why the award should be vacated. However, we are unsure how these two variables might affect the court's decision, and thus we do not specify direction.

Our third category of independent variables includes two variables that measure important characteristics of the judicial context. The first involves when the decision was issued. We noted earlier that arbitration litigation has increased sharply during the 1980s. This period was marked by President Reagan's shaping of the federal judiciary. In the period 1981 to 88, Reagan appointed 47 percent of the current federal bench; almost all appointees were Republicans (Goldman, 1989). Relying partly upon the notion that federal judges tend to render decisions that are consistent with the ideological aims of their appointing presidents, some commentators have alleged that federal judges have become more willing to overturn awards in recent years (Gottesman, 1989). As a result, we include a dummy variable (POST80) that measures decisions rendered during the 1981-89 years. For the reasons just discussed, we expect that the courts will be more likely to vacate awards during the 1980s than in earlier years.

The second judicial environment variable measures different tendencies to vacate awards across the different federal judicial circuits. Recent research has documented the presence of regionalism in federal court decisions (Stidham and Carp, 1988). In addition, two studies have identified pronounced differences in how the courts in different circuits decide cases involving appealed arbitration issues: in one study, certain circuits were identified as being much more likely than others to usurp the railroad arbitration board's functions in resolving railroad grievances (Green and Rutledge, 1986); in the other study, the researcher found that the courts in some circuits were more likely than others to overturn appealed arbitration awards (Morris, 1981). As a result, we include a series of dummy variables (CIRC1, CIRC3, . . .) to measure the influence of the appeal being decided in a particular federal judicial circuit. The reference category is the district court decisions in the Second Circuit (which covers Connecticut, New York, and Vermont), which our descriptive analysis shows have resulted in the highest award enforcement rate among the circuits. In other words, this series of variables measures the tendency of the district courts in the other circuits to vacate awards compared to the tendency of the Second Circuit district courts to do so.

The Appendix lists and defines each of the variables used in the analysis.

Results

The logit estimation results are presented in Table 1A. These results are based upon 987 federal court decisions in which awards either were upheld in their entirety (713 times) or else fully or partly vacated (274 times). Given the construction of our dependent variable, a negative coefficient refers to an increased probability of vacating an award (or an increased likelihood of a successful noncompliance appeal).

The most noticeable result in Table 1A is that the federal courts are significantly more likely to vacate a union-favorable award than an award that favors the employer. These negative AWFAVUN

TABLE 1A
Determinants of Award Appeal Outcomes

Independent Variable	Eq. 1[b]	Eq. 2[b]	Eq. 3[b]
Intercept	1.628***	1.994***	2.398***
AWFAVUN[a]	−.811***	−.803***	−.746***
DISC		−.211	−.231
ARBERR		−.277	−.241
PUBPOL		−.668*	−.668*
POST80[a]		−.036	−.112
CIRC1			−.355
CIRC3			−.112
CIRC4			−.896*
CIRC5			−1.054***
CIRC6			−.338
CIRC7			−.348
CIRC8			−.044
CIRC9			−.886**
CIRC10			−1.143*
CIRC11			−.798
CIRCDC			.185
Log Likelihood Ratio	17.569**	25.150**	54.981**
N	987	987	987

coefficients appear no matter how we specify the estimating equation. Although the magnitude of the AWFAVUN coefficients decline as other explanatory variables are added to the estimation, these coefficients remain large and significant in all three equations. To give more operational meaning to these Table 1A results we converted the AWFAVUN logit coefficient in Equation 3 into an actual probability value (space limitations prevent us from showing how this value was calculated; see Ng and Dastmalchian, 1989). Assuming an underlying probability of .72, which is the probability of the courts' confirming an arbitration award, we find that the probability of an award being confirmed decreases by .16 when the award favors the union. These results confirm the descriptive results and indicate that union-favorable awards indeed face more risk on appeal than do employer-favorable awards.

In addition, the negative and significant PUBPOL coefficients indicate that the courts are more likely to overturn the award when the primary reason for the appeal is a claim that the award violates some public policy compared to other reasons for the appeal.

The results for the various CIRC coefficients suggest that the outcome of these appeals is affected by the location of the district court in which the appeal is filed and decided. Compared to federal district courts in the Second Circuit, district courts in the Fourth (Maryland, West Virginia, Virginia, North and South Carolina), Fifth (Texas, Louisiana, Mississippi), Ninth (Alaska, Hawaii, Arizona, California, Oregon, Washington, Idaho, Montana, Nevada), and Tenth (Wyoming, Utah, Colorado, New Mexico, Kansas, Oklahoma) Circuits are significantly more likely to vacate an award.

Surprisingly, the nonsignificant POST80 coefficients indicate that the federal courts were proportionately no more likely to overturn awards during the 1980s than during the two preceding decades, all else equal. Although the greater volume of this noncompliance litigation means that there have been more overturned awards in recent years, the probability of a successful appeal appears to be no greater once other outcome determinants are controlled.

To enhance our understanding of the noncompliance process, we also analyzed the results of these appeals separately for the 786 cases with union-favorable awards and 201 cases with employer-favorable awards. This separate analysis will enable us to determine whether the courts' propensity to confirm awards differs depending on whether the award favored the union or the employer. Specifically, this separate analysis will enable us to test the hypothesis that courts are more likely to overturn disciplinary awards that favor the union than those that favor the employer (Gottesman, 1989; Irving, 1989). Because of the small number of employer-favorable award cases in several of the federal circuits, we were obliged to eliminate the CIRC variables from these separate-analysis equations in order for the logit analyses to operate properly.

These logit results are presented in Table 1B, and they confirm that the courts appear to respond differently to disciplinary awards depending on whom the award favors. For instance, recall that the full-sample DISC coefficients in Table 1A were not significant. However, in Table 1B the DISC coefficients are significant and in opposite directions. The negative DISC coefficient in the union-favorable award equation, coupled with the positive DISC coefficient in the employer-favorable award equation, means that courts are more likely to overturn awards in which the arbitrator reversed management's discipline of an employee and are more likely to uphold awards in which the arbitrator sustained management's discipline, compared to the outcomes of other cases. In turn, these DISC coefficients suggest that federal judges prefer more exacting workplace disciplinary standards than do arbitrators.

Discussion and Conclusions

Because the union contract—which is the source of the grievance arbitration procedure—is an employee-protective document, and because grievances almost always represent union challenges to

TABLE 1B

Award Appeal Outcomes by Who the Award Favors

Independent Variable	Union-Favorable Awards[b]	Employer-Favorable Awards[b]
Intercept	1.245°°°	1.614°°
DISC[a]	−.378°°	1.131°°
ARBERR	−.325	.274
PUBPOL	−.579	−1.398
POST80[a]	.039	−.904°
Log Likelihood Ratio	10.249°	12.368°
N	786	201

°$p < .05$; °°$p < .01$; °°°$p < .001$

[a] One-tail test; all other tests are two-tail.

[b] A negative coefficient refers to an increased probability of vacating an award.

managerial actions (rather than vice versa), it is not surprising that unions value grievance arbitration and its awards more than employers (Getman, 1979; Irving, 1989). Given these different arbitration preferences, the results of this study explain why unions and employers appear to have different views of the arbitration appeals phenomenon.

For their part unions view these noncompliance appeals and outcomes with considerable distaste. Our results show that these noncompliance appeals consist disproportionately of union-favorable awards. Although most of these appeals fail, the successful appeals (those that result in overturned awards) also disproportionately involve union-favorable awards. Further, the fact that some federal courts are more likely than others to overturn awards, even though all federal courts supposedly are equally constrained to follow Supreme Court guidance in this area, suggests that the outcomes of these noncompliance appeals do not depend entirely on the merits of the appealed award. Given these results, and given the different arbitration preferences just discussed, it is hardly surprising that unions have a negative view of the arbitration appeals process (Gottesman, 1989; Trumka, 1984).

At the same time, our results indicate that employers are more willing than unions to challenge arbitration awards, and our results suggest that employers are willing to do this because of their belief that the arbitrator's judgment was clearly inappropriate (Irving, 1989). Although most of these appeals fail, the 31 percent likelihood that the courts will overturn a union-favorable award apparently provides sufficient incentive for these employer-driven noncompliance appeals to continue and even increase over time.

Finally, this study emphasizes the need for ADR researchers to closely examine the actual operation of the ADR system being investigated. For instance, the conventional labor relations wisdom emphasizes the final disposition of grievances at the arbitration step of the grievance procedure (Nolan and Abrams, 1983). For the vast majority of arbitrated grievances this conventional wisdom is accurate. However, an uncritical acceptance of this orthodoxy would have overlooked the expanding arbitration noncompliance phenomenon studied here. Our results indicate that the conventional wisdom regarding the disposition of arbitrated grievances needs to be modified, at least at its boundaries, to accommodate what appears to be an increasingly frequent appeal step beyond the supposedly final and binding arbitration step.

References

Feuille, Peter, and Michael LeRoy. "Grievance Arbitration Appeals in the Federal Courts: Facts and Figures." *Arbitration Journal* 45 (March 1990), pp. 35-47.

Feuille, Peter, Michael LeRoy, and Timothy Chandler. "Judicial Review of Arbitration Awards: Some Evidence." *Proceedings* of the 1990 Spring Meeting of the Industrial Relations Research Association, ed. John F. Burton, Jr., *Labor Law Journal*, 41 (August 1990), pp. 477-84.

Getman, Julius G. "Labor Arbitration and Dispute Resolution." *Yale Law Journal* 88 (1979), pp. 916-49.

Goldman, Sheldon. "Reagan's Judicial Legacy: Completing the Puzzle and Summing Up." *Judicature* 72 (1989), pp. 318-30.

Gottesman, Michael H. "Enforceability of Awards: A Union Viewpoint." In *Arbitration 1988: Emerging Issues for the 1990s*, Proceedings of the 41st Annual Meeting of the National Academy of Arbitrators, ed. Gladys W. Gruenberg. Washington, D.C.: Bureau of National Affairs, 1989. Pp. 88-96.

Green, William C., and Wiley S. Rutledge. "The Federal Courts as Super-arbitration Tribunals: Judicial Review of Non-reviewable Railroad Grievance Arbitration Awards." *Labor Law Journal* 37 (1986), pp. 387-403.

Irving, John S. "Enforceability of Awards: A Management Viewpoint." In *Arbitration 1988: Emerging Issues for the 1990s*, Proceedings of the 41st Annual Meeting of the National Academy of Arbitrators, ed. Gladys W. Gruenberg. Washington, D.C.: Bureau of National Affairs, 1989. Pp. 96-100.

Jones, Edgar A., Jr. "The Presidential Address: A Meditation On Labor Arbitration and His Own Brand of Industrial Justice." In *Arbitration 1982: Conduct of the Hearing*, Proceedings of the 35th Annual Meeting of the National Academy of Arbitrators, eds. James L. Stern and Barbara L. Dennis. Washington, D.C.: Bureau of National Affairs, 1983. Pp. 1-15.

Morris, Charles J. "Twenty Years of Trilogy: A Celebration." In *Arbitration 1980: Current and Expanding Roles*, Proceedings of the 33rd Annual Meeting of the National Academy of Arbitrators, ed. Walter J. Gershenfeld. Washington, D.C.: Bureau of National Affairs, 1981. Pp. 331-373.

Ng, Ignace and Ali Dastmalchian. "Determinants of Grievance Outcomes: A Case Study." *Industrial & Labor Relations Review* 42 (April 1989), pp. 393-403.

Nolan, Dennis R., and Roger I. Abrams. "American Labor Arbitration: The Maturing Years." *University of Florida Law Review* 35 (Fall 1983), pp. 557-632.

Stidham, Robert, and R. A. Carp. "Exploring Regionalism in the Federal District Courts." *Publius: The Journal of Federalism* 18 (1988), pp. 113-25.

Trumka, Richard L. "Keeping Miners Out of Work: The Cost of Judicial Revision of Arbitration Awards." *West Virginia Law Review* 86 (1984), pp. 705-16.

APPENDIX

Variable Definitions and Percentages
(N = 987)

Variable	*Definition*	*Percent*
DISTDEC	1 if district court upholds or confirms award in its entirety; 0 otherwise	.72
AWFAVUN	1 if award favors union by sustaining grievance in whole or in part; 0 otherwise	.80
DISC	1 if award deals with discipline of an employee; 0 otherwise	.40
ARBERR	1 if primary reason for appeal is a claim that the arbitrator erred by not basing the award on the contract; 0 otherwise	.76
PUBPOL	1 if primary reason for appeal is a claim that the award violates public policy; 0 otherwise	.07
POST80	1 if the court decision was issued during the 1981-89 period; 0 otherwise	.56
CIRC1	1 if the decision was issued by a district court within the First Circuit; 0 otherwise	.09
CIRC2	1 if the decision was issued by a district court within the Second Circuit; 0 otherwise	.16
CIRC3	1 if the decision was issued by a district court within the Third Circuit; 0 otherwise	.15
CIRC4	1 if the decision was issued by a district court within the Fourth Circuit; 0 otherwise	.04
CIRC5	1 if the decision was issued by a district court within the Fifth Circuit; 0 otherwise	.10
CIRC6	1 if the decision was issued by a district court within the Sixth Circuit; 0 otherwise	.11
CIRC7	1 if the decision was issued by a district court within the Seventh Circuit; 0 otherwise	.10
CIRC8	1 if the decision was issued by a district court within the Eighth Circuit; 0 otherwise	.07
CIRC9	1 if the decision was issued by a district court within the Ninth Circuit; 0 otherwise	.11
CIRC10	1 if the decision was issued by a district court within the Tenth Circuit; 0 otherwise	.02
CIRC11	1 if the decision was issued by a district court within the Eleventh Circuit; 0 otherwise	.02
CIRCDC	1 if the decision was issued by a district court within the District of Columbia Circuit; 0 otherwise	.03

Arbitration of Title VII Disputes in Academe: Impact of *University of Pennsylvania v. EEOC*

HARSH K. LUTHAR AND JERALD F. ROBINSON
Virginia Polytechnic Institute and State University

The U.S. labor force is undergoing significant changes. Due to changing demographics, an increasing proportion of employees will consist of women and minorities; by decade's end, women will make up almost 50 percent of the labor force and minorities will make up 26 percent (U.S. Bureau of Labor Statistics, 1989). Similarly the baby boomers (age 40-54 by 1999) will make up the largest segment of the labor force. Title VII implications are apparent in these statistics: a continuing increase in complaints based on Title VII should be expected as the proportion of "protected" class members increases. Litigating discrimination cases can be time consuming, as well as expensive, for all parties concerned and to society in general. It may clearly be in the interest of every employer to provide a grievance arbitration mechanism that can address Title VII concerns.

Arbitration of employment disputes has proven to be very successful in the private sector. Most collective bargaining agreements in industry provide for final and binding arbitration. Distinguished arbitrators (NAA) active in private sector arbitration may find themselves asked to serve in a grievance arbitration case involving a higher education dispute. Arbitrators often use the same general principles to resolve disputes in both sectors. Elkouri and Elkouri (1985) remain a primary repository of the collected wisdom in the field and are quoted in all arenas of labor arbitration. However, a major difference in the two settings is in the definition of "probation." In the private sector, probationary employees are usually barred from coverage of the agreement and thus from utilizing the grievance machinery established by it. However, that probation period normally may only extend from 30 days to six months or to a year in limited

Luthar's Address: R. B. Pamplin College of Business, Virginia Polytechnic Institute & State University, Blacksburg, VA 24061-0209.

situations (Elkouri and Elkouri, 1985), whereas the probationary period for academic employees often may extend to seven years.

Title VII complaints involving dismissal or refusal to renew contract provisions normally are limited to a hearing on the process logistics and not on the merits of the case (Douglas, 1989; telephone interviews, 1989). In such a situation, the arbitrator may be called upon to hear a Title VII discrimination case arising out of denial of tenure or promotion of a long-term probationary employee. The arbitrator's award, based on an analysis of the process utilized and not on the merits of the case, could then be appealed to the federal judiciary. In addition, the grievant has the right to file a complaint with the Equal Employment Opportunity Commission (EEOC).

Any review by the Circuit Court of Appeals would fall under the Trilogy philosophy and thus normally would be limited in scope [The Court does not delve into the merits of the case. Few cases are ever overturned or remanded.] In discrimination cases, the Supreme Court's philosophy in *Gardner-Denver* is controlling. Under *Gardner-Denver*, the alleged victim of discrimination can utilize the existing grievance mechanisms prior to having the EEOC actually proceed with its administrative and judicial remedies under the statute. Both filings can be simultaneous. The EEOC normally would initiate a *de novo* investigation and might seek to gain access to information not utilized or not even available to the arbitrator. The EEOC award would then be enforceable by the District Court.

Universities have, in the past, been extremely resistant to opening up peer review files. Most collective bargaining agreements explicitly prevent arbitrators from reviewing issues pertaining to academic judgment, or substituting their own judgment in place of the judgments of appropriate committees or administrators. In the arbitrators' review of procedural due process, they are limited further to remanding the case back to the original decision-making body or some select committee designated by the collective bargaining agreement for reconsideration (Douglas, 1984). Many arbitrators and union officials argue that the concept of academic judgment can be used as a shield to defend decisions that may be arbitrary or even discriminatory (Benewitz, 1981; Russo, 1987). Academic judgment appears to be most vulnerable in cases involving discrimination.

On January 9, 1990, the U.S. Supreme Court, in a landmark case, *University of Pennsylvania v. EEOC*, unanimously ruled that the University must make its tenure review files available to the EEOC in its investigation of a discrimination complaint. The courts have ordered such information be made available in previous court cases, but this is the first decree mandating their availability to the EEOC. A month prior to the *University of Pennsylvania Case*, the First Circuit Court of Appeals rendered a particularly relevant award. The Court granted tenure as relief to a victim of sex discrimination in its *Brown v. Trustees of Boston University* (damages were also upheld in the amount of $200,000). It is clear, that at least with respect to discrimination cases, the tenure process has become subject to rigorous judicial scrutiny. Academic privilege being used as a shield to keep peer review reports confidential may have limited life in employment disputes of the future. The environment for arbitration in academe may well be changing today and the parties as well as the arbitrator must be sensitive to these changes.

Methodology

Since the Supreme Court decision was less than two months old at the time of this writing, a pilot study, developed from a small number of interviews, was undertaken to determine reaction to the *University of Pennsylvania* case. Two major questions guided the approach: (1) Given the past record of court's reluctance to overturn arbitrator awards, will higher education negotiating parties write future contracts to allow arbitrators to review previously confidential data, equivalent to that which the EEOC and courts may require?; and (2) What are the reactions of the parties and of arbitrators to this changing environment of higher education arbitration of discrimination cases for probationary (non-tenured) faculty and other professional employees?

The interviewees were selected in this fashion. For the faculty, the three major faculty organizations were contacted and specialists on higher education negotiation and arbitration issues were interviewed. Five universities in different parts of the country covered by negotiated agreements were selected for interviews in an attempt to discover any regional differences. The American Arbitration Association (AAA) assisted by providing the names of arbitrators who have been active in higher education arbitration activities in the past five years. A structured interview schedule was prepared for the academe parties and for the arbitrators. All instruments were field-tested for face validity utilizing representatives from three groups: arbitrators, university administrators, and faculty association leaders. Minor revisions were made to the questions in the instruments, based on the field testing.

The interviews were conducted during a one-week period in March 1990 by telephone. Response rates were high; only 2 (of 19) persons were not willing to participate. Telephone interviews normally have a response rate of 70-80 percent (Dillman, 1978). This higher rate was not unusual for specialized telephone interviews, since here all the parties were interested in the issues being addressed. The response rates are summarized in Table 1.

TABLE 1
Composition of Survey Sample and Response Rates

	Number Contacted	Number Responding
University administrators	5	4
Nat. professional association leaders	5	4
Local professional assoc. leaders	4	4
Arbitrators	5	5

Findings:

Differing Perceptions of Discrimination

Responses to the questions indicate that higher education institutions are perceived as having more discrimination problems than industry. Although the present sample size is small, the results from it indicate that administrators must be alert to the existence of serious problems and the potential for Title VII complaints. The data in Table 2 illustrate that arbitrators and faculty union leaders see discrimination as being more serious within the academic environment than in the private sector; this conflicts with the administrators' views, where there is a more split perception.

TABLE 2
Perceptions of Title VII Discrimination: In Academe v. Business/Industry

	Univ. Admin.	Union Leaders	Arbitrators
Higher in academe	1	4	3
No significant difference	2	4	1
Higher in business-industry	1	0	1

Should Peer Review Files be Made Available to Arbitrators?

Striking differences appear to be present, based on this limited sample, regarding the issue of whether arbitrators should have access to the peer review files, now held to be confidential. Faculty union leaders unanimously felt that these files should be open to the arbitrator. The opposite view was expressed by the administrators. Arbitrators unanimously sided with the faculty leaders. Table 3 presents these response results.

TABLE 3
Attitudes Toward Peer Review Files Being Made Available to Arbitrator

	Univ. Admin.	Union Leaders	Arbitrators
YES, Should Be Made Available	0	8	5
NO, Should Not Be Made Available	4	0	0

Outlook for Revisions in Negotiated Agreements

The faculty union leaders were again unanimous in their feeling that, in light of the Supreme Court *ruling*, the negotiated agreements would in due course be revised to permit the arbitrator equal access in Title VII cases. Administrators were divided on this issue. Arbitrators again sided with the faculty union position. Table 4 presents the results on this issue.

TABLE 4
Attitudes Toward Revisions in Negotiated Agreements in Academe in Light of *University of PA v. EEOC*

	Univ. Admin.	Union Leaders	Arbitrators
YES, Should Be Revised/Amended	2	8	5
NO, Should Not Be Revised	2	0	0

Are Arbitrators Qualified to Hear Title VII Cases?

On the issue of whether arbitrators are qualified to hear discrimination cases in the academic environment, there was little dissent among the groups. All three groups perceived the arbitrators to be qualified. Table 5 illustrates this point of view.

A final area of inquiry dealt with what training might be necessary for arbitrators to handle such cases within academe. While the data in

TABLE 5
Perception of Arbitrators to Hear Title VII Cases in University Academic Setting

	Univ. Admin.	Union Leaders	Arbitrators
Feel comfortable with their handling	3	8	4
Do not feel arbitrators are qualified to handle	0	0	0
Feel arbitrators could handle if they had additional training	1	0	1

Table 5 indicate that only 2 of the 17 respondents saw a major need for such training, the training issue was addressed by most respondents. One training need identified was for better arbitrator understanding of the academic environment and the nature of peer review processes. Both administrators and faculty union leaders generally agreed that this could be handled within the arbitration hearing itself and that additional specialized training programs were not needed for arbitrators. All parties indicated that arbitrators used in higher education were highly skilled in conducting hearings and possessed good analytical skills.

Discussion

1. While it is dangerous to generalize given the small sample of this pilot study, the following implications may prove valid with the larger study now underway. It is noteworthy that the parties and the arbitrators do not view the higher education environment as being a positive role model for non-discriminatory practices. Only two persons from the 17 respondents suggest that discrimination was less prevalent in academe than in industry.

2. Arbitrators seem to feel that there may be a broader role for arbitration services in higher education in light of the Supreme Court ruling. Arbitrators consistently agreed with the view espoused by the faculty union leaders regarding opening peer review files. Their attitudes toward needed revisions in the negotiated agreements were identical with the faculty union leaders. Table 5 data indicate that no one questions the arbitrators' qualifications to hear Title VII cases. Arbitrators themselves appear confident in their abilities to hear such cases. This can be viewed as suggesting a possible broadening of the role of arbitration in academe. The possibility that arbitrators may be given the authority to decide discrimination issues based on the merits of the case may be explored by the parties in future negotiations.

3. When considering the qualifications of arbitrators, some of the parties questioned raised the issue of arbitrator source. Most parties suggested they looked for NAA membership and secured their arbitrators from the AAA. Concern was expressed that some neutrals available from regional or state bodies may not be as qualified in the discrimination areas. Given the AAA panel selection techniques, there is the perception that discrimination experience is a major criteria for being placed on a panel.

4. At this early point in the fallout from *University of Pennsylvania v. EEOC*, many administrators appear unwilling to consider granting the arbitrator equal access to the peer review materials as they are *now* required to give *both* to the EEOC and the Courts when requested. What logical reason is there for the university administration to withhold the now-confidential peer review materials at the first level of review, from the arbitrator, when this may be an opportunity to resolve such discrimination complaints in a quicker and less expensive manner? It is noteworthy that the courts seldom overturn an arbitrator even in Title VII cases (Hoyman and Stallworth, 1983).

Hoyman and Stallworth looked at 1,761 unique arbitrated Title VII discrimination cases over a decade. Of these, only 27 percent were reviewed by the EEOC or an appropriate state agency and then only 17 percent were reviewed by the courts. This suggests that most grievants are satisfied with the arbitrators' decisions. Of the total 1,761 arbitration cases only 4.4 percent were reversed by the EEOC or a state agency; a meager 1.2 percent were reversed by the courts. This suggests that when the university "wins" the discrimination case in arbitration, its chances of losing on appeal to EEOC or the courts are minimal.

However, with the ground rules being changed by recent Supreme Court actions, there appears far greater likelihood that the EEOC findings would differ from those of the arbitrator if arbitrators are limited to mere procedural issues. It would be in the best interests of the complainant, the faculty union, and the university administration, for full access to be granted the arbitrator. The arbitration decision, when rendered on the merit of the case, is much more likely to be reinforced by the EEOC and court actions.

5. With the EEOC having full discovery rights to the peer review materials and the possible extension of these rights by negotiated contract to the arbitrator, one logical impact of the court decision may be on university policies relating to the criteria for promotion and tenure. Today, the typical promotion and tenure process has few

specific criteria that are known to all the parties. There is a type of moving target at which the probationary faculty member takes aim. Because university enrollments are projected to decline in this decade, the numbers of new faculty receiving tenure may be decreased as may the number of promotions granted. Thus, a faculty member may be employed under one set of standards for tenure; as the probationary period ends, the standards may be entirely different. Given the lack of complete information about the specific criteria, other than teaching quality, scholarship, and service, the arbitrator may require that more specific policies be promulgated. This may in fact be a byproduct of the new EEOC powers under *University of Pennsylvania.*

6. Some respondents suggested that university attorneys may have mixed motivations in their arguments against opening up peer review files to either the EEOC or arbitrators. Attorneys tend to be litigation-driven. Furthermore, the attorneys may recognize that the entire promotion and tenure process may be dramatically affected by the recent Supreme Court decision. With the absence of confidentiality in discrimination cases, it may not be long until that cloak of secrecy would be removed from all promotion and tenure committee deliberations. The argument of reverse discrimination by non-protected classes could be presented as evidence for opening their files; this could in turn lead to greater litigation for the university. Opening the files for some (Title VII protected classes) may have the ultimate effect of opening up the files in general. This could significantly influence the faculty collegiality and university mode of operations.

7. While the data gathered here relate to universities having collective bargaining agreements, there may also be an effect on the non-union institutions. Even today, some universities such as Columbia, Cornell, and Northeastern have seen fit to promulgate grievance procedures, including arbitration as the final step (Douglas, 1989). These institutions may become the role models in the 1990s in resolving disputes, especially in discrimination. Given the savings that potentially are forthcoming in using arbitration, these non-union grievance procedures may well open the door to the confidential peer review materials being given to the arbitrator even before those institutions with the negotiated agreements.

References

Alexander v. Gardner-Denver. 415 U.S. 36, 94 SCt. 1011 (US SCt., 1974).

Benewitz, Maurice C. "Arbitration in Higher Education: Is Academic Arbitration Sui Generis?" *Proceedings of the Ninth Annual Conference of National Center for the Study of Collective Bargaining in Higher Education*, ed. Joel M. Douglas, 1981, pp. 61-66.

Brown v. Trustees of Boston University, 891 F.2d 337.
Dillman, D. A. *Mail and Telephone Surveys: The Total Design Method.* New York: John Wiley and Sons, 1978, pp. 232-81.
Douglas, Joel M. "Arbitration in Academe," *Newsletter*, National Center for the Study of Collective Bargaining in Higher Education and Professions, XVII, 2 (1989), pp. 1-7.
Douglas, Joel M., and Beth G. Cohen. *Directory of Faculty Contracts and Bargaining Agents in Institutions of Higher Education,* XVI, pp. 3-86 (January 1990).
Douglas, Joel M. "An Analysis of the Arbitration Clause in Collective Bargaining Agreements in Higher Education." *Arbitration Journal* XXXIX (1984), pp. 38-48.
Elkouri, Frank, and Edna A. Elkouri. *How Arbitration Works*, Washington, DC: Bureau of National Affairs, 1985.
Hoyman, Michelle, and Lamont E. Stallworth. "Arbitrating Discrimination Cases in The Wake of *Gardner-Denver*." *Monthly Labor Review.* (October, 3-10, 1983).
Russo, D. Nicholas. "A Legal Analysis of the Tenure Issue—A PSC Perspective." In *Proceedings of the Fifteenth Annual Conference*, ed. Joel M. Douglas. New York: NCSCBHEP, 80-88.
University of Pennsylvania v. EEOC. 110 SCt. 577, No. 88-493. (January 9, 1990).

The Best Laid Plans . . .: What Determines Whether Union Organizing Drives Result in Elections or Abandoned Campaigns?

