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Paula B. Voos, Editor

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PREFACE

The 50th Annual Meeting of the Industrial Relations Research Association was held in Chicago, January 3-5, 1998. The Association both looked back at important past labor market, human resources, and industrial relations developments and looked forward into the future of our field.

Cornell, Minnesota, Illinois, Wisconsin, and other leading industrial relations programs have all recently celebrated their fiftieth anniversaries along with the Association. Clearly this field is celebrating its mid-life, a period in human life that is well known to be prone to crisis—whether that involves buying red sports cars or reining in rebellious teenagers.

Maturity has its advantages as well as its pitfalls, however. One advantage is the greater perspective that it affords. In Chicago we enjoyed top quality sessions with a retrospective orientation. For instance, one session considered American experience with wage/price controls or guideposts from World War II through the Carter administration. Another evaluated the relevance of J.R. Commons's industrial relations theory for current IR theory and developments under NAFTA. John Logan, winner of the 1997 student writing competition, complemented this aspect of the meeting by looking at the evolution of the striker replacement doctrine in the 1930s.

I was struck, however, by the extent to which the meeting and sessions looked forward. Francine Blau, IRRA President, spoke about an important current problem in the United States, widening wage inequality. Several sessions looked at contemporary developments in the employment relationship connected with widening inequality: declining employment stability, increased international integration of economic relationships, changing practices in workplaces, deregulation, and regulatory restructuring. Attendees at the annual meeting enjoyed commenting on a new film sponsored by the Association that will be shown at IRRA chapter meetings and to others concerning current industrial relations policy issues.

Some of the individuals who helped found the Association are no longer with us, but a large number of former presidents joined us in Chicago to celebrate this important event: Benjamin Aaron (1972), John T. Dunlop (1960), Walter J. Gershenfeld (1995), Wayne L. Horvitz (1984), Robert B. McKersie (1990), Joyce D. Miller (1989), Michael H. Moskow (1987), Rudy Oswald (1981), James Stern (1991), Jack Stieber (1983), George Strauss (1993), Lloyd Ulman (1986), Hoyt Wheeler (1996), and Lynn Williams (1994).

As always, I enjoyed seeing old friends and making new ones at the IRRA meeting. This *Proceedings* forms a record of our official discussions and deliberations. Let us continue the tradition by helping the Association go forward for another fifty years.

Paula B. Voos University of Wisconsin-Madison and IRRA Editor-in-Chief

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I. PRESIDENTIAL ADDRESS

Widening Inequality by Skill: "An American Dilemma"

Francine D. Blau Cornell University and NBER

The topic of my talk today is the widening gap in social and labor market outcomes between high- and low-skilled Americans. It is an issue which increasing numbers of scholars and social commentators have called to our attention in recent years, and yet it is a problem which is at once of crucial importance to our national well-being and lacking a ready solution. This is the fiftieth anniversary of IRRA, and partly for that reason, I have found the inspiration for the title of my talk in a major scholarly work which was written a little over fifty years ago by the Nobel laureate in economics, Gunnar Myrdal. In *An American Dilemma: The Negro Problem and Modern Democracy*, his highly influential study of race relations in America, Myrdal located the American dilemma of the book's title in

the ever-raging conflict between, on the one hand, the valuations preserved on the general plane . . . where the American thinks, talks, and acts under the influence of high national and Christian precepts, and, on the other hand, the valuations on specific planes of individual and group living, where . . . group prejudice against particular persons or types of people . . . dominate his outlook. (p. lxxi)

While I believe we have made important progress in narrowing race differentials, the race problem which Myrdal identified has still not been resolved. However, today I would like to draw your attention to another American dilemma, one that also potentially strikes at the heart of our democratic institutions. As differences among groups grow with the widening skill gap—and I will trace its depth and breadth for you today—they stretch

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the social fabric, potentially threatening the underlying cohesion upon which our democracy is based. Hopefully this remains a distant possibility but not one which we can afford to close our eyes to indefinitely. Moreover, this widening skill gap is not unrelated to race. Despite important gains, African Americans continue to be overrepresented among the low-skilled, along with other minorities including Hispanics and many immigrant groups. Thus minorities have been disproportionately affected by the unfavorable trends experienced by low-skilled Americans in recent years.

My use of the term "American dilemma" in the context of the skill differential is also meant to highlight two other aspects of this important issue and the challenges it poses to social policy. First, while rising labor market rewards to skill have characterized many, although not all, industrialized countries in recent years, nowhere have wage disparities reached the level they have in the U.S. Moreover, in a recent paper, Lawrence Kahn and I showed that what particularly distinguishes the U.S. is the especially low wages of those at the bottom compared to those at the middle of the wage distribution (Blau and Kahn 1996). This essentially means that the low skilled in the U.S. are more disadvantaged relative to the great bulk of their fellow countrymen than they are elsewhere. Thus, while a widening wage gap by skill does not constitute a uniquely American problem, it is a problem that is more severe here than elsewhere. Finally, our current difficulties confront us with a dilemma in that the situation is complex and one that admits of no simple and easy solutions.

The Dimensions of the Problem

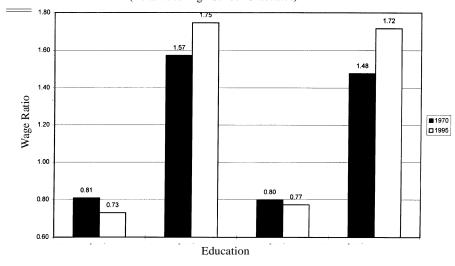
Although considerable attention has been focused on the widening skill gap, there are two points which have in my opinion received inadequate notice and which I would especially like to emphasize in my presentation today. First, much of the research in this area has focused on men and covered women, if at all, in a much more cursory fashion. Indeed, the impression has arisen that the widening skill gap is a particularly male problem that women have somehow escaped. This impression probably derives in part from the well-known trends in the relative pay of women compared to men; the gender pay gap has narrowed considerably over the past twentyfive years. For example, among full-time workers, the ratio of women's to men's weekly earnings rose from 61% in 1978 to 75% in 1996. And indeed during much of this time, women gained in an absolute sense as well, since their real wages rose while those of men stagnated or fell. Moreover, over the 1980s women at all skill levels narrowed the gap with their male peers (Blau and Kahn 1997). The declining gender pay gap is an extremely important development, but it by no means implies that low-skilled women

have entirely escaped the deteriorating labor market conditions facing low-skilled men. This should become clear in my talk as I consider the trends for both women and men. A second insight of recent research by myself and others which I shall incorporate here is the realization that the rising skill gap is of broad dimension. That is, it is not simply a matter of the less skilled facing a larger wage gap. We now know that their relative employment has also fallen and that widely noted changes in family structure have been particularly pronounced for them.

A practical issue to be dealt with before turning to the empirical evidence is how skill is to be measured. I use years of formal education as my measure of skill. While this is only one of a number of possible measures, it is one which is universally acknowledged to be important. It has the further advantage of being readily measurable in available data sets including the Current Population Survey which I use here. Additional results are available in my recent paper (Blau forthcoming). Data are for civilians aged 25 to 64 in 1970 and 1995; wages refer to annual averages for the preceding calendar year.

Figure 1 summarizes the well-known wage trends for males and the less widely known trends for females. It shows strikingly similar developments for both men and women. Among full-time workers, the weekly

FIGURE 1
Wages of Women and Men by Education, 1970-1995
(Relative to High School Graduates)



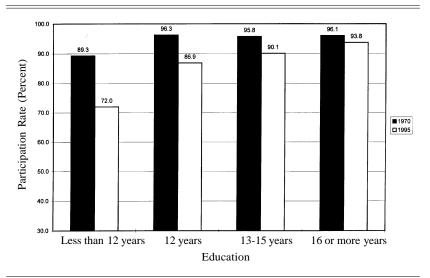
Notes: Includes ages 25-64.

Source: Author's tabulations from the March Current Population Survey.

wages of men and women who had not completed high school fell from four-fifths to three-quarters of those of high school graduates between 1969 and 1994. At the same time, the weekly wages of college graduates, which were about 50% higher than those of high school graduates in 1969, rose to about 75% higher in 1994. For males, these growing disparities occurred in the context of stagnating overall real wages resulting in sharply declining real wages for less educated men. For example, over this period, the real wages of the men with a high school education or less actually fell by 16% to 18%. For women, whose real wages increased by 31% overall, only the real wages of those with less than a high school education actually declined, by 2%, while the real wages of other groups rose. Nonetheless, while women fared better than men in terms of real wage trends, as in the case of men, the wages of the less skilled lagged increasingly behind those of their more highly educated counterparts.

The adverse consequences of these wage developments for the well-being of individuals in families headed by low-skilled Americans were magnified by the trends in labor force participation which were characterized by decreasing relative participation of Americans with less than a high school education. Figure 2a shows the more widely known trends for men. While

FIGURE 2 Labor Force Participation by Education, 1970 and 1995 (a) Men



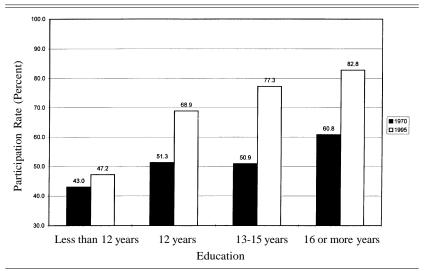
Notes: Includes ages 25-64.

Source: Author's tabulations from the March Current Population Survey.

participation rates fell for men in all education groups, the drop was considerably larger among the least skilled. Between 1970 and 1995, the participation rate of men with less than a high school education fell by 17 percentage points to 72%. By 1995, the participation rate of men who had not completed high school was fully 15 percentage points less than the rate of male high school graduates and 22 points less than that of male college graduates.

The data for women which are shown in Figure 2b tell a very similar story of widening skill differentials in participation. In this case, the participation rate of less educated women has increased less rapidly than that of the more highly educated. Thus while less educated women were always less likely to be in the labor force, the differences among education groups have widened substantially over the last twenty-five years. Between 1970 and 1995, the participation rate of women who had not completed high school rose by only 4 percentage points—from 43% to 47%—while the participation rates of high school graduates increased by 18 points and the rates of women with a college education increased by over 20 points. By 1995, fully 83% of women who had graduated college were in the labor force.

FIGURE 2 Labor Force Participation by Education, 1970 and 1995 (b) Women



Notes: Includes ages 25-64.

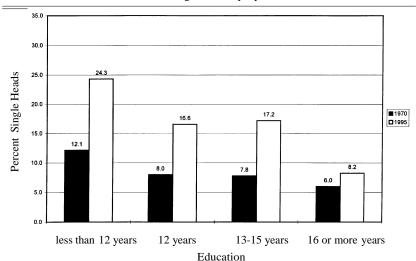
Source: Author's tabulations from the March Current Population Survey.

How have the less educated fared in terms of family well-being? One indicator of the resources available to the family is the extent of single

female headship. Some may recall the flap that was raised during the Bush administration when Vice President Dan Quayle criticized the *Murphy Brown* television show for setting a bad example for its viewers after Murphy Brown, a fictional character played by Candice Bergan, decided to have a child out-of-wedlock. (In a bizarre case of life meeting art, Murphy Brown was shown on an episode of the show becoming irate at Quayle's criticism of her life style.) Let me hasten to assure you that in bringing up female headship here, I have no desire to emulate Mr. Quayle. Rather, I focus on headship because it is well documented that families headed by women are more likely to be poor or to have low incomes. There are also serious concerns about negative consequences for children living in female-headed families, due in part to this economic deprivation.

It is well known that the rate of single headship has been rising; for example, between 1970 and 1995, the incidence of single headship among women rose from 9% to 16%. While the increase in single headship among women has received a great deal of attention, the pronounced differences across education groups in this trend has been less often noted. As may be seen in Figure 3, the contrast between high school dropouts and college graduates is particularly striking. Although women with less than a high school education were more likely to be single heads than other groups in 1970, the differences were fairly moderate in absolute terms: the proportion

FIGURE 3
Incidence of Single Headship by Education



Source: Author's tabulations from the March Current Population Survey.

of single heads was 12% among high school dropouts compared to 6% among college graduates. By 1995, the incidence of headship had doubled to 24% among women with less than 12 years of schooling compared to a 2 point increase to 8% of college graduates. A companion trend that does not show up in these statistics is a decline in family living among less educated men. While it is unquestionably the case that it is the women left to struggle with their family responsibilities on their own who bear the brunt of the negative effects of this change in family structure, the picture that emerges for the less educated men who would otherwise share these burdens with them is not entirely happy either in that they are in a sense cast adrift without the many positive things which families can provide.

The tenor of my remarks may lead you to wonder at this point—don't people to some extent choose their family structure and their labor force participation as well for that matter? I cannot disagree with that—people certainly do make important choices about these things and must reasonably be expected to live with the results of these choices. However, while there is still much which we do not understand about the causes of rising headship and declining relative participation among less educated Americans, there is some evidence that the increasingly dismal labor market situation which they face has played a part in producing these outcomes. And it is in this sense that we may consider these developments as reflecting an increasingly disadvantaged economic status for this group.

Whatever one's views as to the causes of the rise in female headship among this group, its economic consequences are clear. As we have seen, at the same time female headship has been increasing among less educated women, their relative wages and labor force participation rates have been declining. Thus it is not surprising that the relative incomes of individuals in female-headed families have fallen. Equivalence incomes for individuals are based on family income after adjusting for the number of family members and economies of scale. In 1989, the mean equivalence income of individuals in married couple families was over double the income in female-headed families, up from 70% higher in 1969 (U.S. Department of Labor 1995). There has also been a widening income gap of comparable magnitude between individuals in families headed by less educated couples compared to more highly educated couples. This trend reflects a larger rise in labor force participation of wives of high-earning husbands and also an increase in the correlation between the earnings of husbands and wives when both are employed.

Policy Responses to Widening Inequality

The obvious place to begin in seeking a solution to the problems created by the widening skill gap is to look at the sources of these trends: Why

have low-skilled workers been faring so poorly? Putting this somewhat differently. Why have the rewards to skill risen so dramatically? We do not have full consensus regarding the reasons for this increase, but technological change and the impact of international trade are two of the chief candidates that have been proposed in the literature (e.g., Katz and Murphy 1992). That is, while technological change potentially has the power to either increase or reduce the relative demand for skilled workers, and we can all think of specific cases where skill upgrading has occurred and others where there has been deskilling, the evidence strongly suggests that on net, it is high-skilled workers that have benefited in recent years. Similarly, as international trade has, in effect, expanded the supply of low-skilled workers to include individuals across the globe, downward pressure has been placed on the wages and employment of the low skilled in the U.S. In addition, institutional factors, including declining union density and a falling value of the minimum wage, appear to have also contributed to rising inequality (e.g., Fortin and Lemieux 1996). Although some of the decline in unionism is probably due to the impact of these larger forces technology and trade—and, moreover, these same forces would tend to limit union bargaining power even had unions declined at a slower rate, it is very likely that the decline of unionism has had an independent effect in explaining some of the increase in inequality.

In considering potential responses to our current difficulties, one possibility is, of course, to do nothing at all. This approach cannot be dismissed out of hand. It is possible that the same fundamental forces that have created our predicament will unleash countervailing forces to combat it. For example, as the rate of return to education rises, young people have a growing incentive to invest in additional schooling. The resulting increase in the supply of the highly educated could potentially slow or halt the widening skill gap or, if the rise in supply were large enough, even begin to narrow the gap. And we have indeed seen increasing college enrollments in recent years, while the returns to a college education have fallen a bit recently. Moreover, as less educated workers continue to be available at bargain basement prices, employers have the incentive to try to find additional uses for them, including the development and adoption of technologies that would permit the substitution of less skilled for more skilled workers. However, the experience to date suggests that the expanding demand for highly skilled workers due to technology and trade has been occurring at such a rapid pace that has far outstripped the impact of such corrective mechanisms; and there is little indication that the situation will change enough in the foreseeable future to produce a substantial narrowing of skill differentials.

Thus it seems in order to consider policy responses. In doing so, it is important to bear in mind that the current situation is the outcome of powerful and deeply entrenched forces. I believe this means that simply attacking the outward manifestations of these forces—the low wages of the less skilled-without addressing the underlying causes of their low wages will likely entail very high hidden costs. Thus a complete solution to our problems is unlikely to be found in policies designed to alter the wage distribution directly, such as the establishment of a relatively high minimum wage, as appealing as that would be in some respects. First, there is the concern that the imposition of an extremely high wage floor may have adverse employment effects on low-skilled workers. While there is important evidence that suggests that the relatively small increases in the minimum wage which we have experienced in the U.S. may not have serious employment effects (Card and Krueger 1995), an increase of sufficient magnitude to make a major dent in our current difficulties could well cause further employment problems for the very group we are trying to help. Second, overly ambitious attempts to regulate the labor market may result in the growth of an uncovered sector where the laws are flouted and low-wage workers fare especially poorly.

Some evidence that caution is warranted in seeking to overhaul the wage distribution through government intervention comes from developments in other industrialized countries over the 1980s and 1990s. The centralized bargaining mechanisms that led to high wage floors in these countries have been weakening in the face of the impact of trade and technology (Katz 1993). This also makes it unlikely that the adoption of such centralized bargaining in the U.S. would provide a solution to our problems, though it does not rule out the possibility that a reversal of union decline in the U.S. could play some role in promoting greater wage equality here.

How then are we to proceed? In my opinion, a strategy which pursues a multifaceted attack on the problem holds the most promise. On the one hand, we must make every effort to increase the skills of our workers, from encouraging young people to remain in school to providing training opportunities for workers with few skills or whose skills have become obsolete. But in my opinion we cannot expect such an approach to fully solve our problems in a short period of time. Thus we also need to protect the income of low-wage workers more directly. In this regard, the Earned Income Tax Credit is especially useful since it both encourages the low skilled to enter the paid labor force and supplements the income of low-wage workers. The generosity of that program should certainly be maintained and possibly even expanded. An area of particular concern is the

safety net for female family heads since recent reforms of the welfare system have potentially left them and their children with less income protection than they have had at any time in the past thirty years. It is unclear at present how these reforms will play out. While I strongly support getting female family heads into the paid work force to the maximum possible extent, it is essential that we combine these efforts with adequate child care and job training in order not to seriously jeopardize the well-being of these families. Moreover, if we are really seriously committed to the employment of this group, we may have to consider providing government jobs for those who are unable to secure them in the private sector.

Let me close by saying that I do not in any way feel that I have all the answers to the critical difficulties that confront us. As I said at the outset, there is no "quick fix" for the problems that confront us. Developing the appropriate response is likely to require considerable discussion and debate—IRRA can provide an excellent forum for such an exchange.

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II. REFEREED PAPERS— LABOR-MANAGEMENT RELATIONS

Presidential Labor Regimes: Democrats from Truman to Clinton

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Much has been made of the AFL-CIO's *Labor '96* political campaign. Not since the CIO's "People Campaign" in 1944 has the relationship between labor relations at the shopfloor and executive political power been more central to the political education provided to millions of rank-and-file voters. The reelection of Bill Clinton then provides students of collective bargaining with an opportunity to assess what union workers have likely won by following Samuel Gompers' famous nonpartisan warning that labor should "reward its friends" (*American Federationist* 1908).

The objective of this article is to define what kind of "labor regimes" Democratic presidents have constructed in the post-World War II era. By labor regime I mean the politically derived principles, norms, rules, and power constellations that condition the effectiveness of American unions to confront capital (Kettler and Meja 1990). I limited my focus to how industrial relations have been affected by a president's *assertive* impact on policy development. By assertive behavior I refer to steps initiated or strongly endorsed by a president to influence the domestic policy process (Watson and Thomas 1988). Using the above framework as a guide, I have chosen to principally examine the following actions: presidential lobbying, executive orders, legislative sponsorships, use of emergency powers, and the hegemonic use of legally sanctioned state coercion.

A brief comment about why the focus on Democratic presidents. Although Republican presidents have not been uniformly antagonistic to labor, there is little disagreement among labor officials and scholars that on the national level the Democratic party has been more responsive to the

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labor movement (Greenstone 1969; Form 1995). Consequently, it is appropriate to restrict my examination of "friendly" presidents to Democratic party standard bearers.

Truman and Domestic Containment

In 1944 Franklin Delano Roosevelt won a fourth presidential term. The previous year the CIO had formed the country's first Political Action Committee (PAC) to reelect Roosevelt and prolabor Democrats. Consequently, with Roosevelt's death, Vice-President Harry Truman took office with organized labor expecting sizeable political dividends. But dancing precariously between a dependence upon labor's partisan electoral support and corporate demands for deinflationary wage policy, Truman sought compromise from the industrial relations community.

He convened a Washington, D.C., labor-management conference in 1945 to establish new ground rules for postwar labor relations. The elites of the business and the labor community attended, uttering high-sounding principles of a shared national interest. But beneath the public pronouncements lay irreconcilable differences. On one hand, management wanted wage moderation, and on the other, CIO President Philip Murray was proposing a radical industrial power sharing (*The President's National Labor-Management Conference* 1946). Not to Truman's surprise, his effort failed miserably.

Faced with sharply escalating labor anger, the president quickly displayed a nuanced regard for labor militancy by signing into law the Hobbs bill which tightened the boundaries of government-sanctioned labor practices. Motivated by intensifying Teamster organizing, Hobbs made it a felony to obstruct the movement of goods and services in interstate commerce by means of extortion. Despite Truman's claim that the law would not in any way "interfere with the rights of unions in carrying out their legitimate objectives" the act extended the list of conventional actions that could be criminally defined as extortion and subsequently used against labor organizers (*Congress and the Nation* 1965).

Despite Hobbs's putative nature, Truman's resolve to suppress labor militancy is best illustrated by the way he used emergency powers to crush or restrain labor work stoppages. It was the new president's misfortune to be in the White House during the explosion of war-inspired inflation strikes that rocked corporate America in 1946. In the first postwar year, over 4,000 strikes broke out costing business nearly 120 million lost work days. The administration's response to labor-management disputes was to create a number of independent industry fact-finding boards charged with investigating the issues and making recommendations for a settlement. In most cases union leaders accepted the board's findings, while business executives

regularly rejected the recommendations. With corporate defiance came escalating worker resistance. Truman's response was to reach for every legal and political means to break strikes and to prevent production stoppages in the early years of peacetime industrial conversion.

From his assumption of the presidency until 1952, Truman cited the powers granted to his office under the 1916 Railway Seizure Act, the 1926 Railway Labor Act (RLA), the 1943 Smith-Connally Act, the 1947 Taft-Hartley Act, and the "general welfare" clause of the Constitution to justify limiting the ability of workers to withhold their labor and for seizing private property on at least forty occasions. In a number of the more intransigent struggles, Truman declared that continued strikes against facilities under government administration were treasonous stoppages and threatened to put them down by calling out the army. In fact, in 1946 the president went before a special joint session of Congress to demand, among other things, emergency powers to criminalize strikes against the government.

Truman was confused and outraged by the action of labor leaders. The president wrote in his private papers, edited by Robert Ferrell (1980:68), that "labor had gone off the beam" and, consequently, "began to grab all it could get by fair means or foul." Historian David McCullough (1992) records that in a letter to his mother, Truman summed up his perspective on the postwar strike wave by noting that "labor had gone insane" (p. 470).

The epidemic nature of the postwar strikes and charges of being "soft on communism" produced a political backlash, and in 1947 Republicans took control over Congress. Republicans and sympathetic Democrats quickly took up legislation to curb the "drunken power of labor bosses" and Truman added to the antilabor sentiment by making it clear that his policy to preserve peacetime industrial conversion was to take on "big labor" (Dubofsky 1994:206). Led by New Jersey Republican Fred Hartley in the House and Republican Robert Taft in the Senate, Congress passed by overwhelming majorities sweeping restrictions on labor militancy. According to Robert Zieger (1995), although Truman vetoed the bill, he privately admitted that Taft-Hartley was a good change in industrial relations policy. Truman's personal wish list was made very public when during his 1947 State of the Union address he called on Congress to amend the Wagner Act to ban secondary boycotts, jurisdictional strikes, and work stoppages over contract interpretations (*Congress and the Nation* 1965; Dubofsky 1994).

Despite Truman's regular defiance of organized labor and his criticism of "bad unions" whose members acted like a "bunch of Russians," the CIO endorsed and actively campaigned for the president. Primarily because of labor's late but enormous effort on behalf of a president it had very little good to say about, Truman was reelected.

Kennedy and Liberalism Restored

Between 1935 and 1945 union membership went from 3.6 to 14 million people. But during the Truman-Eisenhower years (1945-1960) union membership grew by less than 3 million. Therefore, when John F. Kennedy returned the junior party to the White House, labor was eager for change and had a ripe agenda to push. Complicated by his meager time in office, Kennedy's political record is suggestive of a growing appreciation for organized labor.

Kennedy supported a congressional bill to firm up government welfare and pension laws positively affecting 30 million workers and submitted a plan to reorganize the NLRB in order to speed up the processing of unfair labor practice cases. The president also created an 11-member Missile Site Labor Commission to develop procedures for settling disputes on the government's 22 missile bases. Under Kennedy the government's role in providing subsidized training programs for workers expanded. Training was provided under the Areas Redevelopment Act, the Public Welfare Law, the Manpower and Training Act, and the Trade Expansion Act (Congress and the Nation 1965). Workers also saw their minimum wages increased, and employees on government-financed construction jobs were granted overtime pay for work in excess of 40 hours.

Finally in 1962, Kennedy's achievements on behalf of organized labor were bolstered with his issuance of Executive Order 10988 granting federal employees the right to organize and bargain collectively (Zagoria 1972). The bargaining order was precedent-setting, but not without important limitations. All federal employees were denied the right to strike, and in the case of certain workers, bargaining over wages, hours, and fringe benefits remained the prerogative of Congress.

Kennedy's labor-management record was to a large extent driven by his method of directly and indirectly appealing to the parties involved in disputes. The president regularly consulted with labor leaders on policy and politics. But according to Kennedy's chief of staff, Theodore Sorensen (1965), the president's use of the bully pulpit was usually directed to his rank-and-file union supporters. In summarizing Kennedy's actions in pressuring the AFL-CIO in 1961 to "recognize the desirability of maintaining stable prices," Sorensen concludes that "the jawbone method was directly applied most often to labor" (p. 438).

In addition to wielding an uneven hand to suppress union bargaining demands, the president (like his party brethren) was not adverse to using force to impose labor settlements or to break strikes. In fact, Sorensen records with obvious pride that Kennedy "did not hesitate to use the injunction" against labor and was "convinced that the executive branch

should possess a wider arsenal of tools" to put down national strikes (p. 440). A looming railroad work stoppage gave the president an opportunity to add to his arsenal of labor peace.

In 1960 he appointed a railroad commission which recommended work-rule changes eliminating 35,000 jobs. Operating railway unions opposed the recommendations and threatened to strike over their unilateral implementation. Kennedy then imposed a cooling-off period under the RLA and requested from Congress an order to direct the Interstate Commerce Commission to establish mandatory work rules that would apply for the next two years. During this period, strikes would be illegal. Railroad operators endorsed the president's action, but the unions considered it "compulsory arbitration" and refused to agree. In response to union defiance, Congress passed with bipartisan support the country's first compulsory arbitration bill in peacetime (*Congress and the Nation* 1965).

Tragically shortened, Kennedy's relationship with labor is perhaps best summed up in the 1959 comments he made to *Chicago Sun-Times* correspondent, Peter Lisagor, about George Meany and Walter Reuther: "I wouldn't give them the time of day, but in politics you simply have to" (Martin 1983:138).

Labor within the Great Society

Under Lyndon Johnson (1963-68) labor unions and the Democratic party prospered, even though union membership as a percentage of the labor force was going down and the AFL-CIO suffered punishing legislative defeats. In 1964, according to William Form (1995), a record 69% of union members voted for the one-time southern New Dealer, and the AFL-CIO called the 89th Congress "the most outstanding Congress in the history of the nation" (Congress and the Nation 1969:602). Paradoxically, during a time when Congress said yes to everything the president requested, Johnson was unable to deliver on the most important issues specific to organized labor. Despite a 93% success rate with Congress on issues the president took a position on, one Teamster lobbyist stated, "Congress did well by every segment of our society except labor... labor wound up with goose eggs" (p. 603).

Despite his reputation in Congress as a fierce antiunion partisan (Dugger 1982), President Johnson did attain modest labor achievements. In 1964 he signed amendments to the 1931 Davis-Bacon Act that extended the prevailing wage provisions to cover fringe benefits. Johnson endorsed a minimum wage bill for workers providing services to the federal government and signed a comprehensive minimum rate hike that also extended coverage under the Fair Labor Standards Act to 9.1 million workers. These gains, along with the panoply of "Great Society" social welfare programs, benefited

the poor and working class. To be sure, as Kevin Boyle (1995) points out, most of Johnson's policy initiatives converged with the objectives of the liberal wing of the AFL-CIO. But on two major union issues Johnson's legislative wizardry fizzled out.

In 1965 labor's top political priority was repeal of the Taft-Hartley provision (Section 14b) allowing states to outlaw the union shop. Johnson spoke out for the repeal of 14(b) in his State of the Union message that year, and subsequently, the House by a margin of 210-203 approved a bill (HR 77). But when the amending bill was sent to the Senate for consideration it was strangled by a filibuster lasting seven days. Finally, after a closure vote to cut off the filibuster failed to gain the required two-thirds support, the bill was effectively withdrawn. Referring primarily to 14(b) repeal and a "common situs picketing" bill that never emerged out of committee, AFL-CIO President George Meany summed up the political scorecard by stating that the "Democratic party did not deliver on labor legislation" (Congress and the Nation 1969:616).

Johnson's record on strikes and strikebreaking is mixed. Despite dragging on for forty two days and grounding 60% of commercial traffic, an airline strike in 1966 was allowed to persist to private settlement without presidential imposition. While Johnson did invoke the RLA, he opposed a Senate maneuver ordering the strikers back to work. However, two other disputes were short circuited by invoking the RLA. On both occasions Johnson's actions ended strikes by the Transport Workers Union against American Airlines and Pan American Airways. Finally, in 1967 the president asked for and received legislation stopping the first national railway strike in twenty years and over the objections of the unions sent the dispute to a special arbitration panel for settlement.

The Vietnam War ended Johnson's tumultuous tenure in the White House. By 1968 his labor-liberal coalition and agenda were forsaken for practical political compromises. In retrospect, issue and value conflicts divided the Democratic party's working class, African-American, and liberal-intellectual communities and ushered in more than a decade of Republican presidential politics. Not until 1976 did the Democrats recapture the executive branch, and they did so by nominating a southern governor from a right-to-work state.

Good Government/No Action Democrat

In 1976 the AFL-CIO reluctantly endorsed Jimmy Carter as their bicentennial year candidate. Nonetheless, as noted labor historian David Brody (1980) contends, labor waged a comprehensive campaign to return a Democrat to the White House and cautiously believed that electoral victories in

November would generate a "resurgence of the kind of liberal legislation that marked the Kennedy-Johnson years" (p. 244).

Assuming office with heavy Democratic congressional majorities, Carter had legislative room to maneuver. Despite considerable and highly public differences with the AFL-CIO over the content of a 1977 economic stimulus package, Carter did propose to Congress a \$31.2 billion plan of tax cuts, employment training, and job creation (Dark 1994). The president also endorsed an extension of the Comprehensive Employment and Training Act and agreed to support a 20-cent hourly raise in the minimum wage rate. Additionally, he endorsed legislation tightening corporate funding requirements for multiemployer pension plans covering eight million workers. However, the administration's most notable labor legislative achievement was passage of the Federal Mine Safety and Health and Black Lung Benefits Acts (Congress and the Nation 1981).

Notwithstanding Carter's initial efforts to use the government's job-creating machinery, his efforts to balance the budget and cut government spending produced a disastrous late-term anti-inflation program that sacrificed 1.8 million jobs. With inflation escalating in late 1978, Carter announced plans to use governmental taxing and contracting powers to punish businesses that violated a "voluntary" 7% wage cap. According to Garry Fink (1994:797), this "federal intrusion into private sector collective bargaining was patently unfair and of doubtful legality." The president's threats suggest that he was more concerned with soaring interest rates and shareholder value than he was with employment and wages. Even after signing the Full Employment and Balanced Growth Act in 1978, Carter's fiscal plans never seriously addressed job growth and double digit unemployment rates.

To further aggravate labor's sense that workplace issues were of secondary importance, the president also invoked the Taft-Hartley Act in an effort to crush a 1978 national coal strike. For all these matters Carter was quickly erasing any residue goodwill labor was harboring, but his failure to utilize his political capital on behalf of common site picketing and labor law reform legislation earned him the outright enmity of union leaders. After pursuing amendments to the Taft-Hartley provision on secondary boycotts for twenty-five years, the AFL's building trades believed they had the political means to pass an admittedly watered down bill (HR 4250). But from labor's perspective, Carter refused to seriously lobby his own majority party for the legislation, and the bill came up short in the house by a 205-217 margin. The president performed better in helping Democrats and moderate Republicans in the House to pass a bill speeding up NLRB investigatory and judicatory machinery. But this time Senate opponents, led by Orrin

Hatch (R-Utah), maintained a five-week filibuster against the bill, and six failed cloture votes after the legislation was sent to the Senate floor, it was remanded back to the graveyard of committee reconsideration.

While functioning within a split coalition of liberal and conservative Democrats, Carter governed with the largest congressional majorities of any modern president since Franklin Roosevelt in 1940, with the exception of Johnson's 189-seat advantage in 1964 (Menefee-Libey 1991). As Freeman and Medoff (1984) point out in their review of the failed labor law revisions, to the astonishment of many, the Democrats in Congress and the one in the White House could not muster the means to support labor law changes that even Eisenhower Republicans had once proposed.

Foreign affairs, a late-term recession, and other political misfortunes reduced Carter to a one-term Democratic president, and consequently, a Republican presidential party was revived. Organized labor would not see another Democrat in the White House for another twelve years. But in 1992 a southern governor from a right-to-work state won the party's presidential nomination and went on to capture the presidency with the smallest percentage of the popular vote than any Democrat president since Woodrow Wilson.

"New Democrats" and the Clinton Center

President Clinton's overwhelming reelection in 1996 offers him additional opportunities to develop a labor regime. While it is premature to assess the full labor record of Bill Clinton, his first term-and-a-half performance is open to critique. Clinton is given high marks from labor for essentially defensive actions against right wing Republican efforts to dismantle the social safety net. Unfortunately, his opposition to the Penny (D-Minn.)/Kasich (R-Ohio) \$90 billion, 1994 deficit-reduction plan shielded the fact that the president had proposed over \$37 billion of his own spending cuts (*Congressional Quarterly Almanac* 1994). On the other hand, he also offered an election-year conversion endorsement for a long desired minimum wage increase. But on the downside he loaded the bill with \$20 million in tax breaks for small businesses (*Congressional Quarterly Weekly Reports* 1996a).

Clinton signaled at the dawn of his administration that he desired a more hospitable relationship with organized labor when he signed into law the Family and Medical Leave Act during a Rose Garden ceremony. While the bill (HR 1) provided for only unpaid leave and exempted 95% of all employers, labor appreciated the groundbreaking nature of the act's provisions (Congressional Quarterly Almanac 1994). The president also issued an executive order to prohibit the awarding of federal contracts worth more

than \$100,000 to any employer who had permanently replaced striking workers. Labor had lobbied for legislation that would remove the odious restriction on the legal right to strike placed by the Supreme Court in the *NLRB vs. Mackay Radio and Telegraph* decision in 1938. None, however, was forthcoming. Finally, in the summer before his reelection bid, the president opposed a national "right-to-work" bill (*Congressional Quarterly Weekly Reports* 1996b) sponsored by Senator Lauch Faircloth (R-NC).

Although the above measures represented long-awaited changes, Clinton's strongest defense of unionization was unquestionably his veto of the 1995 Teamwork for Employees and Managers Act (TEAM). Labor had made clear its unequivocal opposition to the bill, arguing that by amending Section 8 of the National Labor Relations Act it would legalize company unionism. Clinton's message to Congress bullishly declared that the bill would abolish protections that ensure independent and democratic representation in the workplace (Congressional Quarterly Weekly Reports 1996c).

Good as the Clinton's general defense of unionization was, the president angered labor leaders early in his first term when he ferociously used the sizable "vantage points" of the presidency and his immense political capital to win House acceptance of the North American Free Trade Agreement (NAFTA). In direct defiance of powerful AFL-CIO opposition, according to George Bush's lobbyist Nicholas Calios, Clinton not only "worked the Congress very hard" for passage of the act, but he criticized labor for its "muscle bound" lobbying tactics (*Congressional Quarterly Almanac* 1995:172).

The president's "Herculean" stance against organized labor was credited by GOP minority leaders as being the turning point for winning over reluctant House members. Clinton's ability to fashion a bipartisan majority for NAFTA underscored the capacity most presidents have to win legislation early in their administration. At a time when the president was winning 86% of the votes in which he took a position, he dramatically opposed organized labor. Given that typically presidents experience descending rates of legislative success with the passage of time, Clinton's early agenda and NAFTA horse-trading had implications for constructing a second-term prolabor record.

Labor leaders then should not have been surprised when immediately after being reelected the president became the most outspoken proponent of renewing "fast-track" executive trade authority without binding international labor regulations. Clinton once again not only defied organized labor but went so far as to warn delegates to the AFL-CIO Convention not to allow "fast track" to "trump all other" issues when it comes to supporting him or other pro-free-trade members of Congress (*Daily Labor Report* 1997a:AA-1).

Finally, Clinton's White House has had a couple of opportunities to impact the course of work stoppages. During his first term Clinton used his influence with the CEO of American Airlines to persuade the company to accept binding interest arbitration to settle a nasty dispute with their suddenly militant unionized flight attendants (*Business Week* 1993). The arbitrator's subsequent ruling was considered favorable to the union. But the president later thought less of a planned walk-out by American's unionized pilots and imposed the emergency provision of the RLA to block action considered a severe threat to economic commerce.

Yet Clinton found very little threat to the nation's "health and safety" in a three-week summer national strike by the International Brotherhood of Teamsters against United Parcel Service (UPS). Despite the claim of UPS and most business organizations that the strike was having a "serious impact" on the economy, Clinton resisted requests that he invoke the Taft-Hartley Act (*Daily Labor Report* 1997b; Moberg 1997). But where the summer interruption of package shipments in 1997 was allowed to run its course, in fall Clinton once again took advantage of the more lenient standards of the RLA and averted a strike of Brotherhood of Maintenance of Way Employees at Amtrak. As is typical when cooling-off periods are imposed, the carrier applauded the move, while the union criticized the president for "effectively coming to the aid of Amtrak management and putting our right to strike on hold" (*Labor Relations Week* 1997:893).

Clinton's labor record continues to evolve. With a Republican Congress churning out antiunion hearings and legislation, there will be additional opportunities for Clinton to fine-tune his labor regime. If past practice is any confident guide, the president is unlikely to diverge from his defensive approach to labor politics.

Conclusion

The historical comparison offered here suggests that at their best, Democratic presidential labor regimes have provided labor with the organizational space and institutional legitimacy necessary to impact policy development. On balance, Democratic presidents since Truman have been "regime stabilizers," unwilling or incapable of significantly modifying the industrial relations balance of power. It would appear then that the record from Truman to Clinton can best be defined as one of "recognition with containment." Minus real change in the political possibilities of creating a more independent labor agenda, past Democratic practice suggests that every four years organized labor will be confronted with a choice between a designated, cautious friend and a likely aggressive enemy.

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State Legislation of Public Sector Collective Bargaining: An Event History Analysis

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Scholars have argued that state legislation of public sector collective bargaining has a significant effect on the process and outcomes of industrial relations in the public sector. However, it is still poorly understood what factors influence the passage of public sector collective bargaining laws (Saltzman 1986). If such laws do have a significant effect on public sector industrial relations, then the next task is to explain the passage of the laws (Farber 1988). Moreover, knowledge on such factors is critical to understand the effect of the laws. If both the legislation and the outcomes of public sector industrial relations are influenced by common environmental factors, there is a high risk that spurious effects will be attributed to the legislation (Lewin 1985).

Despite its importance, previous research on determinants of the legislation is sparse. This may be partially accounted for by a lack of theoretical frameworks to understand the legislation process. In this regard, recent attempts to apply the theory of economic regulation and public choice to the legislation of public sector collective bargaining seem promising. It provides a comprehensive theoretical framework to understand the legislation process, and empirical results consistently support the theory (Hunt and White 1983; Hunt, White, and Moore 1985; Waters, Hills, Moore, and Newman 1994; Waters and Moore 1990).

Unfortunately, previous studies that tested the public choice theory of public sector bargaining legislation were based on cross-sectional analyses. Due to their failure to incorporate the time path of change, these cross-sectional studies share a common critical analytical shortcoming in studying qualitative changes over time (Tuma and Hannan 1984). This study tries to overcome this shortcoming by using event history analysis that explicitly incorporates a temporal dimension of the legislation.

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Theory of Economic Regulation and Public Choice

The main argument of the public choice theory is that economic regulation can be conceptualized as potential uses of public resources and power to improve the economic status of interest groups. In other words, economic regulations by legislation are a market for wealth transfers, which can be analyzed in the context of a demand and supply framework (Stigler 1971). Politicians try to maximize their political support because their ultimate goal is reelection. This goal can be achieved by providing regulation up to the point where the marginal gain of political support through regulation is equal to the marginal loss of political support (Waters and Moore 1990).

State legislation of public sector collective bargaining shares similar characteristics with economic regulation in the sense that collective bargaining in the public sector results in some form of wealth redistribution (Hunt and White 1983). Based on previous findings, the following model explaining state legislation is estimated in this study:

(1) Legislation =
$$f(Attitude, IG, LBL, OG, CT)$$
,

where the right-hand side variables represent demand and supply factors for legislation.

Demand for legislation is hypothesized to be determined by three factors: general attitude toward collective bargaining (ATTITUDE), the political strength of the interest groups which are expected to benefit from such legislation (IG) and the existence of limited bargaining laws (LBL). In general, people demand legislation that protects their preferences. The more favorable the general attitude toward collective bargaining, the more voters will demand legislation that grants collective bargaining rights to public employees. In this study, four explanatory variables are used to measure variation in the general attitude: COPE score, right-to-work laws, per capita income, and a south region dummy.

The COPE score is the fraction of votes by a state's delegation to the U.S. House of Representatives consistent with the AFL-CIO's position on issues of interest to organized labor. If we accept the argument that in general politicians vote the preference of their constituents (Kau, Keenan, and Rubin 1982), the COPE score is likely to reflect the extent of prounion attitude in their states. In a similar vein, the existence of unfavorable laws toward unions and collective bargaining in the private sector, such as right-to-work laws, is likely to reflect antiunion or more conservative attitudes of a population. Per capita income is expected to have a positive sign. Where per capita income is lower, the state is likely to be less industrialized, thus more conservative. Marshall (1967:319-20) maintained that less developed regions tend to resist unions and collective bargaining because they are

regarded as a barrier to attracting industry. Higher income may also be associated with higher demand for public service, which in turn increases the power of public employees in collective bargaining and political arenas (Farber 1988). A dummy variable for the south region is included to capture a strong antiunion attitude in this region.

Another determinant of the demand for legislation is the political strength of the interest groups that are expected to benefit from such legislation. Due to infrequent, simultaneous, and universal participation, it is very costly for individuals to get comprehensive information in a political decision-making process. Moreover, legislation of public sector collective bargaining may be of little or no direct concern to most people. These characteristics of the political decision-making process allow relatively small interest groups to influence the process (Stigler 1971). This study includes four variables that are intended to capture variation in the political strength of the interest groups which are expected to benefit from such legislation: relative size of public employees, their average earnings, urbanization rate, and unionization rate.

Since collective bargaining is likely to improve their wages and working conditions, public employees are the most important interest group that demands the legislation. The number of public employees and their average income directly influence the amount of votes and resources the public employee group can mobilize. Urbanization representing a regional concentration makes it easier for the public employee group to organize a campaign to obtain favorable legislation and reduces the free-rider problem (Stigler 1971). However, it also should be noted that some of these variables may have countervailing effects. As the relative size of public employees grows, the effect of wage increases in the public sector on taxes becomes larger, which may provoke opposition among the public to the legislation. Public employees with relatively high earnings may be less interested in collective bargaining. Thus the nature of net effects of these variables remains an empirical question.

Private sector unions may also benefit from public sector bargaining because many have mixed membership consisting of both public and private sector divisions. In addition, the legislation may signal a general prounion climate that increases union security in the private sector and reduces the psychological costs of potential members to join unions (Hunt et al. 1985). The fraction of the state work force unionized is included as a proxy of the strength of private sector unions.

The existence of limited bargaining laws, such as permissive bargaining laws or meet-and-confer laws, may have complicated effects on the demand for the legislation.² On one hand, the limited bargaining laws may facilitate

the legislation if the limited bargaining laws strengthen the power of public employees in the political decision-making process. If the limited bargaining laws do not have any real effects, people may recognize the inadequacy of the limited bargaining laws in promoting collective bargaining in the public sector, which in turn may increase the demand for more probargaining laws. On the other hand, the limited bargaining laws may reduce demand for the legislation to the extent that these laws satisfy public employees and the unions' concerns (Saltzman 1985).

As supply factors for legislation, the strength of opposition to legislation by other interest groups (OG) and the fraction of contiguous states with public sector bargaining laws (CT) are included in the model. The political cost associated with legislation is likely to be large if other interest groups oppose the legislation strongly. It is assumed that employers in the private sector have a strong incentive to oppose the legislation because, as mentioned above, such legislation may strengthen private sector unions and increase taxation. The number of unfair labor practices charges against employers per representation petition is used as a proxy for the extent of opposition of private sector employers toward unions.

According to Sharkansky (1970), contiguous states tend to adopt similar policies because they share similar socioeconomic characteristics, and state officials tend to consult frequently with contemporary officials in contiguous states when they face problems or develop new policies. In addition, the existence of bargaining rights in contiguous states may affect the demand for similar legislation to the extent that it produces feelings of relative deprivation among public employees. The fraction of contiguous states with mandatory bargaining laws (CT) is included in the model to capture the tendency that contiguous states adopt similar policies. Saltzman (1985) found that the fraction of contiguous states with mandatory bargaining laws was the most important predictor of enactment of more probargaining laws.

Data and Model Specification

This study investigated state legislation of mandatory bargaining laws covering state employees during the period of 1965-91. A mandatory bargaining law was defined as a law that imposes the duty to bargain on public employers. Table 1 reports descriptions, means, and standard deviations of the explanatory variables.^{3,4}

To investigate the effects of the explanatory variables on state legislation, an event history analysis was used. The model used in this study can be expressed as follows:

(2)
$$\mu(t) = \mu_0(t) * \exp(\beta X),$$

TABLE 1 Descriptions, Means, and Standard Deviations

Variable	Mean (s.d.)	Description
COPE	.46	Fraction of votes by state's delegation to U.S. House of Representatives consistent with AFL-CIO approved
	(.23)	position on issues of interest to organized labor.
Right	.53	l if a state has a right to work law.
to Work	(.50)	
Income	13.60	Per capita personal income in thousands of 1990 dollars.
	(2.55)	
South	.46	1 of southern census region.
	(.50)	
State	147.16	Number of full-time equivalent state employees per 10,000 population.
Employee	(41.48)	
Earning	1.92	Average earnings of full-time state and local government employees in October in thousands of 1990 dollars
	(.34)	(excluding education employees).
Urban	64.60	Fraction of state population residing in urban areas.
	(13.78)	
Union	19.08	Fraction of workforce in state unionized.
	(8.89)	
ULP	2.84	Number of unfair labor practices charges against employers per petition for representation by labor organizations.
	(2.37)	
LBL	.29	1 if a state has a permissive bargain law or a meet and confer law.
	(.45)	
Contagion ¹	.20	Fraction of contiguous states with mandatory bargaining laws.
	(.25)	
Dummy70-74	.22	1 for the period of 1970-1974.
	(.41)	
Dummy75-79	.17	1 for the period of 1975-1979.
	(.35)	
Dummy80-84	.15	1 for the period of 1980-1984.
	(.36)	
Dummy85-91	.19	1 for the period of 1985-1991.
	(.36)	

N = 859 state-years.

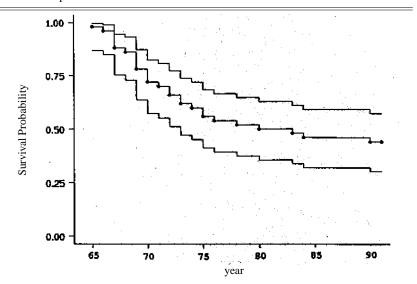
Based on 48 states (N = 843 state-years).

where $\mu(t)$ is an instantaneous hazard rate of state legislation over time, and β and X represent vectors of coefficients and explanatory variables. Maximum likelihood estimation procedure was used to estimate the model.

Results

Figure 1 shows the survival function estimated by the Kaplan-Meier estimation procedure. The figure shows that the hazard rate decreased gradually over time, especially during 1980s. The Kaplan-Meier estimation, however, can be a useful method only when explanatory variables have relatively weak effects on the hazard rate. To investigate the functional form of baseline hazard rate after controlling for the effects of the explanatory variables, a piecewise exponential model with the explanatory variables was estimated. The results in Table 2 (model 2) show no evidence for time dependence after controlling for the effects of explanatory variables. A likelihood ratio test between the exponential model (model 3) and the constant only model (model 1) can reject at the 0.01 confidence level the hypothesis that all coefficients of explanatory variables are zero. Thus the subsequent discussion is based on the results of the exponential model that assumes a constant hazard rate over time. Model 4 included the contagion effect as an independent variable. This model was estimated separately because Hawaii and Alaska do not have any adjacent states, thus they were excluded from the analysis.

FIGURE 1
Kaplan-Meier Survival Function with Greenwood Confidence Limits



(3) $(4)^{1}$ (1) (2) β β β β $\exp(\beta)$ exp (β) 0.017 Constant -3.391 -4.934-4.573 0.101 -4.059(3.168)(3.242)(0.172)(3.383)Dummy70-74 -0.331(0.601)Dummy75-79 -1.089(0.773)Dummy80-84 -0.913 (1.230)Dummy85-91 -2.874 (1.645)COPE 1.029 1.053 2.866 0.894 2.445 (1.518)(1.247)(1.437)Right to Work 0.318 0.336 -1.209-1.146-1.091(0.699)(0.654)(0.630)Income 0.373 0.214 1.239 0.087 1.091 (0.205)(0.156)(0.214)South 0.147 0.173 -1.836-1.918-1.753 (0.814)(0.760)(0.865)State Employee 0.004 0.004 1.004 0.002 1.002 (0.010)(0.009)(0.009)0.772 Earning 0.436 -1.259 -0.829 -0.340(0.993)(1.033)(1.180)Urban -0.005-0.0010.999-0.0001.000 (0.023)(0.021)(0.030)

0.000

(0.042)

-0.256

(0.090)

0.651

(0.466)

103.166

-0.028 (0.044)

-0.102

(0.123)

0.866

(0.542)

100.363

1.000

0.774

0.917

0.004

(0.051)

(0.095)

0.707

(0.474)

0.755 (1.493)

98.024

-0.201

1.004

0.818

2.028

2.128

TABLE 2
Estimates of Proportional Hazard Models

122,932

Union

ULP

LBL

-LL

Contagion

Among the general attitude variables, the coefficients of the right-to-work law and the south region were significant at the 0.05 level using a one-tailed test. A right-to-work state had a hazard rate that was less than one-third of that in states without right-to-work laws. The hazard rate in southern states was only one-seventh of the hazard rate in other regions. The coefficient of the per capita income was also significant at the 0.1 level using a one-tailed test. The hazard rate increased by 24% as income increased by \$1,000. The COPE score was not significant at conventional levels of significance.

¹ Excludes Alaska and Hawaii. Standard errors in the parentheses.

None of the variables for the interest groups that are expected to benefit from the legislation were statistically significant. The coefficient of the limited bargaining laws was positive, which implies that the existence of limited bargaining laws increased the hazard rate by 92%. Due to the large standard error, however, it failed to be significant at the 0.1 level in a two-tailed test.⁵

The results also show that opposition to the legislation by private sector employers reduced the hazard rate significantly. The hazard rate decreased by 23% as the number of unfair labor practices charges against employers per representation petition increased by 1. Consistent with the previous studies, the coefficient of contagion effect was positive, but its large standard error prevented any precise estimation.

Conclusion

This study investigated determinants of state legislation of public sector collective bargaining during the period of 1965-91. By applying the public choice theory to state legislation and utilizing event history analysis, this study overcame theoretical and analytical shortcomings of previous studies. However, this study found only weak support for the public choice theory. Among the explanatory variables, the general attitude toward collective bargaining and the extent of private sector employers' opposition to unions were significant predictors of the passage of mandatory bargaining laws. Other factors, such as the political strength of interest groups that are expected to benefit from the legislation, the existence of limited bargaining laws, and the fraction of contiguous states with mandatory bargaining laws, however, did not affect the legislation.

These findings are inconsistent with the previous studies that found support for public choice theory. One possible explanation is the relative ineffectiveness of state employee groups in the political arena. Such relative ineffectiveness of state employees is evident in that state employees tend to have less comprehensive bargaining rights than police, fire fighters, and teachers (Kochan 1973). Another factor that may account for the inconsistency is measurement error, which attenuates a relationship between two variables and causes a downward bias. Previous studies showed that such bias is likely to be larger in longitudinal studies than in cross-sectional studies (Freeman 1984).

However, the inconsistency may also be attributed to the analytical short-comings of previous static studies. Cross-sectional studies focus on the association between laws and various explanatory factors at the time of data collection rather than at the time of legislation. In addition, cross-sectional studies cannot incorporate temporal variations in explanatory variables within states. Due to these limitations, the results of previous cross-sectional

studies are likely to be biased and should be interpreted with caution. However, further research on other occupational groups with more accurate measures is needed to sort out the alternative explanations.

Endnotes

- ^{1,2} I appreciate an anonymous reviewer for the comment.
- ³ Two series of data sets were combined to construct state-level unionization data for the period. One was the data published by the U.S. Bureau of Labor Statistics that covers the even years from 1964 through 1978. The other was Hirsch and MacPherson's union membership data set compiled from the CPS that covers from 1983 and 1991. To construct consistent time series for unionization by state, unionization rates for the odd years between 1964 and 1978 and for the years between 1978 and 1983 were calculated by interpolation.
- ⁴ The mean of the absolute values of the correlation coefficients between the independent variables was .22. The highest correlation was .67 between the per capita income and the earnings and only five correlation coefficients were higher than .5. The correlation table is available from the author upon request.
- ⁵ Two-tailed tests were used for the interest groups and the limited bargaining laws because the hypotheses for these variables were nondirectional.

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Unequal Bargaining Power: An Alternative Account for the Repeat Player Effect in Employment Arbitration

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While grievance arbitration is a well-regarded means of resolving disputes that arise in a collective bargaining relationship, nonunion employers are putting arbitration to a new and controversial use. Employers are unilaterally imposing on employees arbitration agreements covering all disputes arising out of employment, including statutory claims through contracts of adhesion, usually in the form of personnel manuals or from employment contracts. This new use of arbitration is termed "employment arbitration." This paper briefly examines the concern that employers, as repeat users of arbitration, may have certain advantages compared with employees who, unlike labor unions, are generally one-time users.

Arbitration law first developed in the context of labor and industrial relations. Turn-of-the-century judicial resistance to arbitration was overcome by legislation, specifically the Federal Arbitration Act (9 U.S.C. Sec. 1, et seq.) and subsequent state versions of the Uniform Arbitration Act. The United States Supreme Court cemented the current favorable judicial attitude to arbitration in its landmark Steelworkers Trilogy cases (United Steelworkers v. American Mfg. Co., 363 U.S. 564 [1960]; United Steelworkers v. Warrior & Gulf Navigation Co. 363 U.S. 574 [1960]; and United Steelworkers v. Enterprise Wheel & Car Corp. 363 U.S. 593 [1960]). The cases eventually formed the basis for a similar policy under the Federal Arbitration Act that governs nonunion employment arbitration agreements subject to the interstate commerce jurisdiction of Congress, excluding a narrow class of certain workers (see Prima Paint Corp. v. Flood & Conklin Manufacturing Co., 388 U.S. 395 [1967]).

However, in the early 1990s, a new use for arbitration began to gain favor. Large employers, weary of the uncertainty posed by employment litigation before juries, sought to limit their exposure to the outlier jury award

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by requiring employees not represented by a union to agree, as a condition of initial or continued employment, to arbitrate all claims arising out of their employment, including statutory claims arising out of federal and state law (Dunlop and Zack 1997). In Gilmer v. Interstate/Johnson Lane Corporation (500 U.S. 20 [1991]), the U.S. Supreme Court held that parties may agree to determine statutory claims under the Age Discrimination in Employment Act in a predispute arbitration agreement enforceable under the Federal Arbitration Act. An increasing number of courts have followed this lead (see generally Cole 1996; Gershenfeld 1996; Feller 1997). In the employment setting, a predispute arbitration agreement may be an adhesive contract—that is, one that is the product of unequal bargaining power presented to the other party on a take-it-or-leave-it basis and nevertheless be enforceable (Bethel 1993; Ware 1996; Estreicher 1997). In Cole v. Burns International Security Services (105 F.3d 1465 [D.C. Cir. 1997]), the court followed Gilmer and held that predispute agreements to arbitrate statutory employment discrimination claims were enforceable but that the employer could not effectively deprive the employee of a forum by imposing the substantial costs of arbitration on the employee. Employers must thus bear the full freight of the arbitrator's fee. The court rejected arguments that it would be a perversion of the arbitration process to have the arbitrator paid by only one party to the dispute, reasoning that if an arbitrator is likely to lean in favor of the employer, it would be because the employer is a source of future arbitration business and not because the employer alone pays the arbitrator. The court asserted there were protections against arbitrators systematically favoring employers as the source of future business, citing arbitrator codes of ethics, and the threat of increased judicial review of employment arbitration awards.

Since *Gilmer*, the use of employment arbitration has grown dramatically. While an earlier study found only 4 of 111 employers used outside arbitration in 1991 (Feuille and Chachere 1995), by 1995, the GAO found that 10% of all employers with 100 or more employees use binding arbitration for employment disputes, and as many as half of these may impose mandatory arbitration as a condition of employment (U.S. General Accounting Office 1995). There has been a grassroots effort within the dispute resolution community to regulate employment arbitration (Hayford and Peeples 1995; Dunlop and Zack 1997). A number of major players gathered to work out desirable ground rules for employment arbitration and published "A Due Process Protocol for Mediation and Arbitration of Statutory Disputes Arising Out of the Employment Relationship" (AAA 1996a), which was signed by representatives of the National Academy of Arbitrators (NAA), the American Bar Association, AAA, National Employment Lawyers Association,

American Civil Liberties Union, and others (see generally, Dunlop and Zack 1997). The provisions were incorporated into the AAA's National Rules for the Resolution of Employment Disputes (AAA 1996b). Unlike the previous arbitration rules, the "Protocol" attempts to address how the employer may structure the dispute resolution process. The "Protocol" recommends (1) freedom of choice of representative; (2) adequate but limited prehearing discovery; (3) providing the parties with references from the arbitrator's most recent six cases; (4) arbitrator training in employment law; (5) an enhanced duty for the arbitrator to disclose any relationship that might reasonably constitute or be perceived as a conflict of interest; (6) an arbitration award setting forth a summary of the issues, including the type of dispute and damages or other relief requested and/or awarded; (7) a statement of the issues and the statutory claims; and (8) joint selection and shared compensation of the arbitrator. The participants were unable to reach consensus on the enforceability of predispute agreements to arbitrate, giving rise to what has been termed "mandatory arbitration." AAA (1996a) Rule 11(b) requires arbitrators to disclose "all information that might be relevant to the standards of neutrality set forth in this Section, including but not limited to service as a neutral in any past or pending cases involving any of the parties, or that may prevent a prompt hearing." It also guarantees a right to counsel. On May 21, 1997, the NAA adopted a policy opposing "mandatory employment arbitration as a condition of employment when it requires waiver of direct access to either a judicial or administrative forum for the pursuit of statutory rights" (NAA 1997). Similarly, on July 11, 1997, the Equal Employment Opportunity Commission (Vargyas 1997) took a position against mandatory arbitration of claims arising under Title VII of the Civil Rights Act.

Scholars have suggested that success in any forum is a function of a variety of factors including the rules, the institutional facilities, lawyers, and the nature of the parties (Galanter 1974). Institutional repeat players may fare better than one-shot players as a function of a variety of structural advantages, such as experience leading to changes in how the repeat player structures the transaction, expertise, economies of scale, informal continuing relationships with the people in the forum, bargaining reputation and credibility, access to specialist counsel, and lobbying for rules changes. Industrial and labor relations scholars have speculated that arbitration might function differently in the employment context, where only the employer is a repeat player, than it does in the traditional labor relations framework, where both employer and union are repeat players (Edwards 1993; Denenberg and Denenberg 1994). In labor arbitration, where both employer and union are repeat players, traditional outcome measures reveal a rough parity in outcomes (Thornton and Zirkel 1990). In a recent

study of 3,949 public and private sector published labor arbitration cases, grievants won their cases in whole or in part 52% of the time, and in a subsample of 1,427 discipline cases, grievants won their cases in whole or in part approximately 57% of the time (Mesch 1995). Others have observed that labor arbitration cases generally split 50:50, with unions winning grievances in whole or in part about half the time, and these results are based on records including unpublished awards (Feuille 1997, n. 72).

There is limited empirical research on employment arbitration. One study (Howard 1995) found that mean and median jury verdicts in employment discrimination cases were at least three times higher than comparable mean and median arbitration awards. Another recent study (Bickner, Ver Ploeg, and Feigenbaum 1997) found that most employment arbitration procedures were developed in the last two years and that over 75% of the employers surveyed adopted the plans to reduce litigation costs, while only 15% of employers did so to improve employee relations or give employees a voice. Most plans were developed by human resources staff and legal counsel without employee input. About 75% of the plans made arbitration a condition of employment, and 10% of the plans prohibited employees from using outside counsel. Almost 15% of the plans provided for unilateral employer selection of the arbitrator. All of this provides empirical evidence for Galanter's (1974) proposition that repeat players have strategic superiority in that they can structure a transaction to their advantage.

In comparison, a one-year sample of 1992 AAA Commercial Arbitration awards revealed no evidence of a systematic pro-employer bias (Bingham 1995). That study examined arbitration outcomes in relation to the variables of who filed the claim (employer or employee) and whether the arbitrator received compensation (under prior rules arbitrators served pro bono if the case took only one day to hear). Under the commercial rules, either the employer or the employee could file a claim or demand for arbitration. Typically, employees filed claims arising out of dismissal, while employers sought to recover unearned commissions, cancel stock options, or enforce covenants not to compete. Employees had superior outcomes on their own claims relative to employers on their claims both in terms of win rate (2.8:1, or winning something about 74% of the time) and percentage of demand recovered as damages, whether or not the arbitrator was compensated. Employees recovered 39% of their demand when the arbitrator was compensated, but employers only recovered 10% of theirs. In pro bono cases, employees recovered on average 62% of their demand, while employers recovered only 44%. This study tended to indicate arbitrators were not responding to a financial incentive of repeat business by generally favoring all employers.

Effective January 1, 1993, the AAA implemented its Employment Dispute Resolution Rules (employment rules); this was a new set of rules for the arbitration of nonunion employment disputes (AAA 1993). Nonunion employment disputes had been covered for many years primarily as a special area under the AAA's Commercial Rules (AAA 1992), but the new rules were designed to meet the growing need for dispute resolution for employment cases generally. An empirical study provided the first evidence that there were repeat player employers using arbitration pursuant to the terms of unilaterally imposed personnel handbooks or policies (Bingham 1996). The sample of employment cases available was too small (n = 28), however, to do more than identify emerging concerns about due process.

Bingham (1997) examined a 270-case sample consisting of arbitration awards decided in 1993 under the AAA Commercial Arbitration Rules (n = 186) and arbitration awards decided in 1993 and 1994 under the AAA Employment Dispute Resolution Rules (n = 84). These were cases decided before the existence of the "Due Process Protocol for the Mediation and Arbitration of Statutory Employment Disputes" and before the AAA adopted the National Rules for the Resolution of Employment Disputes (effective June 1, 1996). Thus the arbitration award decision patterns reflected the earliest period of employment arbitration, before new procedural protections were put into place. The study compared employee outcomes when the employer is a repeat player (i.e., in the case sample more than once) with employee outcomes when the employer is a one-time player in the sample.

The study found that arbitrators awarded employees damages in any amount in statistically significantly lower frequencies when the employer was a repeat player. Employees arbitrating with one-time player employers won something at the rate of 2.4:1, or over 70% of the time. Employees arbitrating with repeat player employers won something at the rate of 1:5.2, or about 16% of the time. Employees also had significantly lower outcomes in cases involving repeat player employers and recovered only 11% of what they demanded, on average, while in cases involving non-repeat player employers, employees recovered an average of 48%, a difference that was statistically significant.

Method

The instant study examines a sample of 203 cases, consisting exclusively of cases decided under the Employment Dispute Resolution Rules of the American Arbitration Association during the period from January 1, 1993, through December 31, 1995, before the effective date of the Due Process Protocol. Only cases which resulted in an award during this time period

were examined. This study represents a macrojustice assessment of employment arbitration; in other words, the study examines the overall pattern of outcomes produced by the dispute resolution process in a sample of actual cases, without controlling for the merits of the individual case beyond identifying the source of the agreement to arbitrate (Todor and Owen 1991). Cases were excluded on one of the following grounds: (1) essential information was missing, (2) the award represented a settlement or stipulated award, or (3) the case was not an employment dispute but instead a partnership or real estate dispute. For each case, the researcher examined, where available, the demand for arbitration, arbitrator's award, and AAA closing data sheet. Most of these awards contained more information than the traditional commercial style award, because the Employment Dispute Resolution Rules require the arbitrator to write a reasoned decision. Table 1 shows the characteristics of the sample of awards.

TABLE 1
Descriptive Statistics of Sample

	Demand			Damages Amount			utcome		
	M	SD	Med	M	SD Med	M	SD	Med	
ER Claims	\$ 41,083	71,239	15,000	12,027	37,329 0	.23	.37	0	
EE Claims	\$165,128	507,726	21,254	49,030	188,299 0	.25	.41	0	
All Claims	\$153,541	485,111	18,450	45,869	180,645 0	.25	.41	0	

Independent variables include whether the case is an employer or an employee claim, because under the Employment Dispute Resolution Rules, either party may file a claim. Other independent variables include whether the case involves a personnel manual (implied contract) or an express written contract; whether the case involves a repeat player employer, defined as an employer who uses arbitration more than once in the sample; whether the case involves an employer making repeat use of a single arbitrator (using the same arbitrator for more than one case in the sample); and the amount of the claim or DEMAND. Dependent variables include the dollar amount of damages (DAMAGES AMOUNT), and the percentage of claim recovered (a ratio of DAMAGES AMOUNT divided by DEMAND named OUTCOME). In addition, a dichotomous variable entitled RELIEF was created to indicate a win by the claiming party of any amount or a recovery of other equitable relief, such as reinstatement of the employee.

Results

Repeat player employers do better in employment arbitration than non-repeat player employers (see Table 2). This distribution shows that

employees lose with significantly greater frequency when they arbitrate with a repeat player employer, Pearson Chi-Square 30.0609 (DF 1) P < 0.00001.

TABLE 2
Relief by Repeat Player or Non-repeat Player Employer, Employee Claims Only

	Non-repeat Player	Repeat Player	Total
No Relief	38 (22%)	46 (26%)	84 (48%)
Relief	77 (44%)	14 (8%)	91 (52%)
Total	115 (66%)	60 (34%)	175 (100%)

Employees lose more frequently when the arbitrator is one the employer has used at least once before (see Table 3). This distribution shows statistically significant differences in the employee win rate, Pearson Chi-Square 6.5951 (DF 1) P< 0.01.

TABLE 3
Relief by Repeat Arbitrator, Employee Claims Only

	Non-repeat Arbitrator	Repeat Arbitrator	Total
No Relief	69 (39%)	15 (9%)	84 (48%)
Relief	86 (49%)	5 (3%)	91 (52%)
Total	155 (88%)	20 (12%)	175 (100%)

However, these patterns largely correspond with differences in the nature of the basis for arbitration. Repeat player employers get to arbitration based on an implied contract stemming from a personnel manual or employee handbook. Generally, Table 4 shows that employees more frequently lose cases stemming from such a manual or handbook. Again, this distribution shows statistically significant differences in the employee win rate, Pearson Chi-Square 35.3362 (DF 1), P< 0.00001.

TABLE 4
Relief by Personnel Manual, Employee Claims Only

-	Claim based on Express	Claim based on Implied Contract		
	Contract or other ground	Personnel Manual or Handbook	Total	
No Relief	34 (20%)	48 (28%)	82 (48%)	
Relief	75 (44%)	13 (8%)	88 (52%)	
Total	109 (64%)	61 (36%)	170 (100%)	

Another dependent variable is OUTCOME, the ratio created when the damages awarded by the arbitrator are divided by the amount the

employee demanded. To identify the relative roles of an employer's repeat player status and the personnel manual or handbook as the source of an agreement to arbitrate, a two-way analysis of variance was conducted using OUTCOME as the dependent variable and REPEAT PLAYER and PERSONNEL MANUAL as factors. The anova was significant as to the interaction between the two independent variables, F=5.005, DF (1,151), P<.03. The presence of both factors together signals a poor outcome in arbitration for the employee.

Discussion

The repeat player effect is a cause for concern, because in dispute resolution, sometimes the perception of fairness is as important as the reality. There is undeniably a repeat player effect in employment arbitration; this study replicates findings in the earlier study of 270 Commercial and Employment Dispute Resolution rules cases (Bingham 1997). However, the problem is to account for it. The current study begins the process of examining the relationship between the effect and the merits of the cases. An employee arbitrating pursuant to a personnel manual may have a substantively weaker legal claim which contributes to the relatively weak employee outcomes. This suggests that the relative bargaining power of employer and employee is playing an important role. One interpretation of the repeat player effect is that employers learn about the process and get better at screening cases. This data set sheds no light on the question, nor can the question be answered using the methodology of this study. Only a survey or interview study of employers might reveal whether they are improving personnel practices as a result of experience with employment arbitration.

One result of this study is the finding that employees lose more frequently when a repeat player employer is making repeat use of an arbitrator. This finding is statistically significant but should be viewed with some caution, because in every case where an employer was making repeat use of an arbitrator, the case arose under a personnel manual, which might reflect weak employee bargaining power and consequently a weaker legal claim. An analysis using only cases where arbitration occurs under a personnel manual produced no significant differences between cases where the employer is making repeat use of an arbitrator and cases where the employer is using an arbitrator for the first time in the case sample. The case frequency was too low in that subsample to produce reliable significance tests, but the rates with which the two groups of arbitrators award relief appeared comparable. Moreover, personnel manuals might be more likely to produce repeat use of arbitration, since they apply to all the

employer's employees, while an express written contract applies only to the employee who signed it. It is not possible to untangle the relationship between these two variables without a larger and longer-term sample and a multivariate analysis. One question for future research is whether, among repeat players using the same basis for arbitration (a personnel manual), making repeat use of an arbitrator produces better or comparable employer outcomes.

Conclusion

These findings support proactive and preventive efforts of dispute resolution users and providers to limit the extent to which the employer has effective unilateral control over the selection of the arbitrator. All of the cases studied in this sample were decided before the Due Process Protocol and before the American Arbitration Association adopted new rules requiring arbitrators to disclose when a party is making repeat use of them. These two safeguards together lessen the employer's relative advantage in arbitrator selection. An area for future research is to examine whether the recent rule changes alter the overall pattern of outcomes in employment arbitration. Relative bargaining power plays an important role in outcomes in employment arbitration. It is one of several possible contributing factors to the repeat player effect.

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DISCUSSION

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While focusing on very different areas of labor-management relations, a common theme among the three papers in this section is their focus on the relationship between law and the industrial relations process. These three papers introduce new empirical and theoretical tools to help us understand the impact that the law and legal institutions have in the development of industrial relations.

The paper by Bingham provides an interesting and timely analysis of the repeat player problem in employment arbitration cases. Bingham analyzes a data set of arbitration decisions involving nonunionized employees and finds evidence that employers are more likely to prevail in employment arbitration cases when they are repeat players and when the arbitrator in the case is a repeat player. At first glance, this evidence would be sufficient cause for immediate concern. These findings suggest that something has gone wrong in employment arbitration cases. At worst, arbitrators have been co-opted by employers, or at best, there are some systemic biases in the employment arbitration process that merit some careful consideration.

Bingham's next finding, however, provides a possible answer to this concern. Bingham finds that the repeat player effect appears to be mingled with the substantive nature of claims raised by employees. She finds employers to experience superior outcomes when arbitration is pursuant to a personnel manual than when arbitration is pursuant to an express written contract. Indeed, Bingham finds that in cases involving express contracts claims there is no repeat player effect. This last finding is significant since it suggests that what is driving the repeat player results is not some inherent bias in the arbitrator or an advantage enjoyed by the repeat player. Instead, the problem Bingham identifies might be the result of the state of the law concerning individual employee rights, in particular the doctrine of employment-at-will. Unfortunately, as Bingham recognizes, her analysis does not allow her to disentangle these effects. Bingham should conduct further empirical testing using logistic regression analysis, which will allow her to empirically separate these various effects.

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The paper by Bruno first attempts to categorize the different attitudes and approaches that various Democratic presidents have pursued with respect to labor issues and then, in turn, attempts to define what he refers to as "presidential labor regimes." The author is successful in accomplishing the first of these two objectives. The paper, however, fails to take this approach to its next step, by failing to integrate in a systematic way the lessons learned from the historical overview it presents. For example, Bruno discusses the choice of tools a president has to influence labor policy, pointing out that Democratic presidents have used a diverse set of policy instruments to implement their labor regimes.

The question that the paper ignores, and that I think is much more interesting, is why. Why was President Kennedy, for example, more willing to implement policy by means of executive orders than any of the other four presidents? Is there a nontrivial relationship between the policy instruments chosen and the outcome of the labor regime? That is, are strong (or stronger) "labor" presidents more likely to rely on the legislative instrument than "weaker" labor presidents? I also encourage Bruno to further develop the idea of the labor regime by incorporating the various pieces of the puzzle that he leaves out of his model. For example, it is hard to think of a presidential labor regime without discussing the appointment process. Particularly since the Kennedy administration and the growth of the regulatory state, it is hard to imagine any bigger concern to labor than who is appointed to design and implement federal policies. Similarly, to further explore the concept of the labor regime, Bruno should also incorporate in his model other political actors such as Congress and the judiciary.

Park's paper provides an empirical analysis of the determinants of public sector collective bargaining laws. Park develops a supply and demand model to explain the probability that a state will enact legislation imposing a duty to bargain on public employers. The paper suggests that while supply factors appear to affect the likelihood of enacting favorable public sector bargaining laws, demand factors are insignificant. Park concludes that the results of the paper provide only weak empirical support for the public choice theory of regulation.

While Park's empirical analysis is a welcome development in the study of public sector labor relations, there are several potential problems with his paper. First, as Park recognizes in the conclusion to the paper, many of the hypotheses he makes are not as clear as initially suggested. Thus the lack of statistical significance can be the result of a poorly specified set of hypotheses. Second, there might be problems with the specification of the model. Park includes in his model a variable that measures the presence in a state of a permissive bargain law or a meet-and-confer law (LBL). This

variable is likely to be affected by the other independent variables included in the model. That is, whether a state already has a bargaining law is likely to have been affected by the same factors that affect the enactment of more favorable laws. Park should discuss whether this problem is in some way affecting the results. This variable also presents a further problem. The analysis does not control for the period of time since the enactment of the existing statute. Obviously, in a state where the issue of bargaining rights has been recently addressed by the legislature (whether with a favorable or unfavorable outcome from the perspective of labor), it is highly unlikely that any further legislative action will be taken.

The three papers reviewed here all illustrate the significance of carefully analyzing the effect that the law, legal institutions, and the players involved in administering the law have in the development of industrial relations. Park challenges existing theories concerning the important question of the determinants and antecedents of the enactment of prolabor legislation at the state level. Bruno reminds us of the importance of carefully analyzing the various "actors" that play a role in the development of national labor policies. Bingham sheds some light into what has been and is likely to continue to be a major institution in the development of individual employees rights for the year to come: grievance arbitration in the nonunion sector. The three papers raise some extremely important questions, and they provide the foundation for what we hope will be a lively and interesting debate.

DISCUSSION

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These three papers share the broad theme of addressing issues regarding the adoption and effects of labor policies and legislation. They diverge substantially in the unit of analysis, methodology, and research questions posed. Therefore, each paper will be discussed separately.

Bruno's paper describes attitudes and actions of Democratic presidents starting with Truman and ending with Clinton. His paper explores the contradictions in words, behavior, and actions of each president. Particularly provocative is the elucidation of how past presidential patterns of action regarding their labor record before entering the presidency do not necessarily portend their actions and attitudes towards labor once in office. This implies that the measures that we choose to employ in empirical work to represent political views and actions allude to the total story but leave out fundamental elements. For example, Kennedy's high COPE score as a senator and Johnson's congressional record fraught with antiunion animus belie both of their presidential positions of moderate labor support. Empiricists are keenly aware of their imperfect measures, but this paper serves as a potent reminder of the problems of COPE scores, voting records, and party membership as clear-cut measures of labor support.

Despite the benefits obtained from in-depth, descriptive analyses, this paper is still an interpretation. For example, an alternative explanation for Clinton's record of intervention in work stoppages might explain Clinton's behavior consistent with the diverging legislative edicts regarding presidential intervention in labor disputes between the Railway Labor and Taft-Hartley Acts. The Railway Labor Act was clearly designed to avert work stoppages through government intervention, while Clinton's refusal to invoke the emergency dispute provisions of Taft-Hartley is also consistent with the spirit of this legislation that was clearly designed to use the presidential emergency provisions as an extreme last resort. Thus Clinton may have been acting more within the spirit of these respective legislative edicts than acting out a particular labor agenda. Thus I believe that this paper would benefit from viewing presidential actions in light of their environmental context. I

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would also like to see a parallel paper addressing Republican labor regimes. For if Democrats were regime stabilizers, as suggested in this paper, then maybe we would find the same of Republicans (with some notable exceptions).

The next paper by Park, examines the adoption of public sector collective bargaining laws against a theoretical framework of economic regulation and event history analysis. Unlike prior cross-sectional work, he uses a hazard model to capture the changes across time. Despite his strong methodology, he finds only that right-to-work laws, southern states, and a history of unfair labor practices seem to affect the probability of having a public sector bargaining law. Thus these "labor climate" variables appear as significant predictors of labor's success in obtaining key legislation. Further, these variables suggest conditions that reduce, rather than enhance, the probability of obtaining legislation. Only the state's per capita personal income was marginally significant in predicting an increase in the probability of passage. In fact, variables such as COPE scores, unionization, and the existence of permissive bargaining laws did not influence an increased probability of adoption. Variables specific to the state's public employees (numbers and earnings) were also insignificant. These results thus suggest that a favorable labor climate is not what is important in the adoption of mandatory bargaining laws. Rather, what appears central is to have a climate that is not unfavorably disposed toward labor. Given these results, exploration of other climate type variables in greater detail may be instructive.

Bingham's paper addresses the idea that alternative dispute resolution procedures may have the scales tipped against employees when the employer is a repeat-player and the employee does not have representation. She raises concerns that arbitrators might often side with employers because of the possibility of future selection by them, that employers may have more information about arbitrators' records, and that employers can structure the personnel manual to favor their position in arbitration. Nevertheless, she raises the possibility that employers also win more often because they learn to bring better arguments and cases forward. She provides evidence (note the relatively small sample size) that repeat-player employers, repeat arbitrators, and personnel handbook cases tend to win more often. Further, the interaction between repeat players and the personnel manual further reduces favorable employee outcomes. Still, the paper did not control for other key factors such as the presence of legal representation for employees and the merits of the case.

As indicated in this paper, the issue of repeat players can be relatively easily resolved by the random assignment of arbitrators. However, this policy change still leaves troubling issues regarding the unequal bargaining

power between employees and employers in dispute resolution. First, the fact that the employer writes the personnel manual still remains disquieting. How can policies be constructed that level the playing field while allowing the employers the freedom to establish employment policies that reflect their unique situations? A second issue concerns the lack of sophistication of unrepresented employees in making logical, informed, and dispassionate arguments that hinder their effectiveness in arbitration. Yet, do alternatives exist to provide nonunion representation without involving expensive attorneys? This paper suggests that further research is needed to uncover the key issues that underlie the repeat-player effect.

These three papers represent the breadth of the field regarding labor-management relations and the law. They address presidential attitudes and actions, public sector state legislation, and policies. If there is a common theme among these papers it is that they demonstrate how we, in labor-management relations, continue to seek and understand the balance between the rights of employer and employees.

III. INSIDE THE FIRM: IMPLICATIONS FOR LABOR MARKET OUTCOMES

From Piece Rates to Time Rates: An Exploratory Study

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A good boot is worth all the art in the world.

Mikhael Bakunin

From the days of the cordwainers in the 19th century, if not earlier, the dominant method of pay in the shoe industry has been piecework. Through the 1980s the majority of U.S. shoe manufacturing firms used piece-rate methods of pay (U.S. Dept. of Labor 1987). By contrast, in 1997, following decades of intense import competition, almost 80% of the employees in the industry are paid primarily by time rates.¹

Why did firms throughout the industry change practices that had been in place for decades? Do time rates offer a competitive edge to firms facing low-wage foreign competition, despite the likely higher productivity with piece-rate incentives? What is that competitive edge?

To answer these questions, this paper uses industry data and information from a major U.S. shoe firm, which we will call "Big Foot" or BF.² We find that the movement from piece rates to time rates did not adversely affect profits at BF despite a decline in shoes produced per worker. Instead, profitability rose in the face of intense foreign competition, as time rates reduced labor costs and workers' compensation insurance costs and inventories and

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made it easier for BF to introduce more new, high-quality shoe lines. In addition, we find that even under piece rates, normal productivity is considerably below the productivity that workers can reach by "full effort."

The Economic Situation in the American Shoe Industry

The U.S. shoe industry has contracted massively since the 1960s, with the vast majority of firms closing in the face of foreign competition. Employment in the industry is less than one-fifth of what it was during the mid-1960s. Almost 800 plants closed during the period, and there have been almost no startup shoe plants, though some firms, like BF, however, have bought and reopened or maintained the plants of firms that have gone out of business. Growth of imports accounts for the decline of the U.S. shoe industry. For example, import penetration changed from 13% of consumption of shoes in 1966 to 90% in 1996, with most of the increase occurring between 1976 and 1986. Average hourly wages of production workers for the ten largest importing countries to the U.S. using exchange rates to transform foreign currencies into U.S. dollars shows that only Italy pays its production employees more than the U.S. Most countries that export shoes to the U.S. pay only a fraction of U.S. wages.

What makes foreign competition so strong is that the technology for the production of shoes and boots is firmly established and has relatively low capital requirements. Capital includes a sewing machine, hand cutting of leather goods, and sole attachment equipment. The skill requirements are good hand-eye coordination rather than high levels of education or the use of sophisticated computer equipment. Labor's share of value-added is relatively high—on the order of 40% (U.S. Department of Commerce 1997). There are economies of scale in the shoe business associated with brand names as shown by the large international firms such as Nike in the marketing, production, and distribution system. But even in the declining shoe sector, some U.S. manufacturing firms have survived and remain profitable. For the most part these have been firms that maintain a niche market in high-quality products. The firm that we examine produces work shoes and boots and maintains a strong presence in the high price and quality end of the market.

Until the late 1980s, over half of the American shoemaking companies paid their workers using piece-rate methods of pay. With increasing foreign competition, American firms looked to ways of using "total quality management" to enhance their competitiveness. This method of production requires teamwork and batch process methods of production. It requires that employees know many different tasks rather than just one. In a phone survey of major shoemaking firms, we found that BF was among

the last major firms in the industry to switch its method of pay to time rates. This creates a potential selectivity bias in our analysis: perhaps BF did not make the switch to time rates because it benefited less from the shift than the firms that made the jump to time rates earlier. If this is the case, our estimates of the effects of the switch on profits at BF may understate the advantage for the typical firm in shoe manufacturing.

The Economics of Piece Rates and Time Rates of Pay

The study of piece-rate and time methods of pay has a long tradition in economics dating to the works of Adam Smith and Alfred Marshall. Analysis points out pluses and minuses to each method of payment from both the firms' and workers' perspective. The main plus is that piece rates give workers incentive to work hard, which should increase output and their pay. The main cost is that they may skimp on quality, producing shoddier output or using excessive amounts of materials because these workers require more material to be kept on hand. To be sure, firms can set their piece rates to penalize workers for producing poor quality shoes or using too many materials, but the more complicated the incentive scheme, the more problematic is its effect on worker performance. As long as workers gain from producing more units, quality control expenses are likely to be higher under piece rate than time rate. In addition, workers may take greater risks at the job under piece rates, which raise injuries and workmen's compensation insurance costs. The main plus from time rates is that the firm can reassign workers to different tasks without restructuring its payment system. The cost is lower output per worker and the need for foremen or others to watch workers to reduce shirking. In Lazear's (1996) model, firms on time rates save on monitoring costs and pay lower wages, but workers put in less effort.

Piece-rate systems are expected to raise average pay of workers due to the incentive effect and to increase the variation in pay among workers, since the more able or hardworking are rewarded for their production, while the less able or less hardworking remain at the job producing fewer pieces. By contrast, under time-rate systems, employees that do not produce at some minimum level of effort are discharged. Empirical studies of time-rate versus piece-rate modes of pay tend to support the predictions of simple theoretic models.

To assess the economic benefits of time-rate and piece-rate modes of pay, consider the following simple unit cost relation:

Unit Costs =
$$DLC/Q + MP/Q + Capital/Q + ALC/Q + TC/Q$$
,

where DLC is direct labor costs, Capital is the capital cost, MP is the materials or inventory in process, ALC is auxiliary labor costs (fixed costs per

worker for such charges as workers' compensation insurance), and where Q is the quantity of output. The term TC/Q refers to the transactions cost of production, by which we mean the cost of changing the mode of production to meet changes in market conditions. Under time-rate modes of pay, direct labor costs per unit of output are just WL, where WL is the market wage times person hours worked. Under the simplest piece-rate system, direct labor costs per unit of output is just W',3 where W' is the specified price per piece. Workers earn W per hour under the time-rate system and W'O'/L' per hour under the piece-rate system, where W' is the piece rate and Q'/L' is hourly productivity under piece rates. If the only factor differentiating costs under piece rate and time rates was direct labor costs, the analysis of the decision to choose piece or time modes of pay would be simple. All else the same, the firm would prefer to operate under piece rates when W' < WL/Q. All else the same, workers would prefer piece rates when W'O'/L' > W. Combining the two terms, we see that both workers and firms prefer piece rates whenever Q'/ L' > Q/L, with the division of the benefits of higher productivity presumably a function of the piece rate. If we add an equation that links the gain in productivity from piece rates to the piece rate itself, we bound the possible division of benefits: the larger the gain from productivity associated with higher piece rates, the higher will be the observed rate.

But not everything else is the same under piece rates and time rates. From the workers' perspective, piece rates are a riskier form of payment, requiring some compensating differential. From the firms' perspective, the choice of piece and time rates can affect the other terms in the unit cost equation. Two of these terms are likely to be higher under piece rates. The MP/Q is a basic inventory or quality issue. The earnings of piece rate employees depends on their having the material for production on hand, which creates an inventory buildup costly to the firm. In the shoe industry, this means piles of leather for shoes lying on factory floors. Under a simple piece system, workers may have little incentive to economize on the use of materials without financial incentives or to keep quality high, both of which presumably lead to higher MP/Q than under time rates. The principal auxiliary labor cost on which we will focus is worker occupational injury insurance, which is likely to be higher under piece rates as worker effort intensifies and employees risk injuries to produce more. We do not expect much difference in the capital requirements for piece-rate or time-rate methods of production.

The most interesting term in (1) is the transactions cost of production. Under time rates, changing what you do at work is likely to be a minor issue. The firm has bought your time and has the right to tell you what to

do when the production process or work activities change. But under piece rates, whenever the firm changes the style of output or process, it must adjust rates, since learning new processes is likely to reduce short-term output and thus earnings. The expense of changing the rate has long been recognized as a key drawback to piece-rate production. In the shoe sector a company that changes its production tasks to develop new styles more quickly and to develop more styles is likely to find higher transactions cost under piece rates.

The Big Foot Company Shift to Time Rates

The Big Foot Company mainly produces men's work shoes. Approximately 75% of production workers were on piece rates, and method of piece-rate pay was a low base approaching the minimum rate in the plant with variable pay based on the individual units produced and approved by BF. The average piece-rate worker made considerably above the base wage, with many doubling their wage. There was a deduction in pay for material waste. Between 1992 and 1994 BF switched its method of production from piece rates to time rates. This switch provides us with evidence on various elements of equation (1) under a piece-rate and time-rate regime. In addition, since the change itself was not instantaneous, we have data covering what we will call the transition period. The purpose of the BF move to a time-rate method of production was to situate its products more firmly in quality niche markets to meet import competition, to improve its cost position in terms of the auxiliary labor cost of workers' compensation insurance, and to reduce materials cost.

On the product side, BF greatly increased the number of shoe styles it produced from 106 in 1985 to 187 in 1996. The number of new styles introduced per year rose from 6 per year during the piece-rate period to 13 per year in the time-rate period. The company argues that this change allowed it to survive when most other shoe firms have become insolvent or closed and that the move to time rates has made this change in production easier to facilitate.

For firms to compete in this industry the firm states that it must provide consumers at the high end of the market with a wide variety of new types of shoes. A 1996 national survey of stores and consumers reported that the number of BF styles are important/very important for over two-thirds of their customers, shoe store owners, and managers. Moreover, the top ten styles of shoes as a percentage to total shoe sales had dropped by 20% from 1990 to 1997. This suggests the importance of having a diverse number of shoe types, and these new shoe styles were on average more profitable than continuing shoe lines. Under piece rates, workers complained through the

union that the new styles reduced their pay because they had to learn new methods of sewing or molding shoe styles. Further, the industrial engineers had to reevaluate the "value" of the styles through a detailed and time intensive process. By contrast, under time methods of pay the transactions costs were standardized and therefore lower.

BF has had the same international union in its plants for more than fifty years and must consult and negotiate with it for any proposed change in compensation policy. The company agreed to pay workers their highest wage based on piece-rate production just prior to the change in compensation policy. As a result, the employees dramatically increased their production of shoes relative to the planned rate of production. From June 1990 to June 1991 there were huge positive deviations in productivity relative to planned which reflects workers' response under piece rates to the chance to lock in a higher time rate of pay following the change and thus evidence that even under piece rates, normal productivity is considerably below the productivity that workers can reach by "full effort." During transition and thereafter, output fell to more normal levels vis-à-vis planned output, though with more periods of negative variance from the plan.

The change from piece rate to time rates affected workers substantially. The wages of older workers, who had been paid under the piece-rate system, were "red lined" at the time-rate equivalent of their piece-rate pay prior to the transition. But new workers were brought in at a lower hourly wage, suggesting that one advantage to the firm of the new system was that it allowed BF to reduce hourly labor costs. In addition, the dispersion of pay fell substantially. The variation of wages within major job categories was much lower under time rates than under piece rates, where variation is defined as the deviation of the highest and lowest wages from the average for the job category. Consistent with the results of other studies (Seiler 1984; Lazear 1996; Sherer 1996), our data show that piece-rate methods of pay result in a great deal more variation in pay than time-rate methods of compensation by job category.

We also examined a subjective measure of worker well-being: responses of employees to items from the firms' internal survey of employee attitudes, before, during, and after the transition. Virtually all employees in the plants answered the questions, and their responses were anonymous. From the survey, we have selected three measures: one for cooperation between departments, one for problems with coworkers, and an overall job satisfaction measure. In 1992 prior to the change, the majority of employees reported positively on the three measures. During the 1993 transition period, satisfaction levels took a huge drop. Satisfaction rose from 1993 to 1995, following the implementation of time rates of pay, but remained at

levels below those under the piece rate system. By 1997, another survey revealed overall satisfaction levels only slightly below the 1993 levels.

In Table 1 we present measures of productivity, profitability, and other key variables under the time-rate system using BF company data for 1996 and a simulated counterfactual of how these measures might have looked in 1996 had the company kept its piece-rate system. We estimate that the company would have had modestly lower receipts under piece rates. This

TABLE 1
Simulated Counterfactual of Change from Piece Rates to Time Rates in BF
(in thousands of 1996 dollars)

	Actual (time rates)	Counterfactual Simulation (piece rates)
Dollar value of total product ¹	\$73,375.00	\$72,584.00
Higher output from piece rates ²	0.00	4,403.00
"Lost" product lines from piece rates ³	0.00	5,194.00
Labor costs ⁴	11,411.00	14,542.00
Extra Monitoring under piece rates ⁵	0.00	269.00
Materials costs ⁶	27,821.00	26,130.00
Worker's Compensation costs ⁷	305.00	1,167.00
Extra Inventory cost from piece rates ⁸	0.00	87.00
Total product minus costs	33,838.00	30,658.00

¹ Direct Value of Total Product (DVTP) defined as wholesale price times shoes produced in 1996.

² Productivity under the piece rate system is estimated from a regression of the log of actual output on the log of the output management intended in a period, the log of total assets, the log of the number of production employees, number of styles produced in the year, a dummy variable for the years 1990-91, the "redline period," and a dummy variable for the time rate period 1992 to July 1997. The dummy variable for the time rate period is -0.06, implying that under piece rates productivity would be 6% higher.

³ The difference in sales from adding 7 fewer new products under piece rates relative to time rates estimated from BF records on the average sales from new products. We estimate that the sales per new product averaged \$742,000.

⁴ In 1989 the ratio of labor costs to DVTP was 0.20, so our 1996 counterfactual estimate is simply 20% of the estimated DVTP in 1996.

⁵ Marginal cost of monitoring which is the number of inspectors under piece rates versus time rates. All inspectors were eliminated in the move to time rates.

⁶ Material costs simulated in 1996 estimated by the 1989 ratio of material costs to DVTP of .36.

⁷ Estimated by average worker compensation costs under piece rates versus time rates, using BF records.

⁸ Marginal cost of maintaining inventory under the piece rate system relative to time rates

estimate is the net of two effects: 6% higher productivity under piece rates versus lower sales due to fewer new styles introduced. The productivity effect is estimated from a time series production function of actual to planned output in a month on capital per worker, number of new styles, the "red-line period," and dummy variables for whether the firm was in the piece-rate or time-rate regime or in the transition period. The value of introducing new styles is estimated by multiplying the average sales of a new shoe line from company records by the difference in the number of new shoe lines under the time-rate and piece-rate systems.

On the cost side, for our counterfactual we assume that the labor and material costs would have been in the same proportion to revenues in 1996 as they were in 1989, the last year before any movement to time rates were discussed in the plant. The labor cost estimates are considerably lower under time rates. Part of this is due to a reduction in monitoring under a time-rate system because the company abolished the jobs of six supervisors who did monitoring under piece rate. Material costs under the counterfactual are obtained by multiplying the ratio of material costs to production value in 1989 to production value in 1996. The next row shows the average workers' compensation insurance rates under both methods of pay based: here we find a significant savings from time rates. The following row gives the inventory costs of materials under both systems; since the firm keeps smaller inventories under time rates, we estimate a modestly higher cost had it operated under piece rates in 1996. The summation row gives our estimate of the "net profitability" for the BF company resulting from the change to time rates. By our assessment, the cost-savings resulting from moving from piece rates to time rates increases net profits relative to those in earlier periods.