THOMAS F. REED
University of Calgary

In recent years numerous studies have been conducted on the determinants of representation election outcomes. (See Heneman and Sandver [1983] for a review of the literature, and Beaumont [1987] and Reed [1989] for examples of more recent studies.) But not all campaigns begun by union organizers terminate in a representation election. Alternatively, campaigns may end in a voluntary recognition of the union by the employer or in the abandonment by the union organizer of a failed campaign. There has been no research to date on the factors that determine in which state a campaign terminates. The purpose of this paper is to develop and test a model that explains whether a campaign terminates in a representation election or an abandonment by the union organizer.

Hypotheses

Two classes of variables are expected to influence whether a campaign terminates in an election or an abandonment: characteristics of the union organizer leading the organizing drive and characteristics of the campaign itself. We shall consider first characteristics of the organizer.

Why should organizers matter? Previous research on representation election campaigns and first contracts suggests that union organizers may play a very important role in determining these outcomes. Reed (1989) tested models of the determinants of pro-union votes and election victories that included union organizer characteristics and tactics and other variables identified in prior research as important determinants of these outcomes. He found that personality variables such as

Author's Address: Mohr/Faculty of Management, University of Calgary, Calgary, Alberta, T2N 1N4 Canada.

Faith in People, Self-Esteem, Machiavellianism, Locus of Control, and Desire for Control were statistically and substantively important determinants of pro-union votes. Demographic characteristics such as downward mobility, education, and whether the organizer was a former rank-and-file union member were also important. Two tactics used by the organizer, namely paid advertisements and coalition building, also were important determinants of support for the union.

Regarding first contracts, Reed (in press) developed and tested a model of the impact of the union organizer on the probability that the union would secure a contract following a victory in a representation election.[1] He found that Machiavellianism, Self-Monitoring, upward mobility, downward mobility, education, coalition building, and development of worker committees by the organizer were all important determinants of the probability that the union secured a first contract, even while statistically controlling for a variety of other variables thought to affect first contract outcomes.

This prior research suggests that union organizers play an important role in the organizing process. I posit that the organizer will help determine whether campaigns terminate in an election or an abandonment.

It is expected that the probability that a campaign will terminate in an election rather than an abandonment will be greater for organizers with greater Self-Esteem because the organizer will be better able to withstand negative feedback from managers and disinterested workers that may lead to a premature abandonment of the campaign. Self-confident organizers will believe that they can succeed in bringing the campaign to a victorious election despite many obstacles, and they may influence workers' support of the union and commitment to the campaign by exuding self-confidence. However, at very high levels of Self-Esteem it is expected that increased Self-Esteem will be associated with a decreased probability of an election because organizers will be self-confident enough to walk away from apparent losing efforts, thereby avoiding escalating commitments to failing campaigns. Therefore, a positive coefficient is expected on Self-Esteem and a negative coefficient on the square of Self-Esteem, or Self-Esteem^2.

Machiavellianism, that is, the extent to which an individual believes others may be manipulated in interpersonal situations (Christie, 1968), is expected to affect the probability that a campaign terminates in an election rather than an abandonment. Specifically, it is hypothesized that greater Machiavellianism will decrease the probability of an election because organizers will be more willing to abandon campaigns despite the disappointment or hardship it may produce among union supporters.

Rigidity, that is, an increasing "tendency to persist in responses that may previously have been suitable in some situation or other but that no longer appear adequate to achieve current goals or to solve current problems" (Wesley, 1953), is expected to increase the probability of an election because organizers are more likely to persist in their behaviors whether or not they are having the desired impact: a reasonable chance of a union victory.

Organizers who are Upwardly Mobile and Downwardly Mobile, and who have increased Age, Education, Organizing Experience, and Union Experience, are expected to be associated with campaigns with an increased probability of terminating in an election. This is because these variables capture various aspects of human and social capital that may make organizers more productive and effective.

As stated above, characteristics of the campaign may help determine how the organizing drive terminates. Four campaign variables are included in the model as controls: a Teamster union dummy variable, because prior research suggests that Teamsters may conduct different campaigns than other unions (Heneman and Sandver, 1983); Unit/Plant Size variable, a measure of the importance of the potential bargaining unit to the company and, therefore, a proxy for the extent of firm resistance to the union; Unemployment Rate, because labor market conditions may affect both employer resistance and worker resolve; and a "Right-to-Work" dummy variable, a proxy for firm resistance and prevailing attitudes about unions.

Methods

Eight unions participated in the study.[2] Two types of surveys were sent to a sample of 229 organizers. The Union Organizer Survey elicited information on organizers' personal and demographic characteristics; of the 229 surveys mailed, 187 surveys (82%) were returned. The Organizing Campaign Survey elicited information on each organizing campaign managed by the organizer for the years 1982 through 1986. Four hundred and thirty-five Organizing Campaign Surveys were returned by 64 organizers (mean = 6.87; s.d. = 7.96). Forty-two organizers were ineligible to return the Campaign Surveys because they had not directed campaigns, but instead had served as assistants. Therefore, the response rate for the Campaign Survey was 44 percent.

The usable sample was reduced to 353 campaigns due to missing values and the deletion of campaigns that terminated in voluntary recognitions.

The dependent variable, Election, equals one if the campaign terminated in an election and zero if the campaign terminated in an abandonment; its mean equals .80 (that is, 283 out of 353 campaigns terminated in an election, and 70 terminated in an abandoned campaign). The cumulative logistic probability function is the appropriate estimator for this analysis,

$$\text{Election} = 1/(1 + e^{-(a + b_i X)}),$$

where X is a vector of independent variables and b is a vector of logit coefficients. The logit coefficients are estimated with maximum likelihood procedures.

The organizer personality characteristics were measured on seven-point scales as follows:

Self-Esteem was measured with Rosenberg's (1965) 10-item Self-Esteem Scale (Cronbach's alpha = .73). The scale includes items such as: "I am able to do things as well as most other people," and "I feel that I am a person of worth, at least on an equal basis with others."

Machiavellianism was measured with Christie's (1968) 20-item Mach IV Scale (alpha = .66). The scale includes items such as: "Never tell anyone the real reason you did something unless it is useful to do so," and "Anyone who completely trusts anyone else is asking for trouble."

Rigidity was measured with 39 items from Wesley's (1953) Rigidity Scale (alpha = .79). The scale includes items such as: "There is usually only one best way to solve most problems," and "I think it is usually wise to do things in a conventional way."

Social Mobility was measured through a coding scheme that uses categories found in the *Job Classification Guide* of the U.S. Equal Employment Opportunity Commission. The *Guide* classifies occupations into nine categories: 1) officials and managers; 2) professionals; 3) technicians; 4) sales; 5) office and clerical; 6) craft; 7) operatives; 8) laborers; and 9) service. These nine occupations were grouped into five categories (rank ordered here by status): professional (occupations 1 and 2); craft (occupation 6); white-collar/pink-collar (occupations 3, 4, 5); blue-collar (occupations 7 and 8); and service (occupation 9). Respondents were asked to provide information concerning both their occupations prior to becoming union organizers and their parents' occupations. Two variables were created to assess social mobility: Upwardly Mobile is set equal to one if the respondent's occupation prior to becoming an organizer was of a higher status than his or her father's occupation; Downwardly Mobile is set equal to one if the respondent's occupation prior to becoming an organizer was of a lower status than his or her father's occupation.

Age, Education, Organizing Experience, and other Union Experience were measured in years.

Teamster is a dummy variable coded equal to one if the International Brotherhood of Teamsters conducted the campaign, and zero otherwise. Unit/Plant Size Ratio is computed as the number of workers in the election unit divided by the number of people employed at the plant. Unemployment Rate is the state unemployment rate during the year prior to the campaign. "Right-to-Work" is a dummy variable set equal to one if the election was held in a so-called right-to-work state.

Results

A number of the organizer characteristics variables was found to be statistically significant. As hypothesized, a strong relationship exists between the organizer's Self-Esteem and the probability that a campaign ended in an election versus an abandonment: each one unit increase in the Self-Esteem scale above the mean increases the probability of an election by 15 percent within one range, and decreases the probability of an election by 0.12 percent for organizers with very high Self-Esteem.

Although it had been expected that a simple negative relationship would exist between Machiavellianism and the dependent variable, a more complex relationship exists. As hypothesized, each one unit increase in the scale above the mean reduces the probability of an election by 6 percent in one range and increases the probability of an election by a statistically significant but existentially meaningless 0.04 percent for organizers with very high scores on the Machiavellian scale.

As hypothesized, a positive relationship exists between Rigidity and the probability of an election: each one unit increase in the Rigidity scale above the mean increases the probability of an election by 0.2 percent. This relationship is statistically significant only at the $p < .09$ level, however.

Among the human/social capital variables, two variables were significant. As hypothesized, each one year of additional Education above the mean results in a 4 percent increase in the probability of an

TABLE 1
Variable Definitions and Descriptive Statistics

Variable	Definition	Mean	S.D.
Self-Esteem	Sum of 10-item scale.	62.98	5.76
Machiavellianism	Sum of 20-item scale.	69.73	18.08
Rigidity	Sum of 39-item scale.	163.93	23.94
Upwardly Mobile	= 1 if pre-organizer job was of higher status than father's; = 0 otherwise.	0.22	0.41
Downwardly Mobile	= 1 if pre-organizer job was of lower status than father's; = 0 otherwise.	0.09	0.28
Age	Age in years.	45.42	8.44
Education	Education in years.	13.52	2.21
Organizing Exper.	Years of organizing experience.	10.50	6.40
Union Experience	Years of other union experience.	11.07	8.85
Teamster	= 1 if IBT conducted campaign; 0 otherwise.	.18	.38
Unit/Plant Size	Ratio of election unit size to plant size.	.79	.51
Unemployment Rate	State unemployment rate.	8.12	2.17
"Right-to-Work"	= 1 if RTW state; 0 otherwise.	0.16	.37

election, and each one year of additional Union Experience above the mean results in a 0.74 percent increase in the probability of an election. None of the campaign control variables were statistically significant.

Discussion

These results provide support for the general proposition that union organizers play an important role in determining whether organizing drives terminate in an election or an abandonment. Support was found for the hypotheses on Self-Esteem, Machiavellianism, Rigidity, education, and union experience. The magnitude of the effect of some of these variables on the probability of an election rather than an abandonment was rather large, ranging from 15 percent for Self-Esteem, to 6 percent for Machiavellianism, to 4 percent for education. The magnitude of the effect for the other significant coefficients was small, however. As noted, none of the campaign characteristics coefficients were significant.

TABLE 2
Logit Estimates of the Determinants of Campaign Termination
Dependent Variable: Election

Variable	Coefficient	Standard Error	Derivative
Self-Esteem	.9273**	.5593	.1472
Self-Esteem^2	−.0076**	.0046	−.0012
Machiavellianism	−.4029***	.1091	−.0640
Machiavellianism^2	.0028***	.0008	.0004
Rigidity	.0124*	.0092	.0020
Upward Mobility	.0897	.5077	
Downward Mobility	−.2438	.6054	
Age	−.0104	.0272	
Education	.2599***	.0937	.0413
Organizing Experience	.0245	.0336	
Union Experience	.0472**	.0279	.0074
Teamster	.3155	.5847	
Unit/Plant Size Ratio	.2506	.3632	
Unemployment Rate	.1055	.0741	
"Right-to-Work"	−.1596	.3945	
−2 (Log-Likelihood Ratio)	306.46***		

* $p < .10$; ** $p < .05$; *** $p < .01$
All organizer variable t-tests are one-tailed.

This paper makes two contributions to the literature on union organizing. First, it extends the research on whether union organizers matter in determining a variety of representation campaign outcomes. Prior research has shown that organizers may affect pro-union votes and union victories (Reed, 1989) and the probability that the union secures a first contract following a representation election victory (Reed, in press). This paper provides evidence that organizers help determine in which situation a campaign terminates.

This research is important because of the implications it has for unions' hiring policies and practices for organizers. The present study and the two earlier articles on organizers suggest that variables such as Self-Esteem, Machiavellianism, and education are consistently powerful determinants of the particular dependent variable under investigation. Given the sharp secular declines in union density in both the U.S. and the U.K., union leaders should consider paying increased attention to their human resource practices, specifically the recruiting and selecting of union organizers.

Second, this is apparently the first study on the question of what determines whether campaigns end in elections or abandonments. Union organizing is an extremely complex process, but much of the prior research has tended to explore research questions and to test models based on readily available secondary data sources. Neither abandoned campaigns nor characteristics of union organizers are contained in files of the U.S. National Labor Relations Board.

The issue of whether campaigns terminate in an election or abandonment is very important, however, because unions, firms, and workers expend resources during a campaign. From the point of view of the union, abandoned campaigns are not necessarily bad: given information problems present at the time a decision is made to initiate an organizing drive, it is not surprising that mistakes are made and campaigns are begun that, in hindsight, should not have been initiated. An abandonment rate of zero would suggest that unions are engaged in escalating commitments to a course of action, and do not recognize the notion of sunk costs. The unions' goal, therefore, should not be to eliminate abandoned campaigns, but to maximize the expected return from their investments in campaigns. More research is needed to identify which types of information are reliable predictors of eventual union success in organizing campaigns.

Endnotes

[1] Readers are reminded that in the United States firms are not required to sign a first contract after a union is certified by the National Labor Relations Board as the bargaining representative for a group of workers; the firm merely needs to bargain in "good faith" to be in compliance with federal labor law. Thus, the union fails to secure a first contract in about one out of four cases after the union wins a representation election (Cooke, 1985a, 1985b; Prosten, 1979).

[2] The participating unions are the Graphic Communication International Union, Hotel Employees and Restaurant Employees Union, International Brotherhood of Electrical Workers, International Brotherhood of Teamsters, New York State Nurses Association, Service Employees International Union, United Mine Workers Union, and United Steel Workers Union.

References

Beaumont, P. B. "Individual Union Success in Obtaining Recognition: Some British Evidence." *British Journal of Industrial Relations* 25 3 (1987), pp. 323-34.

Cooke, William N. "The Failure to Negotiate First Contracts: Determinants and Policy Implications." *Industrial and Labor Relations Review* 38 2 (1985a), pp. 163-78.

________. *Union Organizing and Public Policy: Failure to Secure First Contracts*, W.E. Upjohn Institute for Employment Research, Kalamazoo, MI, 1985a.

Christie, R. "Machiavellianism Scale in Unpublished Manuscript." Columbia University, Department of Social Psychology, 1968.

Heneman, Herbert G. III, and Marcus H. Sandver. "Predicting the Outcome of Union Certification Elections: A Review of the Literature." *Industrial and Labor Relations Review* 36 4 (1983), pp. 537-59.

Prosten, Richard. "The Longest Season: Union Organizing in the Last Decade, a/k/a How Come One Team Has to Play With Its Shoelaces Tied Together?" In *Proceedings of the Thirty-First Annual Meeting,* IRRA, Madison, WI, 1979, pp. 240-49.
Reed, Thomas F. "Do Union Organizers Matter? Individual Differences, Campaign Practices, and Representation Election Outcomes," *Industrial and Labor Relations Review* 43 1 (1989), pp. 103-19.
Reed, Thomas F. "Nice Guys Don't Always Finish Last: The Impact of the Union Organizer on the Probability of Securing a First Contract," *Industrial Relations* (in press).
Rosenberg, M. *Society and the Adolescent Self-Image,* Princeton: Princeton University Press, 1965.
United States Equal Employment Opportunity Commission (1985), *Job Classification Guide.* U.S. E.E.O.C., Office of Program Research-Survey Division, Washington, D.C.
Wesley, Elizabeth. "Perspective Behavior, Manifest Anxiety, and Rigidity." *Journal of Abnormal and Social Psychology* 48 (1953), pp. 129-34.

Interunion Relations in the U.S. Airline Industry: Some Descriptive Findings

DAVID J. WALSH
Cornell University

Consider two of the most prominent recent events in U.S. industrial relations: the United Mine Workers' strike against the Pittston Coal Company and the International Association of Machinists' strike at Eastern Airlines. Albeit with varying degrees of success, each of these struggles involved substantial support activities across unions and claims that issues vital to the entire labor movement were at stake. In an environment hostile to the interests of labor, where meaningful support is both hard to come by and essential to survival, it may be that interunion relations will play a critical role in determining labor's future. Yet, what do we really know about such matters as why unions do or do not support one another, the factors that promote or inhibit coalition formation among unions, and the extent to which unions exchange information and other resources?

I have attempted to address these and other issues in a study of interorganizational relations among airline unions. A systematic study of interunion relations addresses a noticeable void within the industrial relations literature and lends itself to a fruitful integration of industrial relations insights and organizational theory. The airline industry provides an especially interesting and appropriate setting for such a study. I will briefly elaborate upon the importance of interunion relations as a research topic and then discuss some descriptive data on relations among airline unions.

Literature on Interunion Relations

Academic interest in issues of union structure and government has been largely dormant since the "golden age" of research in this area during the 1950s, although there are some signs of a recent renewal

Author's Address: NYSSILR, Cornell University, Ithaca, NY 14851.

(Fiorito and Hendricks, 1987). As with earlier work (e.g., Sayles and Strauss, 1967), most of the recent efforts have an intraunion focus. Glimpses of interunion relations can be found in discussions of competition among unions (Chaison, 1976), work on the origins of national unions (Ulman, 1955), historical and case study accounts of individual unions (Neilson, 1982), treatments of coalition bargaining (Chernish, 1969), discussions of bargaining with multinational corporations (Flanagan and Weber, 1974), and studies of union mergers and affiliations (Chaison, 1986; Stratton-Devine, 1989). Overall, however, the pertinent industrial relations literature is quite limited and does not readily combine to form a coherent perspective on interunion relations.

Strauss (1977) arrived at a similar conclusion and pointed to interunion relations as an especially promising area of inquiry. The potential of interunion relations as a subject of industrial relations research extends beyond remedying previous neglect in the literature, however. A focus upon relations between unions allows the labor movement to be conceived and analyzed as a network of interunion ties, rather than simply as an aggregate of individual unions or as an entity wholly embodied by the AFL-CIO. Further, inquiry into interunion relations readily connects to the prime concern of industrial relations researchers, labor-management relations. Far from peripheral, interunion relations are best understood as both reflecting and shaping labor-management relations.

If industrial relations writings do not adequately deal with interunion relations, what about the organizational literature? Many studies of interorganizational relations exist and these have examined various types of organizations (Galaskiewicz, 1985). Almost none of this work, however, has explicitly considered unions. Yet, unions differ in important respects from the other types of organizations which have been the focus of interorganizational studies and these distinctions are relevant to the ways in which unions interact with one another.

The Airline Industry as a Context for Interunion Relations

There are several reasons why the airline industry provides an appropriate and interesting setting for a study of interunion relations. Union density is relatively high. Within a craft-based bargaining structure, no single union represents the bulk of workers throughout the industry and several major unions are present at most carriers. Additionally, bargaining has always been relatively decentralized within the industry, leaving carrier-level subunits of national unions with considerable responsibility and autonomy (Cappelli, 1985).

If the ability to examine relations among numerous and varied unions makes the airline industry an appropriate setting for a study of interunion relations, its history and recent developments render it an interesting one. Airline unions have had the reputation of failing to support one another (Cappelli, 1987; Moody, 1987). Developments during the 1980s, however, suggest that failures to coordinate activities and obtain support may now carry weightier consequences. It is impossible to even begin to recount the recent course of events within the airline industry here, but the likes of financially troubled carriers, routine use of permanent replacements in strikes, rampant mergers and acquisitions, the spread of concessions across carriers, and the activities of Texas Air Corp. (McKelvey, 1988) all have had implications for relations between unions. Thus, in an industry where past experience does not inspire great confidence in the ability of its unions to collaborate, contemporary circumstances seem to call for just that (Cappelli, 1987; Moody, 1987).

Data and Methods

This study examines relations among unions representing workers at the major U.S. air carriers during the period from 1987 through mid-1989. Included in this study are all of the national and independent unions which represent workers at these carriers, as well as those subunits of national unions (e.g., IAM Districts, ALPA Master Executive Councils) which have primary responsibility for conducting bargaining at particular carriers. A total of 37 unions was selected according to these criteria, with complete data being obtained for 33 unions. All possible pairings among this set of unions were considered with one exception: data were not collected on the relations between national-level unions and *their own* subunits.[1] Thus, analyses are based on a total of 1,024 dyads (ordered pairs).[2]

Data for this study were collected by two primary means. First, telephone interviews were conducted with officers from each union. At the subunit level, this was typically the top officer of the union, while for large international unions, the head of the airline division or major staff department was targeted. The interviews followed a survey instrument developed for this study and inquired about the respondent unions' relations with *each* of the other unions included in the study. The types of relations asked about are listed in Table 1. The second source of data was a systematic inspection of published

TABLE 1

Density and Reciprocity of Interunion Relations

Description of Relation	Density	Percent of Ties Reciprocated
Know of a contact person at this union	.371	68.83
Expect at least mild support from this union	.306	46.01
Direct communication/contact	.225	SYMM.
Received information from this union	.206	54.03
Perceive interdependence with this union	.159	29.41
Joint action on a common problem	.068	SYMM.
Have a personal friend at this union	.060	16.39
Had a disagreement or dispute with this union	.048	24.49
Belong to same coalition	.043	SYMM.
Received substantial support from	.033	29.41
Received resources other than information from	.028	6.89
Perceive this union to be a competitor	.027	7.14
Written/oral agreement	.006	SYMM.
Would turn to this union first for information	LIM.	28.07
Would turn to this union first in a strike	LIM.	22.22
Most important tie is with this union	LIM.	32.43

Density is the proportion of all ordered pairs (1,024) among this set of 33 unions for which the specified type of relation is present. *Percent of ties reciprocated* refers to the percent of cases in which both unions in a pair cite each other with respect to a given relation.

SYMM. — Designates that the data for a particular relation have been symmetrized. The data for inherently symmetrical relations were symmetrized such that *both* parties had to agree that the tie was present or it was not counted. This is a conservative approach and its use means that the density figures for symmetrized relations are minimum estimates.

LIM. — Designates that the survey item limited the number of other unions which could be cited by the respondent.

sources.[3] These sources were combed for any references to interunion contact. The data thus gathered helped corroborate and expand upon the reports of union officers.

Findings

The findings (Table 1) suggest several things about relations among airline unions. First, the density of ties varies considerably depending upon the type of relation which is considered. Awareness of potential contact persons at other unions is relatively common, as are expectations of at least mild support, flows of information, and direct communication/contact of any kind. Not surprisingly, more involving, "high cost" relations such as engaging in joint action concerning a common problem (e.g., joint legislative activity, joint participation in buy-out negotiations), participating in a coalition, receiving substantial support, and receiving resources other than information are far less prevalent. At the extreme low end in terms of density, it is apparent that formal agreements are not the glue binding airline unions together and that union officers perceive relatively little competition with other airline unions (particularly since the re-affiliation of the IBT with the AFL-CIO). Lastly, union officers perceive a moderate level of interdependence (defined as another union's actions or outcomes having an effect on one's own union) with other airline unions. Their outlook is neither so parochial that they fail to appreciate ways in which other unions impinge upon theirs, nor so global that they see all other airline unions as relevant actors.

Reciprocity, or the degree to which relations are mutual and balanced, is also of interest. To the extent that reciprocity is lacking, it suggests that a relationship has different meaning for the two parties and that one union may be dependent on the other. Again, there is variation across types of relations. Awareness of contact persons at other unions is quite mutual, and to a lesser extent, so is the flow of information. However, reciprocity is low for most other kinds of ties, particularly those involving actual or potential support. Thus, the receipt of substantial support and of resources other than information (most frequently, strike contributions and use of office space/meeting facilities) are both heavily one-sided. The lack of reciprocal nominations regarding preferred sources of information and strike support, and most important relations, underscores the fact that ties with some unions are of particular strategic importance. Thus, the number of times that unions representing principally pilots or mechanics are cited as the most important relation (26) is more than twice that of unions representing other types of workers (11).[4]

Conclusions

This glimpse of relations between airline unions suggests a few tentative conclusions. First, the network of airline unions is a small enough world that, at least for less-involving relations, a moderately dense set of interunion ties exists. Communication and information flow relatively freely, and expectations of support extend widely enough to encompass unions with which there has been no direct contact. On the other hand, levels of joint activity and substantial support among airline unions are much lower. Airline unions, while hardly strangers to one another, have not yet begun to collaborate on a regular and broadly inclusive basis. Second, the limited reciprocity in relations among airline unions points to the importance of considering differences in the resources and capacities of unions.

Airline unions differ markedly in terms of bargaining power, access to information, political capacity, and size, among other things, and these distinctions can influence the nature of interunion relations. Discerning common interests, establishing bases for mutual support, and working together in ways which preserve the autonomy of individual unions become all the more difficult when some unions can afford to go it alone more readily than others.

The basic aim of this paper, then, has been to suggest the viability and importance of interunion relations as a topic for industrial relations research. The fundamental question that such research raises is, "Just how organized is organized labor?" The answer to this question may be more important to the labor movement than ever before.

Endnotes

[1] Reasons for this include difficulties in separating the two levels in some cases (the same officer may be part of both in different capacities), the large set of items that would have had to be added to an already lengthy survey in order to obtain meaningful variation in national-subunit relations, and the possibility of engendering respondent non-participation by inquiring about the sometimes sensitive matter of national-subunit relations.

[2] This total is calculated as follows: $33(32) - 32 = 1{,}024$. The product is the number of ordered pairs formed by each union's relations with every other union except itself. Thirty-two is subtracted from this total since there were 32 ordered pairs formed by relations between national level unions and their subunits for which data were not collected.

[3] These publications included *Daily Labor Report*, *New York Times*, *AFL-CIO News*, and the publications of the major unions in the industry (ALPA, IAM, TWU, IBT, AFA).

[4] Chi-square with 1 df = 7.028, $p < .01$. The number of citations is greater than 33 because a few respondents named more than a single most important relation. A maximum of two was allowed where respondents indicated that a single citation was not sufficient.

References

Cappelli, Peter. "Competitive Pressures and Labor Relations in the Airline Industry." *Industrial Relations* 24 3 (1985), pp. 316-38.

Cappelli, Peter. "Airlines." In *Collective Bargaining in American Industry*, David B. Lipsky and Clifford B. Donn, eds. Lexington, MA: Lexington Books, 1987, pp. 135-86.

Chaison, Gary N. "Frequency and Outcomes of Union Raids." *Industrial Relations* 15 (February 1976), pp. 107-10.

Chaison, Gary N. *When Unions Merge*. Lexington, MA: Lexington Books, 1986.

Chernish, William N. *Coalition Bargaining*. Philadelphia: University of Pennsylvania Press, 1969.

Fiorito, Jack, and Wallace E. Hendricks. "Union Characteristics and Bargaining Outcomes." *Industrial and Labor Relations Review* 40 (1987), pp. 569-84.

Flanagan, Robert J., and Arnold R. Weber. *Bargaining without Boundaries*. Chicago: The University of Chicago Press, 1974.

Galaskiewicz, Joseph. "Interorganizational Relations." *Annual Review of Sociology* 11, Palo Alto, CA: Annual Reviews, Inc., pp. 281-304, 1985.
McKelvey, Jean T., ed. *Cleared For Takeoff—Airline Labor Relations Since Deregulation*. New York State School of Labor and Industrial Relations, Cornell University, ILR Press, 1988.
Moody, Kim. "Go-it-Alone Mentality Hurts Airline Unions in Era of Deregulation." *Labor Notes* (June 1987), pp. 8-9.
Nielsen, Georgia Panter. *From Sky Girl To Flight Attendant*. New York State School of Industrial and Labor Relations, Cornell University: ILR Press, 1982.
Sayles, Leonard R., and George Strauss. *The Local Union*. Revised Ed., New York: Harcourt, Brace & World, Inc., 1967.
Stratton-Devine, Kay. "Interorganizational Relationships Among U.S. Labor Unions: Mergers and Affiliations." In *Proceedings of the Forty-Second Annual Meeting* of Industrial Relations Research Association, pp. 155-62, 1990.
Strauss, George. "Union Government in the U.S.: Research Past and Future." *Industrial Relations* 16, 2 (1977), 215-42.
Ulman, Lloyd. *The Rise of the National Trade Union*. Cambridge: Harvard University Press, 1955.

DISCUSSION

EMILY P. HOFFMAN
Western Michigan University

Although the arbitrator's finding in a grievance is usually considered "final and binding," the courts have allowed for exceptions, and will vacate an arbitrator's award found to either violate public policy or not to be based on the "essence" of the collective bargaining agreement. While both of these papers consider judicial appeals of private sector grievance arbitration awards, they examine them from different perspectives. Feuille, Chandler, and LeRoy, in *What Happens When Arbitration Is Not the End of the Road?*, analyzed the outcomes of a large number of appeals of arbitration awards to the federal district courts. In "Arbitration of Title VII Disputes in Academe: Impact of *University of Pennsylvania v. Equal Employment Opportunity Commission*," Luthar and Robinson present results of a pilot survey of reactions to an important recent Supreme Court decision.