Estimates of the Effects of Changing the Method of Pay on Profits

As we do not have a true counterfactual to set against the table estimates—a world in which BF did not change from piece rate to time rate—we cannot say with any surety whether BF could have maintained their profit position had they kept the piece-rate system in place. But in an industry faced with severe low-cost foreign competition and similar technologies and where foreign workers are presumably as adept at producing standard products as American workers, U.S. firms must concentrate on high-quality niche production, where time rates are potentially more valuable. Given the change in the vast majority of the industry from piece rates to time rates and the increase in styles of shoes produced by BF, we suspect that the firm would have suffered some drop in profits had they maintained the piecerate system. Our results here are similar to those found by Dunlop and Weil

(1996) in the textile industry that batch versus individual processing enhances productivity. In highly competitive industries subject to heavy, low-cost, foreign competition, the ability to react to changing markets and produce high-quality products may require the adaptability of time-rate methods of pay. The compensation question that the BF experience does not illuminate is whether or not a well-designed group incentive scheme—profit-sharing of some form—together with time rates might improve productivity without losing the firm cost-savings from time rates.

Acknowledgments

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Endnotes

- ¹ We called all of the major men's shoe manufacturing firms in the U.S. and asked them about their method of pay now and in the 1980s. We were not able to gather information on methods of pay of establishments that went out of business in the interim. For the firms we contacted, approximately 80% of the employees were now on time-rate methods of pay or group incentives. The ones that were on piece rates were primarily specialty shoes or ones made virtually all by "hand."
- ² During a series of plant visits to find out about employee involvement information, we visited BF's major plant and were surprised to learn about this change. The firm agreed to provide us with information under a confidentiality agreement.
- ³ Seiler has shown that the level and variation in pay is higher in the same detailed sector under piece-rate than under time-rate mode of payment. Brown (1990) and Fernie and Metcalf (1997) have examined the choice of firms to use a piece-rate versus time-rate methods of pay. Lazear (1996) and Shearer (1996) and Paarsch and Shearer (1997) show that individual productivity goes up when organizations change from time rates to piece-rate methods of pay.

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The New Workplace: What Does It Mean for Productivity?

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There is much discussion of the benefits of flexibility in the workplace, almost always touting the successes of increased employee voice in the production process and more flexible job definitions. Curtis Plott, president of the American Society for Training and Development, is quoted in the *Wall Street Journal* as saying, "Strategies linking human resource principles and practices together with organizational culture and business strategy are crucial to increasing performance in the workplace." This shift toward new, more flexible workplace environments forces us to quantify the relationship between these changes and productivity.

While there is a limited amount of work looking at the relationship between human resource management practices and firm productivity, these studies are often limited by problems of small survey response, subjective measures of productivity, and firm-level rather than establishment-level surveys. We use a new, nationally representative sample of establishments collected by the Bureau of the Census to determine the relationship between workplace practices and firm productivity. We have an extensive collection of workplace characteristics and are thus able to look at the effects of individual practices along with interactions between different practices.

We find that workplace practices do matter in terms of firm productivity, and these results are insensitive to the estimation of the production function. It is interesting to note that we find that it is not necessarily whether or not an employer adopts a particular workplace practice but how that workplace practice is actually implemented in the establishment. For example, whether or not a workplace has a total quality management (TQM) system has no (or even a negative) relationship to productivity, but the percentage of workers that get together to discuss workplace issues, a

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key component of TQM, does have a positive relationship to productivity. This suggests that what matters is how well you implement a workplace practice and not just whether or not you say you have it.

Related Literature

There is a large literature exploring the relationship between different workplace practices and firm productivity, but much of the previous work has been limited in several ways. Starting at the most micro level, there are a number of case-study articles that focus on this relationship; see work by Ichniowski (1992) and Berg, Appelbaum, Bailey, and Kalleberg (1996) for a few examples. While this type of study provides much detail about the adoption of high-performance workplace practices at these firms, it is difficult to generalize these results to a broader spectrum of the economy.

At a more aggregate level, there are also a number of within-industry studies. One of the more careful studies to date was done by Ichniowski, Shaw, and Prennushi (1995), who studied the human resource practices of one specific production process in the steel industry, thereby eliminating problems of underlying heterogeneity of production processes. They conclude that the adoption of a coherent system of new human resource management practices, such as flexible job definitions, cross-training, and work teams, along with extensive reliance on incentive pay, results in substantially higher levels of productivity than more traditional human resource management practices (less flexible, close supervision, hourly pay). While these results represent an important contribution to the literature, they are not easily generalizable since they refer to just one production process within the steel industry.

In an even broader analysis of workplace practices, Ichniowski (1990) tests the hypothesis that a firm's system of personnel policies can affect its economic performance. He creates an index of human resource management practices for manufacturing firms. He concludes that there is a correlation between human resource management systems and business performance as measured by labor productivity or Tobin's q. Unfortunately, his work is limited by a low overall response rate (6%) to the survey from which he draws his subsample of manufacturing firms. As a result, his sample is not representative of manufacturing firms and it is quite small. In addition, since the survey only has information on the incidence of workplace practices, he is unable to examine how the diffusions of these practices affect productivity. Finally, using an index of workplace practices makes it difficult to determine the direct impact of implementing a formal training program versus expanding the role of employee participation in decision making or introducing profit sharing on productivity.

In another cross-industry study, Huselid (1995) looks at the human resource practices of a cross-section of firms, and Huselid and Becker (1996) use the same data set with an additional year of data. Huselid and Becker extend the concepts developed by Ichniowski and measure the depth of the implementation of the practices and not just the incidence. They conclude that a one-standard-deviation "improvement" in a firm's human resource strategy (based on their index of human resource systems) is associated with a present value gain in cash flow and firm market value of \$15,000-\$17,000 per employee.

Some limitations of this work include a low survey response rate (28% in the cross-section analysis and 20% in the panel data), the sample is restricted to publicly held firms with more than 100 employees, and the target respondent is not necessarily the plant or business site manager who actually implements the company human resource policies. In addition, Huselid (1995) and Huselid and Becker (1996) use an index of human resource practices, which leads to ambiguities in the interpretation of the results. Because of the difficulty of interpretation, it seems advantageous to study workplace practices individually.

In earlier work (Black and Lynch [1996]) we examined the impact of education and training on establishment productivity in both the manufacturing and nonmanufacturing sectors. We concluded that education raises productivity approximately 5% to 13%, depending upon the sector. In addition, we found that the impact of training investments by employers differed depending on their nature, timing, and location. More specifically, we found that formal training outside working hours had a positive effect on productivity in manufacturing businesses, while computer training raised the productivity of nonmanufacturing establishments considerably. While this work overcomes many of the limitations of earlier studies, we were still unable to control for unobserved establishment characteristics.

Data

The data we use is a unique nationally representative sample of private establishments with more than 20 employees—the Educational Quality of the Workforce National Employers Survey (EQW-NES).² This survey was administered by the U.S. Bureau of the Census in 1994 and contains detailed information about establishment work environments, including information about training, employee participation in decision making, the structure of the firm, recruitment practices, and work organization, along with information about physical capital and other inputs in production. The survey oversamples establishments in the manufacturing sector and those with more than 100 employees, while excluding establishments with less

than 20 employees. As a result, the sampling frame represents establishments that employ approximately 75% of all workers. The target respondent in the manufacturing sector was the plant manager; in the nonmanufacturing sector it was the local business site manager. The sampling frame was the Bureau of the Census SSEL establishment database.

The response rate of the EQW-NES for manufacturing establishments was 75%, substantially higher than most other voluntary establishment surveys. Since not all respondents completed all parts of the survey by the cut-off date of the interviewing, the overall "completed" survey response rate was 66%.

We are then able to match the EQW-NES to the Longitudinal Research Database (LRD), a survey that consists of linked establishment-level data from the Bureau of the Census' Annual Survey of Manufacturers (ASM). This allows us to construct a panel of information on physical inputs for each establishment, thereby enabling us to estimate both cross-section production functions as well as allowing for firm-specific components of the error term using the panel data from the LRD. We use establishments in the LRD from 1987 through 1993, a long enough time to estimate the establishment fixed effect and short enough to believe work-place practices are relatively constant over this period; see Black and Lynch (1997) for more details on the construction of the data set.

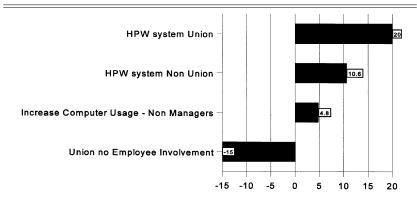
Results

In Black and Lynch (1997), we estimate Cobb-Douglas production functions with both cross-section and panel data on physical inputs to the production process. One concern with the estimation of cross-section production functions is that estimates are biased because of omitted firm-specific characteristics. However, given the wealth of information contained in our survey, we are able to characterize many of those omitted firm variables by including information about workplace practices and other worker and employer characteristics. Our dependent variable is total sales per production workers and our independent variables include controls for the number of nonproduction workers, capital stock, and materials. In addition, we include explanatory variables such as information on firm technology, workers characteristics (such as average education levels and employee turnover), the use of high-performance work systems (such as TQM, benchmarking, and the structure of the workplace), measures of employee voice (such as unionization and percentage of workers meeting regularly in groups), profit sharing information, recruitment strategies, and a number of interactions to allow for synergies among practices.

We find that firms that have implemented high-performance workplace practices have higher productivity than those who have not. In addition, we find evidence that there are complementarities between HRM practices, particularly those allowing for increased voice and job security. These results are robust to alternative estimation techniques that attempt to control in part for any remaining omitted variable or endogeneity bias.³

It is particularly interesting to note the differences in performance at the workplace between traditional union, nonunion, and new forms of labor-management relations. Figure 1 from Black and Lynch (1997) shows the relationship between workplace practices and establishment productivity when different combinations of HRM practices are bundled together. In this figure, the base case is a nonunion, multiestablishment plan, with profit sharing for managers but none for nonmanagers, no TQM, no benchmarking, with only 1% of employees meeting regularly about work issues and 10% of nonmanagers using computers, 1% of employees in self-managed teams, zero values for interaction terms, and mean values for all remaining continuous variables.

FIGURE 1
Percent Change in Labor Productivity from Base Case



Notes:

Base Case: Nonunion, multiestablishment plant, profit sharing for managers, no profit sharing for nonmanagers, no TQM, no benchmarking, 1% employees meeting regularly about work issues, 10% nonmanagerial workers using computers, 1% employees in self-managed teams, zero values for interaction terms and mean values for all remaining continuous variables.

Increase Computer Usage: Base case but increase to 50% nonmanagers using computers in their job.

HPW system: Base case but 50% of nonmanagers using computers, 50% of workers meeting to discuss workplace issues regularly, profit sharing for nonmanagers, 30% of workers in self-managed teams, TQM, and benchmarking.

Source: Black and Lynch, 1997.

Compared to this base case with little employee involvement in the production process and a nonunion environment, unionized firms with the same noninvolvement of workers have substantially lower labor productivity (15% lower). This is consistent with the notion that "old-style" unionized firms, with rigid hierarchies and little worker involvement in decision making is associated with lower establishment productivity.

As one increases the level of employee involvement, one sees increases in labor productivity. By only increasing the computer usage of nonmanagers to 50% of nonmanagers, an indicator of increased technology in the workplace, we can see that labor productivity is up 4.8% from the base case. Adding more workers meeting regularly to discuss workplace issues (up to 50%), profit sharing for nonmanagers, more workers in self-managed teams (30%), TQM, and benchmarking leads to substantial 10.6% increase in labor productivity from the base case. Finally, adding unionization to this already high-performance workplace is associated with an impressive 20% increase in labor productivity. This suggests that new forms of union-management relations that include the job security associated with unionization and the increased voice, gainsharing, and flexibility associated with the new workplace practices has a substantial positive impact on labor productivity.

While these results are compelling, there are those who would counter with the argument that most unionized employers are characterized by very rigid hierarchies and few high-performance workplaces. As a result, employers may not want to risk unionization when the cost (lower productivity) outweighs the potential gain, given the high probability of a "low" outcome. Therefore, this simulated result of 20% higher productivity is irrelevant for actual experience within manufacturing. However, when we examine the actual mean characteristics of the unionized firms in our sample and calculate a predicted labor productivity based on these values, the result suggests that, on average, unionized firms have labor productivity that is 16% *higher* than our base case. Additionally, when the actual average characteristics of the nonunionized firms are used, the results suggest that nonunion firms have labor productivity that is 11% *lower* than the base case. So the reality is that new forms of labor-management relations both theoretically and in practice raise productivity.

Conclusions

Many researchers and strategy gurus have argued that high-performance workplaces are the wave of the future. However, until recently there has been little representative evidence to back up this prediction. Using a new nationally representative data set of U.S. employers with detailed information on workplace practices, we are able to provide support for the idea

that high-performance workplace practices lead to higher establishment productivity. In addition, because we have such detailed data for a large sample of nationally representative establishments, we are also able to study the interactions of different workplace practices and are not limited to using summary indices of human resource practices.

We find that high-performance workplace practices are associated with higher establishment productivity. In addition, we find that it is not necessarily what you do but how you do it that matters. Simply adopting a TQM system does not necessarily result in higher productivity. Rather TQM in combination with a large proportion of workers meeting regularly in groups to discuss workplace issues is what is necessary to increase productivity. In addition, we do find synergies in workplace practices. While unionization alone without high-performance workplace practices is associated with lower establishment productivity, unionization along with a system of high-performance practices is associated with even higher productivity than without the unionization.

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Endnotes

- ¹ "Sure, They're Talking Retention but They Want Job Vacuums." Wall Street Journal, October 7, 1997, B1.
 - ² For more detailed information, see Lynch and Black (1997).
- ³ See Black and Lynch (1997) for more information on the estimation technique and for specific estimates.

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Who Holds the Bag? The Impact of Information Technology and Workplace Practices on Inventory

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In recent years, firms in the U.S. retail sector have widely adopted bar coding, scanning, and automated distribution systems in order to create systems of efficient product replenishment. Retailers place weekly orders based on actual sales and expect to receive replenishment within very short (4-5 day) time periods. These changes in the retailing sector have led manufacturing suppliers in a variety of consumer industries to invest in information technology. As a result, manufacturers now have more timely information on demand at a detailed product level.

Firms which combine changes in their production process with more timely demand information from retailers may more closely match production with sales and thereby reduce their need to hold inventories. These manufacturers can choose to use information as a substitute for inventories. On the other hand, manufacturers who do not adjust production strategies in response to replenishment orders may end up bearing much of the inventory risk formerly held by their retail customers.

This paper examines how the adoption of information technology and changes in workplace practices affect the level of inventories held by firms in the U.S. apparel industry. Other studies have found mixed effects of information technology on inventories; see Bechter and Stanley (1992), Blinder and Maccini (1991), Little (1992), Filardo (1995). We hypothesize that apparel manufacturers will decrease the amount of inventories they hold as a deeper set of information technology and workplace practices are adopted in a manner that allows them to more closely respond to fluctuations in retail and therefore consumer demand.

The relationship between inventories and the business cycle makes the findings of this paper important from a macroeconomic perspective. The

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diffusion of information technologies spawned by new forms of retailing is affecting a wide variety of industries beyond apparel, from food to automobiles. If the significant reduction of inventories documented here for apparel are representative of more pervasive shifts in practices, information technology may contribute to profound changes in the length and depth of recessions and recoveries in the future.

Data

The study draws on a matched data set that links detailed, business-unit-level information regarding firm-level practices with Department of Commerce micro-data from the Longitudinal Research Database. Information regarding adoption of specific practices among apparel firms arises from a comprehensive survey of 103 business units that measures a wide variety of practices and performance outcomes. The database provides information on practices in the area of information system, logistics, design, manufacturing, and supplier relations. Data were collected at the business unit level for 1988 and 1992; see Hwang and Weil (1997) for a more detailed description.

Data from this survey are matched to corresponding establishment-level data from the U.S. Department of Commerce's Longitudinal Research Database (LRD). The LRD provides longitudinal data for establishments included in the Bureau of the Census Annual Survey of Manufacturing; see Davis and Haltiwanger (1991) for a complete description. In order to understand the relationship between technology/workplace practice adoption and inventory levels, we match the survey data on adoption decisions as of the beginning of 1988 with inventory observations for the period 1988-91 and adoption decisions as of the beginning of 1992 with inventory observations for the period 1992-94.

Information Technology and Inventories

Information technologies form the basis of "modern manufacturing" (Milgrom and Roberts 1991) as well as modern retailing practices. Information technologies enable retailers to efficiently track products (via "bar codes"); scan product identifications electronically at the check-out counter; use this product-specific, "real time" information for inventory control at the store, regional, and company level; and then draw on that data for replenishing products (Abernathy et al. 1995; Brown 1997). The advent of modern retailing practices represents the replacement of inventories for information at the distribution end of the production channel (Milgrom and Roberts 1988; Bental and Eden 1993). The availability of point-of-sales information to retailers changes the manner in which they

relate to their suppliers. In particular, it reduces the lead time allowed by retailers for order replenishment, increases the frequency of orders, and reduces the size of a given order placed with suppliers (Lee et al. 1994; Fisher and Raman 1996).

New replenishment practices by retailers potentially change the level of inventories optimally held by suppliers. Optimal inventory levels are affected by the frequency and variability of orders as well as by the level of uncertainty surrounding the underlying state of demand. Optimal inventory levels also vary with lead time requirements; see Arrow, Harris and Marschak (1951) and Hadley and Whitin (1963) for classic treatments of optimal inventory policy.

We look at four technologies that affect these different parameters of a firm's optimal inventory level. These practices represent a combination of technological innovations and business practices that affect how apparel suppliers acquire and use information concerning product demand. The first practice area involves the adoption of standardized product identification systems (called the Uniform Product Code or UPC) which provide unique, electronically scannable, identifiers (bar codes) for classifying products at the stock-keeping unit (SKU) level. Adoption of this practice provides suppliers with the baseline ability to engage in more rapid exchange of information with retailers.

The second practice area involves the use of electronic data interchange (EDI) as a means of transmitting data on orders between apparel suppliers and retailers. Like bar codes, the use of EDI requires a set of investments by suppliers and customers (computer hardware and software capable of sending and receiving data rapidly) and conventions (a standardized system of data interchange for transmission). Adoption of EDI further augments the availability of data on the state of demand from retailers as well as improves its accuracy. We measure this practice area as the percentage of shipments sent by business units using EDI.

The third practice area involves changes in the way business units prepare products for shipment (SHIPPING). Modern distribution centers of retailers are capable of rapidly identifying and sorting incoming shipments from suppliers through the use of scanning systems, automated sortation and conveyers, and computer controls. This requires that incoming shipments adhere to a set of technological and process standards. We measure this practice area as the percentage of shipments sent by business units with bar-coded markers.

Finally, we look at workplace practices involving the assembly of apparel items through the use of team-based production, measured by the percentage of domestically produced sewing output produced using modular or related

team assembly systems (MODULAR). Rather than breaking up assembly (sewing) into a long series of small steps, modular production entails grouping tasks and assigning those tasks to a team as a means of reducing the elapsed throughput time required to assemble a given product. Adoption of this assembly technique entails altering the physical layout of sewing machines and human resource systems. While the three information technologies (UPC, EDI, and SHIPPING) change the inventory problem by providing more frequent and precise information on demand, instituting alternative assembly systems alters the lead time (throughput) required to manufacture products once ordered. This improved flexibility potentially reduces the level of inventories (or the speed of inventory adjustment to changes in demand).

Firms responding to frequent orders from retailers potentially benefit from combinations of these practices (Hwang and Weil 1997). In particular, more extensive adoption of the practices should allow apparel suppliers not only to respond to retail orders but to lower their exposure to inventory risk by using demand information for planning purposes. More importantly, by adopting information technology practices (UPC, EDI, and SHIPPING) in tandem with new manufacturing practices (MODULAR), apparel suppliers should be able to increase their capabilities at handling incoming orders with lower inventories and to adjust to demand shocks more quickly. These interactive benefits are captured in the following empirical analysis by examining the impact of INDEX, that captures specific sequences of adoption.

Empirical Analysis

The overall pattern of inventory/sales (I/S) ratio for the matched sample of business units shows little change over the time period under study. Table 1 shows that the I/S ratios for three periods, 1984-87, 1988-91, and 1992-94, do not vary much from a mean of 1.5. The lack of trend in these I/S ratios is consistent with the reported I/S ratios for the category "other nondurable goods" reported by the Bureau of the Census over the same time period (U.S. Department of Commerce 1996).

TABLE 1
Average Inventory/Sales Ratio for Sample, by Time Period

Time Period	Mean	Std Dev	Nobs
1984-87	1.504	1.707	690
1988-91	1.491	1.996	921
1992-94	1.562	2.617	654

We explore the possibility that greater information technology impacts I/S ratios in Table 2. The results show that average inventory/sales ratios

fall as business units adopt more of the four technologies during both time periods under study. In the 1988-91 period, firms which adopted none of the four technologies by 1988 had an average I/S ratio of 1.9, while firms which adopted UPC, EDI, and either SHIPPING or MODULAR or both had an average I/S ratio of only 1.1 in the 1988-91 period. These differences between low- and high-level adopters is even more dramatic for the 1992-94 period, where the lowest level of technology adopters had more than twice the inventory/sales ratio of the high-level adopters (2.46 versus 1.22).

TABLE 2
Average Inventory/Sales Ratios, by Technology Indices

		1988-1991				1992-1994	
Indexb88	Mean	Std Dev	Nobs	Indexb92	Mean	Std Dev	Nobs
Low	1.931	2.425	203	Low	2.464	4.986	92
Medium	1.718	1.984	215	Medium	1.850	2.354	162
High	1.117	1.318	393	High	1.222	1.736	379

INDEX88 = "Low" if, none of four technologies adopted by 1988.

INDEX88 = "Medium" if only UPC adopted, or both UPC and EDI adopted by 1988.

INDEX88 = "High" if UPC and EDI adopted and either SHIPPING or MODULAR adopted, or all four technologies adopted by 1988.

INDEX92 = "Low" if none adopted by 1992, only UPC was adopted by 1992, or both UPC and EDI were adopted by 1992.

INDEX92 = "Medium" if both UPC and EDI were adopted, and either SHIPPING or MODULAR were adopted by 1992.

INDEX92 = "High" if all four technologies were adopted by 1992.

A reduction in the I/S ratio means that changes in sales will be matched by a smaller change in inventories. Therefore a lower I/S ratio should imply lower inventory volatility (Filardo 1995). This, in turn, implies lower volatility of total inventories and I/S ratios for firms which have adopted more technology. Table 3 employs the standard deviation of each establishment's inventory level and I/S ratio for the two time periods as a metric for volatility.² In the 1988-91 period, inventory volatility did not decrease with increased technology adoption. However, by 1992-94, the expected relation emerges: firms which adopted all four technologies had a standard deviation in total inventories of \$1.2 million (in 1994 dollars) relative to firms with low levels of adoption which had a standard deviation in total inventories of \$1.5 million. This pattern is even more striking for I/S ratios in the latter period: standard deviations in the I/S ratio (which control for differences in firm size) of establishments with low levels of adoption were more than double those of the high adopters (1.22 versus .50) in the same period.

	INDEX88 ²	Low	Medium	High
Standard deviation of Total inventories, 1988- 91 (000s, 1994\$)	Mean (std dev)	685 (912)	815 (1215)	1309 (3363)
Standard deviation of Inventory/Sales Ratio 1988-91	Mean (std dev)	0.38 (.45)	0.52 (1.06)	0.41 (.61)
	Nobs	53	58	100
	INDEX92 ²	Low	Medium	High
Standard deviation of Total inventories, 1992- 94 (000s, 1994\$)	INDEX92 ² Mean (std dev)	Low 1483 (4785)	Medium 1130 (2148)	High 1172 (2193)
Total inventories, 1992-	Mean	1483	1130	1172

TABLE 3
Inventory Volatility by Technology Indices¹

Regression Analysis

The relationship between technology adoption and inventory may be an artifact of some other unmeasured variable. One particular confounding factor is product diversity. A business unit's absolute and relative level of inventory will be affected by the number of different products provided by the supplier. Specifically, product diversity and inventory should be positively correlated, all else equal. If units with higher levels of technology adoption also tend to have more limited product mixes than those units that have adopted few or no technology, the relationships in Tables 1-3 may be more directly attributed to this factor than to information technology/ workplace practices.

We control explicitly for product diversity by including the log number of individual stock-keeping units (SKUS) provided by the apparel supplier in 1988 and 1992. Table 4 tests the null hypothesis that technology adoption, defined both as adoption of the four individual technologies and the adoption of the four technologies in a particular sequence, does not affect inventory/sales ratios. No matter which technology variable is used and holding constant product diversity, we find that information technology results in significantly lower I/S ratios.

¹ Volatility measured as the standard deviation of measured inventory levels for an establishment over the time periods 1988-91 and 1992-94.

² See Table 2 for definitions of technology indices.

Average I/S		1988-	1991			199	2-1994		
UPC(yy)	-0.641*				-0.632*				
	(-2.025)				(-2.157)				
	[0.022]				[0.016]				
EDI(yy)		-0.603*				-0.826*			
		(-1.781)				(-2.698)			
		[0.038]				[0.004]			
SHIPPING(yy)			-0.686*				-0.575*		
			(-2.000)				(-2.172)		
			[0.024]				[0.015]		
MODULAR(yy	7)							-0.891*	
								(-3.149)	
								[0.001]	
INDEX(yy)				-0.466*					-0.574*
				(-2.995)					(-3.078)
				[0.001]					[0.001]
SKUs(yy)	0.021	0.068	0.033	0.001	-0.039	-0.012	-0.089	0.002	-0.007
(log of total #	(0.238)	(0.725)	(0.378)	(0.012)	(-0.517)	(-0.160)	(-1.217)	(0.032)	(-0.093)
SKUs in the business unit)	[0.812]	[0.469]	[0.706]	[0.990]	[0.606]	[0.873]	[0.225]	[0.974]	[0.926]
Constant	1.904*	1.455	1.567*	2.150*	2.360*	2.280*	2.698*	2.108*	3.604*
	(2.426)	(1.860)	(2.022)	(3.400)	(3.553)	(3.457)	(3.903)	(3.205)	(4.402)
	[0.016]	[0.064]	[0.044]	[0.000]	[0.000]	[0.000]	[0.000]	[0.002]	[0.000]
Adjusted R ²	0.008	0.005	0.008	0.031	0.016	0.027	0.016	0.037	0.036
# observations	261	261	261	225	235	235	235	235	228

TABLE 4
Regression Analysis of Average Inventory/Sales Ratio

(t-statistics in parentheses), [p-values in brackets]

The 1988-1991 regressions test the null hypothesis that the adoption of technology in 1988 has no effect on the average inventory/sales (I/S) ratio in the 1988-1991 period against the alternative hypothesis the adoption of technology reduces the I/S ratio in the 1988-1991 period. UPC88, ED188, SHIPPING88, and MODULAR88 = 1 if firm used that technology at all in 1988, else = 0.

INDEX88 = 0 if none of four technologies adopted by 1988,

INDEX88 = 1 if only UPC adopted, or both UPC and EDI adopted by 1988.

INDEX88 = 2 if UPC and EDI adopted and either SHIPPING or MODULAR adopted, or all four technologies adopted by 1988. The 1992-1994 regressions test the null hypothesis that the use of technology in 1992 has no effect on the average inventory/sales (I/S) ratio in the 1992-1994 period against the alternative hypothesis the use of technology reduces the I/S ratio in the median amount in the HCTAR survey in 1992, else 0.

INDEX92 = 2 if none adopted by 1992, only UPC was adopted by 1992, or both UPC and EDI were adopted by 1992.

INDEX92 = 3 if both UPC and EDI were adopted, and either SHIPPING or MODULAR were adopted by 1992.

INDEX92 = 4 if all four technologies were adopted by 1992.

Table 5 examines the impact of information technology and workplace practice adoption on the growth of inventory in the subsequent study period.

YY = 88 for 1988-1991 regressions

YY = 92 for 1992-1994 regressions

^{*} denotes significance at the 5% level

Specifically, we test the hypothesis that firms which adopt more technology experience faster declines in their total inventory levels than those which do not. While technology adoption by 1988 does not have a significant impact on growth rates in the subsequent 1988-91 period, 1992 adoption is significantly related to inventory growth in the 1992-94 period. Adjusting for inflation, the coefficient of the INDEX variable for 1992 indicates that the annual growth rate of inventories in the subsequent period decreases as a greater number of the four information technologies are adopted.

TABLE 5
OLS Regression of Growth Rates in Inventories

	Inventory/Sales Ratio		Total Inv (000s,	
	1988-1991	1992-1994	1988-1991	1992-1994
INDEX(yy) ¹	029	102*	0.019	-0.1604*
	(-1.198)	(-2.759)	(0.843)	(-2.82)
	[.116]	[.003]	[0.200]	[0.003]
Log(Sales)	010	.008	-0.007	0.026
	(555)	(.346)	(-0.441)	(0.732)
	[.579]	[.729]	[0.660]	[0.465]
Log(# SKUs)	.016	007	0.004	0.011
	(1.496)	(482)	(0.428)	(0.514)
	[.136]	[.631]	[0.669]	[0.608]
Constant	060	.379	-0.009	0.376
	(614)	(2.879)	(0.100)	(1.851)
	[.540]	[.004]	[0.921]	[0.066]
Implied annual growt	th rates given tecl	hnology adoption	n^2	
Low	.032	.152	011	.309
Medium	.003	.050	.008	.149
High	026	052	.027	012
Number obs	214	227	215	228
Adjusted R ²	.01	.04	0.01	0.03

¹ Index 88, and 92 based on variable definitions found in Table 4.

The lower portion of Table 5 evaluates the regression coefficients to calculate implied annual growth rates for three different levels of adoption at the median value of log(SALES) and log(SKUS). Establishments with a "low" level of technology adoption in 1992 experienced far higher annual

² Implied annual growth rate using definitions of "low," "medium," and "high" described in Table 2, evaluated at the median value of log(sales) of 5.5 and 5.7 for 1988-91 and 1992-94, respectively, and using the median value of log(SKUs) of 9.1 and 9.8 for 1988-91 and 1992-94, respectively.

^{*} indicates significance at 5% level

growth rates in total inventories and I/S ratios than those establishments with a "high" level of adoption. This suggests that firms with more extensive IT and workplace technologies make the transition to lower inventory levels more quickly, after controlling for the effects of product diversity.

Conclusion

We believe that this preliminary evidence is consistent with the notion that information technology acts as a substitute for inventories in the manufacturers' production processes. Firms supplying products to a retail sector increasingly characterized by rapid replenishment need not "hold the bag" for the retailers if they adopt a set of technologies that allow them to collect, use, and adapt production. These results provide evidence consistent with earlier empirical findings regarding the negative impact of information technology on inventory levels by Bechter and Stanley (1991) and Little (1992). Future work will attempt to model the determinants of inventory levels more formally and control for other confounding factors explicitly.

This paper suggests that an economy characterized by an increasing level of modern manufacturing and retailing practices should experience lower levels of inventories relative to sales. Since a reduction in the I/S ratio means that changes in sales will be matched by a smaller change in inventories, lower I/S ratios should imply lower inventory volatility. This is important because aggregate inventory volatility has historically made up a significant portion of GDP volatility (Blinder 1981, 1986). This macroeconomic link may prove to be the most profound implication of the adoption of firm-level information technology and workplace practices.

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Endnotes

¹ We use somewhat different definitions for technology adoption combinations between the 1988-91 and 1992-94 period because of confidentiality restrictions (minimum cell sizes) required by the U.S. Department of Commerce in using the Longitudinal Research Database.

² Volatility was measured by calculating the standard deviation of total inventories and I/S ratio for each establishment over the relevant time period. The average of these establishment-based standard deviations are presented in Table 3.

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IV. CHANGES IN THE EMPLOYMENT RELATIONSHIP AND LONG-TERM EMPLOYMENT

Changes in Job Stability and Job Security: Anecdotes and Evidence

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Beginning in the 1980s and continuing into the early 1990s, the media have kept up a steady drumbeat of stories describing declining job stability and job security in the U.S. economy. This theme began to appear in 1983 and perhaps reached its culmination in the 1996 *New York Times* series, "The Downsizing of America." *Time* (Nov. 22, 1993) may have best summed up the prevailing media view, suggesting that "Americans are realizing that the great American job is gone," and that we "forget any idea of career-long employment with a big company."

Despite the impression conveyed in the media that the employment relationship in the U.S. has shifted away from long-term attachments between workers and firms, as of the early 1990s—when the media's focus on this issue was reaching its peak—there was very little research studying changes in the stability of jobs in the U.S. economy. As researchers turned to these questions, it turned out that data through the early 1990s frequently did not support the claim that the employment relationship was becoming less stable. For example, our work examined the temporal evolution of job stability in U.S. labor markets, using data from Current Population Survey

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(CPS) tenure supplements (Diebold et al. 1997). Whether we looked at relatively short-term (four-year) job holding over the 1983-91 period or long-term (ten-year) job holding over the 1973-91 period, there was essentially no evidence of decreased job stability in the aggregate. Moreover, if any particular demographic groups appeared to suffer from decreased stability, it was less skilled minority workers and not more educated, predominantly white and male workers whose stories filled the popular press. Using similar data for 1973-93 to study distributions of incomplete tenure spells, rather than job retention rates, Farber (1995) obtained similar results, finding "no systematic change in the overall distribution of job duration in the last two decades."

Our goal in this paper is to consider some explanations for the striking difference between the original research on changes in job stability and the conclusions reflected in much of the media. We consider three specific questions. First, do the different conclusions arise because this research studies different—and perhaps wrong—indicators of job stability or security? Second, do they arise because changes in the employment relationship are too recent to be detected in the large-scale data sets that researchers use, while reporters using "unconventional" methods have uncovered the tip of the iceberg? Third, have media reports of dramatic changes in the employment relationship simply got it wrong, and if so, why?

Changes in Job Stability through the Early 1990s

Our original analysis of changes in job stability (Diebold et al. 1997) studies the t-year retention rate, which is the probability that a worker with a job today will be in that same job t years in the future. This rate may be defined for any subgroup of the population. Longitudinal panels covering individuals' entire work lives would be required to estimate retention rates for all values of t, and panels covering different cohorts would be required to study changes in these retention rates over time. However, we can create artificial cohorts by linking together CPS tenure supplements and use them to estimate changes in retention rates over various spans of years covered by these supplements. Thus, for example, in our previous research we estimate four-year retention rates from 1983 to 1987 and from 1987 to 1991 and thereby ask whether job stability—as reflected in the four-year retention rate—rose or fell over these periods.

As summarized in columns (1)-(3) of Table 1, our results indicate only a minor decline in aggregate four-year retention rates from 1983-87 to 1987-91. Given the media's focus on the decline of long-term jobs, we also report results broken down by tenure and age. This is important because aggregate retention rates can remain stable, even if, for example, age-specific retention rates are declining but the population is shifting toward ages

with higher retention rates. The results disaggregated by age suggest that this scenario is partly true. However, retention rates have not declined for workers aged 40 and over, which appears to contradict the notion that jobs held by older workers are ending at a faster rate. Similarly, retention rates for more tenured workers (those with nine or more years of tenure) have remained stable or increased. The results in column (4) indicate similar overall findings from comparisons of ten-year retention rates for 1973-83 compared with 1981-91. We find virtually no change in aggregate ten-year retention rates, although in this case we find a reduction for the highest tenure group and workers in their 40s and early 50s.

TABLE 1 Changes in Job Retention Rates through 1991

	Four-year retention rate, 1983-1987 (1)	Four-year retention rate, 1987-1991 (2)	Change (3)	Change in ten-year retention rates, 1973-1983 to 1981-1991 (4)
All workers	.549	.547	002	001
Tenure groups:				
0 to < 2 years	.337	.354	.018**	004
2 to < 9 years	.591	.554	037**	.012**
9 to < 15 years	.829	.833	.005	.063**
15 or more years	.652	.708	.056**	043**
Age groups:				
16-24	.314	.284	029**	.040**
25-39	.590	.581	009**	005
40-54	.690	.689	001	044**
55 and over	.488	.495	.007	005

All estimates are adjusted for the business cycle, heaping of reported tenure data, and nonresponse to the tenure supplements. Estimated changes statistically significant at the 5% level are indicated with **

Some studies report sharper evidence of declines in job stability (e.g., Swinnerton and Wial 1995; Rose 1995; Boisjoly et al. 1994; Marcotte 1996). However, these findings are largely artifacts of changes in survey methods or errors in classifying workers (Diebold et al. 1997; Polsky 1996; Schmidt and Svorny forthcoming). In addition, the last two of these papers measure year-to-year separations, so they could be detecting more turbulence for those on new jobs, while the probability of a long attachment between workers and firms need not have fallen. Overall, we regard the evidence on job stability through the beginning of the 1990s as largely at odds with media accounts of substantial declines.

Are Researchers Studying the Right Indicators of the Employment Relationship?

The studies discussed above look at the employment relationship from the perspective of job stability, asking whether the length of time people remain on their jobs has declined. However, the anxiety over jobs reflected in much of the media reporting may stem from labor market changes that are in part unrelated to overall job duration. Polsky (1996) considers this question, estimating changes in the proportions of recent job separations that are involuntary (layoffs, plant closings, etc.) rather than voluntary (quits). The distinction is important because workers who quit likely improve their well-being, whereas involuntary separations are more likely to make an individual worse off. Thus if the proportion of separations that is involuntary has risen, even though the overall likelihood of a separation has not changed, workers may understandably feel less secure and more anxious about their jobs.

Using PSID data to compare the periods 1976-81 and 1986-91 (periods chosen because of similar cyclical behavior), Polsky finds that the overall rate of job separation was unchanged, consistent with our findings based on CPS data. However, while the overall rate of job separation was unchanged, there were modest increases in the rate of involuntary job separations (conditional on schooling, industry, occupation, etc.), which were more marked for older and more tenured workers. Parallel findings are reported elsewhere. Using PSID data, Boisjoly et al. (1994) also find a rise in involuntary separations, although these results may also be plagued by changes in the survey instrument. Valletta (1996) reports that the proportion of the unemployed who became unemployed because of permanent dismissals (technically, nonlayoff job losers) rose through the 1980s and early 1990s and was higher in the peak unemployment period following the 1991 recession than following the 1982 recession. Farber (1996) reports that the rate of job loss due to "position or shift abolished" increased in the 1991-93 period (as did the overall rate of job loss) and that this change was more pronounced for more educated workers; he suggests that this type of job loss may correspond to the corporate downsizing and restructuring reported in the media.

The evidence of increased involuntary job loss appears to be more consistent with the changes in the employment relationship reported in the media than is the evidence on job stability per se. However, we should be cautious in concluding that changes in involuntary job loss provide the factual basis for media perceptions of the changing employment relationship. First, the steady rate but shifting composition of job separations is not consistent with the disappearance of long-term jobs. Second, although workers are being involuntarily terminated at a higher rate, they are also voluntarily

staying on the job longer. Valletta (1996) suggests that reduced quits may reflect increased insecurity, as adverse labor market developments make workers unwilling to cut their ties to their existing employers and try their luck on the market. It is also possible, however, that many workers are finding their present employers relatively more attractive than in the past—whether because of higher wages, better long-term prospects, or other factors—and as a consequence are quitting less. Therefore, higher involuntary job loss coupled with lower voluntary separations does not necessarily imply greater overall insecurity.

Finally, the evidence does not all indicate a trend towards greater incidence of involuntary separations. For example, although Valletta shows that the share of the unemployed who suffered permanent dismissals rose over this period, as Table 2 shows, the share of either the labor force or the population that suffered from such a dismissal fell, reverting to figures closer to those of the previous less severe recession. The different changes in these shares stem from the much lower unemployment rate that prevailed in the 1991 recession; while a larger share of the unemployed suffered a permanent dismissal, this was a smaller share of the workforce or population. In addition, looking at unemployment due to permanent dismissals in the regular CPS, rather than the Displaced Worker Surveys, the shares of either the labor force or the population reporting such unemployment were lower than their recent peaks in 1992 and continued to fall over 1994-95.² Thus, although evidence on involuntary separations is perhaps more consonant with the increased job insecurity reported in the media than is evidence on overall job stability, evidence on changes in the nature of separations also does not provide a completely unambiguous picture.

TABLE 2
Evidence on Involuntary Job Separations

	Nonlayoff job losers as proportion of:				
	1975	1982/1983	1992		
Unemployed	.350	.421	.430		
Labor force	.030	.042	.032		
Population	.014	.020	.016		

Estimates are based on data in *Employment and Earnings*, and are three-quarter moving averages of seasonally adjusted data, centered on the peak unemployment quarter.

Was Conventional Research Too Slow to Detect Declining Job Stability?

The research on job stability discussed earlier uses data only through the early 1990s. Thus it is possible that the media have identified a trend that began in the 1980s—although at levels too minute to be picked up by conventional research methods—but picked up steam and became a more severe problem in the 1990s. There are now data available that permit us to update estimates of changes in job stability through 1995. In particular, the February 1995 Contingent Work Supplement includes information paralleling that on the earlier tenure supplements and enables us to examine changes in four- and eight-year retention rates through 1995. Unfortunately, however, as with many of the other data sources used to study job stability, the tenure questions in this supplement changed. In particular, in earlier tenure supplements the question referred to "continuous" work for the same employer, while the question in 1995 drops the word "continuous." We are currently engaged in research that uses the 1995 supplement, correcting for this bias by using information in alternative data sources (the 1996 CPS tenure supplement and the PSID) on total tenure and continuous tenure.

Preliminary results with these data reveal two changes. First, although aggregate four-year retention rates have remained roughly stable, aggregate eight-year retention rates (comparing 1983-91 with 1987-95) have fallen by about .02, which we view as modest but nontrivial, given aggregate eight-year retention rates of about .36. Second, the disaggregated results point to sizable declines in job stability for more tenured workers (those with nine to fifteen years of tenure), offset by increases for the least tenured workers (with two or fewer years of tenure).

Thus updated estimates of changes in job stability through 1995 provide some support for declining job stability as reported in much of the media. In particular, older and especially more tenured workers experienced declines in job stability in the 1990s.

Have the Media Got It Wrong?

There is, of course, no way to quantify the "magnitude" of the changes in the employment relationship reported in the media articles cited earlier, since these articles tend to focus on isolated stories about companies or individuals. Nonetheless, although this represents our subjective assessment, we think it is safe to say that based on the older evidence and the new evidence on changes in job stability, and on recent evidence on other dimensions of job security, the claim that the employment relationship in the U.S. underwent dramatic changes in the 1980s and 1990s cannot be supported. This is documented further in Table 3, which provides some estimates from other studies. We read these estimates, combined with our new evidence, as indicating little evidence of substantial changes in the overall attachment of workers to firms, with the possible exception of our

most recent evidence for more tenured workers. In this section we offer some conjectures as to why media reporting—which has focused largely but not exclusively on job loss—appears to have created an overblown impression of changes in the employment relationship.

 $\begin{tabular}{ll} TABLE & 3 \\ Other & Estimates & of Changes & in Job Stability or Involuntary & Job Loss \\ \end{tabular}$

(a) Annual change in median tenure, 1973-1993, Farber (1995):

Men: -.02 years Women: +.03 years

(b) Average increase (appx.) in percentage with job loss in three-year period, 1981-89 vs. 1989-93, Farber (1996):

Men: +2.9% Women: +2.2%

(c) Change in average annual percentage with job loss, 1968-79 vs. 1980-92, Boisjoly, et al. (1994):

Men, voluntary job loss: +.8% Men, involuntary job loss: +.9%

(d) Change in one-year retention rate, 1976-78 vs. 1985-88, Marcotte (1996):

Men: -.023 < 2 years of tenure: -.066 2-5 years of tenure: -.020 > 5 years of tenure: -.004

The estimates from Farber (1995) are from a multivariate analysis with standard controls.

In our view, media reporting relies far too heavily on anecdotal evidence, which suffers from the problem that it is not based on random sampling. We are not the first to suggest that the media's reliance on anecdotal evidence may lead to misleading conclusions about larger trends. Faludi (1991) offers two theses regarding what she labels "trend stories" that appear in the media. First, she argues that the media tend to establish trends based on anecdotal evidence and perhaps reporters' own impressions:

The trend story is not always labeled as such, but certain characteristics give it away: an absence of factual evidence or hard numbers; a tendency to cite only three or four women . . . to establish the trend; the use of vague qualifiers like "there is a sense that" or "more and more." (p. 81)

Reporters may have been more prone to write stories about displaced workers in the 1990s because the recession at the beginning of the decade hit their peers—managerial and professional workers—particularly hard; in 1992, unemployment rates for some white-collar occupations were higher than in 1983, in sharp contrast to the case for blue-collar occupations. The *New York Times* series "The Downsizing of America" is perhaps a classic

example of anecdotal reporting. The series is replete with stories about individuals who have been displaced from their jobs. *Time's* 1993 story "Jobs in an Age of Insecurity" similarly highlights numerous cases of individuals displaced from their jobs, while offering little in the way of systematic evidence. It is obvious that at any point in time, even in the midst of a booming economy with rising job security, reporters can find examples of displaced workers who had not found work or had become reemployed at much less prestigious jobs. The existence of such people does not establish a trend.

Faludi's second thesis is that the trends claimed based on anecdotal evidence create their own type of evidence that reporters then take as confirming evidence of the trend. In addition to anecdotal evidence, the "Downsizing in America" series also relies on survey results to bolster the case that job security has declined sharply. However, nearly all of the survey evidence is based on attitudes or fears, with questions such as "How worried are you that in the next twelve months you or someone in your household might be out of work and looking for a job for any reason?" and "Are companies more loyal or less loyal to their employees today than they were ten years ago?" Faludi argues that responses to questions such as these, when most people get the bulk of their information from anecdotal evidence reported in the media, are unlikely to provide us with convincing evidence of changes in the underlying phenomena.

In addition to these concerns, fundamental errors of statistical inference, or worse, abound in media reporting on the employment relationship. For example, while "The Downsizing of America" is about *changes* in the labor market, virtually none (only two, on pp. 55 and 154) of the graphics summarizing survey evidence refer to changes over time. Furthermore, among the scraps of evidence that measure changes, those that contrast with the central thesis are glossed over. One of the two graphics that reports evidence on changes (arguably half of the evidence in the series) indicates that 28% of respondents feel less secure that they can continue in their job as long as they want, 42% perceive no change, and 29% feel more secure (p. 154). To us, this is evidence most consistent with stability of perceived job security.

Conclusions

We suggest three possible explanations of the discrepancies between media accounts of sharp transformation of the employment relationship and earlier empirical evidence suggesting little or no change in job stability. First, we have been measuring the wrong thing; second, media reports may detect more recent changes; and third, the media accounts have got it wrong. We conclude that there is some truth to each of these explanations. There is some evidence of rising involuntary job loss, which may be more related to worker anxiety in the labor market than is overall job stability. Also, newer evidence covering the 1990s does reflect declining job stability for more tenured workers, although declines in aggregate job stability were modest. Finally, though, it is difficult to avoid the conclusion that media claims of a dramatic change in job stability and job security are based on very shaky evidence. The employment relationship may be changing radically, but the data provide, at best, evidence of moderate recent changes and no evidence of long-term transformation.

Acknowledgment

We thank Daniel Hansen and Soomyung Jang for their outstanding research assistance.

Endnotes

- ¹ Among many other examples are "How Safe Is Your Job?" *Newsweek*, Nov. 5, 1990; "I'm Worried about My Job," *Business Week*, Oct. 7, 1991; "Economic Anxiety," *Business Week*, March 11, 1996; and "The Turbulent Job Market," *Forbes*, July 13, 1987. The few exceptions to reports of dramatic declines include "All Worked Up," *The New Yorker*, April 22, 1996; "The Upsizing of America," *Wall Street Journal*, September 20, 1996; and "Whistling While They Work," *The Economist*, January 28, 1995.
- 2 Cohany et al. (1995) report that the new CPS results in an approximately 11% lower count of nonlayoff job losers beginning in 1994. If we adjust the 1994 and 1995 numbers upward to reflect this, the 1993-95 averages are still considerably lower than the 1991-93 averages.

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Has the Rate of Job Loss Increased in the Nineties?

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The Displaced Workers Surveys (DWS), which have been regular supplements to the Current Population Survey (CPS) at two-year intervals since 1984, are probably the most important source of information on job loss in the United States. I examine data from the seven DWSs conducted from 1984 to 1996 to provide a consistent picture of the incidence of job loss over the 1981-1996 period and to determine the extent to which perceptions of increased rates of job loss in recent years are supported by these data. I find that the rate of job loss followed a cyclical pattern between 1981 and 1991. However, the overall rate of job loss increased through the 1993-95 period despite the sustained economic expansion. Finally, using additional data from a debriefing of respondents to the February 1996 DWS, I address the possibility that the elevated rates of job loss in the 1990s are a statistical artifact resulting from changes in the wording of a key question in the DWS in 1994 and 1996 exacerbating a problem of misclassification of some workers as displaced. It appears that the overall rate of job loss has not declined in the 1993-95 time period, despite the strong labor market, and that the overall rate of job loss in the 1993-95 period is almost as high as it was during the very slack labor market of 1981-83.

The Displaced Workers Survey

The advantage of the DWS for studying job loss is twofold. First, the CPS is a large sample that (with weighting) is representative of the U.S. population. Second, the DWS has been conducted at regular intervals for over twelve years so that the beginnings of a time-series on job loss are available. Unfortunately, the core question asking individuals if they were displaced has varied somewhat from survey to survey, making comparisons over time difficult. From 1984-1992 the question was "In the past 5 years, that is, since January 19xx, has... lost or left a job because of a plant closing, an employer going out of business, a layoff from which... was not recalled, or other similar reasons?" In February 1994 the question was "During the past 3 calendar years, that is January 1991 through December 1993, did (name/you) lose or

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leave a job because a plant or company closed or moved, (your/his/her) position or shift was abolished, insufficient work, or another similar reason?" Finally, in February 1996 the question was "During the past 3 calendar years, that is, January 1993 through December 1995, did (name/you) lose a job or leave one because a plant or company closed or moved, (your/his/her) position or shift was abolished, insufficient work, or another similar reason?" Comparisons over time are complicated by two types of changes. First, the recall period changed from five years to three years in 1994. Second, the wording of the question changed fairly substantially in 1994.

If the response to the core question on job loss is positive, the respondent is asked the reason for the job loss and six responses are allowed: (1) plant closing, (2) slack work, (3) position or shift abolished, (4) seasonal job ended, (5) self-employment failed, and (6) other. The BLS considers only the first three responses to represent displacement.² As a result, their published tabulations and analyses of displacement consider only workers who report a job loss for these three reasons, and in the 1994 and 1996 DWSs, individuals who reported a job loss for any of the last three reasons were not asked follow-up questions about the lost job. My view has been that the BLS's definition of job loss is too narrow, and my own analyses have included workers reporting any of the six reasons as job losers (Farber 1993, 1997). Only a small fraction of job loss is due to a seasonal job ending or self-employment failing, but a sharply increasing fraction of reported job loss is for "other" reasons.

Based on my earlier analysis of these data (Farber 1997), I concluded that the overall rate of job loss has increased in the 1990s (through 1995) despite the sustained expansion, particularly for more educated workers. Most of this increase was due to the increase in the rate of job loss for "other" (unspecified) reasons. This makes it particularly important to investigate the nature of job loss for "other" reasons. Is this increase an artifact of changes in the wording of key survey questions? Or does it represent a real increase in the rate of job loss? After presenting tabulations of rates of job loss, both overall and by stated reason, for the seven DWSs conducted from 1984-96 and outlining the key facts, I turn to an analysis of some newly available data from a debriefing of respondents to the February 1996 DWS with more detailed information on the reason for job loss for workers displaced for "other" reasons in order to shed some light on this issue.

Calculating Rates of Job Loss from the Displaced Workers Surveys

I analyze data on 560,188 individuals between the ages of 20 and 64 from the DWSs conducted as part of the January CPSs in 1984, 1986, 1988, 1990, and 1992 and the February CPSs in 1994 and 1996. I compute

the job loss rate as the ratio of the number of workers who report having lost a job in the three calendar years prior to the survey date to the number of workers employed at the survey date. The most important problem of comparability over time that needs to be addressed is the change in the recall period from five years to three years starting with the 1994 DWS. It would seem reasonable to count only job loss in the most recent three years from the 1984-92 surveys. Workers who reported losing jobs four and five years ago would be counted as nonlosers. The result would be a three-year job loss rate which could be compared with the three-year job loss rate computed directly from the 1994 and 1996 DWSs. However, this approach would certainly underestimate job loss in the most recent three years because some (probably nonnegligible) fraction of the workers who lost a job four and five years ago lost at least one more shorter job in the most recent three-year period.⁴

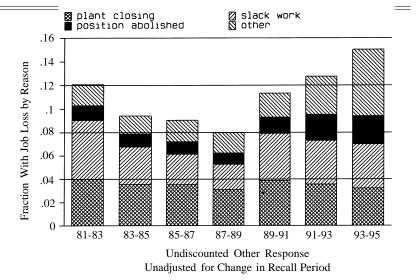
The problem is that three-year job loss rates computed from the 1984-92 DWSs do not include jobs lost in the last three years by individuals who also lost (longer) jobs four and/or five years ago. The solution I adopt is to adjust the three-year job loss rates computed from the 1984-92 DWSs upward to reflect the "missing" job losses. The procedure I use, described in detail in Farber (1997), is based on longitudinal data from the PSID suggesting that approximately 30% of workers who lost a job four years earlier lost another job in the next three years and that approximately 27% of workers who lost a job five years earlier lost another job in the three years immediately prior to the survey. This adjustment, admittedly crude, results in an average upward adjustment in three-year job loss rates from the 1984-92 DWSs of about 11%. While this procedure is surely not perfect, it is difficult to think of a better feasible alternative.

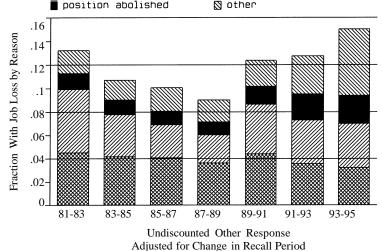
The Rate of Job Loss

Information on rates of job loss is presented most accessibly in graphical form, and the discussion here is organized around a series of figures.⁵ Figure 1 contains a plot of three-year rates unadjusted for the change in the recall period computed from each of the seven DWSs from 1984-96. Figure 2 contains a plot of the three-year job loss rates where the job loss rates from the 1984-1992 DWSs are adjusted upward as described briefly above (and in detail in Farber [1997]) to account for the change in the recall period from five years to three years. These stacked-bar graphs provide information not only on overall job loss rates (the total height of each bar) but also on job loss rates by reason (the shaded segments of each bar). Four classifications of reason are presented: (1) plant closing, (2) slack work, (3) position or shift abolished, and (4) other.⁶

=

FIGURE 1
Rate of Job Loss by Reason
Fraction Workers with Job Loss in 3-Year Period





The rates of job loss in Figure 1 are unadjusted for the change in the recall period, and they show a sharp drop in job loss rates from the 1981-83 period through the 1987-89 period. The job loss rate then increases sharply from 1987-89 through 1993-95. The adjustment for the change in the recall period tends to raise the job loss rates computed from the five DWSs covering the 1981-91 period. These bar graphs, contained in Figure 2, show the same general pattern as the unadjusted data, but the increase between the 1989-91 period and the 1991-93 period is attenuated somewhat. The discussion here and in the remainder of this study focuses on the adjusted job loss rates.

There are several interesting features of the overall job loss rates. The cyclical behavior of job loss is apparent at least through 1991. The 1981-83 job loss rate is relatively high at about 13%. This is a period with a slack labor market (average unemployment rate of 9%, rising from 7.6% in 1981 to 9.6% in 1983). The job loss rate then falls during the tightening labor market of mid-1980s (average unemployment rate 1983-89 of 6.9%, falling from 9.6% in 1983 to 5.3% in 1989). The job loss rate then rebounds to levels similar to the 1981-83 period as the labor market weakens after 1989 (with the unemployment rate rising from 5.3% in 1989 to 6.7% in 1991). As is clear from this comparison of unemployment rates, the latter recession is less severe than that in the early 1980s. Thus it is somewhat surprising that the job loss rates are comparable in the two slack labor markets.

The slackness in the labor market continued in the 1991-93 period despite an ongoing modest recovery (unemployment rate rising to 7.4% in 1992 before declining to 6.8% in 1993). The job loss rate is higher in this period than even in the severe recession of the early 1980s. What is most striking is that the job loss rate increased dramatically in the 1993-95 period despite the sustained economic expansion accompanied by a further decline in the unemployment rate to 5.6% in 1995. This is evidence consistent with the view that there has been a secular decline in job security.

The most striking change in the rate of job loss by reason is the dramatic increase in job loss for "other" reasons since 1991. One possible explanation for this increase is that the changes in wording of the key job-loss question in 1994 and 1996 somehow encouraged more workers to report their job changes as job losses. The questions in 1994 and 1996 appear to be more inclusive in the sense that insufficient work and position/shift abolished are mentioned explicitly as reasons for job loss. It may be that "insufficient work" is interpreted as leaving a job for lack of opportunity for enrichment or advancement (a quit), and these job leavers would be likely to be classified in the "other" category (Abraham 1997). The difference between the 1994 and 1996 question is relatively minor, only

adding some emphasis to the possibility of leaving a job. However, the job loss rates in Figure 2 show a substantial increase in the rate of job loss for "other" reasons in 1994 followed by a dramatic increase in 1996, suggesting that the increase in job loss for "other" reasons is more than an artifact of changes in question wording.

What Is the "Other" Category? Data from the February 1996 Debriefing

Until recently there was no information available on what comprises the "other" category. However, the BLS recently released additional data collected from respondents to the February 1996 DWS that contain some useful information. Individuals in the two outgoing rotation groups (one-fourth of the sample) were asked an additional set of debriefing questions designed as part of a continuing evaluation of the DWS (Esposito and Fisher 1997). For my purposes, the interesting question is a probe asked of all individuals who reported losing a job for "other" reasons. This probe asked for a more detailed reason for the job loss in order to determine how much of job loss of this reported type was, in fact, job loss by the BLS's standards (plant closing, slack work, or position/shift abolished). Fully eighteen possible responses were coded, but the data can usefully be grouped into four categories: (1) job loss (involuntary), (2) quit (voluntary), (3) other, and (4) no response.⁷ Individuals were allowed to list up to four reasons for their job loss.

Most of the useful information is in the first reason listed. Only 37 individuals (of 481 "other" job losers in the outgoing rotation groups of the basic DWS) listed multiple reasons, and only 5 of these 37 listed both an involuntary and a voluntary reason. And no individuals gave a substantive reason for their job loss (involuntary or voluntary) after listing "other" as their reason. On this basis, I classify workers based on their first listed reason. The breakdown of the 81 "other" job losers in the DWS is (weighted percentage) 81 (17.4%) involuntary, 202 (42.8%) voluntary, 148 (28.4%) other, and 50 (11.4%) no response. The striking result is that fully 42.8% of "other" job losers voluntarily left their job and should not be counted as displaced workers.

The unfortunate result is that 39.8% (28.4% other and 11.4% no response) continued to respond "other" as the reason for their job loss. However, there is some additional information available. The debriefing survey recorded verbatim reasons for job loss reported by those who reported "other" on the debriefing question. While I do not have direct access to these verbatim responses, a tabulation was provided to me by economists at the BLS that categorized the job loss of those who responded "other" both to the main DWS question and to the debriefing question on reason for job loss. Three categories were identified: (1) displacement reasons (12.9%), (2)

possible displacement reasons (17.8%), and (3) nondisplacement reasons (69.3%). Thus the majority of this "other" job loss is voluntary.⁸

The conclusion to be drawn from this analysis of the debriefing data is that only a minority of job loss for "other" reasons is involuntary. Two estimates of the fraction involuntary can be derived, depending on how the verbatim responses categorized as "possible displacement" are treated. One estimate is calculated by noting that 17.4% of the "other" job losers in the main DWS are classified directly as job losers in the debriefing. Additionally, of the 28.4% of the "other" job losers in the main DWS who are also classified as "other" job losers in the debriefing, 12.9% supply verbatim "displacement" reasons for their job loss. Thus 21.1% (0.174 + (0.129)(0.284)) of "other" job losers can be classified as involuntary. Alternatively, the additional 17.8% of "other" job losers in the main DWS who are also classified as "other" job losers in the debriefing and who supply verbatim "possible displacement" reasons for their job loss can be classified as involuntary job losers. Using this figure, 26.1% (0.174 + (0.129 + 0.178) (0.284)) of "other" job losers can be classified as involuntary.

Incidence of Job Loss: Discounting Loss for "Other" Reasons

While the debriefing "was not undertaken to produce, nor can it be expected to provide accurate adjustment factors" for rates of job loss (Esposito and Fisher 1997:1), these results can be used to provide a rough estimate of a discount to the rates of job loss in Figure 2 for inappropriate attribution of job loss to workers displaced for "other" reasons. I proceed using 23.6% (the average of the 21.1% and 26.1% involuntary shares derived above) as my estimate of the share of "other" job loss that is involuntary. On this basis, I discount "other" job loss by omitting 76.4% (1-0.236) of "other" job loss in each DWS.

Figure 3 contains plots of the adjusted (for the change in recall period) three-year job loss rates with the discount applied to job loss for "other" reasons. Comparison of Figures 2 and 3 show that the large discount applied to "other" job loss decreases the overall job loss rate substantially in the later years. The effect is to change somewhat the time-series pattern of job loss rates. Consistent with the undiscounted results in Figure 2, the discounted estimates of the job loss rate show a high rate of job loss during the slack labor market of the early 1980s followed by a decline during the expanding labor market of the mid-1980s. This is followed by a sharp increase between 1987-89 and 1989-91 as the labor market slackened once again. However, in contrast to the sharp increase in the overall rate of job loss subsequent to 1993 found in the undiscounted data, the discounted

FIGURE 3
Rate of Job Loss by Reason
Fraction Workers with Job Loss in 3-Year Period

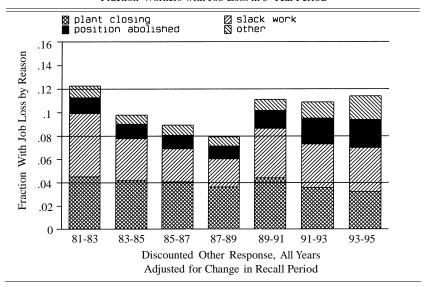
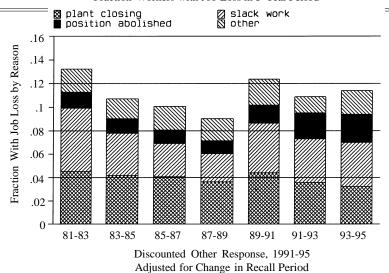


FIGURE 4
Rate of Job Loss by Reason
Fraction Workers with Job Loss in 3-Year Period



data show only a slightly increasing overall rate of job loss during the strong labor market of 1993-95.

To the extent that the increase in job loss for "other" reasons is purely an artifact of the changes in wording in 1994 and 1996, applying my adjustment factor to other job loss in the earlier years will overadjust those years. Figure 4 contains plots of the adjusted (for the change in recall period) three-year job loss rates with the discount applied to job loss for "other" reasons only in the 1994 and 1996 DWSs. Not surprisingly, this adjustment yields a decline in job loss between the 1989-91 and 1991-93 periods, consistent with the early stages of the economic recovery. But the small increase in job loss between 1991-93 and 1993-95 remains and is not consistent with the increasing tightness of the labor market over this period.

Concluding Remarks

The responses to debriefing questions asked of "other" job losers in the February 1996 DWS provide important information to assess the extent to which the increase in job loss for "other" reasons in recent years is, in fact, job loss. The estimates suggest that only about one-fourth of job loss for "other" reasons is involuntary, and I use this result to develop discounted estimates of the rate of job loss for "other" reasons. These calculations show that the overall rate of job loss has not declined in the 1993-95 time period despite the strong labor market and that the overall rate of job loss in the 1993-95 period is nearly as high as it was during the slack labor markets of 1981-83 and 1989-91. It will be interesting to examine data covering the 1995-97 period, to be collected as part of the February 1998 DWS, in order to determine whether and the extent to which job loss rates fell as the strong labor market of the middle 1990s continued.

Acknowledgment

I thank Tom Nardone for his help with the data and Ann Polivka for comments on an earlier draft.

Endnotes

- ¹ There are some important issues of definition implicit in the design of these questions (e.g., multiple job losses, quitting in anticipation of layoff, reduction of wages to encourage quits) that I do not address here. See Farber (1997).
 - ² See Esposito and Fisher (1997) for a discussion of the BLS concept of displacement.
- ³ Given space constraints, details of the construction of the samples I use cannot be included here. See Farber (1997) for details and a more complete analysis of job loss using the DWS. The data from the debriefing of respondents to the February 1996 DWS were made available only recently and are analyzed for the first time here.

- ⁴ Workers who lost multiple jobs were expected to report the loss of the longest job held. The debriefing questions asked of job losers in the February 1996 DWS suggest that approximately 30% of job losers lost more than one job in the three-year window and that approximately 73% of multiple job losers reported the loss of the longest job.
- ⁵ The numerical values underlying these figures are contained in the appendix tables to this paper. All counts are weighted using the CPS sampling weights.
- ⁶ Note that the "other" category I use merges the "seasonal job ended," "self-employment ended," and "other" categories as coded in the DWS. This was done for graphical clarity, and it does not affect the general results. The (unadjusted) rates of job loss due to "seasonal job ended" and "self-employment failed" are small throughout the period studied.
- ⁷ The responses interpreted as involuntary were the company or plant had (1) insufficient work, (2) was about to close down, (3) was about to move away, (4) was downsizing or restructuring, (5) was filing for bankruptcy, (6) suffered a natural disaster, (7) position or shift about to be abolished, and (8) new technology made job unnecessary. The responses interpreted as voluntary were (1) did not like job or boss, (2) child care problems or family obligations, (3) own illness/injury, (4) going back to school, (5) moving away, (6) not enough pay, (7) poor benefits, and (8) too long of a commute. Individuals who reported that they had retired were asked a separate question to determine whether the retirement was equivalent to an involuntary job loss.
- ⁸ This breakdown is based on unweighted counts covering all eligible individuals (ages twenty and older). In contrast, my analysis relies on weighted counts and uses a sample of workers ages 20-64.
- ⁹ The discount is applied only to the portion of the combined category that was "other" in the DWS and not to job loss due to loss of self-employment or seasonal jobs.

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Three-Year Rate of Job Loss by Reason, 1981-95 Appendix Table 1 (Numbers for Figure 1) Unadjusted for Change in Recall Period No Discounting of "Other" Job Loss

Year	Total	Pl Close	Slack Wk	Pos Abol	Other
1981-83	0.121	0.040	0.050	0.012	0.018
1983-85	0.094	0.036	0.032	0.011	0.015
1985-87	0.090	0.035	0.026	0.010	0.018
1987-89	0.080	0.031	0.022	0.010	0.017
1989-91	0.113	0.039	0.040	0.014	0.020
1991-93	0.128	0.036	0.037	0.022	0.032
1993-95	0.150	0.032	0.038	0.024	0.056

Appendix Table 2 (Numbers for Figure 2) Adjusted for Change in Recall Period No Discounting of "Other" Job Loss

Year	Total	Pl Close	Slack Wk	Pos Abol	Other
1981-83	0.133	0.045	0.054	0.014	0.019
1983-85	0.107	0.042	0.036	0.012	0.017
1985-87	0.101	0.041	0.029	0.012	0.020
1987-89	0.090	0.036	0.024	0.011	0.019
1989-91	0.124	0.044	0.042	0.015	0.022
1991-93	0.128	0.036	0.037	0.022	0.032
1993-95	0.151	0.032	0.038	0.024	0.056

Appendix Table 3 (Numbers for Figure 3) Adjusted for Change in Recall Period Discounted "Other" Response, All Years

Year	Total	Pl Close	Slack Wk	Pos Abol	Other
1981-83	0.123	0.045	0.054	0.014	0.010
1983-85	0.098	0.042	0.036	0.012	0.008
1985-87	0.089	0.041	0.029	0.012	0.009
1987-89	0.079	0.036	0.024	0.011	0.008
1989-91	0.111	0.044	0.042	0.015	0.009
1991-93	0.109	0.036	0.037	0.022	0.014
1993-95	0.114	0.032	0.038	0.024	0.020

Appendix Table 4 (Numbers for Figure 4) Adjusted for Change in Recall Period Discounted "Other" Response, 1991-95

Year	Total	Pl Close	Slack Wk	Pos Abol	Other
1981-83	0.133	0.045	0.054	0.014	0.019
1983-85	0.107	0.042	0.036	0.012	0.017
1985-87	0.101	0.041	0.029	0.012	0.020
1987-89	0.090	0.036	0.024	0.011	0.019
1989-91	0.124	0.044	0.042	0.015	0.022
1991-93	0.109	0.036	0.037	0.022	0.014
1993-95	0.114	0.032	0.038	0.024	0.020

Increasing Foreign Competition and Job Insecurity: Are They Related?

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Since the late 1970s, millions of workers have lost their jobs following plant closures, plant relocations, or large-scale reductions in operations. Job insecurity remains at the forefront of public discourse, a stubborn reminder that even a prolonged expansion and a steadily falling national unemployment rate cannot erase perceptions created by widespread experiences of permanent job loss. Today, globalization and technological change are often cited as key factors in changes in employment stability.

This paper examines the relationship between increasing foreign competition and job displacement in U.S. manufacturing. Labor reallocation is a likely implication of a move to freer trade, and it is the job loss component of employment change that most concerns workers, the general public, and policymakers. The assertion that "trade costs jobs" plays an important role in the domestic political economy of free trade.

The literature on foreign trade and job loss is relatively recent. Earlier research has reported evidence that as imports become more competitive, domestic industry displacement rises. See Haveman (1994) and Addison, Fox, and Ruhm (1995) and Kletzer (1995, 1997b).

Does Trade Cost Jobs?

Measuring Industry Trade Sensitivity

There is disagreement in the trade and employment literature on how to measure changes in international trade. Some studies measure trade changes and increasing foreign competition as changes in import prices and other studies use changes in import share quantities. Kletzer (1995, 1997b) discusses in detail the various measures available and how the measures may (or may not) be related to changes in employment and job loss. Here, space constraints prohibit more than a brief description.

Import penetration ratios (or import shares) provide an intuitively appealing way to categorize industries facing significant foreign competition.

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More generally, industries with a large (or rising) share of output (or supply) internationally traded are often labeled "trade-sensitive" (or import/export-sensitive), on the basis of calculated import and export penetration ratios. If the flow of imports reduces domestic employment, high import penetration ratio industries are where that result is most likely to be found.

In a standard Heckscher-Ohlin model, industries face increasing import price competition when import prices fall, thus the appeal of using a price measure to examine whether job loss occurs when imports become more competitive. The link between import price competition and industry employment is fairly straightforward. If the price of an imported (substitutable) good falls, labor's marginal revenue product falls. This drop in the derived demand for labor reduces employment (on an upward sloping labor supply curve). Flexible wages dampen the fall in employment. If wages adjust fully to equate labor demand and labor supply (a competitive labor market), employment falls to desired levels through (employee-initiated) quits. How much wages and employment change will depend on supply and demand elasticities, but there will be no displacement. Only if prices fall enough that firms find it more profitable to shut down than to continue to operate will displacements occur (through plant closings). In markets where wages differ from market-clearing, the likely consequences of increasing import competition are a bit more complicated, and layoffs may occur.²

Increasing Foreign Competition and the Incidence of Job Displacement

With the above discussion as a background, I discuss here a simple empirical framework for examining the relationship between international trade and job displacement that follows Kletzer (1995). To simplify the analysis, assume wages adjust to equate labor supply and labor demand. Using first differences, the demand for labor in industry i in year t (N_s) can be written as:

(1)
$$dlnN_{it} = \beta_{i}dlnW_{it} + \beta_{2}dlnX_{it}^{i} + \beta_{3}dlnX_{it}^{2} + V_{lit},$$

where W_{it} is the industry wage, X_{it}^1 is a vector of trade-related factors that shift labor demand for industry i in year t, X_{it}^2 is a vector of non-trade-related factors, and v_{it} is the error term. Also in first differences, labor supply can be written as:

(2)
$$dlnN_{it} = \alpha_1 dlnW_{it} + \alpha_2 dlnH_{it} + V_{2it},$$

where H_{it} is a vector of factors that shift labor supply, and v_{2it} is an error term. Labor market clearing implies:

(3)
$$dlnN_{ij} = \gamma_{ij}\beta_{j}dlnX_{ij}^{1} + \gamma_{j}\alpha_{j}dlnH_{ij} + \gamma_{3}\beta_{3}dlnX_{ij}^{2} + \varepsilon_{ij}, and$$

(4)
$$dlnW_{it} = \lambda_1 \beta_2 dlnX_{it}^1 + \lambda_2 \alpha_2 dlnH_{it} + \lambda_3 \beta_3 dlnX_{it}^2 + u_{it}$$

Equation (3) is a basic reduced-form equation for net changes in employment. A simple model of turnover can be used to modify and narrow the focus to just one of the gross flows, job displacement. Firms implement net employment reductions through the use of displacements and unreplaced attritions. Attritions are separations due to quits, discharges (for cause), retirements, and deaths. Attritions that are not replaced by employers are called unreplaced attritions. For an industry, net employment change in year t can be written as:

(5) DIS + UA =
$$-\Delta N$$
,

where DIS is displacements, and UA is unreplaced attritions (other nondisplacement separations minus Accessions).³ This net change in employment can be expressed as a proportion of total employment:

(6) DIS/N_{t-1} = Displacement Rate =
$$-(N_t - N_{t-1})/N_{t-1} - UA/N_{t-1}$$

Relying on the approximation of the rate of change of employment, $(N_{t-1}N_{t-1})/N_{t-1}$, to the change in log employment, $(\ln N_{t-1} \ln N_{t-1})$, for small changes, equation (6) is approximately equal to:

where UA Rate = UA/N_{t-1} . Equations (3) and (7) can be combined to yield a reduced-form equation for industry i displacement:

(8) Displacement Rate_{it} =
$$\gamma_1 \beta_2 d \ln X_{it}^1 + \gamma_2 \alpha_2 d \ln H_{it} + \gamma_3 \beta_3 d \ln X_{it}^2 + \gamma_4 UA Rate_{it} + (\epsilon_{it} + \eta_{it}),$$

where η_a reflects unobservable factors related to displacement.

The elements of the vector X^1 need to be specified. There are two alternatives. The first, using relative import prices, yields:

(9) Displacement Rate
$$_{ij} = \delta_{ij} dln P^{m}_{ij} + \Gamma_{ij} + e^{l}_{ij}$$
,

where P_{it}^m is the domestic price (\$) of the import good (relative to the aggregate price level). The elements of X^2 and UA Rate are subsumed in the industry fixed effect Γ , δ_i is a coefficient to be estimated, and e_i^a is the error term.

An alternative specification uses import (and export) share. The discussion above suggests that import share be used along with measures of domestic demand. Following Freeman and Katz (1991), the following equation relates changes in sales to displacement:

Displacement Rate=
$$\delta_2 w_1 dln(domestic)$$
 + $\delta_3 w_2 dln(exports) + \delta_4 w_3 d(importshare + $\pi_i + e^2_{ii}$,$

where the δs are coefficients to be estimated, π_i is the industry fixed effect, e_{it}^2 is the error term, and w_1 = (sales-exports)/sales, w_2 = exports/sales, and

 w_3 = domestic/sales. The weights adjust changes in the three components for the difference in the absolute magnitude of sales generated by the domestic side as compared to the trade side.⁴

Data: Measuring International Trade and Job Displacement

The National Bureau of Economic Research (NBER) Trade and Immigration Data file is the source of information on imports, exports, and total shipments for 4-digit Standard Industrial Classification (SIC) manufacturing industries over the period 1958-92. Import and export price indices data are available for many 4-digit SIC manufacturing industries starting in 1983-84, with coverage of a small number of industries available from 1978. The price measure is a fixed weight Laspeyres index with a 1985 base period. Relative import and export prices are obtained by deflating by the Producer Price Index as a proxy for the aggregate price level.

The SIC-based industry trade data must be aggregated up to a 3-digit CIC industry level to combine trade information with information on employment. Aggregating up from 4-digit SIC to 3-digit CIC is somewhat "costly" for the import price data. Coverage is not complete for all manufacturing industries, so that not all the 4-digit SIC industries within a 3-digit CIC industry have information available for constructing an aggregate 3-digit CIC industry price index.

Job displacement is an involuntary (from the worker's perspective) termination of employment based on the employer's operating decisions, not on a worker's individual performance. The Displaced Worker Surveys (DWSs) provide information on displacement. Available surveys, administered as supplements to the Current Population Survey (CPS), cover displacements occurring over the period 1979-92. In each survey, adults (aged 20 years and older) in the regular monthly CPS were asked if they had lost a job in the preceding five-year period due to "a plant closing, an employer going out of business, a layoff from which he/she was not recalled, or other similar reasons." Other causes of job loss, such as quits, firings, or end of seasonal jobs, are not considered displacements. One notable limitation of the DWS in this context is that wage changes may induce some workers to quit (and not be in the sample), while others opt to stay with the firm (and they get displaced and enter the sample). This distinction means that the displaced worker sample will underestimate the amount of job change "caused" by trade. See Kletzer (1997b) for a more complete description of the DWS data.

I calculated industry displacement rates by dividing the number of workers displaced from a 3-digit CIC industry in a year by the number of workers employed in that industry in that year. The annual industry employment numbers were calculated from merged CPS Outgoing Rotation

Group data files, and they are a proxy for industry workers at risk of displacement.

Analysis of the Cross-Industry Evidence on Trade and Jobs

Table 1 reports panel fixed effect and cross-section weighted least squares estimates of a very simple specification relating annual industry displacement rates to two industry trade indicators.⁶ Panel A reports estimates from a specification using changes in relative import price indices. Industryspecific characteristics, such as differential guits and accessions, and changes in technology that may be related to industry displacement are captured by the industry fixed effects. Column 1 uses a full sample of industries as a balanced panel. Column 2 is restricted to a group of "high-import" industries, those industries with mean import share of at least 12% over the 1975-92 period (the top quartile of import share). The estimated coefficients in columns 1 and 2 reveal that as relative import prices fall and imports become more competitive, displacement rises (the estimated effect of changes in relative import prices includes one lagged term). The coefficient on the log change in relative import prices is negative and statistically significant in column 2 for the "high-import" industries. The sensitivity of displacement rates to the business cycle is captured by the log change in gross domestic product, with the negative, but imprecisely estimated, coefficient showing the countercyclical nature of displacement. Overall, this simple specification does not explain much of the within-industry variation in displacement.

Columns 3 and 4 report estimates from a cross-section time series regression of industry displacement rate, with column 3 using the full sample and column 4 the high-import sample. The dependent variable in this regression is the difference between an industry's annual displacement rate and its mean displacement rate over the time period. Subtracting out the mean industry displacement rate eliminates some industry-specific differences in displacement. Technological change is accounted for in this regression with the inclusion of a variable that measures worker-reported changes in computer usage within the 3-digit CIC industry over the period 1984-93.⁷ This proxy for technological change is positively correlated with industry displacement, but the coefficient is imprecisely estimated. There is a significant downward trend over time in displacement rates over the period.

Panel B of Table 1 reports estimates from a specification of trade flows and domestic demand. Displacement rates are lower with increases in export share and domestic demand. Increases in import share are negatively correlated with industry displacement rate, although the estimated standard errors are large relative to the coefficient. Columns 2 and 3 break up the time period into 1979-85 and 1985-92. Column 4 reports estimates

TABLE 1
Industry Displacement Rates, Changes in Import Penetration Ratio, and Changes in Import Prices

Panel A	(1)	(2)	(3)	(4)
Estimation technique	Panel, FE	Panel, FE	CS	CS
Dependent variable	Displacement rate	Displacement rate	Displacement rate	Displacement rate
Sample	Full, Balanced	High Import	Full	High Import
Time period	1983-92	1979-92	1979-92	1979-92
Log change relative	0661	1575	0446	1437
import price index	(.0435)	(.0600)	(.0400)	(.0489)
Log change GDP	-0.0794	5138	1133	5631
Log change GDF	(.3763)	(.6904)	(.2909)	(.5221)
Industry Fixed Effects	Yes	Yes	No	No
Change in computer usage		100	.0434	.1505
(1984-93)	2		(.1701)	(.2607)
Time Trend			0017	0031
Time Trend			(.0007)	(.0009)
Constant	.0360	.0484	.0129	.0286
Constant	(.0020)	(.0032)	(.0089)	(.0105)
R ² (within)	.0438	.0859	(.0007)	(.0103)
R (Within) R ² (between)	.0396	.3514		
R (between) R ² (overall)	.0134	.0799	.0711	.182
Number of observations	172	122	172	122
Number of industries	18	13	18	13
Panel B				
Estimation technique	Panel FE	Panel FE	Panel FE	CS
Estimation technique Dependent variable	Panel, FE Displacement rate	Panel, FE Displacement rate	Panel, FE Displacement rate	CS Displacement rate
Estimation technique Dependent variable Sample		Panel, FE Displacement rate Full	,	CS Displacement rate Full
Dependent variable	Displacement rate	Displacement rate	Displacement rate	Displacement rate
Dependent variable Sample Time period	Displacement rate Full 1979-92	Displacement rate Full 1979-85	Displacement rate Full 1985-92	Displacement rate Full
Dependent variable Sample	Displacement rate Full 1979-92 re0333	Displacement rate Full 1979-85	Displacement rate Full 1985-92 0682	Displacement rate Full
Dependent variable Sample Time period Log change in import shar	Displacement rate Full 1979-92 re0333 (.0668)	Displacement rate Full 1979-85 0291 (.1132)	Displacement rate Full 1985-92 0682 (.0756)	Displacement rate Full 1979-92
Dependent variable Sample Time period	Displacement rate Full 1979-92 re0333 (.0668)0225	Displacement rate Full 1979-85 0291 (.1132) 0100	Displacement rate Full 1985-92 0682 (.0756) 0101	Displacement rate Full 1979-92
Dependent variable Sample Time period Log change in import shar Log change in exports	Displacement rate Full 1979-92 re0333 (.0668) 0225 (.0061)	Displacement rate Full 1979-85 0291 (.1132) 0100 (.0081)	Displacement rate Full 1985-92 0682 (.0756) 0101 (.0087)	Displacement rate Full 1979-92
Dependent variable Sample Time period Log change in import shar Log change in exports Log change in domestic	Displacement rate Full 1979-92 re0333 (.0668) 0225 (.0061) 0474	Displacement rate Full 1979-85 0291 (.1132) 0100 (.0081) 0928	Displacement rate Full 1985-92 0682 (.0756) 0101 (.0087) 0170	Displacement rate Full 1979-92 0181 (.0057) 0547
Dependent variable Sample Time period Log change in import shar Log change in exports Log change in domestic demand	Displacement rate Full 1979-92 re0333 (.0668) 0225 (.0061) 0474 (.0163)	Displacement rate Full 1979-85 0291 (.1132) 0100 (.0081) 0928 (.0190)	Displacement rate Full 1985-92 0682 (.0756) 0101 (.0087) 0170 (.0194)	Displacement rate Full 1979-92 0181 (.0057) 0547 (.0188)
Dependent variable Sample Time period Log change in import shar Log change in exports Log change in domestic	Displacement rate Full 1979-92 re0333 (.0668) 0225 (.0061) 0474	Displacement rate Full 1979-85 0291 (.1132) 0100 (.0081) 0928	Displacement rate Full 1985-92 0682 (.0756) 0101 (.0087) 0170	Displacement rate Full 1979-92 0181 (.0057) 0547
Dependent variable Sample Time period Log change in import shar Log change in exports Log change in domestic demand	Displacement rate Full 1979-92 re0333 (.0668) 0225 (.0061) 0474 (.0163) Yes	Displacement rate Full 1979-85 0291 (.1132) 0100 (.0081) 0928 (.0190)	Displacement rate Full 1985-92 0682 (.0756) 0101 (.0087) 0170 (.0194)	Displacement rate Full 1979-92 0181 (.0057) 0547 (.0188)
Dependent variable Sample Time period Log change in import shar Log change in exports Log change in domestic demand Industry Fixed Efects	Displacement rate Full 1979-92 re0333 (.0668) 0225 (.0061) 0474 (.0163) Yes	Displacement rate Full 1979-85 0291 (.1132) 0100 (.0081) 0928 (.0190)	Displacement rate Full 1985-92 0682 (.0756) 0101 (.0087) 0170 (.0194)	Displacement rate Full 1979-92 0181 (.0057) 0547 (.0188) No
Dependent variable Sample Time period Log change in import shar Log change in exports Log change in domestic demand Industry Fixed Efects	Displacement rate Full 1979-92 re0333 (.0668)0225 (.0061)0474 (.0163) Yes Goods	Displacement rate Full 1979-85 0291 (.1132) 0100 (.0081) 0928 (.0190)	Displacement rate Full 1985-92 0682 (.0756) 0101 (.0087) 0170 (.0194)	Displacement rate Full 1979-92 0181 (.0057) 0547 (.0188) No .2397
Dependent variable Sample Time period Log change in import shar Log change in exports Log change in domestic demand Industry Fixed Efects Imports of Intermediate G	Displacement rate Full 1979-92 re0333 (.0668)0225 (.0061)0474 (.0163) Yes Goods	Displacement rate Full 1979-85 0291 (.1132) 0100 (.0081) 0928 (.0190)	Displacement rate Full 1985-92 0682 (.0756) 0101 (.0087) 0170 (.0194)	Displacement rate Full 1979-92 0181 (.0057)0547 (.0188) No .2397 (.4113)
Dependent variable Sample Time period Log change in import shar Log change in exports Log change in domestic demand Industry Fixed Efects Imports of Intermediate C Change in computer usage	Displacement rate Full 1979-92 re0333 (.0668)0225 (.0061)0474 (.0163) Yes Goods	Displacement rate Full 1979-85 0291 (.1132) 0100 (.0081) 0928 (.0190)	Displacement rate Full 1985-92 0682 (.0756) 0101 (.0087) 0170 (.0194)	Displacement rate Full 1979-92 0181 (.0057)0547 (.0188) No .2397 (.4113)0269
Dependent variable Sample Time period Log change in import shar Log change in exports Log change in domestic demand Industry Fixed Efects Imports of Intermediate C Change in computer usage (1984-93)	Displacement rate Full 1979-92 re0333 (.0668)0225 (.0061)0474 (.0163) Yes Goods	Displacement rate Full 1979-85 0291 (.1132) 0100 (.0081) 0928 (.0190)	Displacement rate Full 1985-92 0682 (.0756) 0101 (.0087) 0170 (.0194)	Displacement rate Full 1979-92 0181 (.0057)0547 (.0188) No .2397 (.4113)0269 (.0708)
Dependent variable Sample Time period Log change in import shar Log change in exports Log change in domestic demand Industry Fixed Efects Imports of Intermediate C Change in computer usage (1984-93)	Displacement rate Full 1979-92 re0333 (.0668)0225 (.0061)0474 (.0163) Yes Goods	Displacement rate Full 1979-85 0291 (.1132) 0100 (.0081) 0928 (.0190)	Displacement rate Full 1985-92 0682 (.0756) 0101 (.0087) 0170 (.0194)	Displacement rate Full 1979-92 0181 (.0057)0547 (.0188) No .2397 (.4113)0269 (.0708)0013
Dependent variable Sample Time period Log change in import shar Log change in exports Log change in domestic demand Industry Fixed Efects Imports of Intermediate G Change in computer usage (1984-93) Time Trend	Displacement rate Full 1979-92 re0333 (.0668)0225 (.0061)0474 (.0163) Yes Goods	Displacement rate Full 1979-85 0291 (.1132)0100 (.0081)0928 (.0190) Yes	Displacement rate Full 1985-92 0682 (.0756)0101 (.0087)0170 (.0194) Yes	Displacement rate Full 1979-92 0181 (.0057)0547 (.0188) No .2397 (.4113)0269 (.0708)0013 (.0003)
Dependent variable Sample Time period Log change in import shar Log change in exports Log change in domestic demand Industry Fixed Efects Imports of Intermediate G Change in computer usage (1984-93) Time Trend Constant	Displacement rate Full 1979-92 re0333 (.0668)0225 (.0061)0474 (.0163) Yes Goods e .0477 (.0014)	Displacement rate Full 1979-85 0291 (.1132)0100 (.0081)0928 (.0190) Yes	Displacement rate Full 1985-92 0682 (.0756)0101 (.0087)0170 (.0194) Yes	Displacement rate Full 1979-92 0181 (.0057)0547 (.0188) No .2397 (.4113)0269 (.0708)0013 (.0003) .0148
Dependent variable Sample Time period Log change in import shar Log change in exports Log change in domestic demand Industry Fixed Efects Imports of Intermediate G Change in computer usage (1984-93) Time Trend	Displacement rate Full 1979-92 re0333 (.0668)0225 (.0061)0474 (.0163) Yes Goods	Displacement rate Full 1979-85 0291 (.1132)0100 (.0081)0928 (.0190) Yes	Displacement rate Full 1985-92 0682 (.0756)0101 (.0087)0170 (.0194) Yes	Displacement rate Full 1979-92 0181 (.0057)0547 (.0188) No .2397 (.4113)0269 (.0708)0013 (.0003) .0148
Dependent variable Sample Time period Log change in import shar Log change in exports Log change in domestic demand Industry Fixed Efects Imports of Intermediate G Change in computer usage (1984-93) Time Trend Constant R ² (within)	Displacement rate Full 1979-92 re0333 (.0668)0225 (.0061)0474 (.0163) Yes Goods e .0477 (.0014) .0338	Displacement rate Full 1979-85 0291 (.1132)0100 (.0081)0928 (.0190) Yes 0561 (.0020)0740	Displacement rate Full 1985-92 0682 (.0756)0101 (.0087)0170 (.0194) Yes .0390 (.0019) .0067	Displacement rate Full 1979-92 0181 (.0057)0547 (.0188) No .2397 (.4113)0269 (.0708)0013 (.0003) .0148
Dependent variable Sample Time period Log change in import shar Log change in exports Log change in domestic demand Industry Fixed Efects Imports of Intermediate G Change in computer usage (1984-93) Time Trend Constant R ² (within) R ² (between)	Displacement rate Full 1979-92 re0333 (.0668)0225 (.0061)0474 (.0163) Yes Goods e .0477 (.0014) .0338 .0022	Displacement rate Full 1979-85 0291 (.1132)0100 (.0081)0928 (.0190) Yes	Displacement rate Full 1985-92 0682 (.0756)0101 (.0087)0170 (.0194) Yes .0390 (.0019) .0067 .0631	Displacement rate Full 1979-92 0181 (.0057)0547 (.0188) No .2397 (.4113)0269 (.0708)0013 (.0003) .0148 (.0034)

Source: Author's calculations from data drawn from the NBER Trade and Immigration data set, Bureau of Labor Statistics, U.S. Import and Export Price Indices, and the Displaced Worker Surveys. Standard errors in parentheses.

from a cross-section regression. The dependent variable is again the difference between an industry's annual displacement rate and its mean displacement rate over the period. Imports are measured as the annualized difference in imputed imports of intermediate goods between 1979 and 1990.8 The estimated coefficient on the import measure is positive as expected, but not statistically significant.

Conclusion

This paper is a partial and interim report on a study of the relationship between international trade and job displacement for a sample of manufacturing industries over the period 1979-92. While the results are perhaps best viewed as preliminary, they are broadly consistent with the perception that imports displace some domestic jobs. This broad consistency appears to be a result of a reasonably strong positive relationship between increasing foreign competition and job displacement for industries long identified as import-sensitive, industries such as apparel, footwear, textiles. Aside from these industries, the relationship between increasing foreign competition and permanent job loss appears much less systematic.

There is an important limitation to this analysis. Displacement is just one of the flows that contribute to net changes in employment. It is likely that firms use all the components of turnover (quits, new and replacement hiring, as well as displacement) to move actual employment toward its desired level as foreign competition changes. It may be difficult for the data to isolate one flow in the absence of the others.

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Endnotes

- ¹ See Fallick (1996) and Kletzer (1997a) for reviews of the literature on the incidence and consequences of job displacement.
- ² Revenga (1992) shows that for a sample of manufacturing industries over the period 1977-87, changes in import prices have a sizeable effect on employment and a smaller yet significant effect on wages. She concludes that most of the adjustment in an industry to an adverse trade shock occurs through employment. With somewhat inflexible wages (consistent with her finding that the elasticity of industry wages with respect to import prices is smaller than the employment elasticity), these employment reductions must be occurring through involuntary separations (unless industry quits are high).
- ³ Accessions are new hires and rehires. The term unreplaced attritions appears in Brechling (1978).

- ⁴ This decomposition of sales is explained in detail by Freeman and Katz (1991).
- ⁵ The NBER Trade and Immigration data file is described in Feenstra (1996).
- ⁶ With a displacement rate as the dependent variable, error terms are potentially heteroscedastic. Estimates are from OLS, although instrumental variables is preferable. See Kletzer (1997b).
- ⁷ Computer usage is available from CPS data for 1984 and 1993. The variable is the annualized change in computer usage for workers in a 3-digit industry between 1984 and 1993. I am grateful to David Autor for providing the computer usage data. The data are described in Autor, Katz, and Krueger (1997).
- ⁸ I am grateful to Gordon Hanson for providing the imported intermediate goods data. The date are described in Feenstra and Hanson (1997).

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DISCUSSION

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One of the most startling findings of Farber's (1997) original paper is that despite a vastly improved labor market, the displacement rate for 1993 to 1995 (15.1%) was higher than the displacement rate for 1981 to 1983 (13.3%). Although at first glance this increase seems quite high, closer examination of the data reveals that the increase in the displacement rate is entirely attributable to an increase in the "other" category as a reason for having left or lost a job. Consequently, the discussion of whether the displacement rate has increased is entirely centered around the interpretation of the "other" reason category. In a broader context, the crux of the issue is defining what it means to be displaced.

In 1996, as part of an ongoing evaluation of data quality, a series of debriefing questions was asked of a quarter of the CPS sample at the conclusion of the supplement. From a combination of these debriefing questions, it is possible to obtain more detailed information on why individuals, whose original reason was classified as "other," left or lost their jobs. Based on these 1996 answers, Farber adjusts the "other" responses in the six previous DWS. Making this adjustment, the displacement rate actually decreased between the 1981-1983 and the 1993-1995 time periods, as we would expect given labor market conditions. However, treating the adjusted time series as representing a real phenomenon still may be inappropriate. In 1996 there were both question wording and operational changes which may make the 1996 "other" responses incomparable with "other" responses from previous years.

For starters, as was noted in the paper, the wording of the first question was changed in 1994 and again in 1996 in ways which may have contributed to obtaining a greater number of "other" responses. If true, individuals whose answers were coded as "other" in 1996 may not be representative of those whose answers were coded as "other" in previous years.

In addition to the wording changes, starting in 1994, as part of an overall redesign of the CPS, the DWS was automated. Both the automation of

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the supplement and changes to the wording of the basic CPS may have influenced the use of the "other" category. Furthermore, in 1996 the supplement was conducted right after the conclusion of a government shutdown caused by a lack of a budget agreement. Although the shutdown did not appear to affect estimates from the basic CPS, it could have had a larger influence on the DWS through the curtailment of interviewer training for the supplement or the disruption of rapport with respondents.

Finally, the use of the "other" response category may be cyclically sensitive. For example, frequent responses in the verbatim reasons in the 1996 respondent debriefing were "found a better paying job" or "had a better opportunity." In addition, 9.4% of the responses were placed in the precoded category "did not like job or boss." It is likely that during an economic expansion it would be easier to find a better-paying job or to change jobs because of dissatisfaction with the current one. For all of these reasons, it seems inappropriate to adjust the "other" responses in prior years based on the respondent debriefing in 1996. If the 1981-83 "other" category is not adjusted, the decline in Farber's estimated displacement rates between 1981-1983 and 1993-95 is even sharper.

I now would like to turn to another adjustment Farber made. As noted in the paper, starting in 1994, the recall period for potentially being displaced was changed from five years to three years, creating the potential for missed job losses. To address this concern, Farber constructs a repeat job loss rate using data from the PSID. However, due to differences in the samples and the concepts of involuntary job loss, it probably is not appropriate to apply estimates from the PSID to the CPS.