Feuille, Chandler, and LeRoy examined the outcomes of substantially all cases (those in which the arbitrator's decision was clearly either upheld or vacated) of private sector arbitration appeals to the federal district courts since the Supreme Court's *Steelworkers Trilogy* decisions of 1960. The authors note that while the proportion of awards appealed is very small, it has risen substantially over time. Unfortunately, there is no discussion of this phenomenon. Perhaps a comparison could be made with the trend in appeals of non-grievance (*i.e.*, inter-company) arbitration awards, or the proportion of all court decisions appealed.

The finding that significantly more awards favoring unions are appealed, and that such appeals are more likely to be successful, is certainly very interesting and worthy of further study. Perhaps the greater proportion of appeals by employers is due to their relative financial resources, and could be examined by a variable for the size of the corporation.

Author's Address: Department of Economics, Western Michigan University, Kalamazoo, MI 49008.

That the courts were more likely to favor the employer in the South and the West (4th, 5th, 9th, and 10th circuit courts) than in the more-unionized industrial Northeast and Midwest suggests a regional bias. Since judges may well represent the biases of the region from which they are appointed, the effect of a dichotomous variable for whether or not that decision is from a state with right-to-work laws might be worth investigating.

The authors were surprised to find that there was no difference in the likelihood of an award being upheld or vacated pre- or post-1980. They note that almost half of the judges on the federal bench after 1980 were Republicans (who might be expected to be biased against labor unions). Again, perhaps a dichotomous variable as to the political affiliation of the judge (if available), or at least of the appointing president, would provide some evidence on this matter.

Luthar and Robinson present results of a pilot survey they conducted in which arbitrators, university administrators, and faculty association leaders were questioned as to their reactions to the recent Supreme Court decision (*University of PA v. EEOC*), in which a faculty member lost grievance arbitration over alleged discrimination under Title VII of the Civil Rights Act of 1964. The arbitrator's award was based *only* on the procedural aspects of the review process, and *not* on the merits of the case. An appeal was made to the EEOC, which is not limited by the *Trilogy* decisions, and thus is legally able to rule on the merits of the case, not just on the review process. The Supreme Court decided that the University must make the tenure review files available to the EEOC. Although the sample size is very small, the results show a dichotomy in attitudes toward confidentiality of peer review files which would support an armchair empiricist's predictions: university administrators unanimously favored confidentiality, while faculty association leaders and arbitrators unanimously favored non-confidentiality.

The authors make an important observation in that this case may have two major long-term effects on the status of arbitration in academe. First, future collective bargaining agreements may include provisions for the non-confidentiality of peer review files in arbitration of grievances concerning appointment, reappointment, promotion, and tenure. Second, arbitrators may be given the authority to decide discrimination cases based on the merits of the case, instead of just on the procedural aspects.

DISCUSSION

STANLEY C. WISNIEWSKI
Workplace Economics Inc.

Each of these papers raises important questions about collective bargaining for researchers and practitioners alike.

David Walsh's paper addresses the fascinating subject of interunion relations in a dynamic economic environment. Although not explicitly recognized in Walsh's paper, the union response to bargaining in an airline industry transformed by deregulation has encompassed not only greater cooperation between unions representing diverse crafts in the traditional Railway Labor Act (RLA) setting, but also in employee coalitions formed to purchase the carrier and employee coalitions as part of labor creditor committees in bankruptcy proceedings. I agree with Walsh that the recent airline industry experience can provide a wealth of material for analyzing interunion cooperation.

Walsh's research plan consists of a straightforward inquiry by telephone interview and follow-up survey instrument into the degree of cooperation exhibited among national airline unions and their carrier-specific local counterparts. Walsh concludes that communication and information exchange tend to be much more prevalent than joint action and/or direct support activities.

Walsh's analysis would profit from additional historical and economic analysis. Because of past history, some of these unions may still regard each other warily as rivals either seeking to represent the same craft or seeking to attain the union leadership role among the various crafts represented at the carrier. Similarly, Walsh's analysis would benefit from a greater effort to examine union responses in the light of specific economic events. It is important to know whether there is more cooperation today among the unions than there was prior to the passage of the Airline Deregulation Act and, if so, how changing economic conditions prompted specific cooperative strategies.

I would also encourage Walsh to consider further segmenting the union responses to his inquiry. For example, Walsh's examination of

Author's Address: Workplace Economics Inc., P.O. Box 33367, Washington, D.C. 20033-0367.

the relationship between the AFA group at USAIR and the IAM group at USAIR is more likely to produce evidence of communications and/or support than his examination of the relationship between the AFA group at USAIR and the IAM group at Northwest. Carrier-specific relationships should be separated from other ordered pairs for analysis. Walsh also would be wise to look at the formal channels of communication between the national union and its local counterparts, which may serve as the specific conduit for communications and/or support between disparate local groups. Experience shows that a request for assistance by the AFA flight attendants at USAIR would not be directly forwarded to the IAM mechanics at Northwest, but more likely would travel through each craft's respective national union. Walsh's study does not adequately recognize this last possibility. Such analysis requires the consideration of the structure of each union which varies to some degree in the case of the five unions Walsh has selected for study.

Nevertheless, Walsh does raise important issues with this study. However, I would urge caution in generalizing about labor-management relations from this industry-specific analysis. Due consideration must be given to the role of different economic circumstances, the specific character of the crafts involved, and the unique features of bargaining under the Railway Labor Act.

Thomas Reed's paper attempts to explain why some union organizing campaigns are abandoned prior to a representation election. Reed focuses his analysis on the personal characteristics of the union organizer and some variables which he identifies as characteristics of the campaign itself. It is not clear from the author's description what questions were actually put to the respondents. A copy of the survey instrument as an appendix to the paper would be helpful in this case. Differences in factual circumstances between campaigns and differences in institution-specific approaches to organizing decisions do not really appear to be encompassed by Reed's study. This is disappointing because Reed also does not demonstrate how his results could be integrated with the results of studies which do focus on these other factors. Until Reed addresses the role of these other factors, I do not believe he can tell us whether the union abandonment of an organizing campaign is better explained by union organizer recruitment and selection policies than by the union's institutional approach to organizing or even by public policy impacts.

Feuille, LeRoy, and Chandler examine the litigation of arbitration awards to determine if there is any pattern to court decisions. This is an important question. If the parties perceive that post-award litigation is rewarded, then such litigation will be encouraged and the role of the arbitration process in settling disputes will be substantially reshaped.

After examining 987 court decisions involving appeals from grievance arbitration awards, the authors found that a disproportionate number of awards vacated by the courts involved union-favorable awards. This is a disturbing result. It is also surprising in view of some research on employment discrimination awards that seems to imply arbitrators generally do not differ widely from the courts in how they make their decisions (Wisniewski, 1982). But to put the problem in proper perspective requires understanding the dimension of the problem and, unfortunately, the authors never really provide information on the proportion of *all* awards which are appealed.

I am also concerned about the treatment of two important variables in this model: the ARBERR and PUBPOL variables which seek to measure the relationship between the success of an appeal and the primary reason advanced by the complaining party for overturning the award. First, if the authors are "unsure of how these two variables might affect the court's decision," Why did they include them? Their hypothesis should be made explicit. Second, it is not clear just how often, if ever, *both* of these arguments were advanced by the complaining party for the court's consideration and, more importantly, on which of these bases, if either, the *court* actually rendered its decision. It seems to me that the court's stated rationale for overturning an arbitral award is more useful in analyzing the reasons why such awards are overturned than merely focusing in a mechanical fashion on the complaining parties "primary" argument (even if it were possible to identify the complaining party's "primary" argument from the court's decision without reference to the actual pleadings of the parties). While I understand that identifying and categorizing the rationale offered by the various courts in overturning arbitral awards involves a much more detailed, time-consuming analysis of judicial reasoning than the authors' approach, as an attorney-practitioner, I believe such an analysis may be indispensable to any evaluation of the reasons for the statistical phenomenon identified by the authors.

Luthar and Robinson's paper, while more narrowly concerned with the issues surrounding arbitrator access to peer-review files in sex discrimination cases in academe, also addresses how the arbitration and litigation processes may differ and the implications of such differences. One of the more important findings is that to the extent that different discovery procedures act as a constraint on the arbitrator and prevent the arbitrator from reaching a decision similar to that of a court equipped with broader procedural powers, the alternative dispute resolution system is weakened as the ultimate arbiter of workplace based grievances.

Reference

Wisniewski, Stanley. "Achieving Equal Pay for Comparable Worth Through Arbitration." *Employee Relations Law Journal* 8, 2 (1982).

XVI. DOCTORAL CONSORTIUM NONACADEMIC CAREERS AND INDUSTRIAL RELATIONS PhDs

Summary and Comments on the Panel Discussion "Nonacademic Careers for Industrial Relations Ph.D.s"

FRANK J. BENNICI
Ohio State University and U.S. General Accounting Office

This year's doctoral consortium focused on careers outside of the traditional academic arena. Guest speakers included Burt Barnow, Vice President at Lewin/ICF, Rudolph A. Oswald, Director, Department of Economic Research at the AFL-CIO, Cilla Reesman, Independent Consultant, and Steven H. Sandell, Director of Policy Research, Office of Income Security Policy, U.S. Department of Health and Human Services.

Each speaker began with a discussion of his or her personal background and experiences. One of the AFL-CIO's interns from 32 years ago, Rudy Oswald described the internship as a means of attracting new research people for international unions. He views the research work as very satisfying because it helps union workers achieve knowledge from the advanced education of the researcher. Recalling the progression of past interns, Mr. Oswald mentioned that one is a research head for an international union, another is a chief economist in the U.S. government, another holds a prominent position in the Canadian Labor Congress, and another heads a private industry council in a major U.S. city.

Author's Address: 3305 Cannongate Rd., Apt. 101, Fairfield, VA 22031.

Cilla Reesman discussed some of her consulting work, which began while she was still a graduate student. Her main area of expertise at the time was labor mobility, and it tied in well with the evaluation work that was occurring in the late 1970s and early 1980s. She points out that very little evaluation work now is being done by academics. Rather, the work is performed primarily in private research organizations, such as Abt and Associates, Westat, Inc., Mathematica Policy Research, Manpower Demonstration Research Corporation, and the Welfare Policy Institute at the University of Wisconsin. In organizations like these, the research is performed by a collegial and interdisciplinary team. The emphasis is on design and data quality. In these organizations, flexibility and experience allows them to retool quickly for new projects.

Steven Sandell discussed research opportunities in the federal government. In his current position at Health and Human Services, he helps plan the research the government funds that is performed by outside contractors. His office is one of a small number of research and policy branches in the federal government. As an example of weekly activities, Mr. Sandell said that three days of the week would be spent on monitoring outside grants and contracts, administering and providing technical help, and getting involved in the policy process by clearing or writing regulations and testimony. The other two days might be spent on one's own research.

Comparing an academic career with a government career, Mr. Sandell pointed out that within the government the work is more collegial and the focus is on policy relevance rather than scientific discovery. In addition, a researcher needs to be flexible in that the client may change, and thereby changing the nature of the research requested or its funding, as may be the case with a change in administration.

Burt Barnow addressed the issue of obtaining funding for one's research project. When writing a proposal, one should keep it short. Write a few paragraphs that include the hypotheses, a description of the data, who is interested in the research, the costs of the research, how much you or your organization will contribute to share the cost, and what you will actually do.

Mr. Barnow provided a long list of sources of funding, including the federal government, foundations, trade associations, international unions, private firms, and chambers of commerce. To find funding sources, he suggested various books and catalogs, speaking with colleagues, reviewing footnotes of journal articles for previous funders, and reviewing the *Federal Register* and the *Commerce Business Daily* for requests for proposals (RFPs).

To initiate a request for funds, submit only a few paragraphs, and include budget information. Then, call and meet with the potential funding source. Try to learn the lay of the land and to meet the persons doing the funding. Are they amenable? Do they accept unsolicited proposals? If not, get on their mailing list for RFPs. Be prepared to change some part of the proposal and reduce the budget. The research may need to be segmented if the entire project cannot be funded. Then, it may be necessary to obtain additional sources of funding.

If funding is acquired, do what is promised and on time! Repeated funding from the same source may be possible. In addition, networks may exist that spread the word of your product. If necessary, be prepared to make revisions. If funding is not received, ask why funding was not granted. If funding was competitive, ask for a copy of the winning proposal.

Responding to a question about the type of skills that are necessary for entering work in a nonacademic setting, the speakers stressed the importance of several factors: ability to do technical research—having appropriate theory and statistical background; ability to write in English and to different audiences; and be able to work in a group setting.

When considering an individual for a research position, the speakers added to the above list communication skills, intellectual curiosity, quantitative skills, knowledge or familiarity of institutions and their processes, and working well with other researchers who possess different skills.

XVII. ALTERNATIVE EMPLOYMENT ARRANGEMENTS: WHAT DO THEY LOOK LIKE AND WHAT CAN WE EXPECT FROM THEM?

Nature of Employment and Internal Labor Markets in Professional Organizations

HÜSEYIN LEBLEBICI
University of Illinois

The last decade has witnessed a growing interest in the concept of organization and organizational behavior in fields which are traditionally not associated with organizational sciences. Particularly the areas ranging from accounting, law, and economics have all seen a resurgence of articles, books, and even new journals incorporating the term organization in their titles. Part of this growing interest can optimistically be attributed to the important insights provided by research carried out in organizational behavior in which the nature of employment relations subjected to hierarchical or bureaucratic control is the central focus. Unfortunately, even a casual reading of the opinions developed in these diverse areas indicate that this is not the case. On the contrary, one gets the general impression that the expected impact of organizational behavior as a discipline is very slight indeed.

The main reason for the uncommon interest in organizations within other disciplines is the realization on their part that a complementary understanding of organizations is an unavoidable necessity for developing a better understanding of relevant phenomena in these

Author's Address: School of Commerce, University of Illinois, Urbana, IL 61820.

fields whether they are markets, contractual arrangements, or ownership structures. None of these fields, however, incorporates the existing body of knowledge about incentives, motivational practices, or coordination issues developed in organizational behavior.

It is, of course, possible to argue that part of this interest in organizations without much regard to the existing body of knowledge in organizational behavior is explainable by the unique concerns, questions, and perspectives of these diverse fields. It is also possible, however, to see these developments as an opportunity to reevaluate the domain of organizational behavior as a scientific discipline. We should interpret these developments as potentially productive avenues to generate a better understanding of its domain and its contribution to the understanding of organizations.

One strategy for developing a more interdisciplinary approach to organization theory and behavior is to move beyond our taken-for-granted view of employment relations, in which a relatively insulated workforce is selected, trained, motivated, and controlled. Rather, we need to go beyond these issues and address more fundamental questions: how the division of labor is achieved and jobs are allocated inside or outside of the firm; what forms of attachment and control systems are available to organizations; and, what is the nature of employment and ownership relations which define the constituent elements of organizations? In my view, the recent developments in the internal labor markets (ILM) literature represents one very fruitful avenue through which we can address these fundamental questions. In other words, instead of accepting organizational structures, divisions of labor, and career lines as given, we need to concentrate on their sources and determinants.

The objective of this paper is to look at the concept of internal labor markets from an organizational theory point of view. What I mean by this is that any organizational phenomenon is intricately related to the concept of employment. More specifically, how efficiency is achieved, how motivation is accomplished, and how a sense of equity is maintained in organizations can only be understood through an appreciation of employment relations. As always, the questions about employment are the same: how the decision to participate and the decision to contribute are being made (March and Simon, 1958). The main thrust of this paper is to point out that the concept of ILM is intricately related to three fundamental aspects of organization: its ownership structure, its internal governance, and its division of labor. An understanding of the relationship among these elements, and of their role on the structure of ILM can help us formulate a more generalized framework about the nature and determinants of ILM and their consequences.

Internal Labor Markets and Professional Employment

Internal labor markets have traditionally been studied in large-scale organizations in which there are families of jobs with their own ports of entry, job ladders, and wage systems. In this paper, my focus is relatively different. I formulate my arguments within the context of professional jobs and firms, such as in legal, architectural, or accounting practices. The organizations discussed are themselves professional in the sense that their members or employees are mostly professionals.

Today, it is an accepted fact that internal employment practices, or the set of administrative rules, and procedures are as critical as the external labor markets for understanding employment practices. It is also agreed that not only economic efficiency but also sociological and political factors play a critical role in determining the nature of ILMs. As a result, the research done in this area represents an eclectic orientation which brings together a diverse set of fields. There are, however, some clearly identified domains of issues and concerns that define the boundaries of ILM research. They range from typologies of industries with respect to their ILM attributes (Althauser and Kalleberg, 1981), typologies of employment systems (Osterman, 1984), the nature of variations in promotion ladders (Baron, Davis-Blake, and Bielby, 1986), the impact of formal grievance procedures, unionization, and training and rewards systems on ILM (Pfeffer and Cohen, 1984). What is common to this research is the fact that it has been mostly carried out in large manufacturing or bureaucratic organizations.

In contrast, professional organizations are mostly absent in this research tradition. This can be partly explained by the small size of professional organizations and the lack of well-defined, long chains of promotional ladders. Furthermore, professional jobs can be considered as sub-species of craft jobs (Osterman, 1984). As in the case of craft jobs, professionals can be characterized by their greater mobility and by their loyalty to the profession rather than to the firm. Their skills, in general, are not firm-specific, and hence, they give the employees more market power. All of these characteristics make the professional organizations more difficult to study within the rubric of ILM. These are, however, exactly the qualities we need to look at if we want to understand how alternative work organizations are developed and how their employment practices are established.

What distinguishes professional employment from the majority of craft jobs is the fact that professionals can perform their skills alone through private practice. Furthermore, they can establish cooperative sharing arrangements among themselves instead of joining an organization. Another characteristic of professional jobs is that the knowledge necessary to perform in a given profession is learned outside of the firm, mostly through formal professional education.

Similarly, the organizations in which professionals carry out their practice are different from the organizations in the manufacturing or service industries in general. These professional organizations are, first of all, designed in such a way that only those individuals who work in them may participate in the ownership of the firm. In other words, these firms can be considered to be employee-owned enterprises where no outside stockholders or other absentee owners have residual claims. As a result, the separation of ownership from control, which is common to other work organizations, is usually absent in these firms. These large partnerships and other professional group practices provide us with an example of an economic sector in which employee ownership is not an exception but a rule (Russell, 1985). Professional organizations are also different in the sense that the separation of management from labor is not clear, and hence, they generate a set of questions which cannot be addressed within the traditional ILM framework. These questions include, but are not limited to, how income can be shared; how expert, specialized management function and democracy in the workplace can be reconciled; and, what kind of division of labor among experts can be devised most effectively?

The specific qualities of professional work are generally used to explain the singular characteristics of professional organizations. These qualities can be organized into two groups: *Client-professional relations:* Professionals provide highly skilled and personalized services to individual clients. The nature of these services makes clients vulnerable because they cannot differentiate the quality of the service. Moreover, in the course of rendering their services, professionals become privy to confidential information. For these reasons, clients may prefer the involvement of organizations or other third parties who can monitor and control the activities of professionals. *Organization-professional relations:* Supervision of professionals is difficult even for other specialists in the same field, because the professional's recommendations in each case are tailored to fit the idiosyncracies of a particular case. Furthermore, given the highly personalized nature of their services, departing professionals can take a significant portion of a firm's reputation and clientele away with them (Starr, 1982). And finally, the existence of licensing authorities that promise to prevent unqualified individuals from practicing the trade makes it possible to have self-employment.

All these factors influence the way work, jobs, and incentive structures can be organized in professional firms. In return, the organizational form determines the way internal labor markets are set up in these firms.

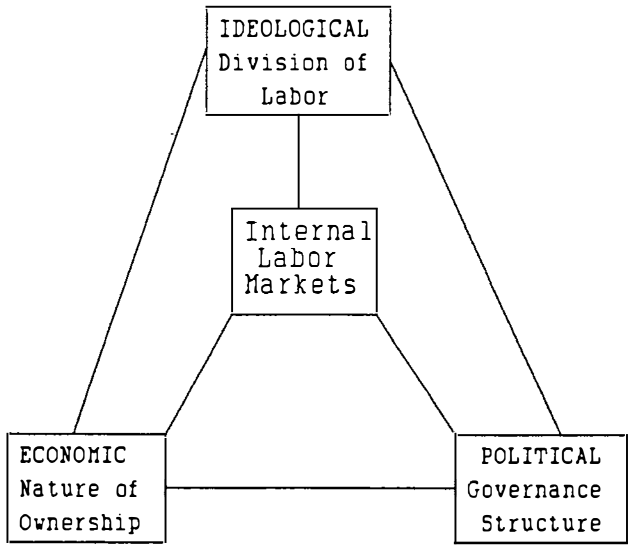
Elements of Employment Practices in Professional Settings

Given the nature of professional practice and the relationship between the professionals and their organizations, it is possible to identify three domains of activities which play a critical role in the formation and transformation of ILM in these organizations. As shown in Figure 1, I classify these elements as ideological, political, and economic spheres of activity. They collectively determine the alternative forms available for designing ILMs and provide an internal logic which unites them into a coherent whole.

Ideological Sphere

The ideological sphere of professional organizations addresses the issues of division of labor. For the purposes of this discussion, I define any causal statement as ideological. Any particular division of labor is ideological because it is based on a causal understanding of the relationship among various tasks in an organization. One characteristic of division of labor in professional organizations is the recruitment of managers from their own ranks rather than the employment of professional managers. This is true even in large bureaucracies such as universities and is particularly prevalent in law firms. The leaders of these firms are not managers by profession but are practicing lawyers whose responsibilities include management. Furthermore, lawyers are usually assigned to three different roles which are informally defined as finders, minders, and grinders. These terms provide a useful key to the hierarchy of lawyers in professional firms. Finders are responsible for bringing in new clients; minders are responsible for taking care of the clients who are already recruited to the firm; and, grinders are responsible for doing the work (Nelson, 1981). Finders are usually the senior partners who occupy the top of the hierarchy and have seats on the governing committee of the firm. Minders, on the other hand, are

FIGURE 1
Major Determinants of Employment Practices in Professional Organizations



like managers who control the activities of a large professional staff working on highly specialized services. These managing partners, generally, do not occupy positions in a formal sense. Rather, they are the middle layer of partners with client and supervisory responsibilities in various fields of law. At the base of the law firm's pyramid are the young salaried associates. Even though they enter the firm as generalists, these associates are required to make a close to binding choice in a substantive specialty within a few years.

Economic Sphere

Most professional firms are employee-owned entities. One critical outcome of this practice is the issue of distributing the income of their firms. Because a number of professionals are often involved in any given case in a variety of ways, deciding who deserves how large a portion of this income is always critical. Unlike industrial firms, they cannot compensate their members with a fixed salary because firms' revenues are not predictable. Neither can they allow members to keep all the income from business that they are involved in. So most professional firms normally pool all their income, deduct the firm expenses, and divide the net income among the members in a variety of ways. Given the nature of division of labor in these firms, there is no commonly accepted income allocation scheme. There are, however, two general compensation schemes. One is the formula system in which members are rewarded for each specific class of contributions they make. The second is the percentage system in which each member receives a simple fixed percentage of the net revenues determined before the year begins. Many firms, however, combine these two systems in unique ways (Russell, 1985).

Political Sphere

Both the nature of division of labor and the ownership structure directly relate to the internal governance of professional organizations. In addition to regular firm-wide meetings, most tasks are performed within groups. Despite their democratic flavor, the actual structure of collective decision making, i.e., which decisions are allocated to which groups and the nature of participation, is such that the actual decision-making power is concentrated in the managing partners and executive committee members. In most firms, the voting power of members, including the rank-and-file associates are regulated through firm constitutions. The design of these constitutions plays a critical role not only in the structure of internal governance structure but also in the design of ILM.

These three elements of professional organizations both regulate and constitute the way internal labor markets are organized in these firms. As a result, ILM in professional firms has peculiar qualities that are dissimilar to those described in the traditional literature. Instead of long chains of promotional ladders, they most likely involve two or three major steps. They also do not have well-defined and differentiated salary structures. In most cases, promotions are based on an up-or-out system by which associate members are either promoted to partnership or fired (Freund, 1979).

I believe that organizational behavior research must focus on the relationship between these three domains of activities in order to understand the nature of employment in organizations. Unfortunately, current research usually evolves in two extreme directions. At one extreme, as in organizational economics, it attempts to collapse all these domains into a single sphere. At the other extreme, organizational behavior research considers these elements as given and fails to recognize their impact on employment practices within firms.

The interdisciplinary nature of ILM research avoids these pitfalls to some degree and can produce new insights that can be valuable for all disciplines interested in organizations.

References

Althauser, Robert P., and Arne L. Kalleberg. "Firms, Occupations, and the Structure of Labor Markets." In *Sociological Perspectives on Labor Markets*, ed. Ivar Berg. New York: Academic Press, 1981.

Baron, James N., Allison Davis-Blake, and William T. Bielby. "The Structure of Opportunity: How Promotion Ladders Vary Within and Among Organizations." *Administrative Science Q arterly* 31 (June 1986), pp. 248-73.

Freund, James. *Lawyering: A Realistic Approach to Legal Practice*. New York: Law Journal Seminars-Press, 1979.

March, James G., and Herbert A. Simon. *Organizations*. New York: Wiley, 1958.

Nelson, Robert L. "Practice and Privilege: Social Change and the Structure of Large Law Firms." *American Bar Foundation Research Journal* 1 (Winter 1981), pp. 95-140.

Osterman, Paul. "White-Collar Internal Labor Markets." In *Internal Labor Markets*, ed. Paul Osterman. Cambridge, MA: MIT Press, 1984.

Pfeffer, Jeffrey, and Yinon Cohen. "Determinants of Internal Labor Markets in Organizations." *Administrative Science Quarterly* 29 (December 1984), pp. 550-72.

Russell, Raymond. *Sharing Ownership in the Workplace*. Albany, NY: State University of New York Press, 1985.

Starr, Paul. *The Social Transformation of American Medicine*. New York: Basic Books, 1982.

Labor Market Balkanization Revisited: Variation in Internal Labor Markets and Employment Arrangements

PETER D. SHERER
University of Pennsylvania

Over the last 50 or so years, the dominant view of employment has been shaped by an industrial model. This model conjures up such images as work is narrow, skills are primarily acquired within the firm, internal mobility dominates over external mobility, and voice occurs through the union or the market. The industrial model appears to be receding in importance as our image of employment, with a more variegated picture taking its place.

There are any number of examples of variation. Employment at Saturn suggests assembly work can be made broader and involve greater interdependencies between workers in teams. In professional employment settings, employees who are partners are residual claimants (See Fama and Jensen, 1983) and have rights to voice and vote in internal matters.

The internal labor market (ILM) literature has been the key source for discussing employment and its variation. However, it only partially suggests the diversity of employment structures. Individual authors have focused on a few dimensions of employment and arrived at only a limited view of the variation in employment.

This paper, therefore, begins by reviewing select works in the ILM literature. This literature is then related to three features of, or relating to, ILMs: (1) the degree of openness versus integration of employment, (2) whether employees have ownership rights, and (3) the nature of work and technology. Conceptual and empirical work on ILMs that more explicitly and fully specified and interrelated these features would help to generate more diversity in our image of employment.

Yet if we stopped there, we would still have an incomplete picture of employment. Organizations have variation in employment that has

Author's Address: Wharton School, University of Pennsylvania, Philadelphia, PA 19104.

not been fully conceptualized. ILMs represent single labor markets or administrative units at the group, department, division, or firm level. For the most part, the ILM literature implicitly views organizations as monoliths in how they handle employment.[1] Either an organization is implicitly characterized as a single ILM, or there is little to nothing in the way of an organizational view of ILMs. But there may exist several ILMs in any one organization, such as can occur in core-periphery systems (See Osterman, 1987), and this requires us to speak to what the organization as a whole has in the way of ILMs.

I introduce the notion of an employment arrangement to address this variation within an organization. Employment arrangements are defined as the totality of ILMs found in any one organization. Employment arrangements are thus an attempt to examine ILMs and employment from an organizational perspective. Since employment arrangements are composed of ILMs, what we say about the features of or relating to ILMs will also have implications for employment arrangements.

The Internal Labor Market Literature

The ILM literature dates back to Commons and Slichter and perhaps earlier. I start this review, though, in the 1950s and review ILM works where the specific aim was to dimensionalize and classify employment. Other works have examined aspects of employment but their emphases were other than classifying employment or they were derivative of one of the works to be reviewed.[2]

The early ILM literature made use of observation and insight with the backdrop of formal economic statements about the nature of labor markets. No where was this done more articulately or with more insight than in Clark Kerr's (1954) "*The Balkanization of Labor Markets.*" Kerr contrasted the neoclassical labor market with that of institutional markets. The former involved regulation by the external market whereas the latter involved regulation by internalized rules and practices, many of which were formalized and codified.

Kerr saw the union as the driving force toward internalization through its insistence on ownership rights for employees. In craft employment, a communal arrangement arose in which the community of workers owned the work or the totality of jobs, but each worker rented his or her immediate job. In the industrial model, individual employees were said to acquire a property right or ownership over their individual jobs. Thus ILMs were based on the internalizing of rules, and the mode of ownership differentiated internal arrangements.