As alternatives, there are two CPS-based corrections that could be used. First, since as part of the February 1995 Contingent Worker Supplement information on job tenure and reasons for job termination were collected, Farber could construct a fourth-year displacement rate for individuals who in the 1994 DWS reported that they had been displaced in 1991 and were in the approximately half of the CPS sample that overlapped. Second, a series consisting only of individuals who had been displaced closest to the year of the survey and had relatively long tenure on the jobs from which they had been displaced could be constructed. The longer the tenure of an individual, the smaller would be the probability that an individual could have another job loss that was missed. If only individuals who had more than five years of tenure were examined, the problem would be completely eliminated. In addition to providing a consistent time series, the use of a tenure constraint may bring us closer to what people have in mind when they say an individual was displaced.

It should be noted that this has brought us back full circle to what it means to be displaced from a job. BLS is currently in the process of evaluating and potentially redesigning the DWS. An integral part of this evaluation is more firmly conceptualizing what is meant by displacement. Some of the important issues we are grappling with is whether all, part, or none of those who leave a job as opposed to losing one should be classified as displaced (job leavers constitute about 30% of the displaced). Other issues that BLS is considering include whether an individual can be displaced from a temporary job and whether an individual has to be displaced from an employer or merely can be displaced from a job. For instance, if an individual was demoted or laid off from one job but subsequently was placed in another with the same company, was the person displaced? These are the types of questions we are struggling with while also trying to keep an eye on comparability of estimates over time. BLS would be happy to hear all suggestions on these and other related topics. In addition, I think we ought to thank the author for focusing our attention on what it means to be displaced.

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V. THE IMPACT OF RESTRUCTURING ON THE LABOR MARKET: EVIDENCE FROM FIRM-LEVEL STUDIES IN THE SERVICE SECTOR

Information Technology, Work Practices, and Wages

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Much of the increase in earnings inequality in the U.S. labor market is attributed to changes in technology. These changes are held to be "skill-biased," that is, new technologies benefit high-skilled workers disproportionately. Direct evidence of such effects is, however, limited and mixed. In this paper, we use a data set with detailed questions on the use of information technology (IT) and work practices in retail bank branches. We examine empirically the relationship between IT and wage outcomes for the job of customer service representative. We investigate four questions. First, is the extent to which branch offices use IT associated with higher or with lower wages for this job? Second, are there different effects associated with the use of IT for distinct purposes? Third, is the use of new work practices that ask employees to make more decisions associated with higher wages for this job? Fourth, how, if at all, are these phenomena interrelated?

Technology, Skill, and Wages

The consensus in the economic literature (Bound and Johnson 1995; Brauer and Hickok 1995) is that much of the increase in inequality in the U.S. labor market in the past two decades can be attributed to skill-biased technological change (for a counterargument, see Freeman [1997]). This consensus argues that changes in the technology of production have

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increased the returns to education. Studies of changes in the wage distribution have suggested that computer usage is related to higher earnings for better-educated workers (Krueger 1993), though this result has also been questioned (DiNardo and Pischke 1997).

Puzzles over the relationships between technology and wages remain in part because the mechanisms that produce these results have not been fully explored. For example, technology might be related to wages through "deskilling" or through "upskilling." The former argues that technology is implemented by managers to lower the skill requirements for jobs, thereby disempowering workers, broadening the available labor pool, and driving wages lower. The "upskilling" argument proposes that workers become more skilled when organizations introduce new technology, thus gaining autonomy and earning higher wages.

The economic and organizational literatures, taken together, suggest that to understand the effects of technology on wage outcomes, we must describe a set of choices around the deployment of both physical technology and the organization of work. Accordingly, we argue that the relationship between technology and wages may be driven by the interaction between the form of a technology itself and the work practices that govern the context in which it is implemented. With respect to the former, we suggest that IT is unlikely to be monolithic in its effects. Zuboff (1988), for example, distinguishes between IT that automates routine tasks and IT that "informates" work by making information more accessible and revealing hidden relationships between distinct sets of information.

If how IT is deployed—automating or "informating"—predicts the direction of skill requirements, we also believe it may influence wage outcomes when coupled with work practices by moderating any direct effects. Generally, we expect IT-based automation to deskill work and to be associated with lower wage levels. However, to the extent that it is coupled with HR practices that redirect workers toward productive tasks requiring higher levels of skill or engagement, the net effect on skill requirements and wages may be positive. We expect that the main effect of "informating" technology will be positive and that this effect may also be moderated by work practices.

Method and Sample

We focus on the job of "customer service representative" (a service and sales worker who is not a bank teller) in retail branches of large U.S. banks. This focus lets us employ detailed, highly reliable, and easily comparable measures of technology in use across branches. It also lets us compare the effects of different employment practices governing a job that comprises a

fairly standard array of tasks. Our data come from a detailed survey of technology, work practices, and performance in 135 large U.S. retail banks, which was conducted by a research team in 1994. Each organization in this sample received multiple questionnaires, including questionnaires for multiple bank branches in the retail bank. The research team obtained the participation of banks holding over 75% of the total assets in the industry as of year-end 1994.

With respect to work organization, technology, and wages in bank branches, as well as the functionality of technology, pilot surveys indicated that the best respondent was the local branch manager. We excluded supermarket branches and telephone banking centers from the analysis so that the sample of branches was relatively homogeneous. After eliminating bank branches with missing data on the study variables, we had a sample of 306 branches from 112 retail banks.

Measures

Our key dependent variable is the TYPICAL WAGE of a customer service representative in the branch. We focused on the wages of typical employees rather than those of new employees in order to net out the differences in hiring and initial training strategies across banks. Typical wages are also likely to better indicate the branch's wage policy than high wages, which may reflect the idiosyncratic situation or contribution of particular employees.

Technology Measures

We measure the level of automation in the bank branches with a seventeen-item index (Cronbach's alpha = 0.81) in which each item is a yes-or-no question assessing whether the branch platform computer system can perform a particular task (e.g., change a customer's address) "on-line." (The complete lists of items for the various measures are available from the authors.) Higher scores on this scale indicate that the branch has automated a higher share of these tasks. Many of these steps seem to be simple but in practice are usually complex and expensive. For example, moving from pencil-and-paper to on-line address changes requires linking of databases and the review of internal fraud prevention measures. INFORMATING capacity in the branches is indicated with a four-item index (Cronbach's alpha = .73) comprising yes-no questions assessing the use of sales-supporting software in the branch (e.g., does the system provide cross-sell prompts?). More extensive use of this software is consistent with Zuboff's (1988) view of how technology can create new kinds of information and new ways to link different data.

Work Organization Measures

We operationalized "high-involvement" work organization in three ways. First, we looked at the level of AUTONOMY given to individual workers in their jobs. Here we employed a twelve-item scale (Cronbach's alpha = 0.73) in which each item was a yes-no measure indicating if the CSR had the authority to perform various functions as part of the sales and service role.

We also looked at two further forms of employee influence on decision making: formal and informal programs of employee involvement in decision making. We had no a priori reason to suspect that particular forms of structured employee involvement were more or less likely to be appropriate in this setting, or whether various structures were likely to be substitutes or complementary. Thus we constructed a binary variable, E.I. STRUCTURE, which took a value of 1 if CSRs participated in any of the following structured forms of employee involvement: "self-directed" or "autonomous" work teams; quality circles; or programs of TQM. Since we do not have data from all branches on the actual behaviors of employees, we suggest that we can best understand the role of formal employee involvement by focusing on the question of whether or not any structures that facilitate it exist.

We also wanted to allow for the possibility that in small units such as bank branches, it may be possible to have employee involvement in decision making without corresponding formal structures. We therefore also asked the branch manager to assess the level of employee involvement in key decisions in the branch and constructed a nine-item scale for INFORMAL E.I. (Cronbach's alpha = 0.84).

Controls

We control for several characteristics of bank branches that might be associated with wages, technology, and work practices. LN ASSETS measures the size of the bank holding company that owns the branch by taking the natural logarithm of the total assets of the bank. LN SIZE indicates the size of the branch by taking the natural log of the number of branch employees. LN BRANCHES is the natural log of the total number of bank branch offices in the county where the branch is located, as reported by the Census Bureau. This measure gives a sense of the size of the local metropolitan area as well as the demand for branch banking and for bank branch employees. MIDWEST, SOUTH, and WEST are regional dummy variables (Northeast is the omitted category). We also estimated models in which a dummy variable indicates if the branch was located in a Standard Metropolitan Statistical Area. More detailed local labor market measures, such as the county unemployment rate, added no explanatory power beyond the controls described above.

Because the unit of analysis was the bank branch rather than the individual CSR, our model does not include many of the individual demographic controls used in a typical wage equation. We control for the level of education of CSRs, but there may be further unobserved heterogeneity across CSRs in these branches, and the effects we observe and attribute to technology and work organization may be associated with this heterogeneity. If these differences are related to workers' skill level, their comfort with technology or ability to use IT, or their suitability for high-involvement work practices, that would not be a serious problem for our argument. We have not posited any particular mechanisms through which the introduction of technology actually changes skill requirements and wages. We assume that several processes might produce these effects. Further, given our cross-sectional data, we cannot make any strong causal inferences between worker attributes and characteristics of technology. Even if we had more data on worker characteristics, we could not say if technology and work practices are implemented in response to the capabilities of workers, or if technologies and work practices predate workers who are selected because of their fit with a particular system.

Results

Table 1 summarizes the results of ordinary least squares regression models with the typical wage of a branch CSR as the dependent variable. Our control variables are highly statistically significant: larger banks, branches with more employees, and those in counties with many branches clearly pay their branch CSRs more. The overall fit of the models is reasonably good, especially since we are attempting to explain a narrow band of variation in earnings in one standard job.

The results suggest that the use of "informating" technology is positively and significantly related to wages. Neither automation nor the organization of work appears to bear much relationship to wage practices. Yet, we also hypothesized that the effects of technology and work organization might be difficult to separate from one another. Thus our models allow for interactions between the different levels and types of technological capabilities and the different levels and types of work organization. (We centered the interaction terms, following the method of Jaccard, Turisi, and Wan [1990].) The interaction terms reveal that the coupling of automation with forms of work organization allowing individual autonomy and, possibly, work-group influences on decisions is associated with higher wages.

Consistent with the deskilling argument, automation may also affect wages negatively: as the scales are centered to range from negative to positive. There is no evidence of a baseline effect for automation or for work

 $TABLE \ 1$ Ordinary Least Squares Regression Results with Interactions Dependent Variable: Ln (Typical wage) $N=306 \ retail \ bank \ branches$

	1	2	3
LnAssets	0.035***	0.036***	0.035***
	(0.007)	(0.007)	(0.007)
LNSize	0.084***	0.080***	0.083***
	(0.018)	(0.018)	(0.018)
LNBranches	0.036***	0.034***	0.035***
	(0.008)	(0.008)	(0.008)
Midwest	0.050**	0.049**	0.050**
	(0.025)	(0.025)	(0.025)
South	-0.037	-0.040	-0.037
	(0.025)	(0.025)	(0.026)
West	-0.002	-0.006	-0.005
	(0.036)	(0.036)	(0.036)
Education	0.047*	0.051**	0.049**
	(0.024)	(0.025)	(0.025)
Informating Tech.	0.057**	0.059**	0.059**
	(0.027)	(0.075)	(0.027)
Automating Tech.	-0.027	-0.024	-0.025
	(0.044)	(0.044)	(0.045)
Autonomy	-0.062	-0.054	-0.057
	(0.053)	(0.053)	(0.054)
E.I. Structures	_	0.018	0.008
		(0.019)	(0.020)
Informal E.I.	0.020	_	0.017
	(0.013)		(0.013)
Informating Tech.	-0.187	-0.208	-0.190
X	(0.142)	(0.142)	(0.143)
Autonomy			
Informating Tech.	_	-0.117**	-0.109**
X E. I. Same at a sure		(0.051)	(0.054)
E.I. Structures	0.021		0.011
Informating Tech.	-0.031	_	-0.011
	(0.034)		(0.035)
Informal E.I.			
Automating Tech.	0.507**	0.516**	0.493**
X	(0.231)	(0.231)	(0.232)
Autonomy			
Automating Tech.	_	0.128	0.077
X		(0.089)	(0.093)
E.I. Structures	0.4004		0.004
Automating Tech.	0.102*	_	0.084
X	(0.055)		(0.057)
Informal E.I.			
Adj. R-squared	0.289	0.292	0.293
F for R-squared change from baseline model in Table 2	2.88**	3.47***	2.63**

practices: the effects of automation and work practices on wages depend entirely upon their coupling with one another. In contrast, there appears to be a strong, positive main effect between "informating" technology and wages. Further, contrary to our prediction, we find a negative relationship between wages and the interaction of formal employee involvement structures with this technology. Both this relationship and the absence of direct relationships between work practices and wages raise puzzles that we can only partially resolve with these data.

Discussion

Our data and analyses strongly suggest a relationship between wages and the use of IT for CSRs in bank branches. Further, our evidence indicates that there are qualitatively different uses for IT in the workplace. First, IT used to automate basic tasks has indeterminate effects on wages. The extent to which IT is employed along with work practices designed to increase employees' involvement in decision making is a significant predictor of the direction of technology's effects. Our evidence suggests that "automating" technology neither deskills nor upskills work by itself; rather, the work context in which it is found is important.

We also find that the use of sales-supporting technologies in this setting has more deterministic effects. These characteristics are, we argue, indicative of a broader category of "informating" technologies and are associated with higher wages. Further, the effects of such technologies are moderated negatively by the use of formal employee involvement structures.

Our evidence indicates associations rather than causation, and thus we suggest that the terms "deskilling" and "upskilling" might be used only cautiously. While our findings suggest that specific combinations of technology and work practice are related to wage outcomes, they do not show that technology creates or even modifies skill requirements or that managers use technology to do so. Such processes are plausible, but processes that are causally opposite are also consistent with our results. Managers observing particular skill levels of workers may choose configurations of technology or practices that are consistent with those skills. Workers themselves may also influence these choices.

Despite our limited focus, one job in one industry, neither the jobs nor the firms examined seem unusual to us. Our particular measures are context-specific, but we have no reason to expect that the phenomena and relationships we proposed would not be observed in other sectors. We see this research as a complement to more general approaches based on probability sampling and census data on firms and workers. Industry studies cannot answer broader questions about the direction, magnitude, and causes

of changes in the earnings distribution. Yet, we believe studies like this are necessary for understanding these phenomena and hope our work will spark inquiry at more aggregated, economywide levels and more detailed levels, with richer accounts of the processes by which technology and work practices come to be associated with the effects we have identified.

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What Technology Can and Cannot Do: A Case Study in Banking

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In light of rising income inequality over the last two decades, researchers are asking how firm restructuring and technological change have affected jobs, wages, and workers. These effects are not simple. Contrary to expectations, American firms have apparently not engaged in a wholesale adoption of the high-performance workplace, despite evidence of its performance benefits (Ichniowski et al. 1996; Appelbaum and Batt 1994). Rather, different business strategies have been adopted by different firms depending on their economic, regulatory, and institutional environment. And while technology offers an intuitive and appealing explanation for rising skill differentials, we know that it can serve to both upskill and deskill jobs as well as eliminate them (Zuboff 1988). Moreover, restructuring and technology interact to produce different outcomes for workers within the same industry or even firm (Hunter and Lafkas 1998).

This complex picture is in part due to a growing body of work on the service sector, which is more diverse than the much-studied manufacturing sector. In particular, an emerging theme across a variety of service industries is that market segmentation has increased during the last two decades (Eaton 1997; Batt and Keefe forthcoming; Bailey and Bernhardt 1997). This segmentation is reflected in business practices that range from high road to low road and that can have the effect of polarizing job quality and worker welfare.

We continue in this line of research and present initial findings from a case study of retail banking at a large multinational bank, which we here call GlobalBank. It is a strategic research site because GlobalBank has traditionally been an industry leader and because bank branches have traditionally provided solid entry-level jobs and career potential to workers without a college degree. With this in mind, we ask the following questions: How has GlobalBank reorganized retail banking over the past two decades, and why? What role has technology played? And what have been the effects on skill requirements and job quality within the branch system,

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especially for tellers? Our preliminary findings are based on fieldwork at GlobalBank's retail banking division in the New York metropolitan region (which has about half of the firm's U.S. work force). We interviewed human resource managers, trainers, and recruiters; conducted site visits at two branches serving very different customer segments; interviewed branch personnel at all levels; conducted focus groups; and observed training classes. The fieldwork was supplemented with background data on GlobalBank and the industry as a whole.

The Banking Industry

The banking industry has undergone marked changes over the past two decades, driven in large part by deregulation and new technologies (Keltner and Finegold 1988). The loosening of interstate banking laws allowed banks to expand their operations across state lines and encouraged a wave of banking mergers, which increased fourfold between 1980 and 1994. Restrictions that had segmented financial services were weakened so that banks could now sell more insurance and investment products such as mutual funds. At the same time, new information technology was having radical effects on cost, productivity, and service delivery. During the 1980s, banks spent about \$60,000 per employee on information technology (Morisi 1996). Transactions performed by tellers now cost about four times less when done by an ATM, and the labor-intensive work of check handling has all but been eliminated. Finally, the diversification of financial products would have been impossible without the technology that enables linking across accounts, loans, mortgages, and investments.

Thus the retail banking industry has become more competitive, complex, and volatile. GlobalBank has responded to (and at times initiated) these changes, diversifying its products and shifting to risk and credit products, some of which are quite innovative. Yet the bank is in a constant race against its competitors. Technology allows quick, cost-efficient duplication of new offerings. As a result, industrywide sea changes in products are the rule, where banks must not only keep up with one another but also with the new competitors of brokerage houses such as Merrill Lynch. Moreover, retail banking has grown enormously in its importance to GlobalBank. It is now at the forefront of the bank's strategy, and there is strong pressure from corporate headquarters on branch managers to generate profits in a market where margins are already slim.

The Move toward Market Segmentation

Similar to others in the industry, GlobalBank has responded to increased competition by adopting a strategy of market segmentation. This strategy

separates the two sides of retail banking: sales and service. For basic financial services handled by tellers and back-office staff, the bank tries to cut costs and automate as much as possible, since these services lose money. In this approach of transaction banking, payroll costs have been reduced with tighter staffing and a dramatic increase in the percentage of part-time tellers. The labor-saving ATMs and telephone and computer banking have also increased the scope of transactions that are done electronically.

But the money maker for the branches is the selling and management of complex financial products, and here GlobalBank has adopted the relationship banking approach. The idea is to provide high-quality customer service for all lucrative accounts and transactions (which only corporate clients received in the past). Thus "personal bankers" sell and manage a wide range of customized financial products to high-end customers. There is now a formally defined elite customer stratum, where individual branches receive a list of accounts from headquarters that have enough money to warrant hands-on management. About 20% of a branch's accounts fall into this category, and they generate roughly 80% of the revenue. If a branch has a sufficient number of such accounts, it also qualifies for one or more on-site licensed brokers. In short, GlobalBank's goal is to reduce the cost of simple transactions (and the human labor devoted to them) and to increase sales, customer service, and the number of high-end accounts.

Restructuring and Technology

In pursuing this goal, GlobalBank began a massive reorganization of its New York branch system in the 1980s. The bank reduced operational costs and staffing by centralizing and created one coherent strategy across the board. Back-office functions, which had been duplicated within each region and even individual branches, were consolidated nationally (for example, all customer service operations are now located in one state).

GlobalBank has also been the industry leader in technological innovation. It was the first to introduce ATMs, but the continual upgrading of the bank's technological infrastructure has been just as important. Computerized account information and processing were centralized so that a customer's entire banking profile is now linked and accessible nationally, including accounts, credit cards, loans, mortgages, and investments. This technology has clearly been key to the goal of cross-selling and account management. It has also enabled the consolidation of the back-office functions in one place. Finally, the near automation of tedious back-office tasks remaining in the branches has enabled the shift to service delivery.

Measuring the effects on employment levels is difficult because the work entailed by retail banking is now very different than it once was. As

well, GlobalBank was hit with several severe financial crises which set off a large wave of downsizing. On balance, though, there has certainly been a net reduction in jobs because of gains in economies of scale, reduction of managerial layers, and through technology-driven efficiencies. In 1985, employment was roughly 8,000-10,000 in the entire New York retail banking division, with about half working in the branches themselves. In 1996, total employment was only 4,600-4,800, with more than two-thirds working in the branches. Of 2,000 back-office jobs, roughly 1,500 were moved out of the region or automated.

At the same time that branch employment declined, however, the number of transactions has skyrocketed. In 1980, tellers and ATMs handled a total of 139 million transactions, with the tellers' share at 67%. In 1997, the total had climbed to 214 million transactions, with the tellers' share now at just 23%. One would be hard pressed to overestimate the effect of ATMs and other automated technologies in allowing for expanded volume without expansion of the work force. Moreover, human productivity increased so that both tellers and back-office workers (such as phone representatives) can now handle roughly double the transactions they did in the past.

Effects on Job Content and Job Quality

The reengineering at GlobalBank has had important effects on the staffing, task content, and quality of jobs at the branch level. In simple terms, the segmentation into relationship banking and transaction banking has led to a corresponding segmentation of work into high-quality and low-quality jobs.

In the past, the majority of branch jobs were service-oriented. Tasks were highly routinized and often time-consuming, and job content was narrow. Numerous position titles were organized into vertical hierarchies in three clusters: tellers, back-office personnel, and platform workers. Most tellers performed a limited number of simple duties such as cashing checks and making deposits. Back-office work was performed at the branch or within the region by a staff of clerks who were roughly equal to tellers in status and career potential. Platform workers, one level up in the hierarchy, typically opened accounts and processed loans.

Work at the branches is now clearly divided into two sides: sales and service. The service side performs simple transactions and is staffed largely by tellers, supplemented with the few remaining back-office employees whose functions have not been automated or consolidated at national centers. The sales part—the money maker of the branch—consists mainly of personal bankers (platform workers of old) who open accounts and engage in relationship banking. Finally, a highly flexible position has been created whose

main task is managing traffic flow. The customer relations manager greets, screens, and directs customers to different branch zones, gently steering appropriate customers toward ATMs and away from tellers who continue to be favored over machines for simple transactions by many customers.

The Upskilling of Platform Workers

Part of GlobalBank's move toward quality customer service was a collapsing of job titles into about half their previous number. On the sales side, platform workers with specialized duties and various titles were all recast as personal bankers. They are now regarded as officers, representing a clear increase in status since the designation also applies to branch supervisors and managers. While informal distinctions in job content remain, this position has been transformed into a complex, somewhat autonomous, skilled sales occupation.

Personal bankers have access to all customer account information through the bank's centralized computer system. They manage multiple accounts for a given customer, making referrals to investment brokers when appropriate. Most of the routine tasks (such as change of address, issuing of cards, and adding new accounts) have been taken over by tellers, so that personal bankers can focus on high-level accounts. Because of the great diversification of consumer banking products, personal bankers must possess knowledge and expertise in a number of fields. Above all else, they must cultivate skills in cross-selling, one of the foundations of relationship banking: both individuals and businesses are encouraged to add products and services to their accounts over time. Finally, there is more flexibility in the position with movement across tasks and jobs according to need (e.g., between management, sales, and even teller supervision).

Personal bankers today typically have four-year college degrees, which had not been true in the past, and both insiders and outsiders with proven sales savvy are recruited. Incumbents can sign onto sales and product workshops at their own initiative. Base pay has increased substantially, and performance-based bonuses can be significant. In sum, platform workers have been upskilled to multitalented sellers.

The Deskilling of Back-Office Work

Restructuring has generally had the opposite effect on the job quality of back-office work. Many of the specialty functions once performed have been eliminated. There has been a clear deterioration of job quality both in the national centers (telephone service, operations, and credit and mortgage processing) and in the remaining branch operations and check processing. Work at the national centers in particular is characterized by highly

supervised and time-monitored tasks which have been routinized and at points deskilled by technology. Where careers were once possible, mobility prospects have all but disappeared (because of the physical relocation), and pay is low and on an hourly basis. Even within the branches, movement into back-office operations is most often understood as a glamourless dead end.

The Attempt to Make Tellers "Sales People"

The story of bifurcation in job quality grows more complicated when tellers are considered. GlobalBank's stated goal is to free tellers from the traditional monotonous tasks of check cashing, deposits, and money counting and to involve them more significantly in the bank's selling process—a shift from "order-takers" to "sales people." The extent to which this has occurred is another matter. Tellers continue to perform basic transactions, albeit more quickly and efficiently. They have also taken on more of them, such as changing addresses, issuing ATM cards and pin numbers, and adding a savings account to a preexisting checking account. And corresponding to the industrywide trend toward flexible staffing, half the tellers are now part-time workers, and almost everyone begins part-time. This is in stark contrast to the past, where virtually all tellers were full-time.

GlobalBank aims to make sales people out of tellers by developing their interpersonal skills and by having them contribute directly to the relationship strategy through "referrals." Ideally, a teller evaluates customers that come to his or her service window and refers them to a personal banker or investment officer when account information indicates a profile for a particular product. A savings account balance of \$70,000, for example, would indicate a referral to investments. Potentially, then, referrals can require product knowledge and selling skills that are far removed from tellering in the past. The enhanced training of tellers reflects this shift in emphasis, by introducing appropriate sales and product knowledge classes.

In practice, however, the importance of referrals varies considerably by branch management and by the clientele that the branch serves. There is strong consensus among branch workers that accuracy in transactions and organizational skills are still the key attributes of a good teller. And during high customer volume, no one expects or wants tellers to make referrals, since doing so necessarily slows down service—and this hurts customer satisfaction. Finally, some types of referrals are relatively easy to make (such as suggesting a credit card application), whereas referrals to lucrative investment products are not yet commonplace. Referrals do not dominate tellers' job content.

That tellers have not to date become an integral part of the sales process is not to say there has been no change in job content or quality.

Compared to the past, tellers must organize a greater number of time-sensitive tasks while not undermining courteous service. This makes the job more stressful. There is also evidence for a moderate increase in skill levels, mostly in the area of interpersonal skills. Whereas tellers of the past typically had no education past high school, almost all hires now have some college experience. This credential appears to be more of a screen for soft skills than an indicator of hard skills. Nonetheless, the quality of successful applicants has risen, and the applicant-to-hire ratio has increased dramatically.

Remaining characteristics of job quality are confounding. On the upside, pay has increased somewhat, but the gap in pay between tellers and personal bankers has also widened. Part-time tellers receive the same health benefits as full-timers, but actually getting a full-time salaried position can be difficult. Mobility beyond full-time status is even more difficult because of the reduction in job classifications. Back-office promotion ladders have dwindled and personal banker positions require skills that most tellers do not possess. Indeed, nearly half of these openings go to applicants from outside the branch. Tellers can move on to customer relations manager slots, but this position is not yet numerous enough (one for every ten tellers). Management believes that dissatisfaction with mobility opportunities is responsible for high turnover among the most skilled tellers. Turnover, while down to 35% from 50% before restructuring, is still considered a deep problem, especially in light of the \$4,000 investment the bank makes in training each teller. In short, at an absolute level, some upskilling and increase in job quality has occurred. But tellers have not been transformed into sales representatives.

Conclusion

In its retail branches, GlobalBank has responded to increased competition with a strategy of market segmentation. For basic transactions, the bank has cut costs and automated as much as possible. For the selling and management of complex financial products, it has shifted to high-quality customer service. Our fieldwork in New York branches suggests that the result has been a similar bifurcation in job quality. Back-office work has been deskilled by technology and national consolidation. Platform workers have been upgraded to skilled portfolio managers. For tellers, the results are mixed. The training, screening, and recruiting of tellers has become more rigorous. But often the jobs themselves are still low-status, mechanical, and still lack good mobility potential. The problem may be that GlobalBank has come up against the limits of technology-driven change. Its competitive strategy always focused first and foremost on restructuring, cost-cutting, and

technology. By contrast, there has been little emphasis on transforming the organization of work, for example, via teams and task redistribution. Thus the division of labor within the retail branches has not fundamentally changed. We suspect that the teller jobs will not be upgraded until Global-Bank explicitly adopts a human resource strategy to complement its focus on technology and restructuring.

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Labor Market Outcomes of Deregulation in Telecommunications Services

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This paper examines the labor market outcomes of deregulation in the telecommunications industry, focusing specifically on changes in union density, real wages, wage inequality, and employment levels. Deregulation of telecommunications long distance and equipment markets began in 1984 with the dismantling of the highly unionized Bell System into AT&T (the long distance and equipment provider) and seven Regional Bell Operating Companies (RBOCs, the local service providers). Deregulation of local service has proceeded fitfully: while Congress intended to increase local competition with the passage of the 1996 Telecommunications Act, the RBOCs continue largely as monopoly providers. Despite only partial deregulation, however, former Bell System companies have fundamentally restructured their operations to compete with a growing number of new nonunion entrants; and they have focused heavily on cutting labor costs. Labor-management relations, cooperative under the prior regulated regime, have deteriorated substantially; and unions have had minimal influence on managerial strategies in the deregulated era (Keefe and Batt 1997).

In this paper, we focus on three questions. First, what are the overall trends in unionization, real wages, and wage inequality since deregulation began? Second, what is the effect of deunionization on wage inequality in the industry as a whole and within occupational groups? Third, to what extent has inequality increased within both the union and nonunion segments of the industry? To answer these questions, we analyze the Current Population Survey (CPS) annual earnings files (1983 to 1996). We interpret these data in the context of field research on managerial and union strategies in response to deregulation.

Previous Research

Prior research on wage inequality shows that unions play a key role in limiting wage dispersion by raising the relative wages of lower-skilled workers and by reducing the wage gap between blue-collar and white-collar

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employees (Freeman and Medoff 1984). Cross-national research shows that higher levels of union density are associated with lower levels of wage inequality (Card and Freeman 1993; Fortin and Lemieux 1997). Also, the decline in union density in recent decades is associated with greater wage inequality because employment shifts to the nonunion sector where wages are more market-driven (Asher and DeFina 1997). Dinardo and Lemieux (1997) find that a more severe drop in unionization in the U.S. compared to Canada accounts for two-thirds of the differential growth in wage inequality between the two countries.

This paper contributes to the literature on wage inequality by examining the relationship between deregulation, deunionization, and wage inequality among detailed occupational groups within one industry. Most research on deunionization has taken a more aggregate approach; and while researchers have found increased wage inequality within age and education cohorts (e.g., Levy and Murname 1992; Freeman and Katz 1996), few studies have focused on these outcomes within occupation/industry groups.

In addition, while there is evidence that wage inequality has increased within both the union and nonunion segments of the labor market (e.g., Freeman 1996), few analyses compare the changes in wage distribution within each segment (an exception is Chaykowski and Slotsve 1996). Finally, this paper compares the extent of change in the 1990s versus the 1980s. Prior work on the relationship between deregulation and deunionization has focused primarily on the 1970s and 1980s (e.g., Fortin and Lemieux 1997).

Industry Context

To understand how deregulation has affected the structure of employment and wages in the last decade, it is important to review the stylized facts of the Bell System, pre- and post-deregulation in 1984 (see Keefe and Batt 1997 for a detailed review). Prior to 1984, the Bell System consisted of over 1 million employees who represented over 90% of the work force in the entire industry. Sixty-five percent of the work force was unionized, represented either by the Communications Workers of America (CWA, the dominant union), the International Brotherhood of Electrical Workers (IBEW), or an independent union.

The Bell System provided "universal service" to the public through a highly standardized and nationally integrated system of equipment and operating procedures. The companies and union developed a national system of internal labor market rules governing the structure of jobs, training and advancement, compensation, and employment security. Given the

undifferentiated nature of the product and customer, the structure of jobs was relatively simple, with two core nonmanagement occupations: a primarily female work force of office workers (operators, clericals, service and sales workers) who handled customer transactions, and a primarily male work force of network technicians who maintained the switching and transmission infrastructure.

The unions helped reduce wage dispersion through several collective bargaining agreements beginning in the 1960s. In 1968, AT&T and the CWA established six national wage zones to deal with the effects of variation in the cost of living. In the 1971, 1974, and 1980 contracts, AT&T agreed to special wage adjustments in lower-paid, traditionally female jobs. The CWA also negotiated reductions in the amount of time it takes a worker to reach top pay in any wage grade from 8-10 years to 4-5 years (Keefe 1989). Keefe found that the major source of reductions in wage dispersion was across departmental average wages.

In the post-1984 period, the former Bell companies focused on cost reduction in order to face new nonunion entrants who enjoyed lower cost (younger and nonunion) labor; lower overhead; and new, more maintenancefree technologies. The former Bells downsized nonmanagement positions by between 30% and 60%, depending on the company. They reorganized into market-driven business units that target particular customer segments—large business, small business, and residential. Digital technologies provided the opportunity to offer customized bundles of services to different customer segments. The customer segmentation strategy translated into a labor segmentation strategy for each occupation. On the sales and service side, companies redesigned jobs and wages to fit the demands of differentiated customer segments. This redesign entailed an increase in the work force dedicated to sales and a functionalization of jobs into sales, service, and support functions. For the technical work force, the change from analog to digital systems shifted the demand for skill from those trained in analog systems to those with digital skills. As the companies created new job titles, the unions were left with negotiating appropriate wage rates. Despite the break-up of the Bell System, however, analysis of union contracts since deregulation shows that the companies and unions have maintained a fairly consistent national pattern of bargaining (Keefe and Boroff 1994).

Data

Data for this paper come from the merged annual earnings file of the CPS for the telecommunications services industry (SIC code 481) between 1983 and 1996 (prior years do not include union status). The data are compiled from the monthly outgoing rotation group. Our sample includes persons

over 16 years of age who were employed for at least 35 hours per week and who reported earnings above the minimum wage. The sample, therefore, excludes part-time workers, thereby providing a relatively conservative estimate of wage inequality. The sample includes 2,073 observations in 1983, declining to 1,477 in 1996. We identify two broad occupational groups: clerical/sales and technical. Clerical includes computer operators, secretaries, typists, telephone operators, and order clerks. We combine clerical and sales groups for purposes of analysis because the content of work in these two categories overlaps. "Customer service representatives" for example, often primarily do sales. Technical workers include computer programmers, electrical and electronic technicians, telephone installers and repairmen, linemen and splicers, electronic repairers, and other technicians. Wages are adjusted according to the CPI-U, where 1983 equals 99.6.

Findings

Two overall findings are noteworthy. First, union density fell dramatically and wage inequality rose significantly between 1983 and 1996—more than for the economy as a whole. As a result, by 1996 the level of wage inequality in telecommunications was converging on that of the U.S. population as a whole. The extent of change in such a short time is striking because deregulation in most of the industry has largely failed to materialize. That is, because regional Bell operating companies—which employ the majority of the industry's work force—still operate as regulated monopolies, the most significant effects of deregulation are yet to be felt.

Second, the most dramatic changes occurred in the 1990s, rather than in the 1980s. This finding is consistent with what we know from qualitative research, but it contradicts what other researchers have found. That is, we know that while deregulation began in the late 1970s and early 1980s, it initially only affected long distance markets, where only a small percentage of the work force is employed. Local telephone service only began to be affected by deregulation in the late 1980s and early 1990s. Other researchers have argued that the most important deregulatory changes in this and other service industries occurred from 1978 to 1982 and that the most dramatic changes in wage inequality occurred during the 1980s (Fortin and Lemieux 1997).

Table 1 shows changes in wage inequality in telecommunications compared to the economy as a whole. Among clerical workers, wage inequality rose by 25.6%, compared to only 7.5% for clericals in the U.S. as a whole. By 1996, the 90/10 ratio for clericals in telecommunications was 2.75, close to the 2.95 ratio for all clericals. For sales workers in telecommunications, wage inequality increased by 44%; by 1996, the 90/10 wage ratio for sales

workers in telecommunications was 5.58, *higher* than the 5.54 ratio for sales workers in the U.S. as a whole. A similar, though less pronounced trend occurred among technical workers.

TABLE 1
Real Wages and Wage Inequality, by Occupational Group, 1983-1996
Telecommunications Industry and U.S. Compared

			%	%	%
			Change	Change	Change
	1983	1996	1983-90	1990-96	1983-96
Clerical Workers					
Median real wkly earnings (telecom)*	\$361	\$319	-0.5	-11.3	-11.8
Median real wkly earnings (US)*	\$255	\$255	5.0	-5.0	0.0
Ratio: Telecom/US median earnings	1.42	1.25	-5.3	-6.6	-11.8
Ratio: All telecom 90/10th earnings	2.19	2.75	18.1	7.6	25.6
Ratio: All US 90/10th earnings	2.74	2.95	1.7	5.8	7.5
Sales Workers					
Median real wkly earnings (telecom)*	\$479	\$382	-16.1	-4.0	-20.2
Median real wkly earnings (US)*	\$301	\$294	1.6	-4.1	-2.5
Ratio: Telecom/US median earnings	1.59	1.30	-17.5	-0.7	-18.1
Ratio: All telecom 90/10th earnings	3.88	5.58	-0.7	44.7	44.0
Ratio: All US 90/10th earnings	4.67	5.54	13.7	4.9	18.6
Technical Workers					
Median real wkly earnings (telecom)*	\$498	\$473	-1.7	-3.4	-5.0
Median real wkly earnings (US)*	\$373	\$351	-1.7	-4.5	-6.1
Ratio: Telecom/US median earnings	1.33	1.35	0.0	1.2	1.2
Ratio: All telecom 90/10th earnings	2.11	2.75	9.8	20.6	30.4
Ratio: All US 90/10th earnings	3.07	3.37	5.1	4.6	9.7

Source: CPS merged annual earnings files; * CPI-U adjusted.

Deunionization has been significant, although the industry continues to be the most highly unionized in the U.S. Deunionization occurred primarily because the traditional unionized companies cut labor costs by reducing employment levels rather than wages. At the same time, employment grew among new, low-wage, nonunion firms (as well as new nonunion operations of the traditional Bell companies). Overall unionization in the industry fell from 55.5% in 1983 to 28.7% in 1996. Within the major occupational groups, union density fell from 63% to 35% among clerical and sales workers and from 68% to 52% among technical workers. That is, the female-dominated, semiskilled occupations have been more negatively affected by deunionization than have male-dominated technical occupations. Again, the decline in union density after 1990 accounts for half to three-quarters of the change for the total period, depending upon the occupational group (Table 2).

TABLE 2

Deunionization and Union/Nonunion Wage Inequality, by Occupational Group:
Telecommunications Industry, 1983-1996

			%	%	%
	1983	1996	Change 1983-90	Change 1990-96	Change 1983-96
Clerical & Sales Workers					
Total employment	450,755	388,655	-5.0	-8.7	-13.8
Percent union	62.6	34.5	-14.1	-30.9	-44.9
Union median wkly earnings	\$360	\$553	32.5	21.1	53.6
Nonunion median wkly earnings	\$380	\$480	23.7	2.6	26.3
Union med. real wkly earnings*	\$361	\$352	1.0	-3.5	-2.5
Nonunion med. real wkly earnings*	\$382	\$306	-5.7	-14.1	-19.8
Ratio: Union/nonunion median					
wkly earnings	0.95	1.15	7.1	14.5	21.6
Technical Workers					
Total employment	374,400	294,359	-8.9	-12.4	-21.4
Percent union	67.5	51.7	-4.4	-18.9	-23.3
Union median wkly earnings	\$486	\$772	31.7	27.2	58.8
Nonunion median wkly earnings	\$500	\$694	28.0	10.8	38.8
Union real med. wkly earnings*	\$488	\$492	0.4	0.5	0.8
Nonunion real med. wkly earnings*	\$502	\$442	-2.5	-9.4	-11.9
Ratio: Union/nonunion median					
wkly earnings	0.97	1.11	2.9	11.6	14.4

Source: CPS merged annual earnings files; * CPI-U adjusted.

Deunionization has contributed to growing wage inequality primarily through the decline in real wages among nonunion workers. That is, while union workers suffered force reductions, the union succeeded in negotiating high relative wages that closely track the CPI index so that real wages for unionized workers did not fall or fell only slightly. By contrast, real wages for nonmanagement workers in the nonunion segment declined by 15% to 20%, depending on the occupational group. As a result, the union/nonunion wage gap increased by over 15% during the period, with the bulk of the increase occurring after 1990 (Table 2).

Another source of rising wage inequality is the increase in dispersion within both the union and the nonunion segments. Table 3 illustrates these trends. Among unionized sales and clerical workers, the 90/10 wage ratio increased from 2.00 in 1983 to 2.43 in 1996; for the nonunion group, it grew at a somewhat higher rate, from 3.30 to 4.25 over the same period.

The story of the changing wage structure among union and nonunion technical workers is strikingly different than for clerical and sales workers. For nonunion workers, the 90/10 ratio remained unchanged (at 3.13) for

TABLE 3
Growth of Wage Inequality within Union and Non-Union Segments, by Occupation:
Telecommunications Industry, 1983-1996

			%	%	%
			Change	Change	Change
	1983	1996	1983-90	1990-96	1983-96
Clerical & Sales Workers					
Union 10%ile real wkly earnings*	\$223	\$188	-3.9	-11.8	-15.6
Union 90%ile real wkly earnings*	\$446	\$456	3.0	-0.6	2.4
Nonunion 10%ile real wkly earnings*	\$221	\$153	-13.4	-17.3	-30.7
Nonunion 90%ile real earnings*	\$729	\$650	-16.0	5.2	-10.8
Ratio: Union 90/10th earnings	2.00	2.43	7.1	14.2	21.4
Ratio: Nonunion 90/10th earnings	3.30	4.25	-3.0	31.8	28.8
Technical Workers					
Union 10%ile real wkly earnings*	\$351	\$306	-12.9	0.0	-12.9
Union 90%ile real wkly earnings*	\$602	\$690	1.6	12.9	14.5
Nonunion 10%ile real wkly earnings*	\$241	\$224	1.6	-8.5	-6.9
Nonunion 90%ile real wkly earnings*	\$753	\$701	1.6	-8.5	-6.9
Ratio: Union 90/10th earnings	1.71	2.25	16.7	14.8	31.5
Ratio: Nonunion 90/10th earnings	3.13	3.13	0.0	0.0	0.0

Source: CPS merged annual earnings files; * CPI-U adjusted.

the period. In the union segment, the opposite occurred: the 90/10 ratio increased 31.5% for union workers (from 1.71 to 2.25). The increased wage dispersion is about equally attributable to a decline in the lower 10th percentile (during the 1980s) and an increase in wages in the upper 90th percentile (in the 1990s).

The increase in wage dispersion in the union segment is most likely due to two sources: (a) management strategies designed to create new job titles and segment labor according to market segments (increases across wage grades); (b) union strategies to negotiate pay raises primarily at the high end of any wage grade—for workers with five years seniority who traditionally comprise the bulk of the work force (within wage grade dispersion). In the 1990s, the companies misjudged the demand for new services, particularly the internet, and downsized more than necessary. As a result, many more employees now receive entry level wages.

Notably, however, for both occupational groups, nonunion workers at the high end (90th percentile) experienced falling real wages: 11% among clerical and sales workers and 7% among technical workers. This finding runs contrary to the idea that the market demand for high technical skills

ⁱⁱ This paper is based on a larger project, funded by the Alfred P. Sloan Foundation, which analyzes the relationship between deregulation, management and union strategies, and labor market outcomes.

(whether in office computers or programming skills) would raise wage dispersion. That is, among nonunion workers, the higher-skilled workers found their wages falling despite the common perception that technical skills are in short supply in the industry.

Conclusions

This review of trend data in the telecommunications industry shows that huge changes in union density and wage inequality have occurred in little over a decade, despite the fact that real deregulation in the industry is only beginning. The union/nonunion wage gap has grown by 15% to 20% because unions succeeded in negotiating wage increases that track the CPI, but nonunion wages fell significantly. Wage inequality within the union segment has also grown, but does not yet meet the levels of the nonunion segment. These findings are dramatic, but they understate the extent of change because the analysis does not include part-time employees or nonwage (benefits) compensation. Because nonunion employers are more likely to use lower-paid part-time workers and are more likely to provide lower benefits, the extent of total wage dispersion between the union and nonunion segments is probably underestimated.

Another important finding is that the effects of deunionization and rising wage inequality are more pronounced for female than for male occupations. Other researchers, by contrast, have found that for the economy as a whole, while deunionization significantly affected the rise in male wage inequality in the U.S., the declining minimum wage had a more significant effect on female wage inequality. The telecommunications industry, however, is unique in its high unionization rates among women. Women in telecommunications historically have earned over twice the average wage of women in other service industries (Spalter-Roth and Hartmann 1995).

On the nonunion side, the dramatic fall in nonunion wages is striking because telecommunications is a high-skilled industry with a high demand for workers with digital technology skills. A commonly held belief in the industry is that the demand for technically skilled workers is high relative to the supply. Yet in the nonunion sector, real wages in both the clerical and sales and the technical occupations are falling, even among those in the 90th percentile—those we would presume to be the most in demand.

Finally, the timing of all of these changes is noteworthy because the most dramatic changes occurred after 1990, despite the fact that deregulation began in 1984. Whereas nonunion wages tracked union levels through the late 1980s, both deunionization and the growth in the union/nonunion wage gap accelerated in the 1990s. In other words, it appears that initially following deregulation, the nonunion entrants copied the dominant union model; but

by 1990, the nonunion firms adopted their own low-wage strategies. Given lower overall costs, new entrants would be well positioned to engage in a high-wage, high-commitment strategy to complement investment in new technology. On average, they do not appear to be pursuing this approach.

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DISCUSSION

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All three of these studies are excellent papers. First, they all represent important new service sector research. While industrial relations has a rich tradition in manufacturing studies, service sector jobs now make up 82% of all jobs. We need more research like these papers, which use industrial relations techniques and analysis in sectors like banking and telecommunications. Second, all the papers address the issue of growing inequality in society by looking at growing inequality within a sector. Within-industry differences between high- and low-paid workers have increased greatly in the last two decades, and these account for a significant portion of overall income inequality. Reading these papers, we can begin to understand how inequality operates in firms and the effect of unionization (or nonunionization) on this increasing pay gap. Third, all three papers present an empirical challenge to the popular notion of "skill-biased technological change" which has become too easy a way to explain, and sometimes to justify, increasing inequality. All the papers suggest alternative explanations for the increased inequality resulting both from management initiatives and worker responses, rather than relying on a simple technological determinist explanation.

Fourth, each of the three papers identifies a managerial technique of differentiating customer segments, which permits (or requires?) a segmentation of employee labor markets as well. Other scholars (e.g., Keltner and Finegold 1996; Bailey and Bernhardt 1997; and Eaton 1997) have identified the same phenomenon in service sectors as diverse as hotels, nursing homes, and retail work. This is a customer strategy with major implications: Will the organization and rewards of service work become a function of how wealthy or profitable the customers are, rather than anything about the work itself or the worker him or herself?

Some common unanswered questions arise in all the papers. First, what are the implications of the authors' findings for race and gender inequality at work and in society? In Hunter and Lafkas's and Bernhardt and Slater's complementary papers on banking, the distinction between the

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high-end relational banking and the low-end inner city transactional banking is likely correlated with the racial background and language skills of employees most frequently hired and what the jobs are paid, even in the same firm. Batt and Strausser point out that greater inequality exists in the lower-waged, predominantly female clerical telecom occupations, compared to the more male-dominated technical jobs. Are racial groups also being differentially affected by the customer-targeting strategy? How does this inform our understanding of segmented labor markets and their relation to inequality?

A second question raised by all three papers is their implication for internal labor market theory. In the telecommunications paper, there appear to be separate union and nonunion labor markets, even as the industry is being deunionized—because nonunion technicians' real wages are declining, while unionized technicians are holding their own. A related question which all three papers could address more explicitly is what (if any) options existed during restructuring for nonunion employees, whether in banking (95% of all employees) or in telecommunications (in the nonunion companies)? Could they affect human resource policies through the "employee influence" vehicles, which seem significant in the Hunter and Lafkas paper? Also, could unionized employees have been more proactive in negotiations, or did they attempt to resist inequality but fail in bargaining?

A third question for future research is the implication of these findings for training and public policy. If employability is to be principally employees' concern in the future, what can we conclude about what employees should be learning on or off the job? Of what value in the outside labor market is the training that banks are doing? How much training is firmspecific, and how much is portable and could depart if the employee did? Similarly, are the new marketing jobs being created in telecom ones that would enable employees to fare better in an external labor market, or are they too sector-specific? Of course, longitudinal research would be of great value in learning what happens to individual employees (and institutions) over time, and Bernhardt and Slater provide us with a good beginning of such an effort. Hunter and Lafkas point out, however, that following employees over time is difficult because of restructuring in banking and limits to data sources, and this will make long-term research more problematic. Finally, all the papers could tell us more about the use of nonstandard work patterns, including temporary, contingent, and part-time work. How do these jobs meet worker and employer needs, if they do? Will we see more of them in the future?