In the 1950s and 1960s, writers further specified features of the industrial model that were deviations from the external labor market. Discussion of the industrial model proceeded along these lines until the early 1970s. Then, Doeringer and Piore's (1971) highly influential work, *Internal Labor Markets and Manpower Analysis*, brought discussion back to ILMs as systems of employment. Their work was based on interviews and observations of employment practices in a moderate number of industrial plants. They too shared Kerr's view of the industrial model or what they referred to as "vertical or enterprise" ILMs. They focused on enterprise ILMs, and to a lesser degree, craft, or what they referred to as "horizontal" ILMs.[3] They compared these two ILMs on three characteristics: (1) openness with respect to organizational entry and the degree of similarity of internal jobs to jobs in the external market, (2) the scope of the ILM as an issue of the unit of analysis and geographical area, and (3) distributional rules in an ILM for allocating jobs.

The 1980s saw major challenges in the workplace to key features of the industrial model. In the auto industry (Katz, 1985), firms and unions began to debate more seriously job control in the form of narrow and rigid job classifications, wage rules based on cost of living allowances (COLA) and the annual improvement factor (AIF), and employment security. Osterman (1987) captured much of this debate through examining four dimensions that are found in ILMs: (1) the broadness or narrowness of jobs, (2) the ease of deployment of individuals, (3) pay based on individual performance or formulas such as years of seniority, and (4) employment security.

Osterman used these dimensions to generate the industrial, craft, and secondary ILMs. Osterman also arrived at a salaried ILM, which is characterized by broad jobs, ease of deployment, pay based on individual performance, and employment continuity. This ILM appears to characterize certain managerial and white-collar employment. It is also one direction that the transformed industrial model has taken.

What Have the 1990s Brought Us?

The 1990s have ushered in the use of clustering techniques as a way of assessing the classification from the data. The notion behind the use of cluster analysis here is simple enough: With a set of dimensions, find a way to cluster firms or plants on the basis of similarity; this leaves you with clusters; ILMs of sorts are identified from these clusters. However, the technology of cluster analysis has caught up with and exceeded our efforts to conceptualize and classify employment. Without sufficient theory, researchers may use dimensions that describe the sample and arrive at clusters that are specific to the circumstances. We may thus be left with sample-specific ILMs that do not allow for comparisons across studies. A larger and perhaps more integrated theoretical base could help insure that researchers are, at least, considering the same sets of issues and questions. The remainder of this paper will be an effort to stimulate research that fills this conceptual lacunae.

Integrating the ILM and Other Literatures

The ILM literature, taken as a whole, and select outside literatures are suggestive of three broad features of, or relating to, ILMs: (1) the degree of vertical integration of labor and the openness of the labor market within the firm, (2) ownership rights, (3) work and its organization.

Supersession of the External Market

In 1937, R. H. Coase wrote what would become a highly influential work for strategy researchers. The argument was that organization supersedes the external price mechanism. Organization arises where there is uncertainty and where short-term contracting would be unsatisfactory. So what Coase was saying is that vertical integration represents the essence of organization.

Consider the translation of that point to employment, the part of organization that has to do with labor activities. Labor can be done outside the firm, such as in the structureless neoclassical market (Williamson, 1985). Or labor can be done inside the firm. Labor is, however, unlike other aspects of organization which are either inside or outside of the organization; the integration of employment is a question of degrees, and is reflected in employment policies and practices.

Prior conceptions of ILMs have taken into account the openness of the internal market (See Doeringer and Piore, 1971; Pfeffer and Baron, 1988, Shimada, 1980). But the dimensions on which they evaluate the openness of an ILM are limited. Coase does not identify the precise dimensions that are critical in differentiating the degree to which employment is integrated, but he does provide us with a guide: Any policy or practice that can be done inside versus outside serves as a dimension that may differentiate employment. Some key ones are:

(a) *Hiring and Promotion.* Hiring and promotion can be deeply integrated into the organization or left external. In a highly internal hiring and promotion system, hiring is done in the external market for a very few ports of entry, higher-level jobs are subject only to internal bidding. At the other extreme, virtually all jobs in an organization can be open to external bidding.

(b) *Training and Skills.* Training and skill acquisition can be received and conducted outside the firm or integrated in. For examples, industrial employment typically involves training and skills being acquired inside the organization where one is currently employed; craft employment typically involves a separation of the place of training and the place of employment.

(c) *Wage Determination.* Wages may be determined almost entirely on internal standards, especially if skills and training are highly internal to the organization. Or, wage determination can be based solely on the "going wage" in the external market where there is a very clear pricing mechanism.

(d) *Employee Voice and Due Process.* Voice and due process can be done inside an organization through an employee representation body (works council) or a trade union, or externally through quits or through the use of law, especially employment law on individual rights.

(e) *Employment Continuity.* Organizations can offer employment guarantees or in other ways provide employment protections against market conditions. On the other hand, as Pfeffer and Baron (1988) suggest, employers have increasingly externalized employment continuity by the use of temporaries and other limited yet fixed-term employees, presumably as a response to market conditions.

ILMs are comprised of the above and other dimensions, and there is a certain "system logic" to features going together. For example, internal hiring and promotion systems typically call for internal training and wage determination based on more internal standards. Obviously this coupling makes matters easier for us by limiting the number of ILMs generated. But even with systems logic constraining the number of ILMs, it is not particularly risky to suggest that there may be more than the four or so ILMs that have been identified.

Ownership

In 1932, Berle and Means wrote about the separation of ownership from managerial control in their well-known work, *The Modern*

Corporation and Private Property. Their thesis was that managers were now largely a separate class of individuals from owners. Yet, ownership over the firm is still meaningful for discussing certain professional employment, such as in law and accounting (see Fama and Jensen, 1983).

In such professional employment settings, an organizational hierarchy is created by the distinction of whether or not one is a partner and has ownership rights. Ownership over the firm places partners in very different ILMs than would-be partners who have not reached the up-or-out point in their career with a firm.[4] Ownership thus goes far in explaining distinctions in employment. And, ownership carries over to such employment policies and practices as voice (often delegated to a committee of managing partners) and reward structures (e.g., residual claimants share in the profits, often on the basis of seniority), and employment continuity (lifetime employment for partners).

Yet, as Kerr (1954) suggested, ownership can take forms other than of a property right over the firm. Ownership over the work is exhibited by craft unions, professions, and occupations. Finally, Kerr suggested there is ownership over the job. Whether this last form of ownership is simply a metaphor is debatable, though.

In sum, three forms of ownership have been identified. How more precisely ownership differentiates ILMs has only been noted. Moreover, other notions concerning employees rights or ownership may need to be considered, particularly that of employees as stakeholders.

Work and Technology

The organization of work and technology seems critical to understanding and relating to employment, yet only Osterman explicitly builds them into the dimensions and classification of ILMs. Future research will need to better relate ILMs to: (1) the breadth and substance of jobs (e.g., Bielby and Baron, 1983), (2) the technology of work (i.e., the organization of work) at the department level and the organizational level, particularly as technology relates to interdependencies between individual jobs and between groups of jobs (See Thompson, 1967), and (3) the control of performance through leadership, monitoring and measurement at the individual, group, or organizational level (e.g., Williamson, 1985; Edwards, 1979).

Employment Arrangements: The New Frontier for Research

Despite the gains we can make at the unit of analysis of the ILM, we need to speak to employment at the organizational unit of analysis. Employment arrangements do so by addressing the larger character and meaning of employment structures in an organization. The building blocks of employment arrangements are ILMs, so what we have said about ILMs has implications too for employment arrangements.

Integration decisions about what dimensions of labor to bring into the firm are as critical in conceiving of employment arrangements as they are in conceiving of ILMs. Analytically, employment arrangements with more than one ILM can arise whenever two groups of employees in the same organization are treated differently on one or more of the above dimensions. Two-tier wage plans meet this definition. They involve externalizing wages for new job holders as compared with a more internally based system of wage determination for job incumbents. But more than likely, employment will differ on a number of dimensions for employees in different ILMs in the same organization. And, at the extreme, there can be sharp distinctions on numerous dimensions in the degree to which employment is internalized. In a core-internal buffer system, core employment may be almost entirely internalized in a number of ways while "internal" buffers may be close to being outside of the organization on virtually all of the above dimensions.

Ownership too can help explain employment arrangements. As we have said, the partnership system in firms results in an ILM for partners as owners and an ILM for nonpartners. There is also an obvious relationship here between ownership and internalization.

Finally, the organization of work and technology relates to employment arrangements. Just as it is held that core technologies are protected or buffered (See Thompson, 1967), so can it be claimed that core work and human resources are protected or buffered. Protection for the core comes through "outer layers" of more peripheral work and human resources, resulting in the organization having multiple types of ILMs. Little in the way of a test of this and related propositions have been done, with a few exceptions (See Bielby and Baron, 1983).

Summary and Conclusion

The ILM literature has not fully addressed the variation that exists in employment. Actual ILMs appear to be much more varied, both in features and forms, than prior literature has suggested. We need to further consider three features of or relating to ILMs: integration decisions about employment, ownership, and the organization of work and technology. Also, for the most part, organizations have been viewed as monoliths with respect to their ILMs. However, a single organization may have several ILMs. We therefore need to speak to the character or totality of employment within an organization-employment arrangements. Since ILMs are the building blocks of employment arrangements, the above features also have implications for employment arrangements.

Endnotes

[1] The concern here for conceptualizing differences in employment within an organization echoes a theme developed by Osterman (1982). Prior research has to some extent recognized variation in employment within a firm. One type is basically descriptive and talks about tiering such as exists in core-periphery systems. But there are different forms of core-periphery systems—those that make use of internal and/or external peripheries. A second type is empirical and examines differences in employment practices due to gender and race differences. For example, Baron, Davis-Blake, and Bielby (1986) assess whether promotion practices are different for males and females. A third more firmly plants the seeds for a theory of employment arrangements and is found in such works as Abraham (1988), Osterman (1987), and Pfeffer and Baron (1988).

[2] A few studies talked of employment but the emphasis was otherwise. Also, in a few studies, the basis for the conceptualization and taxonomy derived from one of the works reviewed here. These studies were omitted from the review.

[3] They even made forays into uncharted ILMs by comparing the industrial model with white-collar and managerial employment.

[4] In recent years, ILMs in professional settings have been balkanized (See Gilson and Mnookin, 1988). For example, large law firms now include employees who: (1) are not on partner track but do not have to leave at any particular time, (2) did not make partners but are kept on, (3) are on partner track, and (4) are partners who have all the rights and privileges of ownership.

References

Baron, J. T., A. Davis-Blake, and W. T. Bielby. "The Structure of Opportunity: How Promotion Ladders Vary Within and Among Organizations." *Administrative Science Quarterly* 31 (1986), pp. 248-73.

Bielby, W. T., and J. N. Baron. "Organizations, Technology, and Workers Attachment to the Firm." In *Research in Social Stratification and Mobility*, D. T. Treiman and R. V. Robinson, eds. Greenwich, CT: JAI Press, 2, pp. 77-113.

Berle, A. A., and G. C. Means. *The Modern Corporation and Private Property*. New York: Macmillan Publishing, 1932.

Coase, R. "The Nature of the Firm." *Economica* (1937), pp. 386-405.

Doeringer, P., and M. Piore. *Internal Labor Markets and Manpower Analysis*. Lexington, MA: Heath, Dore, 1971.

Edwards, R. *Contested Terrain*. New York: Basic Books, 1979.

Fama, E. F., and M. C. Jensen. "Separation of Ownership and Control." *Journal of Law and Economics* 26 (1983), pp. 301-25.

Gilson, R. J., and R. H. Mnookin. "Coming of Age in a Corporate Law Firm: The Economics of Associate Career Patterns." *Stanford Law Review* 41 (1988), pp. 567-95.

Jacoby, S. *Employing Bureaucracy*. New York: Columbia University Press, 1985.

Katz, H. *Shifting Gears*. Cambridge, MA: MIT Press, 1985.

Kerr, C. "The Balkanization of Labor Markets." In *Labor Mobility and Economic Opportunity*, E. W. Bakke et al. (eds.). Cambridge, MA: Technology Press of MIT, 92-110.

Osterman, P. *Employment Futures: Reorganization, Dislocation, and Public Policy.* New York: Oxford University Press, 1988.

———. "Choices of Employment Systems in Internal Labor Markets." *Industrial Relations* 26 (1987), pp. 46-67.

———. "Employment Structures Within Firms." *British Journal of Industrial Relations* 20 (1982), pp. 349-61.

Pfeffer, J., and J. Baron. "Taking the Workers Back Out: Recent Trends in the Structuring of Employment." In *Research in Organizational Behavior*, eds. B. M. Staw and L. L. Cummings. Greenwich, CT: JAI Press, 10, pp. 257-303.

Shimada, H. *The Japanese Employment System.* Minato-Ku, Tokyo: The Japan Institute of Labor, 1980.

Thompson, J. *Organizations in Action.* New York: McGraw-Hill, 1967.

Williamson, O. *The Economic Institutions of Capitalism.* New York: Free Press, 1985.

From Americanization of Japan to Japanization of America in HRM/IR

KOJI TAIRA
University of Illinois at Urbana-Champaign

Issues

Comparative historical research indicates that phases or cycles in human resource management (HRM) and industrial relations (IR) in the U.S. and Japan are fairly similar (Taira, 1989). This stems from the basic universality of the endogenous mechanisms and processes of capitalist economies. The similarities have also been intensified by Japan's active learning and institutional borrowing from the U.S.

Especially from 1945 to 1952, an extensive Americanization of Japan, ranging from the constitutional, legal, and educational reforms at the national level to reforms of human, social, and employment relationships at family, community, and workplace levels, was engineered by the Allied Powers occupying Japan. Then ensued the adaptation and endogenization of borrowed concepts, techniques, and practices, producing a new synthesis of the endogenous and exogenous elements in the late 1950s and 1960s. This synthesis gave rise to the stylized "Japanese employment system," which now enjoys the status of a distinctive field of academic inquiry (Gordon, 1988; Koike, 1988; Lincoln and Kalleberg, 1990; and many more).

The "Japanese employment system" is part of Japan's strength in international economic competitiveness. Japan's trade surplus has enabled Japanese companies to expand abroad through foreign direct investment. With increased Japanese presence in the U.S., the HRM/IR practices of Japanese "transplants" have attracted wide-spread attention. At the same time, American companies have also been borrowing and endogenizing ("Americanizing") certain key elements of Japanese manufacturing-process techniques and HRM/IR practices.

In recent years, the classic New Deal HRM/IR system, which sharply contrasts with the Japanese employment system, has undergone

Author's Address: ILIR, University of Illinois, 504 East Armory Avenue, Champaign, IL 61820.

substantial transformation (Kochan, Katz, and McKersie, 1986, 1989). Now, in many U.S. firms, the configuration of environmental constraints, technological imperatives, HRM/IR actors' goals, motivations, and behavior, and the outcomes of their interactions considerably resembles the Japanese employment system. Thus a new synthesis in the U.S. HRM/IR system and a convergence of the American and Japanese systems are concurrently under way.

The U.S.-Japan interpenetration in HRM/IR has far-reaching implications for a re-examination of the conventional "convergence hypothesis." In its original formulation the hypothesis was predicated upon isolated endogenous evolutions of institutions and processes in several ideal types of national HRM/IR systems under the impact of a worldwide diffusion of "industrialism" (Kerr, Dunlop, Harbison, and Myers, 1960).

On the other hand, the international diffusion of HRM/IR concepts and practices has given rise to practical questions like, "Can we export U.S. industrial relations?" (Myers, 1963), "Can we export the Japanese employment system?" (Ishida, 1978), or "What can we import?" (Levine, 1983). The trade metaphor may imply a theory as to how a country's HRM/IR system changes and becomes increasingly similar to another country's system. But explicit theoretical formulations are lacking so far.

The trade metaphor should, at the minimum, specify who the "exporters" or "importers" are and why "trade" takes place. Exporters are multinational companies which apply their home-country HRM/IR system to their host-country employees. "Can we export our HRM/IR system?" only means whether *our* companies can profitably operate in foreign countries by transplanting *our* principles and practices. Importers are employers and workers in *our country* interested in learning and adopting some aspects of foreign HRM/IR systems. "Can we import a foreign HRM/IR system?" means whether *our* firms can improve their organizational performances by learning from foreign models. This us/them rhetoric, which dominates the discussion of the international diffusions of HRM/IR systems, obscures the issues with emotional clouds.

The export or import of HRM/IR systems is necessarily a part of business strategy, whose goals are survival, profits, and expansion. This "strategic choice perspective" à la Kochan, Katz, and McKersie (1986) is a healthy corrective for the emotional (whether nationalistic or antinationalistic) tangles often observed in the discussion of exportability or importability of HRM/IR systems.

Another implication of the trade metaphor is its character as an all-or-nothing choice: export would make other countries very much like ours, while import would make our country very much like foreign countries. That is, we Americanize others by exporting our system, while we are Japanized by importing the Japanese system. Pride or fear of "colonization" rears its ugly head.

In contrast, business strategy puts a premium on flexibility and rejects a straightjacket of total systemic imitations. The question is what aspects or elements, and how much of them, to adopt for purposes of profit maximization. A strategic choice perspective would advise unbundling a system for the adoption of usable (profitable or cost-effective) components and the rejection of unusable (unprofitable or costly) ones. Exportability or importability is a matter of degree, not of kind.

The question we should ask is not a normative or speculative one of whether the HRM/IR systems of Japan and the U.S. should or might converge, but an empirical one of to what extent they have already converged. One useful point of departure is a comparison of the stylized New Deal HRM/IR system of America and the stylized Japanese employment system. On such comparisons, there is already substantial literature. Both systems acquired their defining characteristics in the 1950s and 1960s and have since been subject to forces of change for convergence.

The extent of change has been more far-reaching in the U.S. than in Japan. "Transformation" (Kochan, Katz, and McKersie, 1988) is an appropriate description of changes in America. Further, in recent years, the flow of foreign direct investment from Japan to the U.S. has placed a significant proportion of the U.S. labor force under Japanese management. The successes of some of these transplants (especially in automobile manufacturing and electronics) have had demonstration effects on the HRM/IR practices of U.S. firms. Thus, the gap that separated the New Deal system of the U.S. and the Japanese employment system has narrowed mainly by changes in the U.S. system in the direction of the Japanese system.

This direction of convergence is contrary to a prediction from the conventional convergence hypothesis. This hypothesis predicts that Japan should become more like America, not America more like Japan. Dore (1973) was the first to suggest this "reversal" of convergence on the basis of his British-Japanese comparison. The idea was novel at the time, but ten years later, Japanization of British HRM/IR practices became all too visible to ignore. The Spring 1988 issue of the *Industrial Relations Journal* was appropriately devoted to this topic.

Convergence by Direct Learning

Over the years, Japan's manufacturing-process technology has acquired distinct characteristics that add up to considerable advantages in terms of cost effectiveness and product quality. The hardware aspects of manufacturing are the same in Japan and the U.S. The difference is in the manufacturing *process*: how work is organized. Simplified, the basic principle is that the manufacturing process should be rigorously rationalized to ensure high product quality and at the same time be flexible enough to respond to variations in the customer tastes. Catch phrases to describe this process are "lean production versus mass production" and "economies of scope" [great varieties of products in small batches] rather than "economies of scale" [a few standardized products in great quantities] (Womack, Jones, and Carpenter, 1990).

This requires a drastic downsizing of the firm (for example, by spinning off distinct or auxilliary functions as independent operations under different firms) and a high degree of versatility of machines and workers so that the steps and procedures of work can quickly adapt to market signals. Lean production is today's embodiment of the principle of "waste elimination" which was a popular topic in the U.S. during the 1920s. The pursuit of versatility of machines is, in a sense, an extension of the American craze for automation and culminates in extensive computerization and robotization. The pursuit of worker versatility calls for extensive job enlargement, frequent re-assignments, and rigorous discipline. The hiring and retention of versatile workers are the central functions of the Japanese employment system, for which the most important first step is to select workers with the appropriate attitudes and the ability to thrive under the pressure of flexibility.

When stylized this way, the Japanese production system would be extremely stressful to ordinary American workers who have been reared in the hothouse of "job control unionism." Parker and Slaughter (1988) aptly call it "management by stress." But, the Japanese employment system is not stressful to Japanese workers because the workers enrolled in this system are carefully screened for the qualities that meet its requirements (Bronfenbrenner, 1985). Not all Japanese workers are endowed with these qualities or are capable of acquiring them. The suitable workers for the Japanese employment system are necessarily a small fraction of the labor force. To identify and recruit this minority is the foundation of the Japanese HRM/IR system.

Several well-known Japanese transplants are indeed Japanese in their hiring style in that they replicate Japanese-style selectivity with respect to their American employees. With reference to the norms of behavior expected from ordinary American workers, working for Japanese transplants requires substantial behavior modifications. With proper inducements, American workers can change as demonstrated by the success of NUMMI (Brown and Reich, 1989).

Although the convergence currently under way is by American practices going in the Japanese direction, there is an irony of history here: the current Japanese HRM/IR system has its origins in the pre-New Deal American system. Until recently, convergence was by Japanese learning from the U.S. Over a time horizon of 70 years or so, the Japanization of American firms today is really an integration of America's past and present mediated by Japan.

By World War I, Japan's capitalist economic development had produced one of capitalism's universal problems: a militant labor movement. The concepts, techniques, and strategy of the Japanese labor movement were Western (principally American) imports. To cope with the new industrial problems, Japanese employers needed lessons from American employers. In the course of devising organized response to organized labor, Japanese employers dispatched study missions to the U.S. and Europe to observe how the Western managements were coping with labor problems.

One of the most important missions which exerted defining influences over Japanese employers' labor policy was undertaken in 1921 by 24 top executives for six months. In the U.S., they were particularly impressed with the National Association of Manufacturers (NAM), which stimulated the consolidation in 1931 of splintered employer associations of Japan into the National Association of Industrial Associations (*Zensanren* for short). They imbibed a good deal of the antiunion animus of American employers and made up their minds about types of unions they would tolerate or reject; for example, industrial or national unions should be rejected by all means; craft unions could be tolerated; in-house employee associations might be encouraged. To them, collective bargaining was anathema, but some kind of employee councils were acceptable. In sum, their preferences were in line with the tenets and practices of the American plan (welfare capitalism, employee representation, and company unionism).

In the course of practice, the Japanese employers reinterpreted traditional Japanese paternalism and modernized it by the concepts and strategy of the American Plan plus the works council idea which they brought back from Europe. By 1930, large Japanese firms succeeded in ridding themselves of outside unions. The economic dualism of large and small firms with contrasting working conditions and industrial relations clearly emerged by 1930 and became intensified during the 1930s. Thus, one can reasonably claim that lessons from the pre-New Deal HRM/IR system of the U.S. were important inputs into the shaping of the Japanese employment system.

The HRM/IR history in the U.S. and Japan followed different paths after 1935, however. In the U.S., the New Deal HRM/IR system flourished until about 1970. In Japan, all unions were abolished in 1940 and replaced by top-down worker organizations, called Sampō, inspired by patriotic goals. After the war, unions were revived with the encouragement of the Allied Powers, while the employer organizations were for a while disbanded. Workers and unions having acquired unprecedented rights and freedom, industrial disputes skyrocketed. Out of heavy mutual damages, a labor-management rapprochement emerged by 1955.

Grafting New American Management Techniques on the Japanese Employment System

This rapprochement solidified social-democratic reforms in the firm and workplace. Prewar iniquities were wiped out, and status equality became the bedrock of employment relationships. Employees became "members" of the firm. Everyone acquired "equal corporate citizenship." Everyone became salaried, entitled to bonuses, assured of long-term employment, able to look forward to promotions as a function of tenure, and allowed equal access to welfare benefits and facilities. This single status concept reduced pay differentials, although a stratification of functional positions was unavoidable. As a result, the top executives of Japanese companies even today are the most underpaid company personnel of their class in industrialized countries.

Collective bargaining became a process by which the rights and interests of the primary stake holders of the firm, the employees, are cared for. The trade union, based on a borrowed definition from America, included employees below a certain level in the functional hierarchy. Its scope of membership did not extend beyond the firm where it was organized. Hence its name: enterprise[-based] labor union, which looks suspiciously like, but actually is not, a "company union." Leadership in the union was an element of promotability to more important managerial positions in the firm. The firm and the union were integrated for a rational utilization of employee capabilities.

One would wonder how firms could be profitable when constrained by such employee-centered HRM/IR practices. Answers to this question point to the imperative of lean production coupled with top-caliber employees. The premises and consequences of the Japanese business strategy are rather simple: if the firm is constrained by nearly absolute employment guarantee, its logic of profit maximization leads to HRM/IR practices geared to lean production.

Permanent employment is a powerful incentive for the firm to try all means and techniques for increasing the productivity of the human resources it has secured. During the Occupation period and the 1950s, the Japanese firms studied all available production techniques and processes in the U.S. and selectively adopted many of them, adding their own innovations along the way. What they adopted, however, were not necessarily those that were most prevalent in the U.S. The Deming theory of quality control was not popular in the U.S., but became a revolutionary force for the improvement of Japanese product quality (Crocker, Charney, and Chiu, 1985).

Demand-pulled resource planning for production was known in American factories (Gunn, 1982), but the inventory-pushed assembling process was more prevalent. Japanese firms perfected the demand-pulled concept by issuing orders by "kanban" and having inputs delivered "just in time" (JIT). The craze for automation, an American specialty, also took hold of the Japanese. The Japanese employment system rarely stood in the way of the rationalization of production process with up-to-date technology.

Conclusion

Characteristics of the Japanese employment system which are touted as sources of labor efficiency and product quality are imports from America. The compatibility of Japanese-style HRM/IR practices with American workers is often proved by roundabout hypothesis testing methods. It is well known that the Japanese workers are strongly committed to their organization and their work. But commitment is not a Japanese specialty. When commitment as a dependent variable is regressed on common explanatory factors, the fit is as good for American workers as for Japanese workers (Lincoln and Kalleberg 1990). This implies that American and Japanese workers respond similarly to similar incentives. This further implies that an American firm interested in maximizing worker commitment may find a shortcut by looking at what Japanese firms are doing for the same purpose. This compatibility of Japanese HRM/IR practices with American workers is no puzzle when it is recalled that Japanese practices have been extensively cross-fertilized by American practices.

The real puzzle is why despite common roots in the HRM/IR of the 1920s the New Deal system of America was so different from the postwar Japanese system. One answer is that the New Deal system was a veritable revolution against the practices of the 1920s, while the Japanese system was by and large an out-growth, elaboration, or sophistication of those earlier practices. Then it can be inferred that the convergence of American practices toward Japanese needs an equally revolutionary "transformation" of the New Deal system. This is what is happening today. Tortuous dialectics of history are astonishing indeed.

References

Bronfenbrenner, M. "An Essay on Negative Screening." In *Economic Policy and Development: New Perspectives*, ed. Toshio Shishido and Ryuzo Sato. London: Croom Helm, 1985.

Brown, C., and M. Reich. "When Does Union-Management Cooperation Work? A Look at NUMMI and GM-Van Nuys." *California Management Review* 31, 4 (Summer 1989).

Crocker, O. L., C. Charney, and J. S. L. Chiu. *Quality Circles*. New York: Methuen, 1985.

Dore, R. C. *British Factory/Japanese Factory*. Berkeley and Los Angeles, CA: The University of California Press, 1973.

Gordon, A. *The Evolution of Labor Relations in Japan: Heavy Industries, 1853-1955*. Cambridge, MA: Harvard University Press, 1988.

Gunn, T. G. "The Mechanization of Design and Manufacturing." *Scientific American*, 247, 3 (September 1982).

Ishida, Hideo. "Exportability of the Japanese Employment System," *Industrial Policies, Foreign Direct Investment and Labor in Asian Countries*. Tokyo: Japan Institute of Labor, 1978.

Kerr, Clark, John T. Dunlop, Frederick H. Harbison, and Charles A. Myers. *Industrialism and Industrial Man*. Cambridge, MA: Harvard University Press, 1960.

Kochan, Thomas A., Harry C. Katz, and Robert B. McKersie. *The Transformation of American Industrial Relations*. New York: Basic Books, 1986, 1989.

Koike, Kazuo. *Understanding Industrial Relations in Modern Japan*. New York: St. Martin's Press, 1988.

Levine, Solomon B. "Japanese Industrial Relations: What Can We Import?" in *Thirty-Sixth Annual National Conference on Labor*. New York: Matthew Bender & Co., 1983.

Lincoln, J. R., and A. L. Kalleberg. *Culture, Control, and Commitment*. Cambridge, UK: Cambridge University Press, 1990.

Myers, Charles A. "The American System of Industrial Relations: Is It Exportable?" in *Proceedings of the 15th Annual Meeting of the Industrial Relations Research Association*. Madison, WI: Industrial Relations Research Association, 1963.
Parker, Mike, and Jane Slaughter. *Choosing Sides*. Boston: Southend Press, 1988.
Taira, Koji. "Labor Market Segmentation, Human Resource Utilization, and Economic Development," in *Recent Developments in Japanese Economics*, edited by T. Negishi and R. Sato. New York: Harcourt, Brace, Jovanovich, 1989.
Womack, James P., Daniel T. Jones, and Donna S. Carpenter. *The Machine That Changed the World*. New York: Macmillan, 1990.

Are Home-Based Workers Exploited?