Each individual paper deserves more attention than space permits here; Bernhardt and Slater's provides excellent descriptive detail about banking, and their focus on recruiting, training, mobility, and turnover issues is especially laudable. Their paper could benefit from a little more direct qualitative evidence, such as employee quotations, to give them an even stronger "voice." The Hunter and Lafkas paper represents a careful analysis of a rich data set, appropriately focusing on both "hard" and "soft" technologies and could benefit from comparisons to organizational behavior studies such as Steve Barley's work in health care. Batt and Strausser make a strong case for a strategic management choice hypothesis with an innovative, unusual, and in-depth analysis of union and nonunion data in one industry over time and also focus on the reality of job fragmentation in contrast to the "broadening" of jobs we read so much about. More qualitative work on the nonunion managerial choices and on the bargaining history would enrich this paper even further.

Replicating and expanding this careful, provocative work in other sectors is an important goal for industrial relations and human resources scholars. We can learn from the creative and disciplined data collection and analysis displayed by these young scholars, and managers and workers will both be better off for understanding the patterns of restructuring and their effects on the people who work in these sectors.

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Keltner, Brent, and David Finegold. 1996. "Adding Value in Banking: Human Resource Innovations for Service Firms." *Sloan Management Review* (Fall), pp. 57-68.

VI. REFEREED PAPERS-HUMAN RESOURCE MANAGEMENT IN A GLOBAL ECONOMY

Human Resource and Collective Bargaining Strategies of U.S. Multinational Companies

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Recent studies have shown that human resource and collective bargaining (HR&CB) factors and practices are important to the global strategies of multinational companies (MNCs). In particular, MNCs are strongly influenced by HR&CB factors in making foreign investment decisions (Cooke 1997), often attempt to transfer preferred domestic HR&CB practices to their foreign operations (Florida and Kenney 1991), and generally monitor labor performance across foreign affiliates (Marginson et al. 1995). Missing from the literature, however, is a systematic analysis of various strategic HR&CB options being pursued on a global basis. Given an increasingly competitive and uncertain global market place, we argue that MNCs have necessarily sought to achieve two fundamental and sometimes conflicting HR&CB objectives: enhanced employee commitment to achieving continuous improvement in performance and maximum flexibility to deploy workers. This report examines the importance placed on various options being pursued to achieve both employee commitment to continuous improvement and management flexibility across the worldwide operations of U.S. MNCs.

HR&CB Options and Strategies

With respect to achieving employee commitment to continuous improvement, companies have pursued options that (1) enhance the degree

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of employee participation in and commitment to operational success, (2) upgrade work-force skills, and (3) improve union-management relations in unionized sites. As addressed in much of the literature about so-called high-involvement organizations and innovative workplace practices (Lawler 1992; Dyer and Reeves 1995), there are several options central to enhancing employee participation and commitment. These include employee participation through various team-based activities, the sharing of business and performance data, the use of performance-based compensation, and provisions for employment security. Central to upgrading work-force skills, companies must decide on the emphasis given to training and development of both technical and problem-solving skills. Finally, a fundamental strategic choice faced by unionized companies is the extent to which they embrace union-management cooperation (Cooke and Meyer 1991).

Toward maximizing flexibility in the deployment of labor, companies have pursued strategic options that (1) increase management's discretion in staffing, assignment, and scheduling of work; (2) protect management's rights to transfer and subcontract out work; (3) increase the employment of contingent work forces; and (4) minimize union influence. Central to the last option are efforts at avoiding unions in nonunion locations and avoiding centralized negotiations across unionized locations.

Although each of the options identified yields its own potential net benefit, when options are combined to form HR&CB strategies, the value of any given option may increase or decrease. Indeed, all of the options identified as potentially yielding continuous improvements in performance would appear to have complimentary effects. In contrast, any threat to employment and income security inherent in options designed to increase flexibility is likely to reduce employee commitment to or union cooperation in achieving continuous improvements. As such, employers will sacrifice some employee commitment in exchange for achieving greater flexibility or vice versa. The challenge to executives in their pursuit of satisfying the dual objectives of continuous improvement and maximum flexibility, therefore, is to align that set of strategic options that balances these two objectives in ways that yield the greatest net benefit.

Some Empirical Evidence

We next examine the strategic HR&CB options being pursued by U.S. MNCs. Specifically, we seek to assess the importance of given options described above, how these options are aligned to form strategies, and the extent to which domestic preferences are applied to foreign affiliate locations.

The sample of U.S. MNCs was drawn from a population of 261 U.S.-owned manufacturing companies in 1994 having (1) operations in three or

more foreign countries and (2) 2500 or more employees worldwide (as listed in the *Directory of American Firms Operating in Foreign Countries*). Questionnaires were mailed to vice presidents of human resources in February 1996, and two follow-up letters were mailed in May and July. Useable responses were obtained from 39 companies, representing 15% of the targeted population. The final sample is overweighted, however, by larger firms. In comparison to the given population of MNCs, the sample represents 22% of MNCs with more than 50,000 employees worldwide, 23% of MNCs with 15,000-50,000 employees, and 9% of MNCs with fewer than 15,000 employees.

Respondents were asked to rate the importance of various HR&CB options on a scale of 1 to 4 as applied to production workers (see Table 1). Because the importance of any strategic options may differ between locations in highly industrialized countries and less industrialized or developing countries, respondents were asked to make the following simplified distinction. Highly industrialized countries include all western European countries, Australia, Canada, Japan, and New Zealand. Less industrialized countries include all other countries.

Pursuing Continuous Improvements

Among options associated with achieving continuous improvements in performance, U.S. MNCs have placed the greatest emphasis on (1) sharing business and performance information, (2) employee participation through team-based activities, and (3) training and development. As pursued across domestic operations, these three options are important or very important to nearly all companies in our sample. Although these three strategic options are not as important when applied to foreign affiliates, about 80% of companies report that each of these three options are important or very important to their foreign operations in highly industrialized countries. As applied to foreign affiliates in less industrialized countries, the sharing of business information and employee participation are considerably less important, whereas the emphasis on training and development remains fairly high across all locations.

Pursuing union-management cooperation in unionized sites is also fairly important, with over 80% treating cooperation as important to domestic and foreign operations in highly industrialized countries and 70% treating it as important to affiliates in less industrialized countries. Tying employee earnings to company performance in domestic locations is important to over 70% of respondents. Across foreign affiliates, however, less than 50% of MNCs view performance-based pay as important to their HR&CB strategies. Lastly, across domestic and foreign locations, only a minority of

TABLE 1
HR&CB Strategy Options: Responses from a Sample of 39 U.S. MNCs

Strategy Options	U.S. Sites		Foreign Affiliates					
			Highly Indust. Countries			Less Indust. Countries		
	% IMP.a	Mean ^b	% Imp.	Mean	$Corr^c$	% Imp.	Mean	Corr.
Continuous Improvement Options								
Sharing Bus. & Perform. Data	97	3.51	82	3.15*	.62**	66	2.79*	.38**
Employee Participation	95	3.46	80	2.92*	.44**	50	2.45*	.23
Training & Development	97	3.31	80	3.10*	.81**	74	3.08	.50**
Union-Management Cooperation	84	3.32	82	3.26	.70**	70	2.89	.49**
Performance-Based Compensation	72	3.03	46	2.56*	.62**	37	2.29*	.51**
Employment Security Rights	36	2.39	47	2.61	.57**	32	2.60	.52**
Flexibility Options								
Rights to Transfer & Subcontract								
Out Work	97	3.74	95	3.58*	.69**	83	3.28*	.63**
Flexible Staffing & Assignment	85	3.38	74	3.05*	.68**	68	2.76*	.41**
Union Avoidance	82	3.36	72	2.87*	.53**	66	2.74*	.43**
Layoff Flexibility	69	3.05	56	2.77*	.69**	53	2.55*	.56**
Local Negotiations Only	63	2.84	74	3.00	.60**	70	2.76	.43**
Use of Temporary Employees	59	2.72	46	2.41*	.61**	42	2.26*	.51**
Use of Part-Time Employees	49	2.49	39	2.23*	.76**	37	2.08*	.70**

^a % Imp. = percent reporting that option is important or very important as applied to production workers.

^b Mean Score (1 = not important, 2 = somewhat important, 3 = important, 4 = very important).

^c Kendall Tau b correlations between foreign locations and U.S. sites.

^{* =} significant at \leq .05 level; ** = significant at < .01 level (using two-tailed tests).

MNCs view granting employment security rights to employees as important to their global strategies.

Maximizing Flexibility

Among options associated with achieving maximum flexibility, U.S. MNCs have placed the greatest emphasis on (1) maintaining management rights to transfer or subcontract out work, (2) having flexibility in staffing and assignment, and (3) avoiding unions in nonunion sites. Of these three options, maintaining management rights is clearly the most important, with nearly all companies treating this option as important to operations located in the U.S. and in highly industrialized countries.

Although the large majority of U.S. MNCs seeks union-management cooperation in their unionized sites across U.S. and foreign locations, the large majority simultaneously seeks to avoid unions in nonunion sites. In addition to avoiding unionization, between roughly two-thirds and three-fourths of companies are pursuing decentralized negotiation strategies across both U.S. and foreign operations. Also relatively important to U.S. MNCs is having flexibility to lay off employees across domestic sites, wherein about 70% view such flexibility as important or very important. The importance attached to this option as applied to foreign affiliates, however, is reduced significantly. Lastly, the least widely emphasized flexibility options among those identified are the employment of temporary and part-time employees. Less than half of the MNCs in our sample consider the employment of contingent work forces as important to their global HR&CB strategies.

Aligning Strategic Options

As conceptualized in this report, it is the set of options considered important to companies that form their HR&CB strategies. Toward identifying strategies, therefore, we explore how companies have aligned or bundled various options that they treat as being important or very important to achieving continuous improvements and flexibility. The most prevalent combination of options viewed as important or very important to MNCs includes the following four options: sharing business and performance data, training and development, employee participation, and maintaining management rights to transfer or subcontract out work. As applied to U.S. sites, 90% of our sample emphasize all four options. As applied to foreign locations, 69% and 45% view this combination of strategic options as important across their operations located in highly industrialized and less industrialized countries, respectively.

Other less prevalent combinations of strategic options also are observable. Among that subgroup of MNCs that view union-management cooperation as important or very important (84% across domestic sites and 82% and 74%, respectively, across affiliates in highly and less industrialized countries), 91% place substantial emphasis on employee participation, training and development, sharing business information, and maintaining management rights across domestic sites. That proportion drops to 81% when this combination of strategic options is applied to foreign affiliates in highly industrialized countries and drops to 48% when applied to affiliates in less industrialized countries.

Among that subgroup of MNCs placing importance on avoiding unions across U.S. sites (which accounts for 82% of MNCs), 72% also place importance on management rights and flexibility to lay off employees. Among that subgroup emphasizing union avoidance across foreign affiliates, approximately 56% of MNCs, likewise, view management rights and flexibility to lay off employees as important to their HR&CB strategies.

Among companies that view employing temporary and part-time workers as important to their strategies (less than 50% of our sample), over 90% also view flexible staffing and assignment as important to both domestic and foreign operations. Roughly 75% or more of these MNCs also place importance on having flexibility to lay off employees.

As shown, U.S. MNCs place greater emphasis on pursuing nearly all identified options and all combinations of options across their domestic operations than across their foreign operations. There are fairly strong correlations, nonetheless, between the emphasis placed on options applied to domestic operations and foreign operations, especially regarding foreign affiliates located in highly industrialized countries. It appears, therefore, that a large majority of U.S. MNCs have shaped global HR&CB strategies in which preferred domestic options are also being transferred to their foreign operations but generally with less emphasis. Such reduced emphasis would be consistent with the theme that successful global strategies need to be sufficiently responsive to differences in workplace cultures and workforce skills across foreign locations.

As argued by others, on the other hand, greater global integration of operations is likely to lead to greater headquarters' control and centralized coordination of foreign affiliates (Hamill 1984). As a rough test of this proposition, we correlated our identified strategic options with the degree to which final production would be affected by any disruption in production by MNCs' own supplier plants. These correlations indicate that there is a strong relationship between the degree of integration and the application of nearly all preferred domestic options to operations located in less industrialized countries, but not to operations located in highly industrialized countries (statistics are available on request). Hence greater integration of global

operations would appear to lead to a tighter alignment between strategic HR&CB options pursued across U.S. operations and those pursued across affiliates in less industrialized countries.

Finally, executives were asked the extent to which their companies had successfully applied their priority options to foreign operations. The majority report that they have been successful to a "large degree," and a few report that they have been "almost completely" successful. However, approximately 30% and 45% report that they have only been successful to "some degree" in applying priority options to their affiliates in highly industrialized and less industrialized countries, respectively.

Summary and Conclusion

In closing, our limited evidence supports several general conclusions. First, U.S. MNC global HR&CB strategies are comprised of options intended to achieve dual objectives: enhancing employee commitment and ability to achieve continuous improvements in performance and maximizing management's flexibility to deploy their work forces. Second, employee participation, sharing business and performance data, training and development, and protecting management rights to transfer or subcontract out work are the most emphasized and widespread options being pursued. In combination, they also comprise the most prevalent set of options underlying global HR&CB strategies. Other less widespread combinations of options are also observed for subgroups of companies. Although some subgroups attach greater emphasis either on enhancing continuous improvement or on maximizing flexibility, all MNCs embrace both kinds of options as part of their strategies.

Third, most MNCs seek to apply preferred domestic HR&CB strategic options to their foreign affiliates but attach less importance to pursuing those options abroad than at home. That is especially the case as options are applied to affiliates in less industrialized countries, except where such affiliates are highly integrated with other global operations.

In conclusion, given the inherent dilemma in pursuing the dual objectives of achieving employee commitment to continuous improvement and maximum flexibility, it would appear that the greatest challenge to companies is finding ways to balance these central strategic objectives. In particular, companies will need to tailor their preferred flexibility options in ways that minimize the degree of sacrifice of employee commitment to achieving continuous improvements. By way of example, management could maintain its ultimate right to transfer or subcontract out work (which nearly all companies emphasize) yet provide employees opportunities to counterbid any subcontracting out or transfer of work plans in an effort to keep work on

site. Perhaps the most difficult combination of options to square is the simultaneous pursuit of union-management cooperation and union avoidance. Achievement of both options surely requires a delicate balance of activities, requiring at a minimum that companies avoid any hostile, anti-union campaigns and rely, instead, on the creation of positive workplace environments that otherwise minimize employee interest in seeking union representation. Space limitations, unfortunately, preclude any full evaluation of alternative ways in which management can achieve sufficient flexibility to be competitive yet provide enough employment security to garner sufficient employee commitment. In the end, the demands of a highly competitive global market place will inevitably force management and labor to find mutually acceptable alternatives.

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Works Councils in Korea: Implications for Employee Representation in the United States

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Recently, interest in European works councils has increased substantially in the United States (Rogers and Streeck 1995). Several authors argue that a large representation gap exists in the United States due to the decline in unionization and that this representation gap should be filled because American workers want greater collective representation at their workplaces than they now have (e.g., Freeman and Rogers 1993, 1995). After reviewing the European system of works councils, these researchers typically suggest that the current labor law should be reformed to provide workers with a second channel of worker representation (i.e., mandatory works councils) in addition to traditional collective bargaining.

Unlike the United States, works councils are legally mandated in Korea. According to the Works Council Act (enacted in 1980 and most recently amended in 1987), any unionized or nonunion enterprise with more than 50 employees is required to form a works council (in March 1997 the coverage threshold was lowered to 30 employees), and virtually all firms had established a works council as of December 31, 1996. Thus, in principle, an additional system of worker representation has been provided for Korean workers supplementing traditional collective bargaining. However, we know little about the impact of Korean works councils on firm performance. The purpose of this paper is to analyze the operation and effect of Korean works councils and to discuss the implications for employee representation in the United States.

Works Councils in Contemporary Korea

Works councils were first instituted in Korea when the Labor Union Act was amended in 1963. President Park's government apparently attempted to institute them to promote labor-management cooperation

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and maintain industrial peace. However, the status of the councils was not clearly defined, and they were largely ignored until a separate Works Council Act was enacted in 1980. President Chun's government made significant changes to the Labor Union Act in 1980, and the amendments effectively forced unions to adopt a system of enterprise unionism. The government also passed a separate Works Council Act based on the Japanese model of joint consultation committees ("JCCs," a label we use interchangeably with "works councils" to describe the Korean situation).

When the Works Council Act was enacted in 1980, Korean unionists viewed the act as "a management-controlled subterfuge to thwart unionism" (Bognanno and Kim 1981:201). Interestingly, management also opposed the act on the ground that the establishment of works councils might trigger unionization and encourage union activities. Since the act was unilaterally initiated by the government without social consensus, both unions and management resented works councils as something imposed on them from above. In this regard it is not surprising that early observers had a negative view of works councils (Bognanno and Kim 1981).

Nonetheless, recent surveys of Korean works councils show that union and employer attitudes toward works councils have changed considerably since 1980 (Kim 1992; Hur 1996). For example, according to the Works Councils Survey directed by Hur (1996), 68% of employee respondents and 66% of management respondents think that works councils are useful to both employees and management. And 78% of employees and 74% of managers consider their works council as very necessary or somewhat necessary to their firm.

The political liberalization in 1987 initiated a profound transformation of Korea's industrial relations from the tightly controlled union-management relationships under the previous regime of authoritarian state intervention towards a more democratic regime that permitted an independent union movement and free collective bargaining (Park and Lee 1997). This transformation also had an impact on the functioning of works councils. Kim's (1992) survey investigated this impact by asking firms if the frequency of council meetings since 1987 had changed. His results show that 48% of the firms in his sample have held council meetings more frequently since 1987, and only 4% of them have held council meetings less frequently since that watershed year. This result implies that the vitality of Korean works councils has been enhanced rather than eroded since 1987 as a result of a more dynamic union movement and the more frequent labor disputes in the late 1980s. Kim (1992) attributes this enhanced functioning to the cooperation-fostering effects of works councils. Recent case studies of Korean

works councils (Chang 1997) confirm this interpretation and illustrate that councils provide an effective forum for labor and management to address mutual problems and also that they served to moderate potentially conflicting labor-management relations in the late 1980s. In short, most Korean unions and managers now acknowledge the usefulness of works councils. This Korean experience confirms the observation that once works councils are in place, unions and managers tend to view them positively (Freeman 1991:332).

Works Councils and Firm Performance

Economists have long been interested in the impact of works councils on firm performance (Freeman 1991), but the performance effect of Korean works councils has only recently been studied. For instance, in a sample of 226 large manufacturing firms, Kleiner and Lee (1997) find that while "effective works councils" have no significant impact on wages and turnover, they are associated with higher labor productivity without adversely affecting firm profits. Kleiner and Lee (1997) defined "effective works councils" as those which were rated by both labor and management respondents as "very effective" (70% of the firms in their sample had effective councils using this definition).

In the instant study of an 111-firm sample largely composed of small and medium-sized manufacturing firms, both labor and management respondents were asked to rate the overall activity level of the works council (Won 1996). Labor and management respondents jointly judged that 65% of the sampled firms had "active" works councils (Won and Kim 1997). The multiple regression results from this study are presented in Table 1. Two of the key findings address union and works council impacts. First, a union presence (measured either by a union dummy or by firmspecific union density) is associated with reduced productivity and profitability. Second, an active works council is associated with enhanced productivity and profitability, and the association with increased profitability is highly significant. Our Table 1 results indicate that active councils are used as consultation channels by management and employees to resolve workplace problems. This consultation process apparently leads to tangible improvements in operating effectiveness. Moreover, a comparison of the Table 1 results obtained from these smaller firms (mean number of employees was 494) with the results from Kleiner and Lee's study of larger firms (mean number of employees was 1,330) suggests that the benefits of well-functioning works councils may be more substantial in smaller than larger firms.

Impact of Active Works Councils on Firm Performance										
	Produc	ctivity	Profitability							
Independent Variables	(1)	(2)	(3)	(4)						
Active works council	.149*	.151*	.051***	.051***						
	(.083)	(.083)	(.019)	(.019)						
Union dummy	202**		040**							
	(.083)		(.019)							
Union density		234**		041*						
		(.100)		(.023)						
Log of assets per capita	.382***	.383***	007	006						
	(.063)	(.063)	(.015)	(.015)						
Log of labor costs per capita	.668***	.659***	.008	.007						
	(.058)	(.057)	(.013)	(.013)						
Log of firm size	.030	.023	005	008						
	(.050)	(.050)	(.016)	(.011)						
Tenure	.010	.013	.009***	.010***						
	(.015)	(.016)	(.004)	(.004)						
Percent of production workers	208	215	082*	083**						
	(.179)	(.180)	(.041)	(.042)						
Percent of male workers	.001	.009	010	010						
	(.246)	(.246)	(.057)	(.057)						
Constant	354	341	.056	.062						
	(.404)	(.404)	(.093)	(.094)						
Industry dummies	yes	yes	yes	yes						

TABLE 1
Impact of Active Works Councils on Firm Performance

Notes: Productivity is measured as logarithm of value added per capita in 1996, and profitability as net profits divided by total assets in 1996. Standard errors are in parentheses. *, **, and *** signify statistical significance at 10%, 5%, and 1%, respectively.

.81

96

.32

97

.31

97

.81

96

Source: Won and Kim (1997)

 \mathbb{R}^2

Ν

Discussion and Implications

Recent discussions of the possibility of works councils in U.S. work-places (Rogers 1995; Addison 1997; Summers 1997) appear to have overemphasized the German experience and correspondingly slighted works council experiences elsewhere in the world. Because the U.S. has a very decentralized collective bargaining system, and because the U.S. is highly unlikely to legally guarantee the same strong employee codetermination rights that exist in Germany, the experience in other countries with different employee representation policies may be more pertinent to the

establishment and operation of councils in the United States. As a result, we briefly compare the council experiences in Germany with those in Great Britain, Japan, and Korea. We use these four countries because all of them have had significant experience with works councils *and* have produced research that empirically examined the councils' impacts.

Britain, Japan, and Korea are characterized as countries with decentralized bargaining structures, and their works councils are essentially joint consultative bodies without strong (i.e., legally enforceable) codetermination rights. In addition, the effects of their works councils exhibit similar patterns, and these impacts contrast with those of German councils. For instance, German councils often exert significant bargaining power to obtain local wage premiums above the level agreed upon in the industry-level negotiations (Schnabel 1991). In Korea, works councils have no wage effects (Kleiner and Lee 1997), and in Japan information sharing and prior consultation in JCC meetings are associated with lower wages in large unionized firms (Morishima 1991b).

On the firm performance dimension, German works councils are associated with reduced productivity and profitability (Doucouliagos 1995; Addison 1997; Addison et al. 1997). However, Sadowski, Backes-Gellner, and Frick (1995) find a strong impact of German works councils on turnover: Firms with a works council have lower dismissal and lower quit rates than those without a works council. As regards innovation, recent studies report either positive or insignificant works council effects (Schnabel and Wagner 1992; Addison et al. 1996).

In contrast to Germany, in Britain the establishment of joint consultation committees is completely voluntary. Using the 1990 Workplace Industrial Relations Survey, Fernie and Metcalf (1995) find that there are positive associations between the existence of a JCC and both productivity growth and the climate of industrial relations in the surveyed British workplaces. They also show that JCCs have no association with employee quits.

In Japan, information sharing through JCCs shows some favorable effects on collective bargaining and firm performance (Morishima 1991a, 1991b). Specifically, there is a positive association between information sharing and profitability and productivity in large Japanese firms. However, according to Morishima and Tsuru (1997), Japanese JCCs do not affect employee quits.

Korean works councils have no impact on quits or on wages, and they are associated with higher employee satisfaction (Kleiner and Lee 1997). They also are associated with improved firm productivity and profitability (Kleiner and Lee 1997; Won and Kim 1997).

Taken together, the evidence indicates that councils in Britain, Japan, and Korea appear to have positive effects on firm performance via enhanced productivity and profits. In short, whereas German works councils exhibit the "two faces" of unionism (monopoly rents and collective voice) (Freeman and Medoff 1984), councils in Britain, Japan, and Korea are associated with a set of generally positive organizational outcomes. This difference may be due to the strong voice in business decisions that works councils provide to German employees compared with the more limited consultative council role in these three other countries. Whatever the reason, this body of research indicates that council impacts vary substantially across national boundaries.

The Korean experience with statutorily mandated works councils may offer some useful lessons for the continuing discussion of alternative forms of employee representation in the United States. In recent years a growing body of research evidence indicates that high-performance work practices in U.S. workplaces are positively associated with productivity and profitability (Huselid 1995; Becker and Gerhart 1996; Delaney and Huselid 1996; Ichniowski et al. 1997). One of the key human resource practices examined in this research is employee involvement in decision making (which may encompass different involvement techniques, both direct and representative). A related research stream focusing more specifically on worker participation in decision making finds that participation is associated with enhanced productivity (Doucouliagos 1995). The Korean research presented here is consistent with this other research, for our results indicate that employee involvement via works councils can lead to enhanced productivity and profitability.

But how will works councils ever take root in U.S. workplaces? A recent proposal for an American version of works councils, for instance, suggests that councils in the U.S. should be legally protected; should be established upon request by the employees in a workplace; should be independent, consultative bodies protected from employer domination and designed to resolve problems rather than "bargain" a comprehensive collective bargaining agreement; and should not have the economic leverage rights that unions possess (Summers 1997). This proposal calls for works councils that have many similarities with those in Korea. In addition, the experiences in Britain, Germany, Japan, and Korea strongly suggest that U.S. works councils will provide workers with effective representation throughout the economy only if the councils are legally protected or otherwise strongly encouraged by public policy. As a result, proponents of this form of employee representation may need to educate unions and employers as well as policy-makers about the positive workplace effects these councils have had in

other countries (which include increased employee satisfaction). As part of this educational effort, works councils usefully may be portrayed as part of the enhanced employee involvement in decision making that is typically included in the adoption of a package of high-performance work practices.

Summers (1997), however, concludes that there is little chance that the U.S. federal government will pass legislation mandating or otherwise protecting works councils in the foreseeable future, largely as a result of strong employer opposition to independent employee representation (we believe U.S. unions also would oppose such legislation as a threat to their protected representational status). We note that this employer opposition to independent works councils in the United States is ironic in light of recent research showing that U.S. multinational firms, when deciding where to invest among developed countries, are more likely to invest in countries that require works councils and away from countries that impose stiff layoff restrictions and/or have industrywide determination of employment conditions (Cooke 1997). Irony aside, Summers is correct that there is no persuasive basis for concluding that works council protective legislation will acquire majority political support in the foreseeable future. Similarly, the 1920s-1930s experience with employee representation in the U.S. shows that employers adopting employee representation plans usually did so to prevent unionization, and the 1970s-1990s experiences with employee involvement mechanisms indicate that in nonunion firms these efforts are controlled by the employer and do not involve independent employee representation (Rogers 1995). In short, this history offers no basis for concluding that large numbers of U.S. employers voluntarily will adopt bona fide works councils.

In this pond of predictive pessimism, we close by noting that many important developments in U.S. employment relations were not predicted. A few of these include the large-scale emergence of private sector unions in the late 1930s, the large-scale emergence of public sector unions in the 1960s, the near-disappearance of strikes in the 1980s and 1990s, and the growth of telecommuting in the 1990s. The widespread adoption of works councils in U.S. workplaces conceivably might occupy a prominent place on a future list.

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DISCUSSION

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Let me start off by stating the obvious—all three papers address human resource management (HRM) issues on a global stage. Cooke and Noble's paper examines the strategic importance of human resource and collective bargaining practices in U.S. multinational companies. Bognanno, Keane, and Yang provided evidence on the question of how tariffs and crossnational wage differentials affect the production location decisions of U.S. multinational companies. Kim and Feuille analyzed the effects of Korean works councils on firm performance and these councils' roles in Korean industrial relations.

It's exciting to see empirical research, based on primary data, that studies macro HRM issues in a global context. Indeed, such work is critical for the evolution of theories and evidence about such issues. These three studies represent an important departure from nascent prescriptive and descriptive research.

Cooke and Noble's results provide an endorsement of the strategic imperatives of continuous employee improvement and high levels of management discretion in the deployment of employees and HRM practices across national boundaries. Clearly, such discretion lies at the heart of fundamental strategic notions characteristic in the U.S. economy. Although these results are not incredible by any means, they do lead me to question the role that national culture plays in shaping HRM and collective bargaining programs across cultures. Perhaps the authors' future endeavors might explicitly account for the role of national culture by indexing on such key cultural dimensions as individualism-collectivism.

Bognanno, Keane, and Yang's work began with an informative review of the literature on multinational companies' production location decisions, presenting a number of arguments for locating such facilities inside or outside the United States. In addition, they provided very sound critiques of alternative rationale for location decisions. These authors found that unmeasured factors, probably ones pertaining to factors that make some host countries more attractive than others, accounted for most of the variance in their models.

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I view a key similarity between the Cooke and Noble and Bognanno et al. studies. Both studies do not directly measure aspects of the national cultures that may account for variation in strategic priorities or production location decisions. For example, in the Bognanno et al. study, how might national culture interact with such factors as tariffs, wage rates, and market size to determine production location decision? Attempts to answer such contingency questions in the future might prove informative.

Kim and Feuille's paper differs from the previous two papers because it focuses mainly on the influence of works councils on firm performance in a single country—Korea. The authors begin with a review of the structure and operations of Korean works councils, using the British, German, and Japanese experiences as bases for comparison. Their review does reveal positive effects of works councils on firm performance in Britain and Japan, but negative effects in Germany. In contrast, their analysis of Korean firms shows low to moderately low positive effects of work councils on profitability and productivity. The authors offer plausible conjecture for the efficacy of works councils in Korea based on the similarity in structures of Great Britain, Korea, and Japan. Certainly, a fruitful area for future research will be to test whether structural differences among the countries are responsible and whether the relative impact of such factors varies across countries.

DISCUSSION

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Bognanno, Keane, and Yang have made a valuable contribution to understanding the determinants of U.S. investment flows. Their data panel that allows for industry, country, and time-varying influences enables them to produce strong evidence regarding the role of relative prices and costs on investment decisions. This would not have been possible using the purely cross-sectional or time series analyses characteristic of much of the previous work in this area. The estimated effects of the economic variables are theoretically tractable and are sustained across alternative model specifications.

Regarding the effects of foreign labor relations environment on U.S. investment, the significant positive effect attributed to a decentralized bargaining structure is the most striking result. However, further analysis is required to demonstrate the robustness of this finding. As the bargaining structure variable is measured just once for each country, only 22 effective observations are available. A review of the countries assigned a decentralized bargaining status leads one to suspect that this variable could be capturing other effects. The small group of countries with decentralized bargaining structures include geographically contiguous states (Canada and Mexico) and, except for Germany, all the larger European trading powers (France, U.K., and Italy) and the two East Asian giants (Japan and Korea). In addition, the degrees of freedom available for tests of a pure countrylevel effects are overestimated. A more convincing statistical test for this variable with the present data would involve the construction of countrylevel averages and the estimation of a simpler regression model that would also include variables that control for other country-level influences. I would prefer a study that expands the range of observations to include more countries, involves an elaboration of the bargaining structure variable, and allows for shifts in labor relations policies over time.

The analytical strategy of Bognanno, Keane, and Yang could be adapted to test for industry differences in the processes affecting foreign investment decisions. At present, all explanatory variables are constrained to be

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the same across industry groups. However, as the global strategy literature suggests, companies invest overseas for a number of distinctively different purposes, and the factors affecting these decisions differ systematically across product markets. In industries where cost-leadership is the dominant basis for competition, foreign investment may be particularly responsive to lower costs and labor relations environments that permit operational flexibility. These factors are likely to be less important in other industries where foreign investment is driven by the desire to capture the gains associated with increased penetration of affluent markets or where there is a strong need for customizing products to local market conditions.

My first reaction to the paper by Cooke and Noble is that their results are very much as would be expected. They find that the HR practice and policy options that U.S. firms consider important domestically are also considered important (although not as important) overseas. Their study will become much more interesting when they extend their data to an analysis of the factors that affect the transferability of practices from the U.S. to overseas sites. One set of candidate factors would include country or region-specific attributes, such as local legislation (that could, for example, preempt or constrain some of the options such as employment flexibility and employee participation) or cultural influences (for example, collectivistic values that would tend to mitigate against individual performance-based pay). Another set of candidate factors could capture the effects associated with the type of the business strategy. Some organizations, who view organizational culture and operating style as a competitive advantage are particularly punctilious about uniform HR practices across global locations. Other organizations may be pursuing business strategies that permit or encourage greater acceptance of local conditions and practices.

Extensions of this study might also make use of additional sources of information that yield data about actual practices, rather than the espoused importance of the HR practices. While HR executives are a useful source of information about human resource practices, there are problems when they are the only source. HR professionals are likely to value practices that are viewed as state of the art. Thus it is not surprising that of the thirteen HR strategy options available to the respondents—all except performance-based compensation, employment security, and the use of contingent workers—are considered important in all locations by most respondents. It is one thing to vouch for the importance of sharing business and performance data or employee participation, for example, but how far do the companies actually go in implementing the practices? The answer to this question has implications for both the internal validity of the study and generalizability of the results.

The problem of single-sources within each organization is, of course, shared by nearly all investigations of HR policy and practices and is both difficult and expensive to overcome. An approach that might get some control over the tendency of managers to give socially desirable responses would be to obtain a few additional respondents in each organization and use a method that encourages or forces them to make choices and establish priorities. This can be done through policy-capturing instruments or through case materials that present managerial dilemmas requiring respondents to make choices between policy options.

Kim and Feuille's paper is a counterpoint to the previous two papers in this session. Instead of looking at factors affecting the transfer of U.S. resources or practices overseas, they bring together evidence on European and Japanese works councils with new information on the effects of works councils in Korea in an attempt to assess the prospects for transferring these alternative institutional forms for employee representation to the United States. Based on the Korean evidence, it appears that works councils have some potential for making collective bargaining more effective. Since Korean works councils are the only ones with a legal mandate and the one where empirical support for positive effects is strongest, is there anything about the legal mandate that contributes to their success?

While I share Kim and Feuille's pessimism regarding the likelihood of significant legislative changes in the United States that would institutionalize forms of worker participation of the types seen overseas, I am not completely pessimistic. An examination of the history of legal changes preceding growth in labor organization and industrial relations institutions in a number of countries (Australia, the United Kingdom, and the United States come to mind) shows that legislation supporting or enabling unionization tends to emerge from periods of decline and adversity for unions. Perhaps this is no accident. Politicians and judges in pluralistic societies tend to do things to "restore the balance." Consequently, if sentiment was to move in favor of strengthening employee voice mechanisms, if for no reason other than that these mechanisms have become so weak, institutions of the type discussed by Kim and Feuille could be given a closer look.

VII. WAGE DETERMINATION AND PUBLIC POLICY

Controls during World War II and the Korean War

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My participation in this symposium is due perhaps more to my longevity than to my expertise. Unlike my fellow panelists, I am not an economist, and although I served in a variety of capacities with the War Labor Board (WLB) in World War II and as a public member of the Wage Stabilization Board (WSB) during the Korean War, I played no significant role in the formulation of wage stabilization controls during either period. Accordingly, most of my remarks are based upon the published writings of others better qualified to describe and evaluate the effectiveness of those wage stabilization programs. Obviously, I shall have time to touch upon only a few, arbitrarily selected aspects of each program.

Some Similarities and Contrasts

An obvious similarity between wage controls in World War II and in the Korean War is that they were both developed as a somewhat belated response to wartime emergencies. Both were administered by a tripartite board. The circumstances in which controls were invoked in the two emergencies, however, were quite different. At the start of World War II the nation was just emerging from a prolonged depression and mass unemployment. Employers were predominantly antiunion and opposed wage increases as part of the battle against unionism. They also anticipated a postwar depression and did not want to be caught with high wage rates (Kerr 1952: 376). Most unions, on the other hand, were willing to trade off general

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wage increases for union security and various fringe benefits. Their members settled for better jobs and overtime pay in lieu of general wage changes that kept up with the cost of living (p. 376). In contrasting the situation in the Korean War, Clark Kerr observed that employers in that period differed from their counterparts of World War II in that they believed in the value of industrial peace and had "a certain kind of faith" that government would, at the appropriate time, allow higher labor costs to be offset by higher prices with unreduced volume. As for unions, Kerr saw them as more mature and more responsive than formerly to their members' desire for wage increases and less willing to trade such increases for institutional security; hence the enhancement of wages became their principal concern (pp. 369-70).

There were additional important differences between conditions at the outset of the two wars. From the start of the former conflict, it was apparent that the nation was locked in a titanic struggle to which its total resources must be dedicated. The sacrifices required by the war effort were supported by the overwhelming majority of the population. In the Korean War, on the other hand, the United States found itself involved in dubious combat of limited scope and uncertain duration. The concommitants of World War II—severe shortages of raw materials and finished goods, shifts in the structure of production, manpower scarcities—were limited in scope and duration. No great sacrifices were demanded of the civilian population. Unions, for example, were not even asked to give a nostrike pledge, a key ingredient in the stabilization policies of World War II. The government's wage stabilization policies, therefore, lacked the urgency and the comparative inflexibility of those invoked in the earlier conflict (WSB Symposium 1954: 175-76).

Stabilization Programs in Action

World War II

The wage stabilization program in World War II rested upon two basic concepts: first, that wages were to be stabilized rather than frozen; second, that wage rates rather than earnings or take-home pay were to be stabilized (*NWLB Termination Report* 1947:Vol. 1, 183). The program began slowly. Not until October 1942 did Congress pass the Wage Stabilization Act of 1942 and initiate the period of comprehensive control of wages and prices.

The program prior to VJ Day involved the virtually complete separation of wage and price controls. Stabilization of the general level of wages was made independent of the stabilization of the level of prices; wages were not adjusted automatically in accordance with changes in the cost of living, but wage changes allowable under wage stabilization standards were not

denied because of their impact on price ceilings. The doctrine that wage and price controls had to be separated was largely based on the confident expectation that real wages would decline during the war, but they did not. Between October 1942 and July 1945 basic occupational rates in manufacturing industries increased by 8%, of which 3% was the result of general adjustments (USDL 1947, Vol. 1:549-553). Moreover, the total earnings of wage earners considered as a whole actually increased as a result of various factors, including an expansion in the number of workers employed, an increase in the hours of work, a shift of employment towards high-wage occupations, plants, and industries, and an increase in output under piecework systems of payment (Dunlop 1950:156-57).

In a message to Congress in April 1942, President Roosevelt outlined a seven-point program to stabilize the cost of living, a task he subsequently assigned in part to the WLB in October 1942. The message expressed the view that "wages in general can and should be kept at existing scales" but added that the board would "continue to give due consideration to inequalities and the elimination of substandards of living."

General wage increases. The Little Steel formula was designed by the WLB to set a limit to the increase in the general level of wages arising from across-the-board increases applicable to all employees in a bargaining unit, plant, industry, or other customary area of wage setting. It permitted an increase in straight-time hourly earnings of 15% over the January 1941 levels, and it contemplated allowing laggard groups of employees to catch up with increases already received by the majority of workers.

Interplant inequities. The initial policy of the WLB in respect to correcting interplant inequities permitted a number of upward wage adjustments. In April 1943, however, the president issued a so-called "hold-the-line" order, which provided that the board could authorize wage increases only in accordance with the Little Steel formula or to correct substandards of living. Nevertheless, the board was able to persuade the Economic Stabilization Director that it was economically and politically undesirable to freeze all interplant relationships. Because the conduct of the war in tight labor market conditions required the narrowing of some interplant differentials, the board developed and was permitted to implement a wage bracket policy that introduced needed flexibility in adjusting wage-rate relationships between particular job classifications in particular industries and labor markets.

Substandards. There was an inherent ambiguity in the term "substandards of living." The minimum substandard rate eventually determined by the WLB was 55 cents per hour—15 cents above the 40 cents per hour

minimum wage fixed by the Fair Labor Standards Act. This determination was never related to minimum budget costs for wage-earner families; as John Dunlop has noted, the levels selected by the board "were always a judgment based upon the structure of wage rates" (Dunlop 1947:165).

A related concern was the adjustment of wage rates above the minimum. Obviously, increases at the bottom of the scale could not be duplicated all the way to the top; so the board developed a policy of "tapered increases" under which successively smaller adjustments were applied and finally no increase at all. In some instances, however, notably in cotton textiles and railroads, this policy resulted in such dislocations of normal wagerate relationships between job classifications that subsequent increases had to be granted to higher-paid workers to restore the historical differentials (Dunlop 1947:165).

General appraisal. If the World War II wage stabilization program is to be judged solely by whether it prevented any upward movements in the general wage level beyond that allowed by the Little Steel formula, then I must agree with Arthur Ross's appraisal that it was a "substantial success" (Ross 1954:177). Of course, as Dunlop (1947:164) has noted, an appraisal of a wage stabilization program is dependent upon the choice of standards against which it is to be measured. Such standards in the case of the World War II program would have to include, in addition to the stabilization of wages, the preservation of collective bargaining and the protection of the general economic welfare of workers. My own view is that in those respects the program was also a success.

Korean War

The Korean War broke out in June 1950. The Defense Production Act of September 1950 gave the president the power, *inter alia*, to control prices and wages. Not until January 1951, however, was a freeze imposed on wages. In April 1951 the president issued an order establishing the WSB. The formal policies of the WSB did not permit any improvement of real wages except to the extent that the 10% allowance in Regulation 6, promulgated in February 1951, exceeded the 1.9% increase in the cost of living between January 1950 and January 1951. Beginning in June 1951, however, the board gradually authorized additional increases in real wages throughout a growing sector of the economy. Approval was granted on various grounds, but the ultimate effect was to build a so-called improvement factor into a large part of the wage structure (Ross 1954:188).

Whereas the wage-stabilization function of the WLB had been essentially to enforce a relatively strict containment of wage movements, that of

the WSB was to fashion an increasingly liberal wage policy as the economy moved in the direction of satisfying the needs of both the prosecution of the war and the normal demands of the civilian population. The absence of significant shifts of employment to high-paying industries, occupational upgrading, overtime work, and other factors producing large increases in weekly earnings during World War II made workers in the 1951-52 period especially dependent upon adjustment of basic wage rates and therefore upon government wage policies. Also, the prevalence in collective bargaining agreements of wage escalator clauses, improvement factors, welfare and pension plans, and a variety of fringe benefits, plus the unions' demands that they be expanded ruled out policy alternatives that might otherwise have been available.

The WLB had been initially created to resolve labor disputes that might interfere with the effective prosecution of the war and was only later given responsibility for the stabilization of wages. In contrast, the WSB was primarily concerned with the formulation and administration of wage policy. Its limited authority to settle labor disputes was not granted until a year after the board was established and was terminated a year after that (WSB Symposium 1954:175-76; Ross 1954:177-78; Soffer 1954:192-94).

General wage changes. By September 1951, an estimated 3 million workers were covered by escalator provisions that geared wage increases to movements in the level of consumer prices. This intensified the need for a cost-of-living wage policy. The WSB's Regulation 8, adopted in revised form in August 1951, represented the only truly general approach to controlling wage movements. It permitted the spread of existing types of escalator clauses, imposed a minimal control over wage adjustments under such clauses, and allowed negotiated increases that could have been obtained under escalator clauses. Thus the wage policies of private groups were written into the stabilization program (Soffer 1954:194-95).

Regulation 8 marked a step in the general retreat of wage policy from reliance on an overall wage ceiling to a set of piecemeal ceilings. It was the only basis for approval of wage increases in cases involving industrywide bargains and high-wage firms, which had demonstrated an ability and willingness to pay wage increases in excess of past increases in the cost of living. In such cases, therefore, the cost-of-living yardstick soon was replaced by an interindustry-comparison standard, and the industries used in such comparisons were those that had granted increases in excess of permissible ceilings (Soffer 1954:195).

Because only a minority of workers in the nation were covered by escalator clauses, wages for the majority continued to be adjusted by negotiations

based upon relative bargaining power, including consideration of expected increases in prices and wages elsewhere. The cost-of-living policy, based upon past price changes, did not proscribe anticipatory wage adjustments, which in turn increased the pressure for more frequent negotiation of fixed-wage agreements (Soffer 1954:196). By January 1953, the last month of price and wage controls, increases substantially above the cost of living had become quite general in most industries. Nevertheless, these deviations from the cost-of-living policy had no serious inflationary consequences, because by June 1951 retail prices had almost reached their peak and wholesale prices had begun to decline (Ross 1954:189-90).

Interplant wage inequities. In dealing with gross inequity adjustments the WSB used a relatively loose adjustment standard: the weighted average of comparable rates. Under this standard not only were a significant number of firms allowed to secure increases at the beginning of the program, but also the averages themselves were adjusted over time as comparable rates rose. The inflationary potential of this policy was inhibited only by the board's refusal to allow high-wage firms to reestablish historical differentials; but even this restriction was adversely affected by industrywide decisions that upset local labor markets (Ross and Rothbaum 1954:204).

Fringe benefits. As previously noted, WSB Regulation 6 provided that increases in wage rates and fringe benefits above January 1, 1950, levels must be charged against the permissible 10% maximum. In respect of fringe benefits only, however, that limitation did not apply to those granted prior to the freeze date. Various pressures, including the temporary withdrawal of the labor members of the board, compelled a reconsideration of this policy. In July 1951 the newly constituted board issued Regulation 13. It declared that the WSB would approve paid vacations, paid holidays, premium pay relative to days and hours of work, shift differentials, call-in pay, and such other fringe benefits that it might later determine which did not exceed prevailing area or industry practice as to amount or type. Regulation 13 was amended in November 1952 in a manner permitting additional grounds for approval of specified fringe benefits (Hill 1954:223-25,232).

General appraisal. The wage controls instituted in the Korean War were not designed to "hold the line" against any increase in the general wage level. Instead, they constituted a phased retreat permitting gradual increases in real wages. This strategy did not, however, have a serious inflationary impact. I agree with the judgment of Arthur Ross that direct price and wage controls were needed at the outset of the war but were established too late and continued too long on a comprehensive basis. Ross

argued that it was safe to remove controls when the major economic shifts necessitated by the war had been accomplished, when the community had become psychologically adjusted to the war, and when fiscal and credit policies had had time to become effective. He concluded that those criteria had been met by the fall of 1951 (Ross 1953:14, 18-19).

Concluding Remarks

I suppose that the principal purpose of this symposium is to assess what we have learned from past experience with wage controls and guidelines, with the view of applying that knowledge to future situations of a similar nature. Of course, each future situation is almost certain to include features not previously encountered. One example must suffice. In 1952, when union membership in this country was close to its all-time peak, Kerr thought that a no-strike pledge was a "sine qua non for effective wage restraints" (Kerr 1952:380). Today, union membership in the private sector is about 11% and dropping, and the so-called right to strike has been completely undermined by judicial confirmation of an employer's right to replace economic strikers. Although union cooperation with any future wage controls would be highly desirable, if not essential, the necessity of a no-strike pledge is problematical. This observation is strengthened by the Korean War experience in which a much stronger union movement was not asked for and did not volunteer to give a no-strike pledge.

Nevertheless, I strongly believe that future wage stabilization agencies, if any, should be tripartite in structure. I also think that it is undesirable and impracticable to separate wage stabilization administration from dispute settlement functions. Wages are involved in most contract disputes, so to separate the handling of that issue from the resolution of other disputed matters does not make much sense to me.

It may be argued that we now have enough private mechanisms in place to obviate the need for special government regulations of dispute settlement in times of crisis. That argument is a chimera. Like it or not, government will always have to impose some additional mechanism to resolve labor disputes in periods of severe domestic crisis requiring direct wage controls.

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The Kennedy and Johnson Guideposts

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Why did the Kennedy administration plant "Guideposts for Noninflationary Wage and Price Behavior" on its New Frontier at a time of peace and price stability? Why did a bit of free advice prove so controversial in certain quarters? How did the policy work out? And as an afterthought, how has the current economy been able to match the postwar record for low unemployment cum low inflation set in the first half of the 1960s without recourse to similar guidance?