Linda N. Edwards
Queens College and the Graduate Center
City University of New York

Beginning with Alvin Toffler's 1980 book, *The Third Wave*, the home has been heralded as the workplace of the future. Despite this expectation, in 1985 the number of nonfarm homeworkers was just 1.9 million, a small proportion of the total workforce (Horvath, 1986). Recent forecasts of a slowdown in the rate of growth of the labor force, however, may give new life to Toffler's prediction (Fullerton, 1989). Business firms, competing for workers in the future, will have an ever greater incentive to give serious consideration to a wide variety of work arrangements. Home-based work—labor market work that is done exclusively in the home—is one arrangement that may help firms attract future employees.

An increase in home-based work is likely to reignite the lively historical debate about the desirability of this work arrangement. Indeed, from the early 1940s until January 1989, industrial homework was banned in seven industries. These bans were established in response to evidence of routine violations of both minimum wage and child labor laws for home-based workers in these industries (*Federal Register*, 1988). The bans remained virtually unchanged until 1981 when the Reagan administration initiated actions to rescind them. After a series of proposed rule changes, hearings, revised rule changes, and further hearings, effective January 9, 1989, the bans were lifted in all seven industries except women's apparel and "unsafe" jewelry production. Even though homeworkers may now be employed in the previously banned industries, employers must still obtain a special certificate from the Department of Labor to do so, and they must keep detailed records concerning homeworkers' employment.

At the same time that the Department of Labor had been acting to remove existing bans on industrial homework, the Service Employees International Union (S.E.I.U.) called for the introduction of a new

Author's Address: 25 Fairview Road, Scarsdale, NY 10583.

ban. The S.E.I.U. has sought to prohibit clerical homework, especially when it involves the use of home computers (see the letter submitted for the record by Jackie Ruft, Executive Director of District 925 of S.E.I.U., in U.S. House of Representatives, 1986).

The issue of home-based work elicits strong reactions. Witness the testimony of Studs Terkel, speaking at a public hearing in opposition to the lifting of the remaining ban on homework in the women's apparel industry: "The previous administration and now the present administration is trying to revive something of the Dark Ages. . . . I find this, of course, an insult to our humanity." (*New York Times*, March 12, 1989). Others, using equally picturesque language, proclaim home-based work to be a flexible response to problems raised by commuting and child-care responsibilities, describing it as a work environment ". . . where you feel free, and not like a prisoner enslaved by a rigid schedule" (*Wall Street Journal*, June 4, 1990).

These two conflicting pictures of homework arise from focusing a microscope on two very different segments of the population of homeworkers. One segment of homeworkers is seen as a group "forced to work for low wages, with few if any benefits, in substandard working conditions, often relying on the supplementary labor of young children" (Gerson and Kraut, 1988, p. 50). These are likely to be unskilled workers who would not qualify for other types of work (perhaps because they are undocumented aliens) or who cannot make appropriate child care arrangements. The second segment consists of more highly skilled workers who choose to work at home because it affords them greater flexibility, or because they are retired and wish to work a limited number of hours per week, or because they are disabled, or because they live a long distance from an urban labor market. (The various views of homework are discussed in U.S. House of Representatives, 1986; Federal Register, 1988; and Christensen, 1988).

The critics of home-based work focus on the first type of worker and see exploitation. Crucial to the notion of exploitation is an implied lack of choice on the part of the worker. The idea is that workers are restricted to a certain set of jobs, and because of their inability to enter the larger market place, are paid an unfairly low wage. An economist would define an exploitative wage in this context as a wage below the worker's marginal product. Critics observe that home-based workers receive lower wages than do similarly skilled on-site workers, and are quick to conclude that this difference constitutes evidence of their exploitation.

The objective of this note is to briefly survey some of the evidence on wage differentials between home-based and on-site workers and to discuss whether such differentials in fact imply that home-based workers are exploited in the sense that their wage is below their marginal product.

Do Home-Based Workers Receive Lower Wages?

The best broad-based information on the earnings of homeworkers in the United States comes from the 1980 Census of Population. Using these data, Kraut and Grambsch (1987) analyze annual wage and salary income and self-employment income of white-collar home-workers living in nonfarm areas. Both types of income must be considered because a large proportion of home-based workers are self-employed. Because hours and weeks worked are likely to be unreliably reported for part-time and part-year workers, Kraut and Grambsch restrict their analysis to full-time homeworkers only—those who work 50 or more weeks per year and 35 or more hours per week. They find that the ratio of annual earned income of homeworkers to that of non-homeworkers is 67 percent for males and 70 percent for females, after holding constant age, urbanization, education, self-employment status, gender, marriage, and the presence of children and preschool children. When they do a similar analysis for 17 occupational classes (but not by sex), they find that this ratio ranges from a high of 168 percent (for designers) to a low of 44 percent (for purchasing agents). For all occupations except two, however, the ratio is less than 100 percent. That is, for most occupations, full-time home-workers had lower annual earned income than did full-time on-site workers. Interestingly, for the less skilled occupations studied—book-keepers, general office clerks, and secretaries—the ratio of home-workers' earned income to non-homeworkers' earned income was higher than for all homeworkers taken as a group (the ratios were .87, .80, and .75, respectively).

Kraut and Grambsch's estimates do not provide a complete picture of the true hourly compensation differential for two reasons. First, the Census data do not include any information on the value of fringe benefits. Since home-based workers are less likely to receive fringe benefits than office-based workers, the ratio would be lower if total annual compensation were the measure rather than total earned income. More serious is the exclusion of part-time or part-year workers. Kraut (1988) reports, again for white collar workers only, that 59 percent of homeworkers as compared with 40 percent of on-site workers work fewer than 35 hours per week or fewer than 50 weeks per year. Because part-time and part-year workers are excluded from Kraut and Grambsch's calculations, we do not know anything about the magnitude of the earned income differentials for the 59 percent of homeworkers who do not work full-time.

The other large sample of homeworkers in the U.S. derives from a special set of questions included in the May 1985 Current Population Survey (CPS). Horvath (1986) reports the results of this survey, but does not include any information about earned income for those workers who work exclusively in the home. Difficulties in obtaining such information from the CPS survey arise because a large proportion of home-based workers are self-employed, and self-employment income was not collected in the survey.

Broad-based survey data are also available for Britain from the 1981 National Homeworking Survey (Hakim 1987). Hakim reports that the hourly earnings of homeworkers are concentrated near the top and bottom of the earnings distribution for all workers in Britain. Homeworkers who report that they are restricted to working at home (primarily women) are the people who tend to be at the bottom of the earnings distribution, while those who report that working at home is the result of a positive choice generally have earnings at the upper end of the distribution.

Overall, available evidence on the compensation ratio of home-based to on-site workers is less complete than one would want, but it does suggest that home-based workers, at least at the lower end of the skill distribution, have lower hourly earned income than do on-site workers.

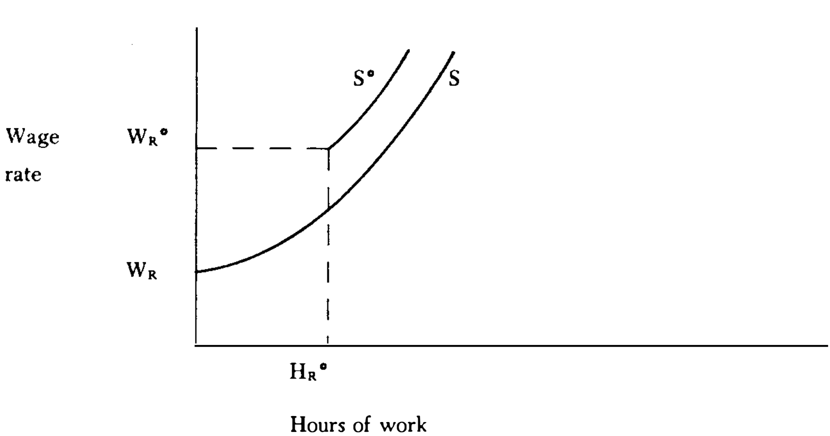
Do Hourly Wage Differentials Between Home-Based Workers and On-Site Workers Imply that Home-Based Workers Are Exploited?

Although existing evidence does suggest that home-based workers may earn less per hour than their office-based counterparts, such a differential is not in itself evidence of exploitation. There are three other explanations for why workers with similar skills may receive lower hourly earnings in home-based work than in on-site work. First, those who work at home may find that such work is more congenial and flexible than on-site work. If so, these workers will have a lower reservation wage for home-based work than for on-site work, reflecting the (negative) compensating differential that results from the non-pecuniary benefits of this type of work arrangement.

A second situation in which home-based workers may have a lower reservation wage is when they are responsible for the care of a child or of a disabled or elderly adult. If such a worker can successfully combine the home care of a dependent with home-based work, the resulting reduction in the hourly cost of dependent care acts to raise the net wage of homework relative to that of on-site work, again reducing the reservation wage for home-based work relative to on-site work.

The third reason why workers may have a lower reservation wage for home-based work than for on-site work derives from the differences in fixed costs associated with the two types of work arrangements. The time and money fixed costs associated with working—time costs resulting from commuting, out-of-pocket commuting expenditures, clothing costs, and to some extent, child care costs—are much larger for on-site work than for home-based work. Indeed, they are virtually zero for the home-based worker. It has been shown (Cogan, 1981) that the existence of time and money fixed costs of working raises the reservation wage as compared to what it would be in the absence of these costs. Cogan also shows that the existence of fixed costs puts a floor on the number of hours a person is willing to work. He or she will not enter the labor market unless the hours to be worked exceed this floor. The lower fixed costs associated with home-based work imply that workers will have a lower reservation wage and lower reservation hours for home-based work than for on-site work. The resulting labor supply schedule of a worker for home-based versus on-site work is illustrated in Figure 1 (assuming an upward-sloping supply).

FIGURE 1



In Figure 1, S represents the labor supply function for home-based work (no fixed costs), and S° represents the supply function for on-site work (I show S° to the left of S, but it can be drawn to the right or left of S; its location depends on the magnitude of the income elasticity of labor supply relative to the fixed time cost of working on-site). When wage offers are between W_R, the reservation wage for home-based work, and $W_R{}^{\circ}$, the reservation wage for on-site work, only home-based workers will be in the labor market. When wage offers are at $W_R{}^{\circ}$ or above, both home-based and on-site workers will be in the labor market. Thus, if a random sample of workers is taken from a population with given socioeconomic characteristics, the mean observed wage will be lower for the home-based workers because only in the subsample of home-based workers will there be observations in the W_R to $W_R{}^{\circ}$ interval.

Each of these three theoretical considerations provides an explanation for why the reservation wage for home-based work may be below the reservation wage for on-site work. This lower reservation wage translates into a lower observed wage if firms view home-based workers as less productive (perhaps because of on-site synergies that cannot be taken advantage of when workers are home-based) and, consequently, offer them a lower wage. Or, if less productive firms offer a lower wage (and, of course, the home-based work option), home-based workers will be more likely than others to accept employment at these firms. In either case, the lower wage received by the home-based worker will not be a sign of exploitation. To determine if home-based workers are exploited, one needs to know more than simply whether or not they receive lower compensation. One also needs to know how the marginal productivities of the home-based and on-site workers compare.

Conclusion

Some of the criticisms of home-based work are valid, especially for low-skilled workers. It is certainly more difficult to enforce minimum wage laws and child labor laws when workers are dispersed in many locations (although recent legislation with regard to employer record-keeping for home-based workers makes it easier for government inspectors to keep track of the wages of homeworkers). Similarly, it may be more difficult to make sure that homeworkers are not encountering job hazards. But the fact that home-based workers accept and receive lower hourly wages for their work does not imply that these workers are exploited or that home-based work should be banned. The willingness of home-based workers to accept this work arrangement, even at a lower wage, implies that they find it preferable, given their situation, to either on-site work or to remaining out of the labor force. For example, Christensen (1985) reports that homeworkers prefer working at home to not working at all. Similarly, Gerson and Kraut (1988) report that in a sample of clerical workers, the home-based workers were significantly more satisfied with their work than were the office-based workers (holding constant demographic variables, hours worked, and household income).

Unions who wish to ban home-based clerical and computer work do a disservice to the low-skilled workers for whom this is an option. Unions could instead offer to such workers the type of associate membership program that they have been offering to workers in nonunion workplaces—a membership that would allow these workers to obtain favorable rates on health and life insurance, for example. Such a program could also act as a clearing house for workers who seek home-based work and employers who are interested in hiring these workers. It is possible that formalizing the labor market for home-based workers, especially at the lower end of the skill distribution, would also make it easier for government to enforce labor market regulations.

Home-based work has a place in the spectrum of possible work arrangements. It is a useful option for people who want to continue in the labor market but are constrained in their choices—people with young children, people with disabled dependents, disabled people, or people who live in rural areas, for example. At present, probably the most significant reason more people do not work at home is the lack of appropriate jobs. Continual improvements in computer technology, combined with the expected slowdown in the growth of the labor force, will provide employers with added incentives to find ways to incorporate home-based work in the menu of choices they offer to employees.

Acknowledgment

Support for my research on home-based work has been provided by a PSC-CUNY Research Award.

References

Christensen, Kathleen E. "Women and Home-Based Work." *Social Policy* 15 (January 1985), pp. 54-57.

———, ed. *The New Era of Home-Based Work*. Boulder, CO: Westview Press, 1988.
Cogan, John F. "Fixed Costs and Labor Supply." *Econometrica* 49 (July 1981), pp. 945-63.
Federal Register, 53, **213** (November 10, 1988), pp. 45706-45727 (reprint incorporates corrections printed in *Federal Register* on Nov. 17, 1988).
Fullerton, Howard N., Jr. "New Labor Force Projections, Spanning 1988 to 2000." *Monthly Labor Review* 112 (November 1989), pp. 3-12.
Gerson, Judith, and Robert E. Kraut. "Clerical Work at Home or in the Office: The Difference It Makes." In *The New Era of Home-Based Work*, ed. Kathleen Christensen. Boulder, CO: Westview Press, 1988.
Hakim, Catherine. "Home-based Work in Britain." Research Paper No. 60. U.K. Department of Employment, 1987.
Horvath, Francis W. "Work at Home: New Findings from the Current Population Survey." *Monthly Labor Review* 109 (November 1986), pp. 31-35.
Kraut, Robert E. "Homework: What Is It and Who Does It?" In *The New Era of Home-Based Work*, ed. Kathleen Christensen. Boulder, CO: Westview Press, 1988.
Kraut, Robert E., and Patricia Grambsch. "Home-Based White Collar Employment: Lessons from the 1980 Census." *Social Forces* 66 (December 1987), pp. 410-426.
New York Times. "Federal Work-at-Home Plan Assailed at Hearings." March 12, 1989, p. 29, col. 1.
Toffler, Alvin. *The Third Wave*. New York: William Morrow & Co., 1980.
U.S. House of Representatives, Subcommittee of the Committee on Government Operations. Hearing. "Pros and Cons of Home-Based Clerical Work." Feb. 26, 1986. Washington, D.C.: USGPO, 1986.
Wall Street Journal. "Workplace, Where We'll Be." June 4, 1990, p. R6, col. 1.

XVIII. RESEARCH EXPECTATIONS IN IR AND HR UNITS: VIEWS OF INTERNAL AND EXTERNAL CONSTITUENCIES

Research Expectations of U.S. IR-HR Units in the 1990s: Challenges and Choices

David Lewin
UCLA

The title of this IRRA session, "*Research Expectations in IR and HR Units: Views of Internal and External Constituencies*," implies an underlying preceding question: "What are IR-HR units?" There is no simple answer to this question because IR-HR units in U.S. colleges and universities do not display a single model or pattern. Instead, the arrangements pertaining to these units are diverse.

For example, some units constitute full departments or schools, while others do not; some units grant degrees, while others do not; some units have "regular" faculty positions, while others do not; some units require or obtain substantial grant (soft) monies, while others do not; most units have labor education and community outreach programs, while fewer have management education programs; and so on.

To illustrate, separate degree-granting schools of industrial and/or labor relations exist at Cornell University and the University of Illinois. At UCLA, Columbia University, the University of Pennsylvania (Wharton), and Northwestern University, IR-HR units constitute areas, divisions, or specialties within graduate schools of business or

Author's Address: Institute of Industrial Relations, University of California, 405 Hilgard, Los Angeles, CA 90024.

management. At Princeton University, an industrial relations section is part of the Economics Department. The universities of Wisconsin and Minnesota provide examples of non-degree granting IR institutes/centers where faculties are drawn from several separate schools and departments.

Despite the diversity (or possibly because of it), IR-HR units in U.S. colleges and universities appear to face some common research challenges, and it is these challenges which constitute the focal point of this paper. In particular, I suggest, these units are being challenged to show that they provide "value added" to IR-HR research, and that the research they sponsor and/or support deals with relevant, contemporary IR-HR issues and problems (Lewin, 1991).

It is important to recognize that most IR-HR units in U.S. colleges and universities were created relatively recently, specifically, in the immediate post-World War II period. IR-HR units at Cornell, Illinois, Wisconsin, Minnesota, Berkeley, UCLA, and Iowa provide cases in point. Following the record high level of strikes that occurred in the immediate post-World War II period, IR-HR (or, at that time, IR) units were established to provide research and outreach assistance in resolving labor disputes and promoting so-called labor peace. These units quickly became absorbed in the study of unions, union-management relations, and collective bargaining and not, generally speaking, of the employment relationship as a whole. This is not to say, of course, that all IR-HR units' research during this period dealt only with unionism and bargaining. In particular, labor market studies and public policy research also received the support of such units. Clearly, however, unionism and bargaining received the primary research attention of such units.

Indeed, these units' emphasis on the study of, and outreach to, labor organizations and to those segments and institutions of management involved in union-management relations deepened in the 1950s, as unions continued to grow, and in the 1960s, as national emergency strikes and wage-price guidelines-controls continued to dot the national landscape. In fact, some scholars have dubbed this period, roughly 1947-65, the "golden age" of industrial relations (Strauss and Feuille, 1978). *A somewhat different observation about this period is that one rarely heard of or read about the term "human resource management."*

IRRA members need hardly be told that union membership in the U.S. has declined substantially over the last 35 years and notably sharply over the last 15 years, or that human resource management—a label often used to signal nonunion employment relationships—has risen to the fore, especially during the 1980s. Perhaps the strongest indication of these trends in terms of IR-HRM studies is that, in recent years, virtually every IR degree program in the U.S. has changed its name to an IR-HRM or an HRM-IR program; in some cases, in fact, HRM has replaced IR as the program title. These developments (as might be expected) are especially notable in business schools which offer undergraduate, MBA and/or PhD degrees in HRM or HRM-IR. In universities ranging from M.I.T. to Chicago to UCLA, a basic course in "labor" or "industrial relations" (offered by the business or management school at these institutions) has become an HRM course (Lewin, 1989b).

What is the significance of these and related developments for IR-HRM units? One implication, clearly, is that these units must expand their study of employment relationships to encompass broader dimensions of these relationships than are reflected in unions, union-management relations, and collective bargaining. Such issues as work force diversity, the "glass ceiling," organization culture, and the compliance of foreign-owned and -operated firms with U.S. regulation of HRM are but some of the issues which might occupy the interest, and attract the support, of "modern" IR-HRM units. Note that none of these issues necessarily has anything to do with unionism and collective bargaining. Or, consider the issue of employee financial participation and nonfinancial participation in the enterprise. Numerous such participation initiatives have been undertaken by a wide variety of firms and enterprises in recent years, and questions regarding their determinants and consequences merit serious attention, including by IR-HR units. Again, these questions do not necessarily have anything to do with unionism and collective bargaining (Mitchell, Lewin, and Lawler, 1990; Lewin, 1989a). Even more fundamental, perhaps, is the issue of human resource management strategy in the firm, a topic which has drawn substantial attention from business strategy and organizational behavior researchers, but less often the attention of researchers associated with IR-HR units (Kochan, Katz, and McKersie, 1986; Lewin, 1987; Lewin 1990). Once more, this issue goes well beyond matters of (and often has nothing to do with) unionism and collective bargaining.

These comments suggest, in turn, that IR-HR units are likely, indeed, will have to, undergo some important changes in the 1990s if they are to match the demands of their external environment (and, more pointedly, survive). One such prospective change is that relatively less of IR-HR units' resources will be devoted to (supporting) the study and practices of "labor" institutions, namely, unions and collective bargaining. This is not to say that research into these institutions will fail to be conducted. To the contrary, and by example, labor economists showed a renewed interest in unions and collective bargaining during the 1980s, during which time the *Journal of Labor Economics* was inaugurated, and the proportion of articles on "labor" published in the *American Economic Review*, *Quarterly Journal of Economics*, and *Journal of Political Economy* rose markedly, relative to the 1970s. There is no reason to believe that this interest will wane during the 1990s (Freeman and Medoff, 1984). It is to say, however, that IR-HR units will be less likely in the 1990s than previously to single-mindedly support/sponsor such research, but will be more likely to support labor economists' (and other researchers') studies of IR-HRM regulation, immigration, employment discrimination, implicit contracting in the labor market, employment consequences of international trade, and the development of free labor markets in formerly centrally directed economies and societies.

A related prospective change in the 1990s is that IR-HR units will devote relatively less of their resources to conventional "labor" education, in the form of training programs for union officials, than they did previously. Increasingly, such labor education initiatives will focus on the transition from school to work, the adjustment of non-traditional groups, including ethnic and racial minorities and immigrants, to demands of the workplace, and the reskilling of workers. This means, in turn, that IR-HR units will have to establish and strengthen relationships with community organizations, women's organizations, minority advancement groups, employers, and employers' associations. Such new initiatives will no doubt encounter or engender conflicts with some representatives of organized labor, who have come to regard IR-HR units in U.S. colleges and universities as "their" bailiwick. Indeed, a recent survey of union officials who serve on the Labor Advisory Committee to the Institute of Industrial Relations at UCLA found that these officials strongly opposed expanded education and outreach activities for women's groups, racial minorities, immigrants, and employers *if* this meant a reduction of activities and expenditures devoted to the education and training of labor union officials. At the same time, notably, the University's administration supports the enhancement of education, training, and outreach activities and programs for various labor force groups and employers irrespective of their union status, even if such enhancement involves a diminution of education and training programs for labor union officials.

Another implication of the changing environment of IR-HR studies, and thus of IR-HR units, is that relatively more of these units resources in the 1990s will be devoted to the support of research into HRM strategy, policy, and practice. This means, in turn, that business strategy and organizational behavior researchers will receive enhanced support from IR-HR units, even as the vast bulk of researchers in these specialties devote little attention to unionism and collective bargaining. Instead, these researchers focus on the development of organizational leadership, culture, and values; power relationships among formal and informal groups in organizations; the validity of employer selection, promotion, and appraisal systems and formats; the design and implementation of organizational compensation and reward systems; succession and career planning; and the design and implementation of conflict, appeal, and alternative dispute resolution systems in organizations.

These and related topics and issues have increasingly come to characterize the content of HRM courses in U.S. colleges and universities. The prospective enhanced support of IR-HR units for research on these topics and issues suggests a future tilt in the direction of organizational behavior researchers who, as noted, are not especially interested in labor institutions. The irony in all of this is that IR and OB studies were at one time very closely associated, but beginning in about 1960 or so these two specialties began to diverge and eventually moved in quite different directions. The reintegration of these specialties, it is suggested here, will involve less of an emphasis on unionism and collective bargaining and more of an emphasis on the micro dynamics of organizational employment relationships.

These prospective developments also have certain implications for those IR-HR units which provide management education and training activities. The key implication of this analysis is that such activities will focus less on managing the union-management relationship and more on managing employee relationships. Put differently, labor peace will become less of an overriding (if implicit) objective of IR-HR-sponsored management education and training programs, while effective employee utilization and development will become a more central (and probably explicit) objective. In this regard, a survey of employers who participate in the UCLA Institute of Industrial

Relations' management programs and conferences found that these employers preferred the Institute's programs to have a stronger emphasis on work force reskilling, utilization, and flexibility; human resource planning; organizational climate; the management of retrenchment; organizational leadership; and a weaker emphasis on (that is, a de-emphasis of) union-management relations and collective bargaining.

If IR-HR units of U.S. colleges and universities are to maintain a central interest in, and provide support for, research on unionism and collective bargaining in the 1990s, the international scene is likely to provide the strongest opportunities for doing so. While terms such as globalization and competitiveness are almost always used or placed in the context of product markets, they can as easily be thought of in terms of labor markets and labor relations. Even though unionization is declining in virtually all developed nations save Canada, the level of unionization in these nations is high, often far higher, than in the U.S. Moreover, outside of the U.S., unionism is frequently more politically oriented and less business oriented than in the U.S.; bargaining is typically far more centralized and far more likely to be but part of a multifaceted system of employee participation in the enterprise than in the U.S.; and government involvement in, and regulation of, the employment relationship is both greater and more complex than in the U.S. The manner in, and extent to, which foreign nations that possess major union and corporatist elements are able to adjust to enhanced global competitiveness looms as a key topic for research in the 1990s, especially in relationship to the adjustment processes of the far less unionized and corporatist U.S. Herein lies an opportunity for IR-HR units to support research that encompasses key institutional elements, namely, labor unions, collective bargaining, employer associations, and, in some cases, tripartitism (i.e., a major role for government in private employment relationships and labor management affairs).

A potential obstacle to strengthened support of IR-HR units' international/comparative research is the expectation of external constituencies that the activities of these units will enhance or be relevant to statewide and/or local labor practices. After all, most of these units operate in public universities funded by state legislatures and such political bodies typically expect returns on their investments—returns which are largely regional and local in nature. Yet most public universities that house IR-HR units also have as their primary mission the production and development of knowledge in scientific and applied disciplines and specialized areas. Such knowledge development, as well as the dissemination of knowledge, knows no geographic boundaries, just as the producers of this knowledge—college and university faculty—are recruited from national and, increasingly, international markets. Stated another way, public (and private) universities that achieve, or substantially achieve, their fundamental research mission become competitors in a worldwide, global knowledge industry and market, which perforce requires that they outgrow local, somewhat parochial, postures and positions.

Taking this perspective as a point of departure, IR-HR units in U.S. colleges and universities are already competing in a global market and will increasingly be doing so in the 1990s. Therefore, they should be willing, even anxious, to support/sponsor research on IR-HR strategies, policies, practices, and institutions across national boundaries. That only some, perhaps a minority, of this supported research will, in the 1990s, focus on unionism and collective bargaining is far less important than the challenge that such research will, in fact, be supported by these units. By doing so, IR-HR units will signal—to university administrators, researchers, students, management officials, union officials, public officials, and others—that they intend to be major players in the higher education industry in the 1990s. Such a "big picture" orientation may occasionally encounter the opposition of one or another local internal or external constituency, but this is far preferable to being regarded as a minor, and increasingly irrelevant, player. Thus, if IR-HR units in U.S. colleges and universities are to survive and (perhaps) prosper in the 1990s, they will do so only by showing that they provide value added to research and the dissemination of knowledge about HR and IR strategy, policy, and practice in both domestic and international contexts. This, in turn, will require a rebalancing of the financial support, activities, and programs of most IR-HR units in U.S. colleges and universities in some of the ways that have been identified in this paper.

References

Freeman, Richard B., and James L. Medoff. *What Do Unions Do?* New York: Basic Books, 1984.

Kochan, Thomas A., Harry C. Katz, and Robert B. McKersie. *The Transformation of American Industrial Relations*. New York: Basic Books, 1986.

Lewin, David. "Industrial Relations as a Strategic Variable." In *Human Resources and the Performance of the Firm*, eds. Morris M. Kleiner, Richard N. Block, Myron Roomkin, and Sydney Salsburg. Madison, WI: IRRA, 1987, pp. 1-41.

———. "The Future of Employee Involvement/Participation in the United States." *Labor Law Journal* 41 (1989a), pp. 470-75.

———. "The Industrial Relations (IR) Content of MBA Programs in the United States." *Proceedings of the Forty-First Annual Meeting, Industrial Relations Research Association*. Madison, WI: IRRA, 1989b, pp. 474-78.

———. "Analyzing the Transformation: A Research Perspective." In *Reflections on the Transformation of Industrial Relations*, eds. James R. Chelius and James P. Dworkin. Metuchen, NJ: Institute of Labor-Management Relations Press, Rutgers University, 1990, pp. 202-18.

———. "The Contemporary Human Resource Management Challenge to Industrial Relations." *Proceedings of the Second Bargaining Group Conference*. Ithaca, NY: NYSILLR, Cornell University, 1991 (in press).

Mitchell, Daniel J.B., David Lewin, and Edward E. Lawler III. "Alternative Pay Systems, Firm Performance, and Productivity." In *Paying for Productivity*, ed. Alan S. Blinder. Washington, D.C : Brookings, 1990, pp. 15-94.

Strauss, George, and Peter Feuille. "IR Research: A Critical Analysis." *Industrial Relations* 17 (1978), pp. 259-77.

Research Expectations in IR and HR Units: Views of Internal and External Constituencies

Malcolm S. Cohen
University of Michigan

Most issues in the world of work are too complex to be considered from only one perspective. In academic departments, there is pressure to publish in journals that focus more narrowly on the particular disciplines. Research organizations not affiliated with universities may produce relevant studies, but their results may not be widely disseminated. And because such organizations are dependent on contract renewals for survival, their studies are not subject to the rigor of academic journals.

Labor and industrial relations programs offer a unique setting for carrying out research relevant to the world of work. Their inclusion with universities means that the quality of their research must meet academic standards, but by virtue of their status as separate units, they are not constrained to limit their research interests to any one department's discipline. At the same time, however, they can draw on the strengths of narrowly focused disciplines by serving as an alternative forum for faculty from a wide range of academic departments within the university community. Such an opportunity for collaboration among faculty from differing disciplines can lead to policy-relevant research difficult to duplicate in other environments.

In this paper I will report the results of a survey I took of labor and industrial relations programs regarding their sources and the types and volume of research they do. I will also describe trends at the University of Michigan, as a case history of changing trends.

Questionnaire Results

I sent a questionnaire to the 54 members of the University Council of Industrial Relations and Human Resource programs to learn about

Author's Address: Institute of Labor & IR, Victor Vaughan Building, University of Michigan, 111 Catherine Street, Ann Arbor, MI 48109.

research trends and practices at the various programs. Of the 54 members, 41 responded (76%). Five reported that they did not do research, but primarily offered extension education. This left 36 programs, which are analyzed in this paper. There was no particular pattern for the non-responses. Some were large programs, some were small, some did research, and some probably did not. The 36 responses are probably typical of the universe of research programs.

The questions dealt with funding sources and amounts in 1989-90 and 1984-85, degrees offered, unit affiliation, whether the university is public or private, whether the program has a separate research unit, number of the researchers and support staff, research disciplines and topics, research by volume by subject matter, normal teaching load, availability of release time for non-supported research, whether research is organized along specific themes or individual pursuits, and the percentage of staff on 50 percent or more soft money.

Financial Support

Evaluating internal and external funding sources is complicated by the jointness in faculty salary support and external funding. For example, some programs with a teaching load of one or two courses per term report that they receive small amounts from internal research funds. Yet, it could be argued that to the extent that the teaching load is one or two courses rather than two or three, there is implicit research support. Furthermore, a university that received a direct line-item appropriation from the state for its program could argue that it received no internal university funds, yet its situation might not be very different from a university that received the funds and then allocated them. Without a careful analysis of each program's finances, conclusions cannot be drawn regarding comparable internal support.

Programs were asked to report the percentage distribution of their sources of external research funds. Data were also requested on total external and internal funds. From these data, dollar amounts were computed by program for each source of funds. The median and mid-range (25th to 75th percentile) are shown for each program for various sources of funds in Table 1. The median and mid-range are calculated in each category only for programs having some support in that category in the table. The number of programs indicating no support in each category is also shown, but does not influence the median calculation.

Table 1 indicates that state support provides the largest median contribution of IR and HR programs for those programs fortunate

TABLE 1

Survey of Research at Institutes of Labor, Industrial Relations, and Human Resources
1989-90

	Federal	State	Foundation	Company	Union	Total External	Total Internal	Percent External
Number with no $	22	21	22	19	23	3	6	NA
Number with some $	9	11	6	9	7	24	21	28
Median	$40,000	$135,892	$32,600	$90,000	$8,202	$67,500	$15,259	68%
Midrange	$21,000 -$138,636	$20,000 -$315,000	$15,000 -$75,000	$6,370 -$167,500	$5,400 -$36,000	$19,000 -$365,581	$5,500 -$280,306	22.5%-93%

enough to have state support. Median state support was $135,892. Company support was second, with a median of $90,000. Federal government support was a distant third, with a median level of only $40,000. Some universities, however, have been very successful in getting support from the federal government. Traditional sources such as the Department of Labor have become less important as other agencies, such as Health and Human Services, offer more funding in areas such as worker health.

Seven schools received union support, at a median level of $8,202. Joint labor-management programs, such as UAW-Ford and UAW-GM, were also a source of funding for a few schools, but such support is not classified in the union category.

For schools receiving external funding, the median level of funding from all external sources was $67,500. The total median shown on the table is lower than some of the component categories because the "total external funding" category includes many schools not receiving funds in particular categories. For example, 19 out of 28 schools reported no money from companies, yet most of these same schools received money from one or more other sources.

The median computed for internal funds was $15,259. Data on internal funds received are not very meaningful, however, because they do not adequately reflect differences in treatment of teaching faculty among programs, as explained earlier.

Trends in funding from 1984-85 to 1989-90 are compared in Table 2. Only 15 programs provided data for both years. Medians are computed in each category only for those programs reporting income in either year. There is a drop in federal support; an increase in state, company, and union support; and constant foundation support. Since prices have increased about 20 percent during this period, in real terms it reflects a 20 percent decline in foundation support but still a considerable increase in real state, company, and union support. Total median external support dropped from $90,000 to $75,000.

Although the questionnaire did not explore the implications of the shifting of support from federal to state agencies, a few speculations are offered: evaluation research involving scientific designs tends to be very expensive and generally not cost-effective at the state level. The shift from federal to state funding has probably resulted in more feasibility studies or case research and less evaluative research.

Programs were asked to divide research volume by subject matter in 1989-90 and 1984-85. The broad categories were:

1. collective bargaining, labor relations, and union studies;
2. labor economics;
3. human resources, personnel, organizational behavior, and employment law; and
4. other.

The results are computed only for the 19 programs that reported results in both years.

During 1989-90, the median volume of research was 40 percent for collective bargaining et al., compared with 45 percent in 1984-85. Similarly, labor economics increased from 15 percent to 20 percent, while human resources increased from 30 percent to 40 percent.

The trends toward diminished research in collective bargaining coincide with the reduced federal funding being provided in this area. The increase in human resource research is not unexpected; programs have even changed their names to reflect this increased emphasis.

Teaching load varied from one to four courses in the 34 human resource programs reporting. The median teaching load was two courses per term, and only 18 percent of the programs reported a teaching load of three or more courses per term. Of the 28 programs that responded to the question about teaching hours, the median and mode teaching load in hours per week was six. Half of the programs were at this level. Of the 35 programs that responded to the question on release time, 34 percent offered release time for research. Thirty of the 36 programs reported that none of their staff were 50 percent or more on soft money. Only two institutions reported that more than 50 percent of their faculty or staff were on 50 percent or more soft money. This is probably a more reliable indicator of the relative importance of external versus internal support.

TABLE 2

Changes in Median External Funding 1984-85 to 1989-90, IR and HR Programs (15 Programs)

Category	N	1984-85	1989-90
Federal	10	$51,190	$31,325
State	8	20,644	92,946
Foundation	4	60,821	62,100
Company	6	18,357	49,620
Union	4	21,500	33,075
All external support	15	90,000	75,000

Note: Figures shown were computed in each category only for those programs with funding in either year.

The size of the programs varied. All of the programs reported that they had researchers who taught. The median number of researchers who taught was five.

Twelve programs reported a median number of 2.5 nonteaching researchers. Twenty-three programs reported no nonteaching researchers. Fifteen programs reported that they had no support staff. The other 18 programs reported a median of three support staff members.

Type of Research

All 36 responding programs described their disciplines and research areas. All of them indicated that they had either industrial relations or economics as research disciplines. Ninety-two percent indicated that they had industrial relations; 75 percent indicated that they had economics; 58 percent reported organizational behavior as a discipline; 44 percent reported sociology; 42 percent reported psychology; and 33 percent reported law. Less than 20 percent reported engineering, social work, education, or public health.

Table 3 illustrates the prevalence of different research topics at the various programs. Only three topics—collective bargaining, labor market, and organizational behavior could be found at a majority of the programs. Some topics such as job analysis, economic forecasting, union political behavior, research methodology, and ergonomics were found at less than 20 percent of the programs.

TABLE 3

Research Topics Studied at Various IR and HR Centers

Topics	Percent
Collective bargaining	69
Labor market	58
Organizational behavior	56
Labor-management cooperation	50
Dispute resolution, occupational health	47
Employment or labor law, equal employment	44
Foreign labor, private training	39
Employee motivation, union organization, labor history	36
Labor studies	28
Recruitment, effectiveness of government programs	25
Job analysis	19
Economic forecasting, union politics	14
Research methodology	11
Ergonomics	3

Other Results

Of the responding centers, 11 offer a bachelor's degree, 26 offer a master's, and 16 offer a Ph.D. Four programs were research centers that offered no degrees.

In terms of organization of research, 28 respondents said faculty pursue individual pursuits, two said they have specific themes, and six said they had both. A few said they were moving toward specific themes.

Eight programs said they had a separate research unit. The other 28 said research was not formally organized. Twenty-eight of the programs were in public institutions, seven in private, and one had both public and private programs.

In terms of program size, the median bachelor's program was 50 graduates, the median master's was 18, and the median for Ph.D. programs was 1. Some schools, especially for the bachelor's degree, may have reported for the college rather than for a specific IR program.

The most common affiliation of reporting units was business schools; 14 of the programs that responded to the question were affiliated with business schools. Six were affiliated with schools of literature and arts; three were interdisciplinary; six were affiliated with other schools; four were independent units; two reported to research centers; and one said no to all choices.

Developments at the University of Michigan

In 1980, the University of Michigan began a series of reviews of its Institute of Labor and Industrial Relations. At the time the Institute was a joint unit of the University of Michigan and Wayne State University. Since the review, and for reasons unrelated to the issues discussed here, the Institute was split in 1982, and each university developed its own program. While the Institute was continued at Michigan, its activities at Wayne State were merged into a College of Urban Studies. At Michigan, the Institute was moved to report to the vice president of research from the provost's office.

A routine review of the Institute of Michigan was undertaken in 1981 when the director, Charles Rehmus, left to become dean of the School of Labor and Industrial Relations at Cornell University. This review examined the activities of the Institute, whether there was a need for an Institute, and requirements for a new director. It recommended no cut in funding (Johnson, Berlin, Douvan, Haber, Lesch, and Porter, 1981).

Soon after completion of the initial review, the University underwent a budget priority process. During this process, various units were targeted for intensive review to determine if they should be eliminated or if their budgets should be significantly reduced. For example, the University eliminated the Institute for the Study of Mental Retardation and Related Disabilities, and cut the budget of the School of Education by 40 percent.

As part of this review, three questions were posed to the committee about the Institute (Eisley, Hinman, Loury, Miller, Munson, Peterson, and Vaughan, 1982):

1. Are there compelling reasons not to close the Institute?
2. If it is closed, should some of its responsibilities be shifted to other units?
3. If there are compelling reasons against closure, are there ways in which the concerns expressed in the report of the recent review committee can be addressed, while at the same time significantly reducing the Institute's budget?

The tone of the questions suggests the tone of the review. Nevertheless, the recommendation of the committee was that there were compelling reasons not to close the Institute. However, the Institute and the administration negotiated a nearly 50 percent cut in its budget over five years.

One of the principal concerns that led the University administration to target the Institute for possible elimination was the concern that the Institute was not central to the rest of the University's mission. The Institute at Michigan does not offer a credit teaching program, and it is not affiliated with any school or college.

At a time of continual budget pressures, the University of Michigan has put a greater priority on teaching programs, regardless of discipline. The institute is currently developing a strategic plan for the nineties.

A framework for any academic planning at Michigan has been set by a task force headed by the former dean of the University's business school, Gilbert Whitaker, who is now Provost (Bole, Gramlich, Haddad, Holbrook, Knepp, Krumm, Matthews, Rich, Weisbuch, and Whitaker, 1990). The task force report emphasizes "quality improvement and cost containment." The emphasis on improving quality is directed in part to customer needs.

Applying the concepts of this report to the needs of the Institute's customers would require an examination of whether these needs can be met by organizational frameworks more cost-effective than the current structure. Alternatively, differing frameworks that cost the same as the current structure are being explored in talks between academic departments and the Institute to determine if they would be more effective.

Insofar as research output is concerned, the advantages of a more direct link between a school and the Institute would be:

1. research results could flow more directly into teaching situations;
2. feedback from students would be more direct;
3. employment of graduate students would be easier to achieve;
4. economies of scale might be achieved by sharing common administrative functions;
5. credit courses could more easily be offered; and
6. support of staff between projects would be less of a problem if the staff taught.

The disadvantages might be:

1. less emphasis on interdisciplinary projects;
2. less involvement of faculty outside of the school or college to which the Institute is linked;
3. less emphasis on infrastructure necessary to attract federal funds; and
4. adding a level of bureaucracy to Institute decision-making could slow down innovation.

Summary

Diversity characterizes the research at the various industrial relations and human resource programs. There are great variations in organization, size of support, and sources of funds. The decline of federal support and increase in state support is in evidence, but a few universities have managed to attract significant federal research support. While all research programs did research in industrial relations or economics, other topics tend to be rather diverse. The data also suggest that there is some growth in research on organizational behavior and labor economics and a decline in collective bargaining research.

Acknowledgments

The author is indebted to Jackie Murray for editorial assistance and to Lou Ferman for comments.

References

Johnson, Harold R., Lawrence S. Berlin, Elizabeth M. Douvan, William Haber, James E. Lesch, Richard C. Porter. "Review of the Institute of Labor and Industrial Relations." Report to Dr. Harold Shapiro, President, University of Michigan, Ann Arbor, August 6, 1981.

Eisley, Joe G., Martha M. Hinman, Glenn C. Loury, George Miller, Fred C. Munson, Marvin W. Peterson, and Frizell L. Vaughan. "Final Report of the Review Committee for the Institute of Labor and Industrial Relations." University of Michigan, Ann Arbor, August 10, 1982.

Bole, Giles G., Jr., Edward M. Gramlich, George Haddad, Robert S. Holbrook, Marilyn G. Knepp, William B. Krumm, Rowena G. Matthews, Lauren M. Rich, Robert A. Weisbuch, Gilbert R. Whitaker. "Enhancing Quality in an Era of Resource Constraints." Report of the Task Force on Costs in Higher Education, University of Michigan, Ann Arbor, 1990.

Research Expectations in IR/HR Units: The View from the Beebe Institute

BRUCE KAUFMAN
Georgia State University

The subject of this session is the research expectations in IR/HR units as seen by both internal and external constituencies. In this paper I consider several aspects of this issue from the vantage point of one particular IR/HR unit, the Beebe Institute of Personnel and Employment Relations at Georgia State University (GSU). The subjects addressed include the research expectations for obtaining tenure in the Beebe Institute, various internal cleavages and tensions among the Institute faculty created or exacerbated by the research process, and the research expectations of business firms that provide financial support to the Institute.

Research Expectations for Tenure

From the perspective of a junior faculty member, the most important internal constituency with respect to research is the promotion and tenure committees at the department, college, and university levels. The first subject I examine, therefore, is the research expectations as seen by junior (untenured) faculty in the Beebe Institute with respect to obtaining tenure.

To obtain evidence on this matter I surveyed six untenured faculty members who were affiliated with and active in the Beebe Institute as to their estimate of what number and type of publications were necessary to obtain tenure at GSU. The six faculty members spanned the IR/HR disciplinary spectrum with the end points represented by individuals with a significant organizational behavior (OB) and labor economics (LE) orientation, respectively. Of the remaining four faculty, two could best be described as specializing in personnel/human

Author's Address: Economics Department, Georgia State University, Atlanta, GA 30303.

resource management (HRM) and the other two as specializing in industrial relations (IR).

The responses to the survey are reproduced in Table 1. All subjects were first asked to name four journals that they considered "A" tier in their area of research. The answers are given in the first row of Table 1. Two aspects of the answers stand-out. First, among HRM (including OB) and IR (including LE) faculty there is a considerable degree of consensus as to what journals are "A" tier. All HRM faculty, for example, cited the *Journal of Applied Psychology* and *Academy of Management Journal* while all IR faculty cited *Industrial and Labor Relations Review* and two of the three cited the *Journal of Human Resources* and *Industrial Relations*, respectively. The second noteworthy aspect of the responses is the clear dividing line that separates HRM and IR faculty in terms of the journals they publish in and read. None of the HRM faculty listed *ILRR* as an "A" journal that they would be likely to publish in, for example, while none of the IR faculty listed *JAP*.

To confirm this finding, each HRM(IR) person was then asked to name the top journal in the field of IR(HRM) and whether he/she regularly reads this journal. (Yes/No). The responses are given in the second row of the table. All three HRM faculty listed the *ILRR* as the top IR journal but none regularly read it, while two of the IR faculty listed *JAP* as the top HR journal but neither regularly read it. (The labor economist felt unable to answer this question with any certainty.)

Each junior faculty member was next asked to list three "B" tier refereed journals in his/her area of research. The responses are given in row three. The most noticeable aspect of the responses is the greater heterogeneity of cited journals even within HRM and IR faculty groupings. This no doubt reflects the fact that the "B" tier journals tend to be more specialized in terms of subject area and thus appeal to a smaller subset of IR/HRM researchers.

Each faculty member was next asked to list the association proceedings that would represent the most natural fit for his/her research. The answers are given in row four. The three HRM faculty members listed the *Proceedings* of the Academy of Management, while the two IR faculty listed the *Proceedings* of the Industrial Relations Research Association (IRRA) and the labor economist listed the *Proceedings* of the American Economic Association. There was considerable uncertainty and diversity of opinion as to whether a proceedings article should be classified as a "B" tier publication or in

TABLE 1

Research Expectations for Tenure in the Beebe Institute, 1990

Faculty Member	1 (OB)	2 (HRM)	3 (HRM)	4 (IR)	5 (IR)	6 (LE)
1. "A" Journals	JAP AMJ OBHDP PerPsy	JAP AMJ OBHDP PerPsy	JAP AMJ OBHDP ASQ	ILRR IR AMJ BrIR	ILRR IR AMJ JHR	AER JPE ILRR JHR
2. Best Journal in other field (Regularly Reads)	ILRR (N)	ILRR (N)	ILRR (N)	JAP (N)	JAP (N)	—
3. "B" Journals	JMGT HumRe JOB	JVB JOP JOB	PerPsy JMGT HumRe	LLJ ERR LSJ	PerPsy JLR EcInq	SEJ IR EcInq
4. Proceedings	ACMGT	ACMGT	ACMGT	IRRA	IRRA	AEA
5. No. Articles for tenure	2A, 4B	2A, 3B	5A, 3B	1A, 2B	3A, 4B	2A, 5B

Journal Abbreviations

AER:	American Economic Review
AMJ:	Academy of Management Journal
ASQ:	Administrative Science Quarterly
BrIR:	British Journal of Industrial Relations
EcInq:	Economic Inquiry
ERR:	Employee Rights and Responsibilities
HumRe:	Human Relations
ILRR:	Industrial and Labor Relations Review
IR:	Industrial Relations
JAP:	Journal of Applied Psychology
JHR:	Journal of Human Resources
JLR:	Journal of Labor Research
JMGT:	Journal of Management
JOB:	Journal of Organizational Behavior
JOP:	Journal of Occupational Psychology
JPE:	Journal of Political Economy
JVB:	Journal of Vocational Behavior
LLJ:	Labor Law Journal
LSJ:	Labor Studies Journal
OBHDP:	Organizational Behavior and Human Decision Processes
PerPsy:	Personnel Psychology
SEJ:	Southern Economic Journal

a lower "C" tier. Generally the HRM faculty perceived that getting an article accepted in the *Proceedings* of the Academy of Management was fairly difficult and, thus, deserved to be ranked as a "B−" to "C+" paper. The IR faculty tended to believe that an article in the contributed (refereed) papers sessions of the *Proceedings* of the IRRA ranked as a "B−" article, but one published as part of the invited (nonrefereed) sessions belonged in the "C" tier.

Given the information above, I next asked each person to estimate the number of "A" and "B" articles that would represent the minimum necessary level of publications for him/her to get tenure at GSU in 1990, given an average performance level of teaching and service. Due to the uncertain ranking of articles contained in association proceedings, the respondents were requested to answer this question in terms of the journals listed in rows one and two only. The answers are reported in row five of Table 1.

Several aspects deserve mention. First, the mean value of the responses is three "A" articles and four "B" articles. Given that junior faculty members have a maximum of seven years to obtain tenure at GSU, these results imply that the minimum necessary level of research productivity for tenure is slightly more than one "A" or "B" publication per year (given that the tenure decision is made at the beginning of the seventh year).[1] A second aspect of the data concerns the variance of the research expectations. Four gave estimates that were fairly close to the sample mean, while one was significantly below the mean (1 "A" and 2 "B") and another was significantly above the mean (5 "A" and 3 "B"). Finally, if the two outlyers are dropped from the sample there does not appear to be any discernible difference in research expectations between HRM and IR faculty, at least in terms of quantity and quality of research.

In the interviews I also asked the respondents what would happen to the minimum number of "A" and "B" articles needed for tenure if, instead of being an "average" teacher, they were ranked as one of the top 10 percent of the faculty in terms of teaching effectiveness. A near unanimity indicated that the necessary number of "A" and "B" articles would remain the same, although possibly the number of "C" level articles (such as conference proceedings) would decrease. This result reflects the strongly held belief of most junior faculty members that poor teaching effectiveness can cost them tenure but that above average teaching effectiveness will not gain them tenure in lieu of the necessary publications. Thus, most stated that the best tenure strategy was to allocate enough time to teaching to ensure an average or slightly above average ranking in the classroom and then devote the remainder of their time to research. (The same consideration applies to service activities.)

Research Expectations, Rewards, and Tensions Among the Faculty

The research expectations associated with the tenure process substantially increase the level of angst of junior faculty members but do not as a rule create divisiveness among the faculty. Several other aspects of the research process do create various interfaculty tensions and cleavages, a subject briefly touched on in this section.

One source of internal tensions concerns research expectations and financial rewards. Faculty salaries and salary increases should presumably reflect each person's contributions in teaching, research, and service. In practice, the large bulk of new funds for salaries has gone to research-oriented faculty members, most of whom are relatively young. If a university such as GSU is to rise in the academic rankings, it must attract top flight research-oriented new Ph.D.s and retain the quality publishers it already has. Unfortunately, the College of Business has been given only limited additional raise money while the salaries for new business Ph.D.s and research-oriented associate and full professors has skyrocketed due to the large demand and short supply of such individuals. As a consequence, the College has been forced to allocate the bulk of its raise money to two segments of the faculty: the new Ph.D.s hired each year and the experienced faculty members who are mobile due to their research record and willingness to move. The results have been to create severe salary compression, unequal rewards for productivity in research vis-à-vis teaching and service, and considerable faculty discontent.[2]

The increase in research expectations has also exacerbated a second cleavage among the Institute faculty. It is evident from the survey results in Table 1 that the IR and HRM wings of the Institute faculty tend to live in largely separate research worlds. I believe that the continuing rise in research expectations further exacerbates this compartmentalization by discouraging time-consuming multidisciplinary research and encouraging an ever greater division of labor and specialization. The negative consequences of this compartmentalization affect both the internal dynamics of the Institute and the quality of our research.

Internally, the stronger the perceived boundaries between the two groups the stronger is the sense of rivalry over resources such as new faculty positions, the disciplinary orientation of the program, the mix and content of course offerings, the type of new doctoral students to be recruited, and the specific theoretical and statistical concepts to be learned by those students. Externally, continued compartmentalization of HRM and IR leads to a lamentable narrowness and parochialism in research. I find it distressing, for example, when an HR scholar discusses the determination of a firm's internal wage structure without ever once mentioning the words "supply and demand" or "external labor market," while HRM scholars no doubt find it equally distressing when a labor economist develops a model that purports to explain why workers join or don't join unions solely on the basis of instrumental calculations of benefits and costs and without any reference to equity considerations or ideological commitment to the goals of the organization.

Researchwise I believe that my greatest challenge as Institute director is to encourage a melding and cross-fertilization of research efforts by the IR and HRM wings of the faculty. The payoff, I think, would be large for both the relevance of our research and for the reputation of the Institute. Unfortunately, I perceive that I am swimming against the tide on this issue for most journal editors and referees apparently give little weight to multidisciplinary research and much more to technical virtuosity. (My experience and that of several other Institute faculty members is that multidisciplinary research is in fact a high-risk venture because the article gets caught in a disciplinary crossfire of criticism from referees who have quite different theoretical perspectives and value systems.) The inevitable consequence of this preference structure is to encourage a narrow empiricism and duplication of research efforts.

Research Expectations of Corporate Sponsors

An important external constituency of the Beebe Institute is the various firms that provide financial support. From 1973 until 1987 the unit's name was the Institute of Industrial Relations. In 1987 Delta Air Lines agreed to endow the Institute and it was named after Delta's former Chief Executive Officer, W. T. "Tom" Beebe. At the same time the other part of the title was changed from "Industrial Relations" to "Personnel and Employment Relations."

There were two reasons for the name change from IR to PER. First, the new title reflected Beebe's lifelong interest in personnel work. Second, the faculty was also responding to the decline in student demand for an industrial relations degree (interpreted by most students to mean the study of labor-management relations) and the concomitant increase in demand for degree programs in the personnel and human resource management area. The term "Personnel" was included to indicate that the major emphasis of the program was on personnel/human resource management, while the term "Employment Relations" was included to indicate that the Institute's degree programs covered all aspects of the employment relationship and, in particular, both union and nonunion work situations.

Prior to the Delta gift, the Institute was provided with one full-time secretary, a half-time student assistant, and a budget of approximately $5,000 for travel, supplies, and faculty support. This shoestring level of financial support ensured that the Institute would remain a relatively unrecognized player in the IR/HRM field. The endowment from Delta, supplemented by additional gifts from other business firms, has fundamentally transformed the future of the Institute at GSU. It can now compete aggressively for students (posters, brochures, flying doctoral candidates to Atlanta for campus visits, etc.), can provide the faculty with generous travel money and research support, can fund high-visibility research projects (conferences, campus visits by prominent IR/HRM scholars, etc.), and can even do mundane but internally important things such as sponsor a fall faculty/student party.

The many benefits that flow from obtaining a corporate supporter are accompanied by some potential costs. In particular, corporate financial support may come with strings attached that significantly affect the academic orientation of the program, the subject matter of faculty research projects, the conclusions or recommendations reached in faculty research concerning issues important to the corporate sponsor, and the mix of faculty time spent on pure academic research versus more practitioner-oriented activities. For these reasons, GSU has declined several other offers of corporate support because of either problems with the company's business practices or the degree of control the company wished to exercise over the academic and research focus of the program in question.

We have had no such problem with Delta on either score. Delta is widely considered to be a model employer. Thus, from a reputational perspective, Delta's association with the Institute has considerably enhanced the Institute's credibility with the external community. Commendably, Delta has practiced a "hands-off" policy regarding the curricular, research, and continuing education programs sponsored by the Institute.

While Delta has given the Institute great autonomy, I would be less than candid if I claimed that the company exerts zero influence over our activities. Whenever someone gives your organization a considerable amount of money you take care not to alienate the sponsor. Thus, while I know of no instance where a research project was either initiated or dropped because of concerns about Delta's reaction, a cynic might ask: What is the likelihood of a Beebe faculty person writing an article that is critical of Delta's human resource practices or that advocates some public policy initiative opposed by Delta (e.g., a change in the Railway Labor Act that would facilitate unionization of airline industry employees)? The truth, I believe, is that except for the most critical of exposés (which are seldom done as part of academic research anyway) the faculty member of the Institute would still proceed to write and publish his or her article. I can say this with some confidence, since one of the Institute's faculty members has recently written a paper on collective bargaining in the airline industry that is at least mildly critical of the decision of Delta and several other major carriers to move away from two-tier wage scales. Thus, from a practical point of view the number of "Delta-sensitive" subjects is so small that it's a non-problem in my estimation. Money does have a way of corrupting even the best ethical standards, however, so I say *caveat emptor* to other IR/HRM units that are soliciting corporate sponsors.

Endnotes

[1] Other more qualitative factors also affect the evaluation of a faculty member's research record such as the topical breadth of research, the time profile of research, and the assessment of its intellectual substance by external reviewers. Likewise, most respondents believed it was important to have one or more articles in association or conference proceedings in addition to the number of "A" and "B" tier journal articles listed in Table 1, although the purpose is more to demonstrate professional involvement than research ability per se. A third consideration is the number of coauthored articles. Articles with multiple authors are relatively common in the HRM area and were not viewed by those faculty as a negative for tenure (assuming the faculty member is a lead author on several publications), while in IR (particularly labor economics) the faculty perceived it important to have one or more sole-authored publications.

[2] In 1989 salary compression turned into salary inversion as the average salaries of new hires in the College of Business for the first time exceeded the average salary of the retirees. The new hires also typically receive one to two summers off from teaching and exemption from most service work. Thus, it is not unusual for associate and full professors to be paid less than the new hires and at the same time have significantly greater teaching and service obligations. The obvious message from this reward system is maximize research output and be willing to move for mobility in the market is the only factor (other than a union) that provides faculty members with much bargaining power over compensation and workload.

DISCUSSION

Richard N. Block
Michigan State University

The common theme in these papers is, of course, research in labor and industrial relations. The papers seem to emphasize three general themes—research funding, research rewards, and areas of research. This discussion will address each of these. Unfortunately, space limitations imposed will not permit addressing all issues raised in the papers.

The question of research funding was addressed primarily by Malcolm Cohen. His paper, like much research, raises as many questions as it answers. First, now that Cohen has provided us some baseline data on research funding at IR centers, it would be most helpful to know how our field compares with other comparable social science based professional fields, such as business and social work. This would provide a sense of how IR centers do relative to comparable units.

Second, industrial relations centers with research missions exhibit a wide variety of structural forms. Some have college status, some department status, some have joint appointments, some are research homes for faculty in other units, and some exhibit some combination of these. It would be most helpful to know the extent to which differences in structure may enhance or retard a center's ability to obtain research funding. This could be very useful information for internal discussion at many universities.