Behind the Policy Decision

The policy decision was made in response to the fact that the low level of inflation which prevailed at the beginning of the 1960s was accompanied by a high rate of unemployment (reaching 6.7% in 1961). Moreover, unemployment had been markedly higher after 1957 than in the previous decade (Table 1 and CEA 1963:23-25). This increase was quite widely interpreted at the time as evidence of increased structural maladjustment in the economy, due primarily to technological change (or "automation"). But the new Council of Economic Advisers found no evidence that the number of unfilled job vacancies had increased along with unemployment, and save the monetarists, it saw no good reason to doubt that a sufficiently expansionist stabilization policy would prove effective in reducing unemployment to an "interim target" rate of 4% before employers would encounter extensive and persistent shortages of qualified labor. To lower the target rate, however, help from a set of proposed programs to provide worker training and improve the matching of jobs and workers would be necessary.

But the neo-Keynesian economists in the administration also believed that monetary-fiscal policy would require help from another type of policy to avoid "premature inflation" and hold down deficits in the balance of payments when the level of unemployment was still higher than the interim target. Premature inflation and external disequilibrium could be generated when employment and output were increasing but still significantly below

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	Manufacturing Sector					
Column No.	(1)	(2)	(3)	(4)	(5)	(6)
	Compensation	Output per	Unit Labor		Unemployment	Misery Index (%),
	per man-hour*	man-hour*	Cost*	CPI*	Rate (%)	(4) + (5)
1954-1957	5.2	2.2	3.1	1.3	4.6	5.9
1958-1960	4.2	2.4	1.7	1.7	5.9	7.6
1961-1965	3.6	4.2	-0.7	1.3	5.5	6.8
1966-1968	5.5	2.1	3.3	3.3	3.7	7.0
1992-1996	3.4	3.2	0.2	2.9	6.3	9.2

TABLE 1 Selected Indicators for the U.S. Economy, 1954-1996

Sources: U.S. Bureau of the Census; U.S. Bureau of Labor Statistics

their full potential levels, because powerful unions could push wages up sufficiently to raise unit labor costs and large-scale firms with oligopolistic power could push prices up in order to increase their profit margins. Thus the three-year contracts negotiated in 1955-58 in autos, steel, and other industries were believed to have contributed to rising prices and hence to the ensuing recession (in 1960-61) (CEA 1962:178). It was the Kennedy administration's anxiety to avoid resumption of this type of wage-price or price-wage sequence while unemployment remained at unacceptably high levels that prompted them to institute a policy of direct wage and price restraint.

The Media and the Message

Unlike traditional American antitrust policy, which was designed to increase efficiency by reducing the level of market power, guidepost policy aimed to reduce its rate of exploitation by persuading oligopolistic firms and powerful unions to exercise self-restraint. And unlike contemporary "incomes policies" in Europe, which were usually operated by labor, management, and government in "concertation," guidepost policy was formulated and run unilaterally by a group of macroeconomists in the Council of Economic Advisers, without participation by the intended target groups. In addition, the 1964 council regarded the European model as too intrusive into private decision making to be compatible with traditional American emphasis on individualistic and competitive behavior, and indeed, with antitrust policy (CEA 1964:117). To be sure, the council and, on one notorious occasion, the president personally were accused of being excessively intrusive themselves when they decided to intervene and twist arms in particular situations on an ad hoc basis. Primarily, however, the policy was supposed to

^{*} Average annual percentage change

rely for its observance on education and persuasion—by jawboning press and public and persuading business people and unionists that by accepting the logic of the guideposts they would establish a sound basis for their own rational expectations and decision making.

The wage and price guideposts were drawn up so as to accommodate the objectives of overall price stability, allocational efficiency, and distributional equity in a competitive and growing economy that was close to full employment. Hourly labor costs were supposed to increase everywhere at the same rate as a trend increase in economywide productivity; this would produce stability in the overall level of unit labor costs. However, for the overall level of (producer) prices to remain stable as well under those conditions, prices in industries in which above-average growth in productivity was experienced would have to be reduced; otherwise their profit margins would rise (since their unit labor costs would fall), which could provoke the unions involved to seek above-average wage increases in order to restore the share of wages in industry income. On the other hand, prices could increase in industries with below-average growth in productivity without jeopardizing overall price stability.

In the interests of both "equity and efficiency," a set of "specific modifications" to these general wage and price guides allowed above-norm increases in wages and prices in industries characterized by persistent and marked shortages of labor or capital, by exceptionally low wages or inadequate profits, or where extra wages would result in improved efficiency, as in the abandonment of restrictive work practices under collective bargaining. In order to maintain overall price stability, however, any set of abovenorm increases would have to be matched by below-norm adjustments in industries characterized by persistent unemployment or excess capacity or where exceptionally high relative wages or profits reflected especially strong union bargaining power or enterprise market power.

In general, unions and large-scale firms were called on to use restraint in the exercise of their discretionary power. And if they did so, they could still typically expect real wages and profits to increase at the same rate as overall productivity, while making it possible to achieve a lower level of sustainable unemployment in the economy.

The Monetarist Critique

In Chicago and other breeding grounds of monetarist doctrine, this pitch fell on deaf ears. "Inflation," asserted Milton Friedman in a preview of his famous natural rate of unemployment argument "is always and everywhere a monetary phenomenon." Absent a substantial increase in the quantity of money (relative to output), monopolistic unions and firms

would be unable or unwilling to raise their wages in excess of increases in productivity and to raise prices. But given a prior increase in the money supply, they could not be prevented from doing so—at least for very long. Jawboning by the Council of Economic Advisers or anyone else could prove only temporarily effective. Only *monetary* restraint could end an inflationary spiral that only monetary excess could have caused (Friedman 1966: 17-39, 55-61).

Guideposters (among others) replied that monetary policy could be accommodative as well as autonomous. Authorities might "validate" increases in prices and wages relatively early in an upswing rather than accept more capacity underutilization and unemployment. (A sequence of price and wage increases could be touched off by efforts on the part of oligopolistic enterprises to restore profit margins that had been squeezed by interim wage increases under long-term collective agreements during the previous recession [Ackley 1966:76; Ulman 1982].)

On the other hand, if unions and enterprises both come to realize that wage-price or price-wage spiraling can be a self-defeating exercise, why could they not be jawboned into self restraint and thus "help reduce, at least temporarily, the normal level of unemployment in the economy?" (Solow 1966:64). (Hence the first Kennedy Council originally [although not for long] thought of asking the United Steelworkers to forego a wage increase scheduled for the final year of their current agreement at the same time that the companies were being asked to forego their next round of price increases [Ulman 1982].)

Finally, friends of the guideposts countered the monetarists' aprioristic dismissal of the policy with some empirical evidence to support the view that it actually might have worked. According to econometric analysis by George Perry (1964, 1967), annual wage changes in manufacturing rose less than predicted on the basis of unemployment, profit levels, and changes in consumer prices and profits from the second half of 1962 up to 1968. (A decline in the policy's effectiveness after the military buildup had begun in 1966 was reflected in a sharp decline and the ultimate disappearance of the quarterly over predictions of wage changes between mid-1966 and mid-1968.)

More Realism, Harsher Reality

Strictly speaking, these results meant only that the hypothesis of this policy's effectiveness was not rejected; they did not by themselves demonstrate such effectiveness, nor did they rule out the presence of other influences. Nevertheless, this quantitative evidence—and especially the fact that unemployment and inflation both declined between 1961 and 1966

(Table 1)—could lend credibility to the view that the policy succeeded in securing widespread acceptance as an educational device by the public at large and even within the target population of labor and management. In addition, the industrial relations community included a silent minority of thoughtful individuals who believed that some sort of external restraint was needed to prevent union negotiators in such important jurisdictions as construction and basic steel from walking away from the bargaining table with suicidally high increases.

The industrial relations community, however, harbored indifference and rejection as well as acceptance and support. While the case for some form of wage and price policy in order to minimize unemployment and inflation and for its implementation through general education and persuasion won a good deal of acceptance, the Kennedy and Johnson guideposts were generally ignored by the bargaining parties, according to John Dunlop (1966:84). And as a rule, unilateral intervention by some government officials for a purpose other than keeping industrial peace was appreciated neither by the parties themselves nor by the government's own duly authorized peacekeepers. Certainly the Kennedy administration never fully regained the confidence of the business community after the president had personally and publicly pressured U.S. Steel to rescind a price increase that it posted right after the negotiation of a very moderate settlement with the United Steel Workers, for which Secretary of Labor Arthur Goldberg had worked very hard.

Within union ranks, the policy lacked legitimacy because it did not provide for tripartite participation in its formulation or for "due process" in the disposition of specific cases. (Both ingredients would have provided essential support for members of the silent minority in their attempt to sell moderation to the membership and their democratically elected negotiators.)

Finally, the policy statement contained provisions that were either inoperable or just plain unrealistic. How could the "modifications" to the guideposts be translated into practice in the absence of adequate and authoritative data on sectoral pay and profit margins, as well as prices and productivity, that would be necessary to permit identification of structural shortages and excess availability of labor and capital? How could business firms be expected to follow general price guideposts absent the requisite productivity data? In any event, could firms in exceptionally dynamic sectors really be expected to cut prices? And unions (especially the UAW) were indignant over the inadmissibility of their COLAs under a policy which could neither sanction nor take cognizance of inflationary wage or price behavior.

Meanwhile, the guardians of the policy were finding that its unenforceable provisions did not require enforcement after all. Thus they found that industries in which strong unions existed were not likely to be characterized by either exceptionally low wages or labor shortages (CEA 1966:91). And while they had initially complained that large-scale firms did not "widely" follow the price guideposts by reducing their prices (CEA 1964: 120), they later discovered (with the aid of newly available data) that broad sectoral changes in prices did in fact conform to corresponding changes in unit labor costs and productivity—and had done so ever since 1947 as well as in the first half of the 1960s (CEA 1968:121-124). They also found that sectoral changes in hourly compensation were in fact very similar across the board and, further, that "for the economy as a whole . . . when wages rise faster than output per man-hour, prices rise correspondingly with little effect on the distribution of income" (pp. 122-23).

Thus observance of the general wage guidepost really constituted a sufficient—but also necessary—condition for the continuance of price stability after 1965, just as it had been for the maintenance of price stability in the preceding period of apparent guidepost effectiveness.

But observance was much more easily preached than practiced after the gap between potential and actual output had turned negative, after unemployment had dropped below the 4% target, after labor shortages and capacity bottlenecks had become significant, and after consumer prices had jumped from an average rate of 1.3% in 1961-65 to 3.3% in 1966-68. Wage increases exceeded the general productivity norm, but the 1968 council agreed that "it would be patently unrealistic to expect labor to accept increases in money wages which would represent essentially no improvement in real hourly income" (CEA 1968:126).

Nevertheless, the council felt obliged to reiterate its conviction that "the only valid noninflationary standard for wage advances is the productivity principle" (CEA 1968:126). This restatement recalled an even more difficult occasion on which the council had stuck to its guns: in 1966 it decided to retain its famous 3.2% wage norm, although to do so it had to discard the method of calculation that would have indicated a boost to 3.6%. Neither episode was calculated to allay the time-honored suspiciousness of the American manualists towards intellectuals who sought to infringe on their exclusive jurisdiction.

However, the Johnson administration did in the end acknowledge that if a policy were to stand any chance at all of dissuading unions from seeking full compensation for increases in the cost of living, the private parties would have to be visibly and actively involved in its design and implementation. A small gesture in this direction was made in 1968 when the president appointed a Cabinet Committee on Price Stability to be coordinated by the Chairman of the Council of Economic Advisers and with instructions to

enlist the cooperation of "business, labor, and the public" in encouraging "responsible wage and price behavior"—but not to "become involved in specific current wage or price matters" (CEA 1968:21, 127). But that was too little and too late.

While the Kennedy-Johnson guideposts had received some credit for helping the authorities to *maintain* ability while reducing unemployment in the first half of the 1960s, it could not be expected to enable the economy to *return* to price stability while maintaining unemployment at very low levels under conditions of excess demand. Nevertheless, it was a legacy of the guideposts that as long as high-level employment as well as price stability remained an explicit target of stabilization policy, and as long as unions and firms retained enough market power to be capable of exercising a significant degree of restraint on wages and prices, further experimentation with policies to elicit such restraint could not be ruled out.

An Afterthought

After the 1970s, both of these preconditions became weaker. Employment was downgraded as a target of stabilization policy under the combined influence of the monetarists and the welfare state (which has made joblessness less painful to endure). And the degree of competition in the American economy appears to have been significantly increased under the combined influence of globalization, deregulation, and technological change. Guidepost policy, it will be recalled, had been regarded even by its designers as a second-best but more available alternative to antimonopoly; but as the forces of competition increased, both the need and the scope for incomes policies in the U.S. economy were diminished.

Thus old New Frontiersmen could rejoice with the 1997 Council of Economic Advisors when it happily proclaimed that "the combination of a low unemployment rate and stable inflation has produced the lowest 'misery index' since the 1960s" (CEA 1997:23). There was indeed concern that as profits soared while wages continued to be restrained by unseen hands, a source of inequity and potential instability was being generated. But no one seemed to miss the guideposts.

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General Wage Control during the Nixon Administration

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We are currently enjoying what the Nixon wage-price controls program of 1971-74 sought to achieve: low unemployment and low inflation. Policy-makers back then took what they thought they understood about inflation and developed an apparently reasonable program. So reasonable did the program seem that the American Phase II model of controls was copied in Britain (which had previously experimented with incomes policy) and Canada.

Inflation and the Start of Controls

The 1960s began as a sluggish period characterized by unemployment increases, low inflation, and a modest spate of union concession bargaining. By the mid-1960s, a process of rapid growth, falling unemployment, and rising inflation developed. From 1962 to 1969, annual CPI inflation rose from 0.7% to 6.2%. Unemployment fell from 6.7% in 1962 to 3.5% in 1969. It then moved up in response to anti-inflation policies.

In the twelve months before controls (July 1970-July 1971), the CPI rose 4.4%, 1.8 percentage points below the 1969 peak. The Wholesale Price Index was erratic but also peaked in 1969 at 4.8%. It showed signs of reacceleration but still ran 1.5 percentage points below the 1969 peak in the year before controls. Thus policymakers focused more on wages than prices. Experts believed they saw ominous signs in the union sector.

Other Background Influences

Until 1971, the U.S. was committed to fixed exchange rates under the Bretton Woods version of the gold standard. But this commitment was progressively undermined by domestic expansion and inflation. Dropping that

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commitment meant almost certain dollar depreciation. The result of such depreciation would be a price shock from higher costs of traded goods.

On the labor relations front, strike activity reached a peak in the late 1960s and some notable tentative contract settlements were rejected by a rebellious rank and file. An early symptom was rejection by members of the Machinists of a White House-sponsored settlement in the airline industry in 1966. This rejection was widely seen as toppling the Kennedy/Johnson guideposts. Over the next few years, prolonged strikes were seen in rubber (97 days in 1967), autos (65 days at Ford in 1967; 134 days at GM in 1970), telephones (34 days in 1968), petroleum (87 days in 1969), electrical equipment (122 days at GE in 1969), and other industries, especially construction. Competition between the Teamsters and an independent Chicago union in 1970 led to a reopening of a major trucking agreement (which itself had resulted from a strike of 49 days).

Implementation of Controls

Responding to the public anxiety over inflation, a Democratic Congress passed the Economic Stabilization Act in August 1970. The act gave the president a virtual blank check to impose anti-inflation controls. It was initially seen by the administration as an attempt to embarrass it for not taking strong action. Controls were opposed by key administration officials but Federal Reserve Chair Arthur Burns made public his support for some kind of wage/price review authority. Also, John Connally, who had recently assumed the position of treasury secretary, was a vocal supporter of incomes policy. In March 1971, concerns about union wage settlements in construction led to imposition of selective wage controls in that industry. And on August 15, 1971, President Nixon implemented the authority established by the Economic Stabilization Act and launched a program of generalized wage-price controls.

Phase I was a 90-day wage-price freeze during which planning for less drastic regulation could take place. A Cost-of-Living Council was set up to administer the freeze and subsequent controls. Unlike the later wage and price agencies of Phase II, the council was composed entirely of high administration officials including the secretaries of commerce, agriculture, and labor. The freeze was unveiled in a remarkable televised speech during which the president also announced a unilateral end of the gold standard, a temporary 10% import surcharge, and some tax proposals. It was surely the high point of postwar presidential economic policy making.

Phase II (November 14, 1971–January 11, 1973) provided for establishment of a Pay Board and a Price Commission. The Pay Board initially consisted of 15 members: 5 from labor (unions), 5 from management, and 5

public members. Later, when the AFL-CIO, the Steelworkers, Machinists, and Auto Workers pulled out, the board was reduced to 5 public members, 1 Teamster, and 1 management representative. The board's standard for wage increases was 5.5%, a number later stretched to 6.2% on a total compensation basis (with benefits).

Various supplementary Pay Board rules dealt with deferred wage increases, executive pay, pay adjustments for the "working poor," the costing of escalator clauses, and "merit" pay. Price Commission regulations were based on allowable cost markups. Since much of *net* production cost is labor, the assumption was that wage stabilization would produce price stabilization.

Phase III controls were an attempt at partial deregulation. Pay Board and Price Commission staffs were folded into the Cost-of-Living Council. Rules of the program were generally relaxed. But a series of price shocks began to batter the controls. Included among these shocks were the effects of the collapse of the Smithsonian exchange rate system that replaced the Bretton Woods arrangements. Increases in world food and other commodity prices also undermined Phase III. And an expanding U.S. economy with falling unemployment added "traditional" demand pressure.

In reaction, Phase III rules were tightened. The imposition of a meat price freeze (and resultant shortages) was one result. A second general freeze was initiated on June 13, 1973. Phase IV, a policy of sector-by-sector decontrol, began on July 18. But Phase IV was soon hit by the huge OPEC oil price increase that accompanied the Yom Kippur War in fall 1973. Spot gasoline shortages resulted from the interaction of price controls and the Arab oil embargo. Except for oil regulation, controls lapsed on April 30, 1994, amidst high unemployment, high inflation, and Watergate.

Why Were Controls Imposed?

In the current era of deregulation, it may seem surprising that imposing controls seemed reasonable in 1971. However, there were precedents which made controls less radical than they appear today. During World War II and the Korean War, wage-price controls were utilized. And the notion of using control-like instruments for peacetime price stabilization had developed in the 1950s and early 1960s.

Various European countries were experimenting with "incomes policies" and American academics reported on these exercises. At the same time, the Phillips curve made a big impression on macroeconomists. The Phillips curve embodied the notion of a trade-off between inflation and unemployment. If that trade-off could be shifted via incomes policy, the results of Keynesian fine tuning could be improved. During the Kennedy/

Johnson administrations, wage-price "guideposts" were tried for that reason. And a diagram of the Phillips curve appears on the cover of the official government history of the Nixon controls!

Prior experience with controls and guidelines also provided guidance as to the form the new Nixon controls might take. Notions of gearing wages to productivity trends to meet a given price inflation target were part of the Kennedy-Johnson approach. Thus the 5.5% Phase II wage guideline was an update of the 3.2% Kennedy-Johnson wage guidepost. The latter targeted complete price stability by setting the wage standard equal to estimated productivity growth. The former was meant to be consistent with a more modest 2%-3% price inflation target.

Similarly, rules for dealing with such union-sector features as pattern bargaining had developed in the earlier wartime programs. So, too, had rules providing differential treatment of wages and benefits. There was a recipe book available by 1971 for policymakers bent on cooking up controls.

Finally, there was external receptivity. Business leaders had become concerned about large union settlements. At an October 1970 meeting of the Business Council, the administration was pushed to take decisive action. The public, too, was favorably disposed. To the average citizen, if inflation was a problem, it should be outlawed or suppressed directly.

Professional thinking was not so simplistic. But many academics did suggest that incomes policy might do some good. Early econometric studies suggested that the Kennedy-Johnson guideposts had produced a limited salutary effect before being overwhelmed by demand pressures. Incomes policy was seen as just one more instrument, along with monetary and fiscal policy.

The Union Focus

As noted, CPI inflation was in fact decelerating when controls were imposed. But what seemed ominous were wage developments, particularly in the union labor market. Union settlements did not decelerate despite the 1970-71 recession.

In the building trades, where controls began, union wages were rising at close to 12% a year. Major private sector *first-year* union wage settlements were also running close to that level. Median *effective* union wage changes (new and deferred) ran a more modest 8% but were not decelerating. And pattern setting and following was still the accepted framework for understanding wage setting, particularly in the major bargaining sector. Longshore strikes were put in abeyance on both coasts under Phase I by Taft-Hartley injunctions. But these injunctions would soon expire. Confrontations loomed in coal and aerospace.

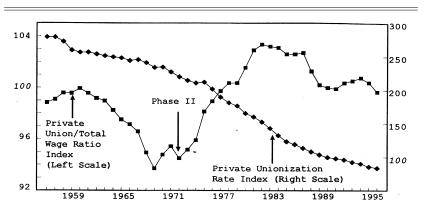
If wage inflation in the union sector were to remain at 8%, and if this pattern were to spread to nonunion workers, and if the productivity growth trend was the then-assumed 3%, then price inflation was likely to be stuck at around 5%, an unsatisfactory level. These "ifs" appeared reasonable assumptions at the time. Thus focusing controls on union settlements seemed logical. Moreover, the wage-price freeze was a draconian first step which could dampen wage and price expectations that had become embedded in collective bargaining and product market behavior.

And in Retrospect?

With hindsight, these assumptions can be questioned. We know now that by the early 1970s, productivity growth was slowing well below the prior 3% long-term trend. Had that fact been clear, a 5.5% wage guideline would have been seen as too high. But because it was hard to disentangle short-run and cyclical productivity influences, a 3% trend seemed reasonable to assume.

There are also questions that can now be raised about the interpretation of union wage behavior. Figure 1 shows the ratio of union wages to total wages (union + nonunion) in the private sector. Also shown is the private union membership penetration rate. Both series are shown in index form with 1990 = 100. Three lessons can be drawn from this chart.

FIGURE 1
Private Union/Total Wage Ratio Index and Private Unionization Rate Index,
1956-1996: Both Indexes Set at 1990 = 100



Source: Details available from the authors.

First, the big settlements that led up to controls appear in retrospect to be a catch up for the inflationary late 1960s. Union wages declined relative to nonunion because the latter—without the constraint of multiyear contracts—responded more quickly to demand pressure. Second, after a Phase II blip, union wages resumed their relative rise, going well beyond catch up and setting the stage for the concession bargains of the 1980s. Relative to nonunion wages, union wages seemed impervious to externally originated price shocks such as the OPEC oil price increases. There was union resistance to absorbing some of the lost national income such adverse shocks entailed.

The private unionization rate was already in decline when controls arrived. But the resumed upward march of relative union wages may have contributed to the big membership losses a decade later. A rising union wage premium made unionized production less competitive relative to nonunion. It fostered management resistance to the premium and to unionization more generally.

Third, union wages exhibited significant swings relative to nonunion. Thus the notion of tight union-to-nonunion wage spillover was not as well grounded as many experts believed in 1971. Certainly today, with unionization down to around a tenth of the private work force, the spillover rationale looks weak. At the time, however, the unionization rate was higher and memories extended back to still earlier days after World War II when pattern bargaining was more prevalent.

A Cautionary Conclusion

The 1971-74 episode was generated from the then-prevailing understanding of the institutions of the U.S. economy, especially those involving collective bargaining. Absent a return of wage-setting arrangements to those of the now-distant past, it is hard to imagine resumed use of controls or guidelines. But there is a cautionary lesson to be learned from our look at history. Today, there are many who are sure they understand the wage-and price-setting mechanisms of the "new economy." They insist that low unemployment and low inflation will persist forever and that economic policy should be based on that expectation. But are the new gurus any wiser than the policymakers of 1971-74?

Construction Industry Wage Controls during the Nixon Administration

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The Nixon administration placed the construction industry under a system of wage and price controls on March 29, 1971, nearly five months prior to the introduction of economywide controls on August 15, 1971. The imposition of controls was the last in a series of actions taken by an administration that was under intense pressure to control wages and prices in an industry that was believed to be of both symbolic and practical importance in the battle against inflation.

For a number of reasons, the inflationary pressures created by the overly expansionary fiscal and monetary policies of the 1960s had a disproportionate effect on the construction industry and were reflected in very rapid wage increases from 1967 to 1970. Policymakers and others were concerned that these increases, which did not seem to be justified by comparable increases in productivity, would spill over into other areas of the economy.

Unique Nature of Construction Industry

The special attention given the construction industry during the Nixon administration was nothing new. Indeed, in every modern U.S. episode of wage and price controls, the unique features of the industry have led to the establishment of a separate system of controls for construction.

It is an industry that often operates with extensive government funding and frequently under government regulation. The construction labor force makes up, on average, about 5% of total employment, but the industry is highly seasonal, so this amount varies greatly over the year. In periods of peak demand, the industry can even double its employment as workers shift from other occupations to the less skilled construction trades.

Among the more highly skilled trades, however, geography places some limits on the available labor supply. For instance, an electrician in Detroit is of little use to a contractor with a construction project in Chicago. Moreover, inducing a worker to move to a new city to work on a project that

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might last only a few months is likely to be prohibitively expensive. Similarly, it takes time, and perhaps the cooperation of a union local, for new workers to acquire the necessary skills. As a result, at least in the short run, contractors' labor supply is limited mostly to the local trades who already have the necessary skills. As one labor leader put it, "You can import a car, but you can't import a skyscraper." Given the increasing importance of prefabricated construction, this may be less true today. But in the early 1970s, this was an important consideration.

Another feature of the industry is the lumpiness of demand. A large project can occupy a significant fraction of the available labor supply. Thus if by chance several new projects are started at once, capacity can be a significant problem. Combined with the geographic limitations on labor markets, this means that the industry is prone to bottlenecks in which one or more skilled trades is temporarily in very short supply. This can lead to delays and added expenses. In such circumstances a local union can wield significant bargaining power.

The unions' bargaining power is greatly enhanced by the Federal Davis-Bacon Act and associated state "little Davis-Bacon" acts, which ensure that on a significant fraction of nonresidential construction projects, prevailing wage rates must be paid to all workers in a given trade. This effectively eliminates much of the competition from nonunion labor because prevailing rates are often the same as union rates. Today, of course, union power in the industry has declined somewhat along with the declining share of union workers. For instance, in 1970, 42% of construction workers belonged to unions, while only 19% carried union cards in 1996 (Allen 1994).

The craft unions, each of which represents workers with a different set of specialized skills, are extremely important to the industry. Indeed, since workers' contacts with individual construction contractors are frequently for short periods, sometimes as little as one or two hours, the union is the major force for employment stability in the industry. In negotiating wage rates, the craft unions must balance their members' desires for both secure employment and attractive wages.

The relative wage rates of the various crafts is often a major consideration in such bargaining. Workers, and sometimes contractors, have strongly held notions about the proper wage differential between construction crafts. These are based on the required levels of specialized skills and training as well as historical precedent. Moreover, since tradesmen often work side by side with members of other craft unions, they usually know exactly how their wages compare to others' and whether those rates are consistent with their assessment of the relative worth of various sets of skills. An attempt to negotiate wage rates that would leave a trade's relative position

significantly worse than historical norms is likely to be met with resistance and threats of a strike.

This difficulty of altering relative wages can mean that even when it is only workers from one or a few crafts that are in short supply, wages for all crafts may tend to rise. Since wage rates for the various crafts are negotiated at different times, a kind of "leap frogging" process can occur in which each craft demands an increase that would bring its relative wage above past levels. Such demands stem from the often correct belief that during the period of their contract, the other crafts will be negotiating similar increases and, thus, that it is necessary to get ahead at the beginning in order to avoid being too far behind at the end.

The Prelude to Controls

The mid-1960s was the era when the Johnson administration believed that we could have both guns and butter—that we could both fight the Vietnam war and fund the Great Society programs. Such expansionary fiscal policies put pressure on monetary policymakers to accommodate a rapid growth of nominal demand, and increasing inflationary pressures were the result. Later in the decade, fiscal and monetary policymakers attempted to stem the acceleration of inflation, but either their policy actions were too modest, or Milton Friedman's famous "long and variable lags" prevented their effects from showing up as soon as was hoped. Either way, policymakers' faltering attempts to fight inflation caused a high level of frustration among the American people, and economic pressures soon evolved into powerful political pressures to "do something" about inflation.

One manifestation of the excessive nominal demand growth fostered by fiscal and monetary policies was a boom in the construction industry in the late 1960s, especially in many of the major northern cities. The long and rapid economic expansion of the era was especially significant in the heavy industries that were based in these cities. Moreover, construction of the interstate highway system was in full swing, and many new federal and state buildings were being built.

One can see the legacy of this period in the highways and skylines of cities like Chicago. For instance, Chicago's system of highways, 90% of which was financed by the federal government, was completed in 1969 (Mayer and Wade 1969: 440). Similarly, many of the skyscrapers in downtown Chicago were completed in the late 1960s, including such large public projects as the Post Office and Federal Office Building complex on Jackson and Van Buren.

In this environment, the construction industry saw dramatic wage and price increases. For example, the annual rate of growth in average hourly earnings for production workers in the U.S. construction industry increased from about 3% in 1963, to about 5% in 1966, to nearly 9% in 1969. Rates of growth in the unionized sector increased even faster, especially in cities where shortages of qualified workers were most severe. Wage growth that was outpacing productivity growth was not the only problem confronting those who wanted to build. The number of strikes also was increasing, raising additional costs.

In this atmosphere, representatives of some of the major manufacturing corporations that were among the principal users of construction services came together in 1969 to form the Construction Users Anti-inflation Roundtable, chaired by Roger Blough, former chairman of U.S. Steel Corporation. Its intent was to lobby the administration to take actions that would lead to lower construction costs, including inefficiencies caused by uneconomic work rules. The roundtable argued that the construction industry was both a symbol and an important cause of the increase in U.S. inflation. As Blough testified to the Joint Economic Committee, "The source of wage-push inflation lies primarily, although not entirely, in the field of construction" (Lenhart 1971).

As the pressure on policymakers to slow inflation grew stronger, the administration attempted to supplement standard monetary and fiscal policies with the use of "moral suasion." For instance, in 1969 the Council of Economic Advisors observed inflation accelerating, notably in housing prices, and responded by issuing "inflation alerts." These were ineffective at reducing price increases but made public the council's concern about spillover effects from construction wages to other industries. About the same time, the Cabinet Committee on Construction was established to study the possibility that the continuing increases in construction wages could prompt similar increases in other industries. These two events were just the first in a series of efforts to stop inflation at what many considered its source—the construction industry.

Also in 1969, discussions with management, labor, and the administration about problems in the construction industry led to a presidential executive order establishing the Construction Industry Collective Bargaining Commission (CICBC). The CICBC was a 12-member board with labor, management, and government representatives and was chaired by the secretary of labor. Its major activities focused on longer-term issues such as the nature of apprenticeship programs and the structure of bargaining. It also had some limited and little-used dispute-settling authority.

A short time later, Congress gave the administration the authority to impose wage and price controls with the Economic Stabilization Act of 1970. Of course, few thought that President Nixon would actually use the

controls. Many saw this as a political move designed to position the Democrats, who controlled Congress, to use inflation as an issue in the next election.

By mid-1970, even many of the national leaders of construction industry trade unions felt that wages were rising too fast in their industry. Such concerns may have stemmed from the fear that building would decline as firms found the costs too high or nonunion labor would make inroads into the industry. Some construction firms were shifting from union to nonunion or going "double breasted," i.e., continuing to use union labor on Davis-Bacon work, but nonunion on other projects. The level of union employment (and union dues) was threatened. However, union leaders found it very difficult to publicly agree to any kind of voluntary wage restraints due to political pressure from their local memberships. John Dunlop, who had studied and worked with the industry for many years, held private meetings with industry leaders in the late fall to work out the details of a stabilization program.

On January 18, 1971, President Nixon met with national union leaders and representatives of contractor associations. The plan was for the president to take a hard-line stance and demand that the parties come up with a workable plan for voluntary controls. This would give the union leaders, many of whom privately were agreeable to a stabilization program, the political cover to take some meaningful steps. However, the meeting was not successful. No ultimatums were made, and union leaders were only asked to prepare a plan for voluntary controls within 30 days. Without the political cover of an ultimatum from the White House, union leaders did little to prepare a plan for voluntary controls. Finally, after an extension of the 30-day deadline, they produced a plan that was quickly rejected as inadequate.

At this point the administration did something unexpected. Instead of continuing to push for a system of voluntary wage and price controls for the construction industry, Nixon suspended the Davis-Bacon Act without prior notice on February 23, 1971. In doing so, he invoked a clause in the 1931 legislation that allowed for suspension in the case of national emergencies. The administration's intent was to weaken union bargaining positions and reduce wage increases. However, the administration's legal authority to suspend the act in the circumstances of the early 1970s was questionable. Moreover, its further claim that the suspension also applied to the 38-state "little Davis-Bacon" acts led to a legal battle that the administration soon appeared likely to lose. The national construction unions also were very unhappy with the suspension of Davis-Bacon, in part because it drew attention to the law. Thus on March 29, 1971, Nixon reinstated the Davis-Bacon Act in Executive Order 11588, but this order went further.

The Construction Industry Stabilization Committee

The main purpose of the executive order, invoked by utilizing authority under the Economic Stabilization Act of 1970, was to enact a system of wage and price controls for the construction industry. It established the tripartite Construction Industry Stabilization Committee (CISC), which was composed of labor, management, and nongovernmental neutrals and chaired by John Dunlop. Its purpose was to determine acceptable levels for prices and wages in union construction contracts. Two criteria were to be applied to determine the acceptability of labor contracts. First, there was the broad goal of reducing wage increases to the 6% level that had been the median increase from 1961 to 1968. The second criterion was whether adjustments were necessary to restore traditional wage relationships among different crafts in a given locality and avoid competitive leap-frogging of wage increases (Lenhart 1971).

The executive order also called for price controls. However, since nearly every construction project is unique, directly controlling prices is practically impossible. Nevertheless, the Interagency Committee on Construction was created to determine acceptable prices for construction contracts and standards for executive compensation. It took the committee almost five months and the help of a great deal of legal talent to draw up a very complicated system of price controls. However, before these could actually be implemented, the wage and price freeze of August 15, 1971, was announced, and the responsibility for controlling construction prices passed to the newly formed Cost-of-Living Council.

The CISC, however, continued to operate independently of the Pay Board which had been established to administer economywide wage controls and its general guideline of 5.5% wage increases. Indeed, wage controls under the CISC and the Pay Board differed in some notable ways. As already mentioned, the CISC recognized the need for "equity adjustments" in order to restore traditional relationships between the wages of various crafts. Especially in the early period of controls, these adjustments often resulted in contracts that exceeded the 6% target.

In an environment in which contracts last several years and inflation is significant, it can make a large difference whether controls are imposed immediately after a large increase has been signed or immediately before one is about to be signed. In the former case, relative wages may be higher than was anticipated by the contracting parties, while in the latter, relative wages will be lower. The distortions caused by a one-size-fits-all system of controls that locks in such relative wage relationships are one of the hall-marks of wage controls and a primary reason why they should not be used.

Moreover, such distortions can lead to strikes, especially in an industry like construction with its emphasis on relative wages.

As noted, the CISC avoided some of the distortions associated with the rigid imposition of controls by adopting a case-by-case approach in which "inflation catch-up adjustments" could be granted when necessary. Of course, one of the drawbacks of a case-by-case approach is the necessity of having a large administrative staff for implemention. However, in the case of the construction industry, a staff was already available since the Department of Labor had a corps of workers devoted to determining prevailing wages under the Davis-Bacon Act. The secretary of labor's decision to only issue wage determinations under Davis-Bacon that were established by the CISC was critical to the success of the program.

Another unique aspect of the CISC was the creation of national dispute resolution boards for each of the major crafts. These "craft boards," which were made up of both union and management representatives, resolved local disputes, thereby shifting responsibility from local negotiators to national union representatives who were more sympathetic with the objective of the wage stabilization program. The dispute resolution mechanism of the CISC was especially important in 1971 when controls were new. Though unions refused to make a no-strike pledge, they did agree to the dispute resolution mechanism of the craft boards, which appear to have been instrumental in reducing the number of strikes (Mills 1972:357).

One could argue that, quantitatively, the CISC was a success. The very rapid wage increases of the late 1960s and 1970 significantly moderated almost immediately. For instance, the average first-year wage increases for union contracts declined from 21.3% in the third quarter of 1970 to 11.0% in the third quarter of 1971 (Mills 1972: 356). Average first-year wage increases in construction contracts continued to decline, going from an average of 19.6% in 1970, to 14.1% in 1971, 7.5% in 1972, and 5.8% in 1973. Those declines can be compared to increases in manufacturing wage growth, which went from 9.9% in 1970 to 11.7% in 1971, and flat wage growth in the economy outside of manufacturing and construction where, during this period, wages increased 13.1% in each year (Council on Wage and Price Stability 1976). Moreover, the number of strikes was reduced from 1,137 in 1970, to 751 in 1971, and 701 in 1972; and man-days idle dropped more than 50% in 1971 after the creation of the CISC (Lipsky and Farber 1976: 390). In addition, the CISC removed or modified costly work rules from collective bargaining agreements.

Of course, it is possible that the moderation in construction wage increases would have occurred without controls, though perhaps not as

quickly. Even after 1974, when the CISC ceased to exist, construction wage increases most often have lagged behind those for other workers. Looking at the entire period from 1950 to 1997, the late 1960s and early 1970s seem to stand out as a unique time when construction wages consistently increased more rapidly than wages in other sectors.

More importantly, a focus on average wage rates misses the great costs of wage controls which come from the substitution of highly fallible government administrators for the power of the market mechanism and the distortions that this can create in relative wages and prices. Because the CISC was carefully designed, the construction industry was able to avoid the worst of these costs, but over many years such costs would surely have risen as relative price adjustments became more essential to the efficient functioning of the economy.

Conclusion

With the cooperation of national union leaders in the construction industry, wage controls were implemented in construction in a highly pragmatic manner, avoiding some of their worst effects. Nevertheless, it is clear that the adoption of controls, which was the product of intense political pressure, was a mistake which should never again be repeated in a peacetime economy. Policymakers of the day had too little appreciation for the complexity of the economy, for how creative workers and firms would be in circumventing controls, and for the costs of stifling the price mechanism. Most of all, they failed to realize that wage and price controls were no substitute for sound monetary policy.

Even many mainstream economists of the day doubted the ability of monetary policy to control inflation. Many more sought a way to eliminate inflation that was less painful than a suitably restrictive monetary policy. The dramatic disinflation engineered by the Federal Reserve of the early Volcker era and the further progress toward price stability since then have shown clearly that monetary policy can control inflation. Of course, the disinflation of the early 1980s was far from painless. However, it put the economy on a much firmer financial basis and has been one of the keys to the last fifteen years of nearly uninterrupted economic expansion, a legacy that obviously compares quite favorably with that of the wage and price controls of the early 1970s.

Author's Note

The views in this paper are the personal views of the author and do not necessarily represent the views of the Federal Reserve.

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Wage Guidelines in the Carter Administration

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Incomes policies have vanished from the economic policy agenda of the United States. In large measure, that is the predictable result of inflation's decline over the past fifteen years and the lessening of public concern and attention. But no small credit must go to the unfortunate experience with a formal incomes policy during the Carter administration. The Carter administration introduced a "voluntary" guidelines program, administered by the Council on Wage and Price Stability (CWPS) in the fall of 1978, at a time when inflation was running at an annual rate of 7.9%. Over the next two years, until the end of the administration, the inflation rate averaged 9.8%, hardly a positive result. The program became very unpopular among business and labor leaders, and it played a role in the 1980 presidential campaign. President Reagan pledged as the first action of his administration to eliminate CWPS, and he did.

In its defense, the Carter program operated against the backdrop of the 1979-80 energy price explosion. Given the magnitude of the shock, it is doubtful that any policy could have avoided an acceleration of inflation. It was also only one element of a broader anti-inflation policy in which little went as planned. Still, the retrospective reviews offer some lessons for policy in a broader context.

The Carter pay and price standards was introduced as only one element of a three-part anti-inflation policy. The rate of inflation has been steadily accelerating since the end of the 1974-75 recession; and by the fall of 1978, both the administration and the Federal Reserve were committed to restraining aggregate demand growth to relieve inflation pressures. Thus the first element of the program was supposed to be a tightening of fiscal and monetary policies. Second, the government had pledged to reduce the inflationary impact of its own actions, particularly in the regulatory area. And the third element was a set of explicit pay and price standards.

The involvement of CWPS grew out of its previous efforts to monitor inflation developments. One major activity was the evaluation of the costs

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to the private sector of government administrative and regulatory actions. That function was expanded, and in essence, CWPS provided the analytic staff for the Regulatory Analysis Review Group which evaluated the cost effectiveness of major regulatory proposals. CWPS also administered the pay and price standards because it had previously been involved in analytical studies of private sector wage and price decisions and because it had subpoena power to obtain the required information. However, most firms cooperated fully on a voluntary basis. The government could disbar firms from government procurement, but the threat was seldom utilized, and it was only infrequently a significant factor in promoting compliance. Instead, conflicts with private agents revolved more around the interpretation of the guidelines in specific cases and requests for exceptions.

The decision to include a set of pay and price standards as part of the anti-inflation program was motivated by a concern that reliance on demand restraint alone to unwind inflation would involve extremely high costs in terms of lost output, incomes, and employment. At the time, the empirical studies suggested that a reduction of one percentage point in the rate of inflation would require a one percentage point increase in the unemployment rate sustained over a two-year period. That is, inflation typically exhibited strong elements of inertia, perhaps because of the sluggish adjustment of inflation expectations. The standards were put forth as a complementary effort to promote a deceleration of the inflation at less cost than reliance on demand restraint alone. This perspective reflected a significant difference with earlier advocacy of guideposts in the 1960s because the incomes policy component was viewed as a transitional measure.

The program's design also reflected a belief that restraint of pay increases was critical, since competitive markets would effectively ensure that any labor cost savings were passed forward into lower prices. The inertia of the inflation process was seen as largely concentrated in wage setting rather than the determination of prices. However, the maintenance of public support would require standards for prices comparable to those for wages.

The pay standard limited the increase in hourly wages plus private fringe benefits to a maximum of 7% (CWPS 1979). The aggregate price standard was derived from the pay standard by allowing for a scheduled increase in employment taxes of 0.5% at the beginning of 1979, plus a trend allowance for productivity growth of 1.75%. Thus a 7.5% increase in labor costs would translate into an average rate of price increase of 5.75%. The price target of 5.75% was also equivalent to a 0.5% reduction of inflation from the 1976-77 period. The implementation of these basic standards at the level of individual firms was considerably more complex, however.

The Wage Guideline

In some respects, the government was better able to monitor wages than prices because it had more "in-house" expertise. There was within the government, particularly at the Labor Department, a significant number of labor market experts who had long been involved in monitoring wage trends. The Carter program also benefited by the knowledge accumulated during the Nixon controls program.

Any wage standard encounters serious problems of dealing with the highly heterogeneous nature of pay arrangements and difficulties of costing some components of labor compensation. The wage standards allowed firms to average increases within an employee group in an effort to accommodate differing institutional arrangements. In collective bargaining situations, the objective was to measure the fixed-weight average increase in the pay rate for a job, averaged across the bargaining unit. The use of averages allowed firms considerable discretion to respond to relative job imbalances.

Initially, nonunionized units were allowed the alternative of comparing the average wage at the beginning and end of the measurement period; but that "double-snapshot" method was distorted by changes in the employment mix—in particular, because exiting workers were usually higher-paid than new hires. Yet many firms argued that they were not able to calculate the fixed-weight index. Thus it was necessary to allow an alternative of monitoring the pay increases granted to "continuing" employees. That, however, necessitated identifying promotions and longevity increases. The problems of distinguishing between workers and jobs were particularly difficult for firms that placed heavy reliance on merit pay increases. Thus, what began as a simple standard became progressively more complex.

Even greater problems were encountered in trying to measure fringe benefits and COLAS. The latter were evaluated on the basis of the program's target inflation rate, but that understated their value to the risk-averse worker. It was a particular problem once the energy price shock began to generate large increases in COLA payments. Incentive pay, stock options, and medical insurance programs raised similar problems of prospective valuation.

One lesson from the operation of the program is that employers will often cooperate with their employees to create ingenuous means of avoiding the standards. They adopt a long-term view of their relationship with employees that will outlast any government program. The private sector parties encourage the government to keep the standards simple and straightforward; but they then jump on any ambiguity in the specific provisions.

Price Standards

The standards for price changes were even more complex than those for wages because of a much wider variation in relative prices changes than wage changes and because markets respond more quickly to divergences in relative prices than relative wages. Again, CWPS tried to address the diversity of market circumstances by allowing firms to average prices over a range of product lines. Furthermore, some of the trend variation in rates of productivity change was accommodated by asking firms to evaluate their price changes against a base period that ran from the fourth quarter of 1975 to the fourth quarter of 1977. For the program year, price increases were limited to 0.5 percentage points below the annual average of the base period.

As with wages, alternative price standards had to be derived for firms that were not able to calculate an average price index or for whom it would be inappropriate. The most common variant was a gross margin standard that was used by firms in wholesale and retail trade, food processing, and oil refineries. It was modeled after the concept of value added and appealed to firms with large or uncontrollable variations in material input costs. It limited the increase in the margin per physical unit to 6.5%. Finally, a profit margin standard of cost pass-through was adopted for firms that could not comply with the two basic standards.

The price deceleration standard encountered many of the same problems that have come under recent discussion with respect to the CPI. Index number theory is not always well-understood by the general public, and many firms claimed an inability to deal with the technical problems of sampling their product prices and constructing an index of average price changes. Adjustments for quality change were a pervasive problem.

The most serious problem with the margin standard involved changes in product mix that altered value-added per unit. This was a significant problem even in situations as apparently homogeneous as petroleum refining. Furthermore, the line between a material input and value added (gross margin) is inherently ambiguous with important consequences for some production processes.

Finally, any program has to incorporate a process for handling exceptions. These requests are very expensive in absorbing manpower. They are usually complex, even though of trivial consequence in their own right. They are costly because of the concern with the precedents they may set. In addition, it is not easy to develop a staff with sufficient breadth of understanding to deal with exceptions to a general procedure. CWPS was never able to keep up with these requests for individual attention.

Evaluation

Ultimately the CWPS program came to naught. In large part, that was the result of a dramatic change in the economic situation soon after the program's introduction. In early 1979, world oil prices shot up and induced increases in consumer prices far in excess of the prevailing price inflation target. A government incomes policy is not robust under conditions of large price shocks because it becomes entangled in issues of equity. The process of adjusting to large changes in relative prices always involved conflicts with individual groups' notions of what's fair. Workers with COLAS and those on Social Security did receive automatic income increases in line with the higher cost of living, creating pressures from other groups for equivalent compensatory increases.

In 1980, the administration moved away from an emphasis on the wage-price standards; and, with the appointment of Paul Volker, aniti-inflation policy shifted to a focus on monetary restraint. A pay advisory committee was established with a subsequent shift away from a reliance on a specific wage standard.² Over the next several years, the monetary restraint succeeded in dramatically reducing inflation but at a cost in terms of unemployment that was in line with the prior estimates. The unemployment rate peaked at over 10% in 1982, but inflation had declined to a third of its 1979 rate.

The most extensive empirical evaluation of the program's impact on the inflation rate is that of Hagens and Russell (1985; also see Fry and Gordon (1981). They argue that the program did reduce the response of wages to the surge of price inflation and that the energy price increases were not passed through into wages to the same extent as in the past. On the other hand, it is not evident that the dampening of the wage response to the energy price shock was due to the Carter program. Some other countries, such as Japan and Germany, experienced a similar phenomenon even in the absence of an incomes policy.

In addition, whereas the President's economic advisors perceived the standards as a mere complement to a core policy of aggregate demand restraint, others saw them as a substitute for the painful process of fiscal restraint and higher interest rates. The administration never delivered on its targets for fiscal policy, and the program of monetary restraint did not really get underway until 1980. The tendency to allow an incomes policy to substitute for, rather than complement, the required macroeconomic adjustments appears to be an inherent failing because similar problems were encountered in the late 1960s and under the Nixon controls. In addition, incomes policies often become the means by which the government

could avoid dealing with the inflationary consequences of its own regulatory and tax decisions (Triplette 1986).