Third, appointment status and methods of counting may also affect how research funding is measured in a unit. For example, if a faculty member is appointed in a tenuring unit in a university but has a research appointment in the IR center and obtains a research grant, How does the university count that grant? Internal accounting procedures could affect the comparability of the data across units of different types.

Author's Address: School of Labor and Industrial Relations, Michigan State University, South Kedzie Hall, East Lansing, MI 48824-1032.

Fourth, and possibly most important, is the funding resulting in research that will be published in academic journals and disseminated throughout the academic community. Alternatively, Is the research primarily contract research for the funding agency? It is important that we keep our academic missions in focus and attempt to assure that all research we undertake has an academic component to it.

The question of research rewards is addressed in the paper by Bruce Kaufman. The results he presents from his solicitation of the views of his colleagues on the prestige and quality of journals in industrial relations and human resources is instructive. No doubt it confirms what many of us already believe. Indeed, there is no reason to believe that the faculty at Georgia State is much different than the faculty at comparable institutions.

The views of his faculty are also instructive for what they say about the importance of refereed journals in our field. While there is no doubt that publication in refereed journals should be the primary criterion for determining tenure and promotion, the focus on these journals tends to divert attention from other forums for the dissemination of research. This focus rewards the 25 page manuscript written for other academics in the subfield of the author. To some extent, it may encourage the divisions that Kaufman says exist at the Beebe Institute, and, no doubt, at other IR institutes as well.

Writing solely for the refereed journals may also encourage faculty to speak to fewer, rather than more, people. It tends to discourage longer monographs, book-length research, or work that may be of interest to practitioners or that crosses disciplinary boundaries. It would seem that to the extent that faculty could be encouraged to write for a number of audiences, the IR and HR fields would be stronger, more relevant, more influential, and more cohesive than they might otherwise be. We should encourage faculty members to think about their work broadly and reward them for doing so.

The issue of rewards for research also has relevance for the questions raised by David Lewin regarding the conflicting pressures on IR centers from their national peers and their local constituencies. To the extent that IR center faculty members focus on research, centers run the risk of reducing their internal support. On the other hand, IR centers also need to maintain their national reputation in order to compete for faculty and resources. It seems that the best way to accommodate both needs is for IR centers to hire the best faculty members on a national market while making them aware of the institutional needs of the center. The best faculty will understand and work with those interests.

Finally, as regards the issue of areas of research raised by Lewin and Kaufman, it is clear that IR centers must contribute in both the HR and IR areas. HR is the growth area of the employment relations field. Thus, we must be active in it. On the other hand, research on collective bargaining and trade unionism is our unique area of expertise. If work in this area is not done by IR centers, where will it be done? In this era of declining unionization, it is essential that faculty in IR centers do research on the reasons for, and the consequences of, this decline. In this sense, it is heartening to learn from Cohen that roughly 40 percent of the research done in IR centers addresses traditional IR questions. Clearly, this area of inquiry is alive and well.

Overall, the message from these three papers is that the field is willing to question its norms regarding research. Regardless of the answers, the process of thinking about research in IR and HR is important to the continuing vitality of our field.

XIX. POSTER SESSION I

New Challenges Facing Federal Sector Grievance Administration

MICHAEL J. DOUGHERTY
Virginia Polytechnic Institute and State University

Recent events have caused grievance arbitration to come to the forefront in the federal sector. This study used interviews with officials of the American Federation of Government Employees, AFL-CIO (AFGE) officials to examine them.

Grievance filing has decreased over the last five years. However, local union leaders perceive that management behaviors toward unions have generally worsened.

Also, a "new" issue has arisen: required union representation in grievance cases by nonunion workers in the bargaining unit. The unions seem to be playing it safe by doing what they have to do, but nothing more.

An Exploratory Study of Work Relations and Productivity in Underground Coal Mining

ROBERT A. FIGLER
The University of Akron

WIL J. SMITH AND FREDERICK A. ZELLER
West Virginia University

This exploratory case study focuses on the effects of unplanned work interruptions and coal mine productivity from the perspective of the miner. The study further identifies and helps clarify the work processes which give rise to firm (mine) X-inefficiency. The findings suggest that the benefits of effective supervisory training and performance are understated and hidden as production costs. These "transaction costs" (X-inefficiencies) are complex and difficult to identify let alone quantify. Nonetheless, they play a critical role in the productivity of a mine. The paper further extends X-efficiency theory's understanding of effective and ineffective work behaviors related to firm productivity.

Worker Participation Groups and Safety Committees

STEPHEN J. HAVLOVIC
Simon Fraser University

DALE FEINAUER
University of Wisconsin Oshkosh

Longitudinal accident frequency data (nine years) were collected from eight nondurable and eleven durable manufacturers. Generalized Least Squares (GLS) regression procedures were utilized with the pooled cross-section and time-series samples to examine the influence of safety committees and worker participation groups on lowering accident rates. The presence of a worker participation program did not reduce accidents in either sample, but worker participation groups that engaged in safety issues lowered accident frequencies in the nondurable manufacturers sample. Similarly, safety committees contributed to lower accident frequencies among nondurable manufacturers but not among producers of durable goods.

Worker Autonomy and QWL Initiatives

STEPHEN J. HAVLOVIC
Simon Fraser University

PHILIP R. KROLL
Ohio State University

Quality of Work Life (QWL) programs, job tenure, and hazardous employment were hypothesized to increase worker autonomy. Questionnaires measuring these variables were completed by 721 AFSCME Council 8 members in Central Ohio. Logistical regression procedures were used to test the hypothesized relationships. The regressions analyses did not support any of our hypotheses regarding QWL increasing worker autonomy. Job tenure only had a significant

influence on scheduling hours of work. Contrary to our expectation those on hazardous jobs had less autonomy in scheduling their hours of work. Future studies should take a longitudinal perspective and examine change in worker autonomy from pre- to post-QWL intervention periods.

Bargaining for Social Change: The Course of Solidarity

David C. Jacobs
American University

Polish solidarity's roundtable negotiations with the Communist government were a critical step in the democratization of Eastern Europe. Solidarity was explicitly committed to the use of negotiations as a tool of social transformation. These negotiations were facilitated by the convergence of opinion within solidarity and the Communist government on a program of free market reforms. However, the process of negotiated democratization was accompanied by a decline in the workplace base of solidarity and in its identification with the particular interests of workers.

Certification Election Outcomes and Employee Behavioral Intentions

Timothy J. Keaveny
Marquette University

Joseph Rosse
University of Colorado

John Fossum
University of Minnesota

This paper seeks to increase our understanding of the effects of campaign tactics and certification election outcomes on behavioral intentions after the election. Among those who support union certification, what are the effects when the union is not certified? Among those who oppose the formation of a union, what are the effects when the union is certified? Are perceptions of employer as well as union campaign fairness related to behavioral intentions following the election?

Eleven certification elections were studied. Post election questionnaires were completed by 189 respondents, a response rate of 25 percent.

There appears to be an interaction between election vote, election outcome, and extrinsic job satisfaction. Among those who voted against the union, virtually no difference in job satisfaction is observed when the union wins and when the union loses. However, among those who voted for the union, job satisfaction appears to be much lower when the union loses the election than when the union wins. Perceived fairness of both the employer and union campaign are positively related to job satisfaction.

Interaction effects with respect to intention to be tardy and intention to quit approach statistical significance. The data suggest that when the side one supports loses the election, intention to be tardy could increase. With respect to intention to quit, election outcome appears to have no impact on those who vote against the union. However, among those who vote for the union, intention to quit could be higher when the union loses the election. Employer campaign fairness is inversely related to both intention to be tardy and intention to quit.

A Ranking of Occupations Based Upon the Blood Pressures of Incumbents in the NHANESI

J. PAUL LEIGH
San Jose State University

A sub-sample from the National Health and Nutrition Examination Survey I 1971-75, consisting of employed persons (n = 8130), was drawn. Occupations with fewer than five persons were excluded from the analysis. Diastolic and systolic blood pressures were calculated for each of 246 occupations while simultaneously adjusting for age, gender, and body mass in an analysis of covariance model. A disproportionately *high* number of craft, operative, laboring, and farming jobs have incumbents with high blood pressures, while a disproportionately *low* number of professional, managerial, and clerical jobs have incumbents with high blood pressures.

Determinants of Productivity: Implications for the Human Resource and Personnel Perspectives

DOUGLAS S. REBNE
Rensselaer Polytechnic Institute

This study explored a number of attitudinal and performance implications closely associated with the HRM school of employment relations. Evidence from a population which has, arguably, long enjoyed HRM-like working conditions—faculty—suggests that the conservatism of traditional personnel management retains considerable merit in several key respects: (1) ranges of work attachments are comparable to those found in industry and not consistent with the HRM "high commitment" model, (2) models of productivity (research role) are occupationally specific and imply the need for greater, not less, differentiation of labor policies and practices. That said, the results are consistent with the HRM proposition that individual productivity is more a function of situational factors than attributes brought to the situation.

Student Attitudes Toward Unions and Employment Rights Issues: A Preliminary Investigation

KAREN ANN TARNOFF
Virginia Polytechnic Institute

DANE M. PARTRIDGE
State University

The study utilizes a survey to assess student attitudes toward unions and employer/employee rights issues, knowledge levels regarding unions and rights issues, and socialization experiences.

The results indicate that most students did not view union activities positively, but did believe that unions served workers well in some capacities; strongly opposed compulsory unionism, while supporting the individual's right to join a union; and believed employers had little right to access or take action based on personal information. However, this concern regarding privacy did not extend to drug use. Women generally were more favorable toward union activities and individual rights than were men.

The Impact of Legal Representation on Discipline and Discharge Arbitration Decisions: Evidence from Nova Scotia

TERRY H. WAGAR
St. Mary's University

This study investigated the effect of legal representation on arbitration award outcomes in discipline and discharge cases. Data were obtained by analyzing 289 decisions in the province of Nova Scotia for the years 1980 to 1987. Employers used legal representation in almost 85 percent of the cases while unions employed lawyers 56 percent of the time. The results indicated that the probability of an employer victory was greater if the employer had legal counsel and the union did not.

The Influence of the Collective Bargaining Environment on Labor-Management Relationships: An Empirical Investigation

TERRY H. WAGAR
St. Mary's University

KENT F. MURRMANN AND DANE M. PARTRIDGE
Virginia Polytechnic Institute & State University

The purpose of this study was to empirically examine the effect of the collective bargaining environment on management's perception of the nature of the relationship between labor and management. Data for the research are based on responses from 175 major organizations in the United States. The results indicate that cooperative relationships are more likely if the union has made concessions or undergone a major change in direction or policy. The probability of an adversarial relationship is greater if the duration of the relationship between the union and management is 20 years or less and if the company has permanently reduced the workforce.

Relationships in the Workplace: No-Spouse and No-Dating Policies

PHILIP K. WAY
University of Cincinnati

The incidence of no-spouse and no-dating policies across organizations was investigated using original survey data. Regression analysis showed that restrictions occur when problems are more likely due to a young, largely married workforce, more equally balanced between the sexes, working in interdependent or close roles. Low costs also appear relevant in that married couples are restricted more than dating couples, and controls are more common when the ratio of human resource professionals to employees is high and turnover is low. No evidence exists that social concerns, shocks, or institutional forces are significant, except governmental authorities are less restrictive.

Temporary Employment: Competing or Joint Explanations?

PHILIP K. WAY
University of Cincinnati

Different explanations for the monthly changes in temporary employment between 1976 and 1988 are tested using regression analysis. It is concluded that some explanations are better used in conjunction with each other rather than independently. The evidence is consistent with the buffer hypothesis that temporary workers are varied to protect core workers, but also with minimizing the costs of hiring and separation during the economic cycle. Additionally, the proportion of the workforce engaged in clerical and financial work is a positive factor. No support was found for the hypotheses that rising benefit costs or falling profits had increased temporary employment.

XX. POSTER SESSION II

Adjustments in Training in the U.S. and German Automobile Industries

PETER B. BERG
University of Notre Dame

Much of the literature written about the restructuring of work in the U.S. automobile industry has not adequately analyzed the effect of training practices on the ability of firms to achieve greater organizational flexibility. This paper examines how the structure and standards of occupational training and the industrial relations systems in Germany and the United States influence adjustments being made to training practices at the firm level. The data for this paper were obtained through a detailed survey that was personally administered in 18 automobile plants in the United States and Germany. Results of the study indicate that those countries that have historically emphasized broad, general skills training and a corporatist approach to training decisions are better able to adjust to and support flexible employment systems.

A Comparison of Drug Testing Programs in Unionized and Nonunionized Firms

DALE FEINAUER, LAURA O'SHEA AND LISA MAYER
University of Wisconsin-Oshkosh

This study analyzes the effect of unions on the prevalence of drug testing and examines the differences in testing policies in unionized and nonunionized firms. Wisconsin firms with over 100 employees were surveyed. The analysis controlled for the influences of industry type and number of employees. It was found that unionized firms are significantly more likely to test applicants (pre-employment testing) than are nonunionized firms. No support was found for the prediction that unionized firms would be less likely to test current employees, and no significant differences between unionized and nonunionized firms were identified in their policies pertaining to employees who fail a drug screening.

Positive Action and EC 1992: Negotiations in the Irish Civil Service

Deborah M. Figart
Eastern Michigan University

Presented are findings on Irish positive action initiatives as part of a study on the interaction of European Community (EC) institutions, national governments, and public sector trade unions on women's employment. As the EC ceased providing centralized leadership in the form of mandatory equality directives, unions took a more proactive role. However, the progress and form of equality initiatives in member countries is influenced by economic trends (including demographic factors) and the history of gender relations in each country. Irish positive action initiatives tend to reinforce traditional gender roles and accept the sexual division of labor in the household as given.

Process Equity in Compensation Administration: Relationships to Organizational Culture

Daniel J. Koys
DePaul University

Process equity in compensation is defined by perceived openness, communications, participation in design, participation in administration, and availability of appeal procedures. Four organizational cultures (apathetic, caring, exacting, and integrative) are described. Questionnaires were received from compensation managers and some other employees in each of 38 organizations. ANOVAs show that perceptions of communications, participation in design, and availability of appeal procedures are higher in exacting cultures than in apathetic, caring, and integrative cultures. Perceptions of openness and participation in administration do not vary across organizational cultures.

MAP: An Integrative Approach to Workplace Problem Solving

JOSETTA S. MCLAUGHLIN, JERALD F. ROBINSON
AND GERALD W. MCLAUGHLIN
Virginia Polytechnic Institute and State University

Results from a survey of union members covered by an employer-union cooperative program indicate that diffusion of information concerning the availability of a service to assist with personal problems is higher than might be expected. Over 31 percent of union members were aware of the Membership Assistance Program (MAP). Multidimensional scaling, using potential benefits and five sociodemographic variables, revealed that the conceptual map of potential benefits fits a multidimensional domain. This finding is critical to ongoing study of the MAP in that unidimensional domains represent win-lose situations while multidimensional domains are potentially two-person non-zero games where a win-win situation can occur.

Japanese Employees' Attitudes Toward Changes in Traditional Employment Practices

MOTOHIRO MORISHIMA
Keio University

This study examines Japanese employees' attitudinal opposition to changes in such employment practices as *nenko*-based wages and promotions, and implicit long-term employment guarantees for the regular (*Joyo*) workforce. Using a large data set collected in 1987, the study shows that (a) overall, Japanese employees are strongly opposed to placing a cap on senior employees' pay and to mid-career transfers to subsidiary companies, and (b) the level of opposition is a function of their perceptions of unions' past performance and of employers' human resource policies.

Early Retirement Option in Higher Education: Employee Reactions

Jerald F. Robinson
Virginia Polytechnic Institute and State University

In 1994 mandatory retirement for university faculty members at age 70 will no longer be permitted under federal statutes. Virginia ended such mandatory retirements in 1988. To deal with various pressures faced by universities, Virginia has initiated a system of early retirement options in order to open up space for new faculty members and to cut costs. This study investigates the faculty early retirement decision. Focus group sessions have yielded valuable information, and survey questionnaires were also used.

Some of the major variables in the early retirement decisions among university faculty members are knowledge and understanding of the plan, perquisites offered, gender, participation in alternative retirement programs, economic environment, current health, marital status, and hobbies, among others. While the type of early retirement program is critical, the individual faculty attitudes toward retirement, generally, as well as their perception about the best interest of their institution are also critical issues considered.

The Role of Labor in Community/Economic Development: A Case Study— The Virginia Coalfields

Jerald F. Robinson
Virginia Polytechnic Institute and State University

A major theme today is community development. What role does labor play was the principal focus in this study of coal counties in Virginia. A recent state Report on the area omitted specific reference to any role for the 17 national unions there. The literature illustrates substandard coal community conditions, but with citizen perceptions that conditions are better than elsewhere. National union representatives and local officers typically see little responsibility for the union beyond the negotiation and administration of the contract.

Two recent changes suggest a new philosophy: dynamic new state labor leaders and the election of District UMW President to the Virginia legislature.

The Effect of Union Activity in the 1989 Virginia Governor Race

Garret A. Ross
Virginia Polytechnic Institute and State University

The 1989 Virginia governor race was one of the closest ever in which Doug Wilder won by only 6,741 votes. The study showed that the unions financial support and the union member volunteer phone bank time of over 600,000 hours made the difference in Wilder's victory in 1989.

XXI. ANNUAL REPORTS

IRRA EXECUTIVE BOARD SPRING MEETING
May 2, 1990—7:00 PM
Ramada Renaissance Hotel—Buffalo, NY

The meeting was called to order by President Robert B. McKersie. Present were: President Elect—James L. Stern, Past President—Joyce D. Miller, and Board Members: Janice Bellace, Richard N. Block, Sheldon Friedman, Steven J. Hendrickson, Michele M. Hoyman, Benton F. Kunnecke, David Lewin, Leon E. Lunden, F. Donal O'Brien, Paula B. Voos, Norman A. Weintraub, and Hoyt N. Wheeler. Also present were IRRA Secretary-Treasurer David R. Zimmerman, IRRA Managing Editor Elaine Moran, Newsletter Editors Charles R. Schmidt and Rachel Grenier, National Office Staff Marion Leifer, Lynn Case, and Larry Leifer. Board Members absent were Harry R. Gudenberg and Phillip E. Ray.

Guests at the meeting for the purpose of giving special reports were: John Burton—Chair of the Editorial Advisory Committee, Howard Foster, Eric Lawson and Charles Davitt—representing the host Western New York Chapter, Guy Parent—representing the Arizona Chapter, and Alan Gladstone—representing the IIRA. Other guests were Phyllis Wallace—Past Past President of the IRRA, and Ernest Savoie—president-elect nominee for 1991.

Minutes of the Atlanta Meeting were approved as published, subject to the addition of a statement in the paragraph at the bottom of page one, to the effect that future administrations be advised to thoroughly investigate unionization and the state of Union-Management relations at Hotels and other facilities being considered for IRRA functions in order to encourage positive, constructive labor relations.

Spring Meeting Arrangements Chair Eric Lawson expressed appreciation for the work of all the committees and to the many contributors to the sumptuous Thursday night reception at the Marine Midland Center, all of whom are listed in an attractive brochure. He also introduced and acknowledged the support of Charles Davitt, President of the Western New York Chapter. Program Chair Howard Foster called attention to a few changes in the program as originally printed.

Guy Parent outlined the arrangements and proposed program plans for the next Spring Meeting, April 25-28 in Scottsdale, AZ. This will be the first four day spring meeting following the recommendations of the Comprehensive Review Committee. The plans include time off on one of the afternoons for outside activities such as sports, shopping, sight-seeing, etc.

President McKersie reported on the program plans for the Winter Meetings in Washington, D.C., December 28-30, 1990. He called attention to the numerous proposed sessions, papers, and workshops which the committee is considering, including seven Washington, D.C. Chapter Workshops. He also noted that for the first time sessions patterned after IIRA Study Groups will be available to attendees. A list of each study group and the Chairpersons will be included in the September IRRA Newsletter. Two off-site receptions are planned; one scheduled for Friday evening, December 28 at the Department of Labor Hall of Fame and one scheduled for Saturday evening at the AFL-CIO National Headquarters. The problem of transportation to these functions will have to be solved. Also, the program may include a distinguished panel rather than a distinguished speaker address. The Executive Board Meeting will be held on Thursday evening, December 27, starting late enough to allow the Nominating and Program Committees to complete their work. All of these items will be resolved at a special Program Committee meeting to be held in Washington, D.C.

John Burton briefly described the history of the Research Volume Selection Committee and its membership. He referred to a memo from Barbara Dennis showing the status of the 1990 volume, "New Developments in Worker Training: A Legacy For the 1990s." Two of the four editors, Michele Hoyman and Ernest Savoie, were present and are expected to expedite its completion. The 1991 volume, "State of the Unions" edited by George Strauss, Jack Fiorito and Daniel Gallagher is proceeding on schedule. The subject of the 1992 volume "A Review of Industrial Relations Research in the 1980s" was approved by the board at the December meeting in Atlanta. David Lewin has volunteered to serve as editor of this volume and to select others to work with him, including at least one person from the group of PhDs who were young academics in the 1980s. The committee agreed to accept his offer and a motion to this effect was made by John Burton, seconded and passed.

Reporting on the IRRA Newsletter, Ted Schmidt commented on the advantage of being able to FAX information to and from the National office in Madison. He also felt that the continuing emphasis on chapter material, the addition of art work and other innovations have greatly improved the Newsletter.

David Zimmerman reported total IRRA membership to be slightly above 4800 individuals and 436 subscriptions. He announced an application for chapter affiliation from a Northwest Pennsylvania Chapter, headquartered in Erie, PA. A motion by Hoyt Wheeler to accept the application, subject to a proviso that their Chapter By-laws be modified to be consistent with National By-laws with respect to qualifications for membership, was seconded and passed.

The selection of a site for the 1992 Spring Meeting from the two invitations received, one from the New York City Chapter and one from the Rocky Mountain (Denver) Chapter, was discussed at length. A motion by Richard Block was seconded and passed to accept the New York Chapter's invitation for 1992, subject to assurances that room rates would not be unreasonable. The Board then decided to accept the Rocky Mountain Chapter invitation for the 1993 Spring meetings, if acceptable to that chapter. The Rocky Mountain Chapter is to be notified that the New York Chapter will host the 1992 meetings unless it did not meet qualifications for room rates, in which case Rocky Mountain (Denver) would host the 1992 meeting. Otherwise, the Rocky Mountain Chapter would host the 1993 meetings, if acceptable to them.

David Zimmerman then introduced Alan Gladstone, Secretary-Treasurer of the International Industrial Relations Association (IIRA), who outlined the plans and requirements for the 10th World Congress of the IIRA to be held in the U.S.A. in 1995. The possibility of having the IRRA Spring Meeting and the IIRA Congress at the same time and place was suggested. A grant in the amount of $1000 from the U.S. Department of Labor has been given to the IRRA. $500 has been received by the National office and is to be used by the IRRA to begin planning for the 1995 meeting. The other half will be presented to the IRRA when the plans for the 1995 meeting are submitted to the USDL.

President McKersie introduced the Finance Committee consisting of Chair Steven Hendrickson, Richard Block, John Burton, Ben

Kunnecke, Ernest Savoie and Norman Weintraub. Chair Hendrickson reported that as a result of their deliberations, the committee feels that in spite of the dues increase next year to $45, funds will still be short due to extra expenses of the new editorial set-up and the Chapter Advisory Committee, as well as other anticipated cost increases. One means of increasing income to be explored is to raise chapter dues to the National. This will be discussed at the Chapter Representatives and Chapter Advisory Board Meeting. The committee authorized the purchase of the one million dollar Liability Insurance Policy from the Federal Insurance Company, copies of which were in each attendee's folder. The Finance Committee also recommended that the Secretary-Treasurer be paid an annual salary instead of the present honorarium arrangement. A motion by John Burton was seconded and passed that David Zimmerman be paid on a monthly basis, retroactive to January 1, 1990, and presently based on an annual salary of $7,500. The eventual salary amount is subject to revision by a committee consisting of Steven Hendrickson, Robert McKersie and James Stern, with the ultimate amount also to be retroactive to January 1, 1990.

Regarding the notice of intended retirement received from Executive Assistant Marion Leifer, President McKersie and President Elect James Stern are to make an evaluation of duties and responsibilities and the work load of the National home office and take necessary action.

President McKersie recommended James Chelius to serve as Chair of the Nominating Committee as he also served on the previous committee. The President will propose a slate of candidates to the Board Members by letter soon and hopes to receive a quick response. Board Members were invited to suggest members whom they felt would be suitable to serve on this committee.

The meeting adjourned at 10:05 PM.

IRRA EXECUTIVE BOARD ANNUAL MEETING
December 27, 1990
Omni Shoreham Hotel—Washington, D.C.

The meeting was called to order at 7:15 P.M. by President Robert B. McKersie. Present were: President-Elect James L. Stern, Past President Joyce D. Miller, and Board Members: Janice R. Bellace, Richard N. Block, Sheldon Friedman, Steven Hendrickson, Michele

Hoyman, Benton Kunnecke, David Lewin, Leon Lunden, F. Donal O'Brien, Phillip E. Ray, Paula Voos, Norman Weintraub, and Hoyt N. Wheeler. Also present were: 1991 President-Elect Ernest J. Savoie, 1991 Board Members Elect: Francis X. Burkhardt, Walter J. Gershenfeld, Harry Katz and Lamont Stallworth, IRRA Secretary-Treasurer David R. Zimmerman, IRRA Managing Editor Elaine Moran, Newsletter Editors Charles R. Schmidt and Rachel Grenier, and National Office Staff Marion Leifer, Lynn Case and Larry Leifer. Board Members absent were Harry Gudenberg and 1991 Board Member Elect Maggie Jacobsen.

Guests at the meeting for the purpose of giving special reports were: James Chelius, Chair of the Nominating Committee; Paul Weinstein, Chair of the Statistical Committee; John F. Burton, Jr., Chair of the Editorial Committee, John Serumgard, Past President and Jack McKenzie current President of the Washington, D.C. Chapter.

President McKersie welcomed the Board, the 1991 Board Members who were in attendance as advisors, and introduced the five board members whose terms were expiring: Janice Bellace, Harry Gudenberg, Steve Hendrickson, Dave Lewin, and Paula Voos.

Sheldon Friedman submitted a change in the Buffalo minutes to more accurately reflect the intent of a paragraph added to the Atlanta meeting minutes. The last part of paragraph 3 was changed to read "to the effect that future administrations be advised to thoroughly investigate unionization and the state of Union-Management relations at Hotels and other facilities being considered for IRRA functions in order to encourage positive, constructive labor relations." A motion to approve the minutes of the Buffalo meeting with this change was made by Don O'Brien, seconded, and passed.

President-Elect Jim Stern gave the report on the program for the January 1992 Annual Meeting in New Orleans. From the 29 suggestions made, the committee selected a tentative program which will be finalized in approximately 60 days. IRRA sessions will be held at the Fairmont Hotel.

John Serumgard, on behalf of the Washington, D.C. Chapter, welcomed everyone to Washington and to the AFL-CIO reception. Jack McKenzie also extended the welcome of the Washington, D.C. Chapter. President McKersie mentioned two new features of the Washington program: the addition of six IIRA Study groups under the direction of Hoyt Wheeler, which he suggested be continued on a regular basis; and that several sessions would be presented as workshops and would not be included in IRRA publications.

James Chelius gave the report of the Nominating Committee as follows: George Strauss was selected as President-Elect in 1992. (See attached sheet for Board nominees and alternates). The Committee also recommended that the Canadian IRA be contacted with the idea of possibly having the President of the Canadian Association become an ex-officio member of the IRRA Executive Board and vice versa. Discussion of the slate of nominees primarily concerned the dearth of women nominees. The consensus of the meeting was that the next nominating committee be advised to pay more attention to the inclusion of women and minorities when selecting the slate of nominees. A motion by Hoyt Wheeler to accept the nominees as presented was seconded and passed.

Regarding recommendation for closer ties between the Canadian IR Association and the IRRA, a motion by Hoyt Wheeler "to explore the possibility of establishing mutual observer status at National Meetings of the two organizations," was seconded and discussed at length. In view of possible conflict with the role of IIRA, an amendment by Richard Block to substitute "mutually agreeable arrangements" for "mutual observer status" in the original motion was made and accepted by Hoyt Wheeler and the amended motion was passed.

Following Paul Weinstein's report of the Statistical Committee, President McKersie thanked him for his leadership and announced the appointment of Richard Block as a Board member of the committee to replace Paula Voos. He also requested that in the future, a written committee report be prepared in advance, if possible. A motion made to continue the IRRA membership in COPFAS for another year with a 5% increase in dues (to $1,158.00) was seconded and passed.

President McKersie then outlined the sequence of events and conversations resulting in the controversy as to whether the Association should hold its Spring Meeting in Scottsdale, AZ as planned. David Zimmerman reported that a memo and packet of information was sent to all Board members outlining the situation and expressing the continued intent and willingness of the Arizona Chapter to host the meeting. A subsequent telephone poll of Board members resulted in 9 votes in favor of going to Scottsdale, 3 against and 3 undecided. He outlined the possible costs involved in moving the meeting to another place and mentioned possible alternative sites.

During the discussion that followed, all pertinent facts of the problem were explored and many Board members, and others present, expressed their opinions. A reference was made to the IRRA Constitution which says "the Association will take no partisan attitude on questions of policy in the field of labor, nor will it commit its members to any position on such questions." It was pointed out that it would be necessary to have the papers published because of the agreement with Commerce Clearing House. Others noted that no matter what the decision would be regarding the meeting, a complete explanation should be made to the members of the Association. After extensive discussion, Janice Bellace proposed a resolution to not hold the Spring Meeting of the Association but to have the papers published and to have an Executive Board meeting at some point at a central location. The motion was seconded and the proposal discussed, but it failed on a 7-6 vote and did not carry. A motion was then made by Jim Stern to hold the meeting in Scottsdale as planned. It was seconded and passed on a 7-5 vote with one member (Hoyman) asking that an abstaining vote be registered.

The meeting was recessed for 10 minutes and reconvened at 10:05 P.M.

John Burton, reporting for the Editorial Committee, explained how the committee was established and outlined its responsibilities, one of which is the annual research volume. He stated that the 1990 volume, "New Developments in Worker Training: A Legacy for the 1990s," had recently been mailed out to the members. The 1991 volume, "State of the Unions" was in progress and should go to press by mid-summer. He is meeting with the editors of the 1992 volume "Research in the Decade of the 1980s" in the next few days to discuss some of the suggestions made by the Committee. There have been no volunteers for the Editorship of the proposed 1993 volume "Collective Bargaining in America." Consequently, the Commitee voted tentatively to defer that topic to 1994, and to re-announce the search for editors. Part of the reason for the postponement was a proposal by Bruce Kaufman and Morris Kleiner to edit a volume on "Employee Representation in the Workplace: Alternatives and Future Directions." The committee gave it a positive review, and since the proposal is fairly complete, it could become the 1993 volume. The sequence and topics of future research volumes will be discussed at the Spring Executive Board meeting.

Editor Burton explained that the IRRA Working Papers, which are selected topics from the poster sessions, are reproduced, made available at cost from the National Office and announced in the Newsletter. In addition, an experimental program is being started to accept papers submitted by local chapters resulting from their meetings (maximum of two per year per chapter), screen them by a sub-committee chaired by Newsletter co-editor Rachel Grenier, and publish them in the same manner as the Working Papers.

Noting their first meeting with the Editorial Committee, Newsletter Editors Ted Schmidt and Rachel Grenier expressed appreciation for having a vehicle to turn to for guidance and expression of their concerns. The Newsletter still serves primarily as a bulletin board for the Association.

Don O'Brien reported for the Chapter Advisory Committee that the proposed amendment to the By-laws of the Association was changed as a result of the Buffalo meeting to read "All local chapter officers and Executive Board members shall be members of the National IRRA and all National IRRA Executive Board Members shall be members of a local chapter where one is geographically available." (The original amendment required all local chapter officers and Executive *committee* members to be National members.) The motion to adopt this amendment was made by Chair O'Brien, seconded and passed. It will be presented at the Annual General Membership Meeting on December 29th for final passage.

Steve Hendrickson gave the Financial Committee report calling attention to the projected 1990 loss of approximately $18,000, whereas the budget for 1990 presented a year ago was almost a break-even situation. Part of the difference was due to a projected shortfall in dues revenues of $10,500, and part from an increase in staff compensation over budget of about $8,000. It was expected that in a directory year, less members would drop out and more new members would join. This did not happen in spite of a vigorous promotional program. The 8% labor cost over budget was due primarily to a larger staff work load than anticipated.

The 1991 budget shows a small surplus which reflects the anticipated $20,000 increase in income expected as a result of the dues increase that takes effect in 1991. Discussion followed, primarily about membership promotion to retain current members and to recruit new members. A suggestion was made to establish a membership committee to work on all issues related to the problem. The Finance Committee made two recommendations to the Board. One was to increase member dues in 1992 to $47. The other recommendation was to increase chapter fees as follows:

Less than 25 chapter members, increase from $35.00 to $50.00
25-50 chapter members, increase from $75.00 to $90.00
51-100 chapter members, increase from $100.00 to $150.00
101 to 200 chapter members, increase from $125.00 to $175.00
201 chapter members and over, increase from $150.00 to $225.00

The incentive for promotion of national membership will be continued, giving a 25% reduction in fees if 26-50% of local members are also national members in good standing, a 60% reduction for 51-75% national members and a 100% rebate for 76% or more national members. A further suggestion was made to the Editorial Advisory Committee to increase the price of Newsletter Ads by 20%. A cost reduction suggestion was to publish the Directory every 4 years instead of every 3 years.

A motion by Steve Hendrickson to increase the dues for a regular member from $45 to $47 per year, effective in 1992 was seconded, discussed and passed. A second motion to change the Chapter Fee Schedule as previously outlined, was also seconded and passed.

The suggestion for establishing a Membership Committee was discussed and resulted in a motion by Dave Lewin to have the incoming President appoint a committee of the Board to work on the membership problem. The motion was seconded and carried. Secretary-Treasurer Zimmerman reported that several alternative liability insurance proposals will be reviewed by the National Office.

The 1992 Spring Meeting location was then discussed. The Board was reminded that it previously had voted to hold the 1992 Spring Meeting in New York if reasonable hotel rates could be obtained, with the 1993 Spring Meeting to be held in Colorado. However, the hotel rates in New York as outlined in a letter from President Joan Ilivicky were considered to be prohibitive. After a brief discussion, a motion by Michele Hoyman that the 1992 meeting be held in Denver at an acceptable hotel was seconded and passed.

The request for IRRA Chapter affiliation by a Calgary, Ontario, Canada chapter was tabled, pending further review and analysis of the desired relationship between the U.S. and Canadian local and national associations.

David Zimmerman announced that an IIRA 10th World Congress planning meeting would be held in conjunction with the present Annual Meetings, on December 29th. He also announced that the IIRA membership promotion conducted by the IRRA brought in 164 (mostly new) IIRA memberships, much to the pleasure of the International Association.

Reference was made to a letter from Peter Cappelli concerning the establishment of a conference series to promote high level academic work, primarily for junior faculty members. It was agreed that this should be turned over to the IR Center Directors.

President McKersie called attention to the imminent retirement of Executive Assistant, Marion Leifer, and of Dave Zimmerman's request to be relieved of the office of Secretary-Treasurer in the near future. He pointed out that there were members who felt that consideration should be given to the location of the National Office, and that suggestions had been made to combine the office of Secretary-Treasurer with the administrative and technical function of Executive Assistant in one Executive Director. During the extensive discussion that followed, the majority of Board members felt that it was reasonable to keep the National Office in Madison if the University of Wisconsin-Madison submitted an acceptable proposal to retain the office. The Board requested that UW-Madison submit a proposal for Board consideration at its Spring Meeting. Incoming Board member Walter Gershenfeld noted that the National Academy of Arbitrators had considered and rejected the Executive Director structure after reviewing its merits and drawbacks and urged caution in adopting that structure in the IRRA. The Board passed a motion to establish an ad hoc committee, selected by the President and President-Elect, to consider the structure and location of the National Association and report its recommendations to the Spring Board Meeting.

John Burton proposed a resolution that Ted Schmidt and Rachel Grenier be continued as Newsletter Editors for another year. This resolution was seconded and passed.

The meeting was adjourned at 12:10 a.m.

IRRA SPECIAL BOARD MEETING
December 30, 1990
Washington, D.C.

Executive Board Members present were: Robert McKersie, Joyce Miller, Don O'Brien, Michele Hoyman, Phillip E. Ray, David Lewin, Hoyt Wheeler, James Stern, Maggie Jacobsen, Sheldon Friedman, Norman Weintraub, Leon Lunden, Steve Hendrickson. Others present were: Secretary-Treasurer David Zimmerman, Newsletter Editor Rachel Grenier, and Marion Leifer, Executive Assistant and Larry Leifer, National Staff.

The meeting was called to order at 7:30 A.M. by Robert McKersie to discuss the location of the 1991 Spring Meeting in view of the action taken at the Annual Membership Meeting on December 29. The membership recommended that the Board reconsider its action of

December 28 and that the meeting be held at a site other than Arizona, because of the state's failure to approve a referendum to make Martin Luther King's birthday a paid state holiday.

Secretary-Treasurer Zimmerman then outlined the situation, pointing out possible alternatives to a meeting, alternate sites, and the financial impact of each. Don O'Brien discussed the possibility of moving the meeting to Chicago. A motion by Hoyt Wheeler that the meeting be held at a location other than Arizona was seconded, briefly discussed and passed on a 7-3 vote.

The efforts and expenditures incurred by the Arizona Chapter were examined and discussed. A motion was made by Don O'Brien that the IRRA express its deep gratitude for the efforts expended by the Arizona Chapter, and that reasonable expenses incurred by the chapter in connection with their planning for the meeting would be covered by the National IRRA. The motion was seconded and carried unanimously.

In discussing alternate sites, Chicago, Detroit, and Las Vegas were considered. Several resolutions were proposed but not seconded, these were finally combined in a motion by Robert McKersie that the "Board authorize the President to work with the Chicago Chapter in hosting the Spring Meeting." If that failed, "the President is to seek another suitable location." This motion was seconded and carried. It was also the consensus of those present that Detroit be the second choice.

The meeting was then adjourned.

IRRA ANNUAL MEMBERSHIP MEETING

December 29, 1990

Omni Shoreham Hotel—Washington, D.C.

President Robert McKersie called the meeting to order at 4:50 P.M. and announced the agenda.

John F. Burton, Jr., Chair of the Editorial Committee, gave a brief history of the editorial duties of the Association leading up to the formation of the present Editorial Committee. He also reported on the status of the upcoming research volumes and called attention to the Working Paper Series, which consist of selected papers from the poster sessions, copies of these papers are available at cost from the IRRA

National Office. Chapters are also being invited to submit up to two papers per year from their local or regional meetings that will be screened by a subcommittee of the Editorial Committee. Those selected for publication will be announced in the Newsletter and copies will be available from the National Office in the same manner as the Working Papers.

President-Elect Stern then made the first Outstanding Contributed Paper Award to Loren M. Solnick for his paper entitled "Male and Female Quitting—A Case of Professionals and Managers." Word of Mr. Solnick's death was received shortly after the award selection. His paper was read by Robert Gitter, and Mr. Solnick's family was notified of the award.

Don O'Brien, reporting for the Chapter Advisory Committee, read a proposed amendment to the Association's By-Laws which had been passed by the Executive Board the previous evening (Dec. 28). The amendment reads, "All local chapter officers and Executive Board members shall be members of the National Association and all National Executive Board Members shall be members of a local chapter where one is geographically available." (The original amendment required all local chapter officers and Executive *committee* members to be National members.) A motion to adopt the amendment made by Don O'Brien was seconded and carried.

Chair O'Brien then announced that the 1992 Spring Meeting will be in Denver and that local chapters interested in hosting the Spring 1993 Meeting in their area should submit their invitation to the National Office before the 1991 Spring Meeting. Mr. O'Brien also explained the change in local Chapter Fees to the National Association which was adopted on Thursday (Dec. 28) by the Executive Board, noting that it would take effect in 1992, if passed by the Board at the 1991 Spring Meeting.

Because of the greatly expanded duties and function of the Editorial Committee, it was the recommendation of the Comprehensive Review Committee that the Editor-in-Chief, who is also the Chair of the Editorial Committee, be a voting member of the Executive Board. A resolution was made and seconded that the By-Laws be amended to expand the Executive Board to include the Editor-in-Chief as a voting member of the Board. In the ensuing discussion several members protested that the Editor-in-Chief should not have a voting membership on the Board since the position was not an elected one. The motion was defeated by the members present.

Secretary-Treasurer Zimmerman reported that due to a decline in membership in 1990, the Executive Board has established a Membership Committee to study the situation and recommend a course of action to increase membership in the future. Regarding finance, a net deficit of approximately $18,000 in 1990 was partly attributed to a decrease in dues because of the drop in membership, and partly to an increase in compensation to staff brought about largely by a considerable increase in work load. The increase in dues for 1991 should cover expected increases in expenses; however, the Executive Board voted another increase from $45.00 to $47.00 starting in 1992, in order to replenish the reserve fund.

Future IRRA Meeting dates and sites were reported as follows:

Spring Meeting 1991 - April 24-27 - Scottsdale, AZ
Annual Winter Meeting (ASSA) - January 3-5, 1992 - New Orleans
Spring Meeting 1992 - no firm date - Denver, CO
Annual Winter Meeting (ASSA) - January, 1993 - Anaheim, CA
Spring Meeting 1993 - site not selected
Annual Winter Meeting (ASSA) - January 1994 - sites being considered are New York, Boston and Denver

A question from the floor regarding the decision of the Executive Board to adhere to the original plan for holding the 1991 Spring Meeting in Scottsdale, AZ in light of the Martin Luther King paid holiday controversy, resulted in a motion by Richard Prosten, duly seconded, that the Board take the matter back under consideration with instructions from the membership present that "the meeting be held somewhere other than Arizona." After considerable discussion, the motion carried by a vote of 62-13. A number of suggestions were made regarding the nature of communication to the Arizona chapter about the change in meeting site.

President McKersie then announced the appointment of an Ad Hoc committee to deal with the issue of the structure and staff transition of the IRRA National office in Madison, given the retirement of Executive Assistant Marion Leifer and similar plans of Secretary-Treasurer Zimmerman. He also announced the nomination and acceptance of George Strauss for President in 1993.

Tom Kochan spoke briefly about the IIRA meeting to be held in the U.S. in 1995. A funding requirement of about $250,000 is one of the major issues for the attention of the planning committee which he has appointed. Consideration is being given to the possibility of combining the IIRA meeting with the 1995 IRRA Spring Meeting.

President McKersie then turned the gavel over to incoming President Jim Stern. After the meeting adjourned, the members of the Executive Board were asked to remain for a brief meeting, at which it was decided to hold a special board meeting the following morning at 7:30 A.M.

AUDITED FINANCIAL STATEMENTS
December 31, 1990 and 1989

We have audited the balance sheets of the Industrial Relations Research Association, as of December 31, 1990 and 1989, and the related statements of support and revenue and expenses, statements of changes in fund balances, statements of changes in financial position, and supporting schedules for the years then ended. These financial statements are the responsibility of the Association's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the Industrial Relations Research Association, as of December 31, 1990 and 1989, and the results of its operations and the changes in its financial position for the years then ended, in conformity with generally accepted accounting principles.

Stotlar & Stotlar, S.C.

February 18, 1991

INDUSTRIAL RELATIONS RESEARCH ASSOCIATION
Madison, Wisconsin

Balance Sheets
December 31,

	1990	*1989*
ASSETS		
Current assets:		
Petty cash	$ 50	$ 50
Cash--checking	15,027	20,435
Cash—money market	22,144	53,026
Other investments	84,597	78,106
Accounts receivable (Less allowance for doubtful accounts)	10,318	8,509
Prepaid expenses	19,862	8,710
Inventory	17,659	8,892
Total current assets	$169,657	$177,728
Property, plant and equipment:		
Equipment	$ 21,042	$ 17,996
Accumulated depreciation	11,738	9,293
Net property, plant and equipment	$ 9,304	$ 8,703
Total Assets	$178,961	$186,431
LIABILITIES AND FUND BALANCE		
Current liabilities:		
Accounts payable	$ 38,404	$ 22,258
Payroll taxes payable	150	
Dues collected in advance	90,968	101,266
Subscriptions collected in advance	14,463	13,620
Total Liabilities	$143,985	$137,144
Restricted fund balance	$ 0	$ 5,000
Unrestricted fund balance	34,976	49,287
Total fund balance	$ 34,976	$ 49,287
Total Liabilities and Fund Balance	$178,961	$186,431

(The accompanying notes are an integral part of the statements)

INDUSTRIAL RELATIONS RESEARCH ASSOCIATION
Madison, Wisconsin

Income Statements
For the Years Ended December 31,

	1990	*1989*
Income		
Income from operations		
Membership dues	$149,262	$155,885
Subscriptions	17,154	16,892
Chapter fees	5,317	4,857
Book sales, net of refunds	4,120	6,846
Royalties	1,641	1,288
Newsletter advertising	3,305	2,520
Mailing list rental	6,930	7,008
Meetings	29,538	18,860
ASSA refunds	7,387	8,782
Grant income	500	0
Total operating income	$225,154	$222,938
Expenses		
Compensation		
Salaries	$ 75,088	$ 69,447
Payroll taxes	6,204	5,486
Contract services	1,240	2,515
Officer honorariums	7,500	14,500
Editor	11,108	0
Total compensation expense	$101,140	$ 91,948
Publications		
Proceedings	$ 32,906	$ 34,170
Spring proceedings	8,761	5,148
Research volume	19,445	18,931
Newsletter	12,622	16,927
Directory	11,548	9,023
Total publication expense	$ 85,282	$ 84,199
Meetings		
General expenses		
Spring		
Meals	$ 6,490	$ 6,975
Travel	1,316	1,986
Miscellaneous	8,066	5,419
Total spring meeting	$ 15,872	$ 14,380
Annual		
Meals	$ 4,856	$ 3,029
Travel	1,765	1,561
Miscellaneous	427	389
Total annual meeting	$ 7,048	$ 4,979
Total general expenses	$ 22,920	$ 19,359
National expenses		
Spring		
General	$ 3,131	$ 4,321
Hospitality	1,224	0
Total spring meeting	$ 4,355	$ 4,321
Annual		
General	$ 4,492	$ 1,960
Hospitality	4,199	3,073
Total annual meeting	$ 8,691	$ 5,033
Total national expenses	$ 13,046	$ 9,354
Total meetings expense	$ 35,966	$ 28,713
Review committee	$ 1,442	$ 8,959
Membership promotions	$ 3,629	$ 4,567
Chapter expenses	$ 445	638
Office and general expenses		
Computer and label costs	$ 750	$ 1,629
Office supplies	1,312	1,317
Postage and freight	6,202	4,697
Telephone	875	948
Accounting and auditing	2,230	2,220
Bank charges	515	401
Insurance	966	1,138
Depreciation	2,445	2,790
Duplicating	6,011	5,034
Miscellaneous	1,218	1,607
Storage	480	480
Donations	1,246	1,000
Dues	828	0
Committee expenses	521	0
Total office and general expense	$ 25,599	$ 23,261
Total expenses	$253,503	$242,285

Loss from operations	$(28,349)	$(19,347)
Other income and (expense)		
Interest income	$ 9,038	$ 9,964
Net income (loss)	$(19,311)	$ (9,383)

(The accompanying notes are an integral part of the statements)

INDUSTRIAL RELATIONS RESEARCH ASSOCIATION
Madison, Wisconsin

Statements of Changes in Fund Balance
For the Years Ended December 31,

	1990	1989
Unrestricted fund balance, beginning balance	$ 44,287	$ 53,853
Unrelated business tax, prior year	0	(183)
Release of restricted fund	5,000	0
Prior period adjustment	5,000	0
Net income (loss)	(19,311)	(9,383)
Unrestricted fund balance, ending balance	$ 34,976	$ 44,287

(The accompanying notes are an integral part of the statements)

INDUSTRIAL RELATIONS RESEARCH ASSOCIATION
Madison, Wisconsin

Statements of Changes in Financial Position
For the Years Ended December 31,

	1990	1989
Financial resources provided by:		
Operations:		
Item not affecting cash and short term investments: Depreciation	$ 2,445	$ 2,790
Decrease in inventory	0	1,014
Decrease in prepaid expenses	0	9,227
Increase in subscriptions collected in advance	843	584
Increase in accounts payable	21,296	4,456
Decrease in accounts receivable	0	5,788
Total funds provided	$ 24,584	$ 23,859
Uses of Funds:		
Net loss	$ 19,311	$ 9,383
Increase in accounts receivable	1,809	0
Increase in prepaid expenses	11,152	0
Increase in inventory	8,767	0
Purchase of equipment	3,046	3,151
Decrease in dues paid in advance	10,298	2,229
Total uses of funds	$ 54,383	$ 14,763
Increase (Decrease) in cash and short term investments	$(29,799)	$ 9,096
Cash and short term investments		
Beginning of year	$ 151,617	$142,521
End of year	$ 121,818	$151,617

(The accompanying notes are an integral part of the statements)

INDUSTRIAL RELATIONS RESEARCH ASSOCIATION
Madison, Wisconsin

Notes to Financial Statements

NOTE 1—SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The summary of significant accounting policies of the Industrial Relations Research Association is presented to assist in understanding the Association's financial statements.

Organization

The Association is a not-for-profit organization. Its purpose is to provide publications and services to its members in the professional field of industrial relations.

The Association is exempt from income tax under Section 501(c)(3) of the Internal Revenue Code. However, net income from the sale of membership mailing lists is unrelated business income, and is taxable as such.

Investments

Cash—money market represents the balance invested in money market accounts held at Randall Bank, Madison, Wisconsin, and Valley Bank-Shorewood Hills, Madison, Wisconsin. Interest earned on the Randall account is earning 5.5%; the Shorewood accounts are earning 5.13%.

Other investments include balances held in the Kemper Government Securities Fund and the Kemper Money Market account. Shares in the Government Securities Fund were traded at 9.05 per share at year end. Funds are stated at lower of cost or market.

Inventory

The Association's inventory of research volumes, proceedings, and prior newsletters is carried at the lower of cost or market value.

Property, Plant and Equipment

Property, plant and equipment are carried at cost. Depreciation is provided using the straight line method over an estimated five to seven year useful life.

Membership Dues—Advance Subscriptions Collected

Membership dues and subscriptions are assessed on a calendar year basis and are recognized on an accrual basis. Funds received for the upcoming 1991 and 1990 calendar years are reflected as deferred income on the balance sheet.

2—RESTRICTED FUND

At the General Membership Meeting on December 19, 1986, $5,000 was restricted for use for a Comprehensive Review Committee.

ALPHABETIC LIST OF AUTHORS

Abraham, Katharine G. 129
Adams, Roy J. 319
Ashraf, Javed 123
Bahr, Morton 163
Barber, Alison 230
Bellace, Janice R. 137
Ben-Ner, Avner 374
Bennici, Frank J. 447
Berg, Peter B. 520
Block, Richard N. 145, 510
Brown, Charles C. 177, 276
Card, David 234
Castillo-Freeman, Alida 243
Chandler, Timothy 406
Cobble, Dorothy Sue 76
Cohen, Malcolm S. 492
Cook, Robert F. 115
Cooke, William N. 385
Cotton, John L. 390
Dougherty, Michael J. 513
Edwards, Linda N. 476
Elbaum, Bernard 367
Feinauer, Dale 514, 520
Feuille, Peter 406
Figart, Deborah M. 521
Figler, Robert A. 513
Fiorito, Jack 284
Fossum, John 515
Freeman, Richard B. 243, 328
Friedlander, Daniel 349
Gallagher, Daniel G. 293
Gerhart, Barry 230
Gitter, Robert 135
Gordon, Michael E. 293
Havlovic, Stephen J. 514
Hoffman, Emily P. 441
Hooker, Susan 33
Iverson, Roderick D. 208
Jacobi, Otto 338
Jacobs, David C. 515
Jarley, Paul 85
Jones, Derek 374
Katz, Lawrence F. 254
Kaufman, Bruce 502
Kaufman, Roger T. 199
Keaveny, Timothy J. 515
Kossek, Ellen 71
Koys, Daniel J. 521
Kroll, Philip R. 514
Krueger, Alan B. 254
Kuruvilla, Sarosh 208, 303
Laubscher, Melinda J. 46
Leblebici, Huseyin 450
Lee, Raymond T. 218
Leigh, J. Paul 516
LeRoy, Michael 406
Lewin, David 484
Luthar, Harsh K. 416
Lynch, Lisa M. 185, 280
Maranto, Cheryl 85
Martin, James E. 218
Mayer, Lisa 520
McFarlin, Dean B. 390
McKersie, Robert B. 1
McLaughlin, Gerald W. 522
McLaughlin, Josetta S. 522
Metzgar, Jack 96
Meyer, David G. 385
Miller, Carol D. 43
Morishima, Motohiro 522
Murrmann, Kent F. 518
Norwood, Janet L. 193
O'Shea, Laura 520
Partridge, Dane M. 517, 518
Reavlin, Lisa 65
Rebne, Douglas S. 517
Reed, Thomas 74, 425
Rees, Albert 173
Robinson, Jerald F. 416, 522, 523
Rogers, Joel 345
Ross, Garret A. 524
Rosse, Joseph 515
Schiller, Bradley R. 266
Seitchik, Adam 23
Sherer, Peter D. 458
Smith, Wil J. 513
Solnick, Loren M. 106
Strauss, George 310
Summers, Clyde W. 154
Sweeney, Paul D. 390
Taira, Koji 467
Tarnoff, Karen Ann 517
Trunzo, Victor J. 358
Turner, Lowell 303
Uehlein, Joseph B. 103
Wagar, Terry H. 518
Walsh, David J. 434
Way, Philip K. 519
Weinstein, Paul A. 196
Weiss, William L. 167

Wever, Kirsten 397
Wisniewski, Stanley C. 443
Woodbury, Stephen A. 132
Woodhead, Gregory 55
Zeller, Frederick A. 513
Zornitzky, Jeffrey 11

You are invited to become a member of

THE INDUSTRIAL RELATIONS RESEARCH ASSOCIATION

The Industrial Relations Research Association was founded in 1947 by a group who felt that the growing field of industrial relations required an association in which professionally-minded people from different organizations could meet. It was intended to enable all who were professionally interested in industrial relations to become better acquainted and to keep up to date with the practices and ideas at work in the field. To our knowledge there is no other organization which affords the multi-party exchange of ideas we have experienced over the years—a unique and invaluable forum. The word "Research" in the name reflects the conviction of the founders that the encouragement, reporting, and critical discussion of research is essential if our professional field is to advance.

In our membership of 5,000 you will find representatives of management, unions, government; practitioners in consulting, arbitration, and law; and scholars and teachers representing many disciplines in colleges and universities in the United States and Canada, as well as abroad. Among the disciplines represented in this Association are administrative sciences, anthropology, economics, history, law, political science, psychology, and sociology as well as industrial relations. Membership is open to all who are professionally interested and active in the broad field of industrial relations. Libraries and institutions who are interested in the publications of the Association are also invited to become members, and therefore subscribers to the publications.

Membership dues cover publications for the calendar year, January 1 through December 31, and entitle members to the *Proceedings of the Annual Meeting*, *Proceedings of the Spring Meeting*, a special research volume, a *Membership Directory* every three years, and quarterly issues of the *Newsletter*.

Dues for 1991 calendar year membership are listed below

Canadian and Foreign payments must be made in U.S. dollars by cashier's check or international money order—plus $7.00 to cover postage.

Regular Membership	$ 45.00
Family Membership (at same address, no additional publications)	4.00
Contributing Membership	100.00
Retired Membership (if a member for at least 10 years and not now gainfully employed)	18.00
Student Membership (Full-time)	18.00
Institutional or Library Subscription	45.00

Some members also make additional tax deductible financial contributions to the Association.

If you are not already a member, we invite you to join by sending your membership application and dues payment. Inquiries regarding membership, meetings and publications should be addressed to the IRRA Office.

INDUSTRIAL RELATIONS RESEARCH ASSOCIATION (608/262-2762)
7226 Social Science Building, University of Wisconsin, 1180 Observatory Drive, Madison, WI 53706

Sincerely yours,

James L Stern

IRRA President 1991

Also in the

Industrial Relations Research Association Series

THE STATE OF THE UNIONS

Edited by George Strauss, Jack Fiorito and Daniel G. Gallagher $20.00

NEW DEVELOPMENTS IN WORKER TRAINING: A LEGACY FOR THE 1990s

Edited by Louis A. Ferman, Michele M. Hoyman, Joel Cutcher-Gershenfeld and Ernest J. Savoie $20.00

THE OLDER WORKER

Edited by Michael E. Borus, Herbert S. Parnes, Steven H. Sandell and Bert Seidman $20.00

PUBLIC-SECTOR BARGAINING (2nd Edition)*

Edited by Benjamin Aaron, Joyce M. Najita and James L. Stern $27.00

HUMAN RESOURCES AND THE PERFORMANCE OF THE FIRM

Edited by Morris M. Kleiner, Richard N. Block, Myron Roomkin and Sidney W. Salsburg $15.00

WORKING WOMEN: PAST, PRESENT, FUTURE*

Edited by Karen Shallcross Koziara, Michael H. Moskow and Lucretia Dewey Tanner $35.00

THE WORK ETHIC—A CRITICAL ANALYSIS

Edited by Jack Barbash, Robert J. Lampman, Sar A. Levitan and Gus Tyler $15.00

MEMBERSHIP DIRECTORY 1990 $20.00

* (Available in hard cover from Bureau of National Affairs, Inc., 1231 25th Street, N.W., Washington, D.C. 20037)

Book orders and requests for prices and order forms for other IRRA publications (including Proceedings of the Annual and Spring Meetings and Membership Directories) should be sent to the IRRA Office.

INDUSTRIAL RELATIONS RESEARCH ASSOCIATION
7226 Social Science Building, University of Wisconsin
1180 Observatory Drive, Madison, WI 53706-1393 U.S.A.

ISBN 0-913447-51-X

1990

IRRA SERIES

Forty-Third Annual Proceedings Washington, DC

Employee Rights

Minimum Wage

Statutory Works Councils

Training Policy

Employee Participation

Unions in the 1990s