The administration of the pay and price standards of the Carter administration highlighted the complexities of any formal incomes policy (Russell 1996). Both labor and product markets are more complicated and diverse than the presentation of textbooks. CWPS was largely administered by economists who were very sensitive to the need to let markets operate as freely as possible, and they were largely free of political constraints in designing the standards; yet the complexities increased dramatically with the passage of time. Second, concerns with equity make the maintenance of the system even more difficult. Perhaps governments cannot avoid the issue; but differing groups have sharply differing views of what is fair; whereas the whole concept is immaterial to the operation of markets.

The historical experience with wage and price standards seems irrelevant to today's economy; but in part that is because we have not had to deal with the consequences of a major external price shock for about two decades. They seem germane to only a few countries who have lagged in the general move toward lower rates of inflation. But the economy has also changed in other ways that make them less applicable than in the 1970s. Collective bargaining plays a much reduced role in wage determination, and the development of global markets and production processes makes it very difficult to envision an effective means of evaluating price actions. For anyone who has attended a sporting event, the idea that coordinated actions—we all sit down—can offer preferable outcomes to individual action seems attractive. In actual practice, it seldom succeeds.

Endnotes

¹ I have used the personal consumption deflator of the national accounts as the basic measure of inflation. It is conceptually broader and more consistent over time than the consumer price index.

² The Pay Advisory Committee was chaired by John Dunlop. Their perspective on the program is well-reflected in Final Report (1981).

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VIII. EAST ASIA: NEW DIRECTIONS IN HUMAN RESOURCE MANAGEMENT

Changes in Japanese Human Resource Management: Implications for Firm Performance

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In this paper performance implications of the recent changes in Japanese human resource management (HRM) practices are examined using a data set from a survey conducted in 1994 and 1996. Despite the widespread debate on the "demise of Japanese style employment" and on changes now occurring in HRM practices in Japan, little research has been conducted to take account of these moves. However, some anecdotal evidence suggests that these attempts to change Japanese HRM are not as successful as firms had hoped for (Sanno University 1995). This paper argues that poor performance may be due to the lack of balance among changes in HRM practices in Japan. More specifically, since Japanese firms are not making a systemwide change, the lack of internal consistency among HRM practices may be hurting the effectiveness of change attempts. Some evidence is presented to support this hypothesis. Implications for a theory of employment systems are also discussed.

Changes in HRM in Japan

Core, regular-status employees working for large Japanese corporations enjoyed a prolonged period of company growth and privileged employment status from the late 1950s through the 1980s. The pressures for individual

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contribution and company loyalty were intense, as exemplified by the word *karoshi* (sudden death from overwork). An implicit quid pro quo existed, however. For their extreme dedication and personal sacrifice, they were entitled to a good job and strong employment security. Employees usually enjoyed continuous salary growth, regular career promotions, and long-term employment security. The large recession experienced by Japan during the 1970s (caused by the two oil crises) did not result in the decline of long-term employment for the core employees in large firms.

However, the circumstances that helped create these formal arrangements for managing core employees in large Japanese firms—often referred to as internal labor markets—have changed. Pressured by global competition, rapid technological change, and most importantly, by the high cost of labor due to the aging work force, many employers have begun to question the effectiveness of current HRM practices. While the current commotion may mean yet another revision in the series of adjustments to the Japanese employment system that have been occurring since the 1960s, two trends are visible in the current attempts: the introduction of competitive appraisal practices which emphasize individual performance and output and the externalization of core, regular-status employees (see Morishima [1995a] for details).

Output-based Evaluation and Individual Differentiation

This change reflects a shift away from basing employee evaluation and rewards on criteria related to seniority and ability development (Koike 1994), resulting in an increasing emphasis on the more careful evaluation of employees' contributions to the organization through such practices as performance-based evaluation and management by objectives. The change is most visible in the arrangements for the compensation of middle and senior managers, although a number of firms have also introduced similar measures for a range of nonmanagerial workers. According to a survey conducted by the Ministry of Labor in Japan in 1995, approximately 7.9% of large firms (with over 1,000 employees) have built some type of pay-for-performance criteria into their compensation practices. Another 11.6% are considering to do so over the next five years.

Another common practice is to assign employees early in their career with the firm to managerial and supervisory positions. This finding goes against the accepted practice that formal status differentiation among employees in the same cohort (defined by year of entry and occupational grouping) occurs only after seven to ten years of en masse advancement with little individual differentiation. This approach to promotion and employee advancement was considered necessary for careful screening of employees with managerial talent.

Two surveys conducted six years apart suggest that the timing at which firms introduce status differentiation may now be occurring earlier in employees' career than previously was the case. In a Ministry of Labor survey conducted in 1987, more than 20% of firms reported introducing status and large pay differentials more than ten years after the cohort entered the firm. Another 40% introduced such differentials after the cohort had been employed for five to ten years. In a Japan Institute of Labor survey conducted in 1993, the proportion of firms introducing such differentials after ten years dropped to 7.6%. Similarly, the proportion of firms introducing differentials after the cohort had been employed five to ten years dropped to 33.1%. In this survey, the largest proportion of firms (46.3%) reported that they would introduce large status and pay differentials after the cohort had been employed for three to five years. The same survey also indicates that these "early career" differentials are introduced on the basis of employees' potential and current performance.

Externalization of Regular-Status, Core Employees

The externalization of employment has been proceeding in Japan in a manner similar to that found in other industrialized nations. In particular, Japanese firms have begun to externalize core employees' positions not only through the increased use of part-timers and temporaries (Osawa and Kingston 1996) but also by hiring limited-contract employees and sorting current employees into categories having different levels of employment security. The goal has been to introduce mobility and to obtain better matching employees and jobs. This goal is accomplished by reducing the likelihood of long-term employment and by giving both employees and employers more autonomy in choosing the "right" partners.

Some Japanese firms have also begun to utilize a variety of devices to sort core workers into employment categories with different levels of employment protection. According to a survey conducted by the ministry of labor in 1990 and 1996, the number of firms offering multiple career tracks increased from 6.3% in 1990 to 11.5% in 1996. Firms having employees "retire" from managerial positions at a preset age increased from11.8% to 15.8% during the same period. Finally, "specialist" career tracks were used in 19.9% of the firms in 1996, compared to 16.2% in 1990. "Specialists" usually enjoy less employment protection, and their career tracks often have lower ceilings.

Also, many firms have started to remove their senior employees from their work force permanently. Japanese firms often use *shukko* and *tenseki* to remove redundant workers from the company payroll. Some transfer destinations are affiliated in terms of capital or business transactions; others

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have no such affiliation (Sato 1996). With *shukko*, employees are temporarily lent to other companies. With *tenseki*, their official employment status is permanently changed and they become employees of the receiving firms. Strategies to remove senior employees range from early voluntary retirement to aggressive outplacement counseling (called *Katatataki*). As a result of these approaches, Japanese core workers now find themselves in various places along the continuum from being strongly protected to being weakly protected.

Overall, the diffusion of increasingly competitive reward practices and the growing use of externalized employment arrangements represent Japanese employers' attempts to gain flexibility in employment systems and to control cost with regard to the management of their core employees.

Performance Implications of These Changes

An issue is whether these changes could produce the positive effects on corporate performance. As noted earlier, there is some evidence that these changes are not producing the intended performance-enhancing effects (Sanno University 1995). Although the evidence is quite preliminary, one reason for expecting small or even negative performance effects may be the absence of functional complementarity (Milgrom and Roberts 1995) or internal fit (Becker et al. 1996) among the HRM dimensions along which changes in Japanese HRM are said to be occurring. More specifically, since a large number of firms have HRM systems that are internally inconsistent between two dimensions noted above, performance effects of these attempts to modify HRM systems may have limited or even negative effects.

Theoretically, this hypothesis is based on Aoki's (1994) idea of "duality principle" in Japanese HRM. According to Aoki, the effectiveness of Japanese HRM is based on the combination of the long-term internal promotion practice which motivates employees through competition for higherranking positions and the capability-based employee evaluation practice which assesses employees' potential and performance over a long period. These two dimensions are "complementary" in the sense that employees' motivation is expected to be higher when their promotion to higher ranks depend on their acquisition of a variety of skills learned over a long period of time. Thus assessment of capabilities and internal promotion to higher ranks both occur in the context of long-term employment.

Extending Aoki's (1994) argument, one may also posit that short-term employment and assessment-based explicit output may also be complementary or internally consistent. The argument is based on the idea that if firms want to base their evaluation of employees on short-term outcomes and make rewards responsive to changes in explicit outputs produced by employees,

employment practices need not be long-term. Moreover, short-term contractual arrangements may be preferred since employees whose short-term performance may not be up to the standards set by the firm are likely to be motivated to leave the firm. Thus the opposite side of Aoki's argument is that there is complementarity between limited-term employment and employee assessment based on short-term performance outcomes.

Applying these arguments to the current Japanese scene, one may hypothesize that firms have internally consistent HRM systems when they are either (a) maintaining long-term employment and assessment based on capabilities and (b) advancing employee appraisal based on performance and externalization of employment. As was argued by previous authors, internally consistent HRM systems are expected to have more positive impacts on firm performance (Aoki 1994; Becker et al. 1966).

In Japan, however, there is evidence that firms may be quickly advancing employee appraisal based on performance. The degree to which they are incorporating employment externalization is, in contrast, limited (at least for the core, regular-status employees). For example, using cluster analysis Morishima (1995) provided evidence that approximately one-third of the sample firms had "internally inconsistent" HRM systems. These firms tend to have highly competitive, performance-based appraisal systems, but their employment externalization is often limited. There is also a substantial amount of anecdotal evidence that Japanese firms may be proceeding along the output-based appraisal dimension faster than the employment externalization dimension (Sanno University 1995). According to the argument presented above, these firms have internally inconsistent HRM systems. I expect that these firms are likely to reap only limited benefits from the attempted changes in HRM practices. Thus performance effects of changes in Japanese HRM may be contingent on the level of internal fit that exists among HRM policies and practices.

Some Empirical Evidence

Data from a survey which a private management consulting firm conducted under contract with the Japanese Ministry of Labor may be used to provide some support to the above argument. In this survey, HRM policies and practices of Japanese firms in manufacturing and service sectors were examined using a survey developed by the author. The sample was drawn from a data file retained by the consulting firm for the purpose of corporate rating. The original data file contained approximately 3,788 firms in these two industries. The minimum size of firm employment for inclusion was 100 regular-status employees. After one telephone follow-up, a total of 1,618 firms returned usable questionnaires, producing a response rate of 42.7%.

Questionnaires were sent to the top HRM officer of each firm, who was asked to fill out the questionnaire or forward it to the person he/she deemed appropriate. In 1996, data on financial performance of these firms in 1995 were gathered from the same data base maintained by the consulting firm.

Measures of HRM Policies

Based on interviews conducted by the researcher with more than thirty firms and a review of previous large-scale sample surveys (for example, Sanno University 1995), the six questions listed in Table 1 were created to measure the two dimensions of HRM policies. In the questionnaire, these questions were posed as polar items (traditional and emerging), and the respondents were asked to indicate how close their firms' HRM policies were to each end. The measure was a four-point scale, with higher points indicating closeness to emerging patterns. A factor analysis with varimax rotation bore out the expected two-factor structure of the six items.

The first dimension of HRM policies was employment externalization. The latter three items in Table 1 showed high loadings on this factor. The first

TABLE 1
Factor Structure of HRM Practice Items
(Loadings after Varimax Rotation)

	Factor 1 Employment	Factor 2 Competitive	
Questionnaire Item	Externalization	Appraisal	
Emphasize Seniority vs. Performance*			
in Employee Appraisal.	.13	.79	
Ability Ranking vs. Performance	23	.85	
Appraisal* is the Most Important Factor in Pay Determination.			
Individuals' Career Stage vs.	46	.83	
Job Content* as the Basis of			
Pay Hierarchy.			
The % of Contingent Workers	.71	.01	
Is Not vs. Is* Increasing.			
The Firm Has vs. Does Not Have* a Policy of Employing Regular-Status Workers Till Forced Retirement.	.81	.17	
Employees Receive Broad vs. Specialized* Training.	.71	.10	
Eigenvalue	1.606	1.306	
Cronbach's alpha	.61	.62	

Note: *'s indicate emerging policies.

two questions converged on this factor are straightforward. They all tap on different actions taken by Japanese firms to externalize employment and introduce flexibility in their regular-status white-collar work force. Since more specialized training indicates that firms no longer consider the firm as one large internal labor market, it is a move toward accepting a more segmented internal labor market within the firm labor force, with each segment being associated with different degrees of employment security and externalization.

The second dimension, competitive appraisal, refers to the degree to which firms' HRM policies diverge from the previous practice of assessing and rewarding employees on the basis of ability progression to a more competitive appraisal policy based mainly on performance. It has high loadings on the first three items in Table 1. In the new practice, performance expectations were formulated by comparing his/her outputs to the expected outcomes in a job. Thus job content becomes the basis for pay hierarchy.

Relationship to Firm Performance

Based on the analysis shown in Table 1, two scales were constructed as the averages of three items in each factor. Then the entire sample was split into four groups based on the medians of each scale. The four groups were named HH (above median on both dimensions, N=342), HL (above median on competitive appraisal and below median on employment externalization, N=282), LH (below median on competitive appraisal and above median on employment externalization, N=277), and LL (below median on both dimensions, N=264). The first and last groups (HH and LL) are hypothesized to have internally consistent HRM systems and are expected to have better performance than firms in groups HL and LH, the two internally inconsistent groups.

The performance measure used in this study was employee productivity, which was calculated by dividing total sales by the number of full-time regular employees. Similar measures were used in previous studies on the relationship between HRM and firm performance (Becker et al. 1996). In Figure 1, firms with "balanced" HRM belong to LL and HH groups. Those firms that belong to the HL and LH groups are expected to have "unbalanced" or internally inconsistent HRM systems. One hypothesis is that firms in HH and LL reap more performance benefits from changes in their HRM policies and practices than firms in LH or HL.

Results

Figure 1 shows the levels of employee productivity and productivity change broken down by the four groups. The bars indicate levels of percentage productivity changes from 1993 to 1995, and the numbers just below the

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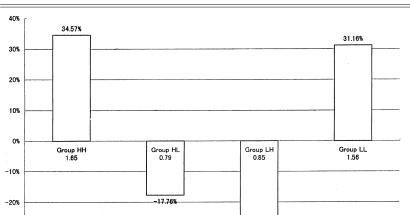


FIGURE 1
Productivity Levels in 1995 and Productivity Change from 1993 to 1995

group names indicate absolute employee productivity values measured in one million yen. Both absolute levels and changes indicate that firms in the two "balanced" groups have better performance records than those in the two "unbalanced" groups. Of the two "unbalanced" groups, Group HL appears to perform better than Group LH, indicating that changes to output-based employee appraisal and reward may have stronger performance effects than a shift to externalized employment arrangements.

-30.62%

To examine this issue further, regression analysis was conducted using three dummy variables based on the four groups. The two "unbalanced groups" were clustered together and were compared against the two "balanced" groups. In other words, the variables included in the analysis represented HH and LL, and the reference group was the combination of HL and LH. Also included were the usual control variables in firm performance studies: industry, capital-labor ratio, firms' employment size, percent of white-collar employees, firms' total assets, average age of firm employees, and union status. Table 2 shows the coefficients on relevant dummy variables. The results are consistent with the patterns in Figure 1. (Complete results can be obtained from the author upon request.)

Conclusions

-30%

-40%

Both theoretical arguments and empirical data presented in this paper indicate that performance implications of the changes in Japanese HRM

Variables	Productivity Change	Productivity Level		
Intercept	15.27	-0.71		
	(9.40)	(0.19)		
HH Dummy ^a	5.80***	1.57***		
	(1.50)	(0.19)		
LL Dummy ^a	8.67***	1.13***		
	(1.68)	(0.22)		
\mathbb{R}^2	.114	.278		
F	12.18***	36.40***		
N	1,054	1,054		

TABLE 2

OLS Results on Productivity Change and Productivity Levels
(Standard Errors in Parentheses)

may depend on whether firms can attain a balance between the two HRM dimensions along which changes are occurring. More specifically, recognizing the usual limitation of inferring causality based on the type of analyses presented here, one may cautiously conclude the following. If firms were to engage in systemic changes in HRM, modifying both appraisal practices and employment patterns, performance (at least as measured by employee productivity) may be enhanced. However, if employers attempt to change one dimension but not the other, performance effects may be limited at best. In some cases, HRM changes may even be detrimental to employee productivity.

Unfortunately, the available evidence indicates that Japanese firms are currently proceeding with the changes in appraisal practices faster than the employment externalization in Japan (Morishima 1996). In light of the results presented in this paper, firms appear not to be acting strategically. This may be due, in part, to the legal constraints imposed on employment flexibility (Morishima 1995). Firms may have limited choices regarding their HRM practices due to the factors unrelated to firm performance. Japanese firms, if they attempt to use HRM as one of the drivers for better corporate performance, need to be aware of these possible impacts.

The present paper indicates that performance implications of lacking balance among HRM practices could be negative. Theoretically, these results support the notions of functional complementarity or internal fit in HRM.

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^{***} p < .01.

^a The reference category was firms in the HL and LH groups.

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Alternative Human Resource Management Systems in Korea and Taiwan

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Many researchers have observed the trend toward workplace transformation in the U.S. and other countries (Appelbaum and Batt 1994; Kochan, Katz, and McKersie 1986). Such "high-performance work systems" (HPWS) typically involve greater worker autonomy and participation. Since workplace transformation has also taken place in Asian countries (Bae in press), we can compare the HPWSs of both indigenous firms and MNC subsidiaries. This study provides a comparative empirical analysis of HRM strategies and systems in two very significant countries in East Asia which have not been extensively researched in this regard: Taiwan and Korea.

Theory and Hypotheses

Following Beer et al. (1985), we investigate four broad HRM policy areas: HR flow (recruitment, selection, training, and development), work systems (control, teamwork, job specificity), reward systems (wages and performance assessment), and employee influence (employee participation and ownership). Although conceptually distinct, research suggests that, in practice, they are interrelated and define a continuum of "bundles" of HRM practices. This continuum is to be conceptualized as ranging from a "buybureaucratic" (i.e., cost reduction or control oriented) to a "make-organic" (i.e., "high-performance work systems") HRM strategy (Bae 1997). The convergence hypothesis implies that employment systems can and likely will

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evolve toward a single system across cultural and national boundaries through the impetus of market forces. However, comparative historical analyses of production and HRM/IR systems have questioned convergence theories (Dore 1973; Taira 1992). Thus national culture and its impact on organizational practices have been the focus of studies in several areas. Three basic determinants of the HRM practices in MNC subsidiaries may be the host country environment, the carry-over effects of the parent firm's home country environment, and organization-specific factors (Yuen and Kee 1993).

Lawler et al. (1995) found that an MNC's home country had effects on both employment practices and HRM professionalization. Their research suggested that Western firms operating in Thailand had more rationalized HRM systems when compared to Asian firms (Thai and Japanese). However, MNC subsidiaries often face structural and institutional barriers that could prevent the complete transferability of HRM systems to other countries (Amante 1993). In addition, many foreign subsidiaries in newly industrializing countries (NICs) have "ready-to-leave mind sets" under hostile investment (Bae in press). The "make-organic" HRM system suggests a long-term perspective and orientation on the part of management with respect to its employees. Consequently, we would expect indigenous firms to utilize, in general, such an approach to a greater extent than MNCs subsidiaries (Hypothesis 1). However, among MNC subsidiaries, Japanese firms are expected to have a greater propensity to utilize a "make-organic" type of HRM systems than Western subsidiaries due to cultural and physical proximity (Hypothesis 2).

As comparative studies have shown, HRM systems differ across countries. Although Korea and Taiwan have many common features in economic development and share cultural roots, many organizational, structural, and institutional features are quite different. We would expect Korean firms to be more likely to pursue "buy-bureaucratic" approaches than Taiwanese firms (*Hypothesis 3*).

Beyond national, cultural, and institutional variations, we expect that there would be between-company variations in HRM practices. The values of top management are important in shaping organizational structure and culture, as well as HRM strategy (Burton 1995). Lewin and Yang (1992) found that HRM values affected various HRM policies. The HRM values of senior executives in Japanese and U.S. firms operating in the U.S. were positively related to the presence of written human resource plans, employee training programs, flexible work rules, and nonfinancial and financial participation programs. Thus we would expect that organizations with management that strongly values the role of HRM and people in the organization are more likely to have "make-organic" HRM strategies (*Hypothesis 4*).

Research Methods

A questionnaire was developed for this survey to assess the various components of a firm's HRM system. The questions focused on HRM practices with respect only to nonmanagerial employees. The questionnaire also assessed factors such as the size and industry of the firm. The questionnaires, which had been translated into both Korean and Chinese, were administered to individuals with principal responsibility for HRM in a random sample of firms in both countries. The sample consists of a total of 188 firms, of which 66 are indigenous. The MNC subsidiaries represented American, Japanese, and European firms.

Dependent variables for this study include HR flow, work systems, reward systems, employee influence, and a composite measure of the HRM system as a whole. Independent variables include unionization, industry, firm size, ownership type, the values of management regarding HRM, and a country dummy for both home and host countries.

A total of 37 Likert-items were used to measure HRM practices, which capture the aspects of most HRM practices mentioned above. The derivation of these scales is discussed in greater detail elsewhere (Bae, Chen, and Lawler forthcoming). Firms that are high on the HR flow scale utilize extensive selection and training procedures and have relatively high job security. The work systems scale covers job design and control types. Firms at the upper end of this scale tend to use broadly defined jobs with enriched designs, team-based work organization, and so forth. Narrowly defined jobs and a greater presence of rules and formal controls characterize firms at the lower end of the scale. The reward system scale reflects the degree of the linkage of performance and pay level and the presence of employee ownership programs. Firms at the high end of the scale emphasize pay for performance, gain sharing, and/or profit sharing. The employee influence scale measures the extent to which employees as stakeholders are involved in decision making in job-related and organizational issues. High values represent high employee involvement and autonomy.

In all of these scales, high values represent a "make-organic" type of HRM system; while low values indicate a "buy-bureaucratic" type of HRM system. Not surprisingly, then, scales are highly intercorrelated. Thus we have also generated a composite index of the HRM system as a whole that is constructed by summing all four HRM policy area scales. This index ranges along a continuum from "buy-bureaucratic" at the lower end to "make-organic" at the higher end.

Independent variables include dummy variables indicating a firm's country or region of origin (U.S., Europe, Japan, or indigenous, with indigenous

firms as the reference [excluded] category) and host country (Taiwan or Korea, with Taiwan as the reference [excluded] category). Following Bae (1997), the management *HRM values scale* is assessed using six items that were adapted from Lewin and Yang (1992). The scale measures the significance of people vis-à-vis the firm's profits and the belief of management that people and human resource practices are sources of a firm's competitive advantage.

Several control variables not intended to test specific hypotheses are also included: union status (a dummy variable that is coded 1 when the firm is unionized, 0 otherwise), industry (a dummy variable coded as 1 for manufacturing firms, 0 otherwise), firm size, and ownership type (a dummy variable coded as 1 for joint ventures, 0 otherwise).

Results

All of the scales constructed had reliabilities (coefficient α) of over .80, which is indicative of high reliability. We did a separate regression analysis (ordinary least squares) on the four specific HRM scales defined above (HR flow, work systems, reward systems, employee influence) and the composite scale. The results are reported in Table 1.

F-tests show that all five regressions are significant at the .01 level. As for the control variables, unionization has no significant effects at all.

HR Work Reward **Employee** Composite Flow Influence Scale Systems Systems 1.849*** 1.851*** 1.076*** 2.304*** 2.177*** Constant Labor Union .022 -.155 -.039 -.051-.056 Industry -.034.040 .134 .181* .080 .124*** Log of Size -.012 .005 .037 .039 .107 -.254** -.266** .078 -.084 Joint Venture Home Country: USA .088 .196 .586*** -.071 200** -.241 -.249 -.409* -.261* Japan -.144 Europe -.022 .034 .280** -.348** -.014 Korea as Host -.051 .209* -.129 -.655*** -.156** Country .526*** HRM Values .310*** .366*** .468*** .418*** \mathbb{R}^2 .534 .260 .415 .492.542 23.694*** F Values 22.880*** 7.042*** 19.343*** 14.180***

TABLE 1 Regression Results

^{*} p < .10

^{**} p < .05

^{***} p < .01

Industry (manufacturing) has a positive effect on employee influence, and larger firms are more likely to have extensive selection and training. Joint ventures vis-à-vis wholly owned firms are negatively related to the work system and reward system scales.

The HRM values scale is significant in all five analyses. The results are also consistent with Hypothesis 4 in that a higher score on this scale is associated with a "make-organic" rather than a "buy-bureaucratic" HRM strategy. In the case of home-country effects, Western firms (both American and European firms) are more likely (when compared to indigenous firms) to have performance-based pay, higher-level pay, and extensive performance appraisals. However, both Japanese and European firms have negative coefficients for employee influence, indicating that these firms provide less autonomy to their employees compared to indigenous firms. When the composite scale is considered, it seems that American firms are more likely to utilize "make-organic" HRM strategies than indigenous firms (which are not significantly different in this respect than the European firms) and, ironically, that Japanese firms are the least likely of all to utilize "makeorganic" systems. Thus Hypothesis 1 would seem to be rejected, as indigenous firms do not show much proclivity to employ "make-organic" approaches to a greater extent than foreign firms (at least Western firms). Moreover, Hypothesis 2 is clearly rejected, since Japanese firms are the least likely to utilize "make-organic" systems.

In the case of host-country differences, firms situated in Korea (regard-less of country of origin) have significant positive coefficients for a work system, indicating that Korean firms have broader and team-based job designs when compared to firms operating in Taiwan. The Korean coefficient for employee influence is negative, showing that Korean firms provide less autonomy and participation opportunities to their employees compared to Taiwanese firms. And for the composite scale, firms operating in Korea clearly are less likely to pursue "make-organic" strategies than firms operating in Taiwan, which supports Hypothesis 3.

Discussion

The research reported in this study examines HRM practices in two leading Asian countries—Korea and Taiwan. It involves a quantitative assessment of the similarities and differences in HRM practices in these two countries. A priori, we might have expected Japanese firms are most likely to pursue "make-organic" HRM strategies as they seem to at home. Yet probably the most interesting result of this study is that firms leading the way in this direction today are, in fact, American firms. One reason for this might be that American firms, pressed by the demands of globalization,

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have seemingly been the most active in recent years in introducing HRM systems that support greater organizational flexibility. Indeed, managers in Asia seem to talk increasingly of the "Americanization" of management systems—at all levels, not just in the HRM area. Thus our research is clearly reflective of this trend. However, another finding seems to be that host-country and home-country national cultures, while important in influencing HRM practices, may be less significant than the dominant corporate culture of the firm (as evidenced by the strong linkage between HRM strategy and the HRM values of management.

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DISCUSSION

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According to an oft-quoted organizational pundit, you never learn anything about organizations until they have to change. In this light, Morishima's research on the consequences of recent changes in Japanese human resource management practices should be particularly valuable.

In common with much recent work on strategic human resource management, Morishima's paper has a lot to say about how HR practices fit together and the resultant implications the use of consistent or inconsistent practices hold for organizational performance. His empirical results strengthen the position of those who argue that fit matters in explaining firm performance. This work should be pursued further, using alternative model specifications and measures of firm performance.

At present, the reported regression model uses two dummy variables to capture the effects of four groups, with both inconsistent categories being included in the reference group. Thus the effects the two groups HL (high on emphasis on individual performance and low on externalization) and LH (low on individual performance and high on externalization) are constrained to be equal. While, in general, there may be negative effects for inconsistency, there is no reason to expect that they will be equal for all types of mismatch. There appears to be a very strong case for LH inconsistency having a strong negative effect on performance (since employment security guarantee is required for employees to be patient in accumulating experience). But the case is not nearly so strong for HL inconsistency (I don't see much downside to combining regular individual performance reviews with a policy of lifetime employment security).

The model could also be expanded to test for the effects of those aspects of fit that reflect the degree to which HR practices are consistent with other organizational attributes. I suspect that some of the HR practices will work in some areas, but not others. The theory of internal labor markets predicts that policies of employment security work best where idiosyncratic job knowledge and firm specific training are important. Individual performance-based pay clearly is more appropriate for some types of

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technologies and products, but not others. All this suggests that the model could be estimated for various types of companies and sectors, thus permitting a test for whether or not the efficacy of these practices and the "fit" between them varies across types of firms.

Additional measures of firm performance might also be used. The measure of sales divided by number of full-time regular employees is extremely popular among students as a measure of the connection between HR practices and firm performance, but it is a problematic one, especially where we are trying to explain differences in operating efficiency between firms in different sectors. Firms in industries where little value is added and where there is very high sales volume will tend to be seen as strong performers compared to others. Additional measures of value-added and return on assets would be useful. The denominator in the current performance variable (number of regular employees) favors those companies that have externalized employment, since these by definition would have lower labor inputs, with more of their value-added attributable to suppliers and from nonregular employees. Ultimately, HR practices can be said to be effective only to the extent that they improve return on all inputs to an organization.

Bae, Chen, and Lawler's study provides an interesting juxtaposition to the Morishima study. There, HR practices are a key explanatory variable in models of firm performance. Here, they are the object of explanation.

As is often the case, one of the most interesting findings comes in the form of a paradox—the finding that Japanese firms are less likely than U.S. firms to have a make-organic approach to human resource management practices in foreign facilities. It is possible that this difference is more reflective of Japanese/U.S. differences in global business strategy than differences in HR practices or philosophies. Many Japanese investments in offshore facilities in East Asia have been well down the value chain—many have been commodity manufacturers and assemblers of Japanese exports. While this has characterized many U.S. companies as well, the conventional wisdom is that this has been a particular hallmark of the Japanese producers. The approach to HRM will depend on the role that the facility plays in business strategy. In many senses, the Japanese approach to offshore facilities may not be that different from the treatment accorded to lower-tier domestic suppliers in their production keiretsu. All in all, the analysis might exploit the fact that offshore operations exist for several different purposes, and HR policies will vary considerably according to the role of the facility in the business plans and strategies of the company.

The HR values variable is consistently and strongly related to choice of HR practices. This is interesting, as it apparently confirms that management values play a major role in the choice of HR practices—even when

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other objective circumstances that might affect the choice are already included in the model. The estimated effects of the values variables is, of course, subject to the usual caveats associated with the specter of common method variance. But the fact remains that managerial values are likely to play a key role in determining HR practices (as well as many of the choices that are made in organizational life). Accordingly, there should be considerable return to attempts to study the effects of values, and I hope the authors carry their research further in this direction.

Rodgers presents a very informative account of the way that Japanese manufacturing methods are transferred across national borders. His paper should be required reading for all those inclined to believe that one size fits all when it comes to cross-national application of the practices associated with the Japanese manufacturing system. For a start, there is the interesting juxtaposition of the Japanese Employment System (characterized by the three pillars of employment security, seniority-based promotion, and cooperative company-level unions) and the Japanese Production System (characterized by high commitment, on-the-spot problem solving, and lean staffing by a flexible, broadly skilled work force). While the logic of lean production mandates the coherent implementation of the supporting elements from each system, the methods used to successfully transfer these practices are found to be conditioned by host market characteristics. In Singapore, with its market-oriented institutional framework and encouragement of labor mobility, it has been difficult to transfer all aspects of JES and JPS, and as a result there has been extensive reliance on expatriate managers (and the "human results" that these expatriates embody). In Korea, Japanese multinationals have often been able to find host country managers with a deep understanding of Japanese production methods.

Further empirical work would benefit from the application of structural equations modeling techniques, rather than the hierarchical regression procedures to establish causal linkages between the various elements of the successful application of elements of the JES and the JPS. The single-equation regression strategies place unnecessary a priori restrictions on the model, and it would be useful to allow other causal paths to operate. In the Singapore model, for example, it seems plausible that the cultivation of a flexible work force and/or high employee involvement could also direct causal effects on performance outcomes, as well as those mediated through the use of flexible manufacturing practices.

IX. WORK AND FAMILY CAREERS OVER THE LIFE COURSE

Interlocking Careers: Pathways through Work and Family for Men and Women

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I have yet to hear a man ask for advice on how to combine marriage and a career.

Gloria Steinem

Both the family and workplace in the United States have been radically altered by events of the last four decades and are still in flux. One of the most significant changes that directly bears on the occupational as well as family "careers" is the large increase in the labor force participation of women, especially married women, including mothers with young children. For instance, the labor force participation rate of married women with children under age six increased rapidly in the United States in the latter half of the 20th century from 12% in 1950 to 64% in 1995 (U.S. Bureau of the Census 1977:392; 1996:400). As a consequence, nearly half (48%) of all workers in the U.S. now come from "dual-earner couples" (U.S. Bureau of Labor Statistics 1994). Only 9.4% of workers come from so-called "traditional families," with a male breadwinner and a full-time female homemaker.

These statistical highlights provide a quantitative perspective on the magnitude of change, underscoring that the traditional breadwinner/home-maker model no longer adequately describes the way in which the family

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and workplace interact with each other. In fact, this model is rapidly becoming a cultural relic, producing what Riley and Riley (1994) characterize as structural lag. Such changes are slowly, yet steadily, redefining the work-family interface, which is increasingly seen as no longer just a women's issue but a challenge confronting workers, managers, and employers, if not the nation (e.g., Barnett and Rivers 1996). Also these fundamental shifts provide the rationale for a reappraisal of the traditional paradigm of careers as well as the organization of the life course in terms of the work-family interface so as to address the changed, and changing, social reality.

We elaborate our theoretical perspective in the following section, presenting a conceptual model. The methodology section follows with a brief description of the data. We then present our findings in three parts: work career, family experience, and work-family interface. Finally, we discuss the findings and their implications in broader contexts and suggest directions for future research.

Coupled Careers: The Model

Couples: Interlocking Dimensions

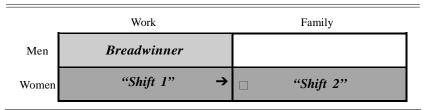
Figure 1 illustrates the conceptual model of the traditional interface between work and family, where the two spheres, work and family, were separated from each other along the gender line. In this model, the notion of single breadwinner, family wage, and male provider ideology were packaged together along with the image of women as the family caretakers of husbands, children, infirm relatives and responsible for the domestic work of the household (Moen 1992; 1994). In a sense, this traditional model was one of the ways to effectively deal with the tension between the two "greedy institutions" (Coser 1974). Men developed comparative advantage on the job, while their wives became adept at homemaking, reproducing a gendered division of labor that frequently "made sense" given the constraints of managing responsibilities at work and at home (Becker 1981).

FIGURE 1 Breadwinner-Homemaker

_	Work	Family
Men	Breadwinner	
Women		Homemaker

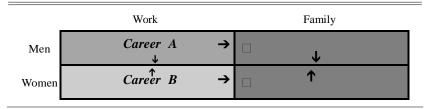
Figure 2 shows the dilemma most married employed women face today, what Hochschild (1989) has termed as "The Second Shift." Not only do women bear a disproportionate share of domestic work in addition to their paid work, they also have to cope with the strains imposed by the new work-family interface. Despite all their gains in the occupational sphere, many employed (and mostly middle class) women feel as if they are living "divided lives," unable to integrate the multiple parts of their lives and frequently overwhelmed with frustration and guilt (Walsh 1995:24-25).

FIGURE 2 The Second Shift



What Figure 3 describes might be an ideal situation, where both men and women are equally involved in both spheres. However, as indicated by the arrows, there are more boundaries to be negotiated and, thus, more potential tensions and strains. And as occupational careers and domestic arrangements are currently structured, husbands and wives may find it problematic to be simultaneously successful in both their work and their private lives (Moen and Yu 1997; Schor 1991; Hochschild 1997).

FIGURE 3
Two-Career Couple



We start, therefore, by explicitly recognizing the multiple and interlocking dimensions built into the structure of work-family interface (as depicted by the arrows in the figures above). In so doing, we conceptualize couples as our basic unit of analysis, taking into account the two-sidedness of this unit (Blossfeld, Drobnic, and Rohwer 1996; Bernasco 1994).

Careers: A Life Course Perspective

We examine the work-family interface as it unfolds over time, focusing on the concepts of transitions and trajectories. In the life course perspective, the two are dual concepts; transitions are always embedded in the trajectories that give them distinctive forms and meanings, and trajectories are shaped by prior and prospective transitions (Elder 1995; Moen, Elder, and Lüscher 1995). Career pathways are highly complex, however, and sorting them into discernible and meaningful categories is an imposing task. What is required is to take into account the *incidence*, *timing*, and *duration of diverse events*, and *their sequence* across multiple domains of life. We propose a sequence analysis technique, also known as optimal matching, where the overall patterning of career pathways is both the conceptual and analytical unit. We first delineate a set of equivalent pathways. These are, in turn, used to explain the career side of the interface.

Coupled Careers: Work and Marriage, Men and Women

Our analytical framework takes both work careers and family (or marital) careers into account over the life course progression. The framework underscores the multiple, interlocking interfaces between men and women and work and family over time. We call this "coupled careers," emphasizing the interlocking nature of trajectories and transitions, within and across life stages between both men and women and work and family.

The research questions we pose are these: How does the marital trajectory interface with occupational mobility? And does one's spouse's occupational experience influence an individual's own career experience? We suspect that both these processes are heavily gendered, with marriage more significantly (and negatively) related to the orderliness of women's career pathways and spouse's employment more significantly (and negatively) related to the orderliness of men's.

Data and Methods

We analyze data collected in the first wave of the Cornell Retirement and Well-Being Study (CRWB). The respondents are 458 retirees from six large manufacturing and service companies in upstate New York who were aged 50 to 72 at the time they were interviewed in 1995. The principal survey instruments include a structured interview schedule and a booklet of self-administered questions. Of special interest is the respondents' employment history, which we draw from the collection of detailed life history data. The total sample was composed of 212 women (46%) and 246 men (54%) with an average age of 63 years, who have spent anywhere from one month to more than nineteen years in retirement. We operationalize being

"retired" as being so designated on the lists provided by employers, which typically means receiving a pension from one of the six companies. Respondents had been last employed in a wide range of preretirement jobs spanning much of the occupational hierarchy.

The data on employment histories of retirees provide information on transitions and trajectories over the life course in occupation, work status, and organization from age 30 until retirement. Using yearly interval as unit-time, the data were transformed into sequence data format, i.e., strings of codes. Applying an optimal matching algorithm (Abbott 1995), we empirically delineate a set of typical pathways, which we call "occupational career pathway types," or "pathway types" for short. These occupational pathways, in turn, will be considered in tandem with the marital trajectory as well as with the spouse's career pathway.

Analysis and Findings

Charting the Career Pathways

The five pathway types obtained from the sequence analysis of the life history data can be summarized as in Table 1 with respect to the basic sequence characteristics, three aspects of employment history, and the other background variables. In sum, pathway type 2 seems to represent the ideal-typical career path, that is, stable, continuous, and upwardly mobile. Pathway type 1 starts working late, with an extended period of being out of the labor force early on. It consists exclusively of women entering the labor force after their child-bearing years. Although they work typically at lowprestige jobs, these jobs are relatively stable. Type 3 is for those on the fast track. They are highly educated and upwardly mobile. They start off high on the occupational ladder and move about quite a bit. Type 4 consists of a small group of people working mostly part-time. Yet they show a low level of interorganizational mobility and are relatively successful in terms of occupational prestige score and upward mobility. Pathway type 5 is another type consisting exclusively of women and the least stable of all. Although it shares many of the characteristics of type 1, it distinguishes itself from type 1 by a trajectory of higher mobility across organizations, mostly due to the frequent exits and reentries.

Family Experience

The relationship between the respondents' marital history and gender is statistically significant. Men tend to be better off by a large margin. In particular, they are far more likely to be currently married, as in the U.S. population in general. Recall, however, that the women in this sample are

Tive Failiway Types and Their Characteristics						
Pathway Type	1	2	3	4	5	
N	46	154	160	10	21	
Sequence Length**a		Shortest			Longest	
(Mean)	29.9	(27.7)	(30.2)	(29.0)	(30.4)	
Gender Composition**b	Exclusively Women	Both Men and Women	Both Men and Women	Mostly Women	Exclusively Women	
(% Men:% Women)	(0.0:100.0)	(64.9:35.1)	(61.9:38.1)	(30.0:70.0)	(0.0:100.0)	
Year Born**a	Earliest	Latest				
(Mean)	(1928)	(1932)	(1929)	(1929)	(1929)	
Education**a	Lowest		Highest			
(Mean)	(12.64)	(13.25)	(14.61)	(13.40)	(12.86)	
SEI**a	Low	3rd Highest	Highest	2nd Highest	t Lowest	
(Mean)	(42.8)	(50.3)	(58.5)	(54.6)	(42.5)	
Direction in SEI over Ag	ge	Upward	Upward	Upward		
The Most Frequent Occupation	Secretaries	Managers	Managers	Health Ass' & Treating	t Secretaries	
(%) ^c	(22.6)	(14.0)	(16.9)	(21.6)	(70.9) No.	
of Organizations**a	Low	Lowest	High	Low	Highest	
(Mean)	(1.5)	(1.2)	(2.8)	(1.7)	(3.7)	
Work Status, Full-Time		Full-Time	Full-Time			
(%)**a, c	(47.4)	(94.6)	(94.4)	(26.2)	(73.7)	
Work Status, Part-Time				Primarily Part-Time		
(%)** ^{a, c}	(9.3)	(1.5)	(2.3)	(69.6)	(10.6)	
Work Status, Unemployed/OLF	Started La	te				

TABLE 1
Five Pathway Types and Their Characteristics

Note: * denotes where p < .01, and ** where p < .001. a denotes where F-test is conducted, and b Likelihood Ratio (L^2) test. c denotes where the figure is calculated on the basis of total person-years.

(3.3)

(4.2)

(3.9)

all retirees who have worked for some significant portion of their prime adulthood. For these women, the likelihood of both getting married and staying married is far lower than that of their male coworkers. For instance, among the 16 people in this sample who have never married, 14 of them are women.

Interfaces: Men and Women, Work and Marriage

(43.4)

How, then, do these various dimensions—men's and women's careers in both work and marriage—interact with one another? How, for instance, does gender influence careers of men and women at work? How do family

experiences enter into that relationship? Using a log-linear model, we first examine the relationship between gender, career pathway, and marital history.

The preferred, "best-fitting," model posits no three-way interaction but allows all three of the two-way interactions as illustrated in Figure 4. Since both gender-pathway ({GP}) and gender-marital history ({GM}) relations have been discussed above, we turn to the two-way interaction between pathway type and marital history.

FIGURE 4
Interfaces: Three 2-Way Interactions

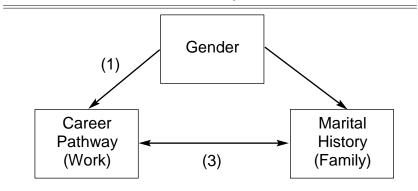


Table 2 shows the joint frequency distribution between the two variables. Bold letters are used where the observed frequency is larger than the expected frequency. Although the overall relationship between the two is significant ($L^2_{(24)} = 58.149$, p = .000), the pattern, if any, is not easy to find. When the table is divided by gender, however, a clear picture of the interface between work and family and men and women emerges. The bivariate relationship is, in fact, not significant among men $(L^2_{\text{con}} = 11.987,$ p = .286). However, among women the relationship between occupational and marital careers holds strong (L^2_{CO} = 48.212, p = .002). Those women who experienced occupational pathway types 2 or 3—the relatively smooth, orderly, and upwardly mobile career tracks—are very likely to have also experienced marital instability. As a case in point, all 14 women who never married are found in the "orderly" career pathway types 2 or 3, typical "male" patterns! The opposite is true for women in types 1 or 4. In both cases, marital stability appears to come at the expense of success in career, or vice versa. Women in these pre-baby boom cohorts apparently could not have it both ways. The only exception is the women in type 5, who seemed to have suffered on both fronts.

	Pathway Type						
Marital History	1	2	3	4	5	Total	(%)
Never Married	0	7	9	0	0	16	(4.1)
Married Once, Currently Div./Separated	. 3	8	14	1	5	31	(7.9)
Married Twice, Currently Div./Separated	1 0	3	5	0	3	11	(2.8)
Married Once, Currently Widowed	12	7	11	1	1	32	(8.2)
Married Twice, Currently Widowed	0	2	2	1	2	7	(1.8)
Married Once, Currently Married		92	104	6	7	236	(60.5)
Married More Than Once, Currently							
Married	4	34	15	1	3	57	(14.6)
Total	46	153	160	10	21	390	
(%)	(11.8) (39.2)(41.0) (2.6) (5.4)						

TABLE 2 Marital History by Pathway Type

The findings of the log-linear analyses can be summarized as follows. First, men and women tend to be sorted into different career pathways, with men faring far better in terms of staying on orderly and upwardly mobile tracks. To put it more succinctly, career pathways tend to be gendered $(G\rightarrow P)$: Arrow 1 in Figure 4). Second, working women (i.e., the women in our sample) tend to suffer higher degrees of marital instability than do men $(G\rightarrow M)$: Arrow 2). And, finally, type of career pathway and marital history are strongly related for women. Amongst women, those on the better career tracks suffer more in terms of marital stability, or vice versa $(P\rightarrow M)$ and/or $M\rightarrow P$: Arrow 3).

We now turn to the situation where two careers, husband's and wife's, have to be negotiated. Since we do not have full data on spouse's work history, our analyses are limited, yet the goal here is to show the potential interdependency between the couples' two careers. The overall relationship between respondents' occupational career path and their spouse's work history is not statistically significant ($L^2_{(12)} = 13.297$, p = .348). When the table is divided by gender, however, the bivariate relationship is significant among men ($L^2_{(0)} = 13.041$, p = .042), while it is not so among women ($L^2_{(12)} = 10.564$, p = .567). In other words, for the wives of the men in this sample, their work patterns are tightly coupled with and highly contingent upon their husbands' career. This is not the case for the women in the sample; that is, their husbands' work histories are not constrained by how the women themselves have worked in any patterned way. This finding, once again, documents the heavily skewed relationship between the experiences of men and women.

Discussion and Conclusion

How to understand the careers of American men and women who find themselves having to negotiate the two spheres of life, work and family, and also with each other over the life course is the research question that motivated this paper. The question arises, on the one hand, in the context of the changes in the last few decades that radically altered the ways in which we structure two most fundamental institutions, work and family, and the interface between them. On the other hand, the question presents itself as a challenge to old ways of understanding these issues, necessitating a new approach to address the phenomena at hand. In this paper, we proposed a model that addresses the multiple interfaces between work and family and between men and women as they unfold over time. We found the notion of coupled careers and its proper and direct formulation critical to understanding the dynamics of the work-family interface over the life course. The asymmetry between the husbands and wives in their distinctive work-family interfaces was the most consistent finding.

In appropriating the concept of career, sociologists have failed to point out that it contains a number of hidden assumptions—about the nature of the life course, jobs, and social relations within which careers unfold. Two of those assumptions we challenged in our analysis. First, we questioned the taken-for-grantedness of male experience as template in career research. By documenting the mechanisms underlying the divide between the genders, we provide a new way to explore the changing reality. Second, most researchers focus on individuals (oftentimes men), effectively removing them from the family context. We argued for an alternative to the individual as the unit of analysis, suggesting the importance of couples, families, or households as the appropriate unit of analysis in modeling career paths. Elder's (1994) notion of "linked lives" becomes key to adequately address this issue, into which we explicitly incorporated possible inequality and asymmetry by gender.

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X. INTELLECTUAL AGENDA FOR THE FUTURE

Incorporating Social Context: Toward a Broader View of Organizations and HRM

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I am somewhat reluctant to advocate particular research directions because I hold no claim to either prescience or a comprehensive view of the fields of organizational behavior and human resource management. Having said that, there are some five things that I do believe would enrich and enliven our research. Not surprisingly, given the themes in much of my earlier work (Pfeffer and Salancik 1978), most of them involve increased attention to the social context and the environment. But first, to talk about setting a research agenda requires some sense of where we are. My necessarily abbreviated characterization of human resource management is that there is growing interest in "strategic" HRM (e.g., Schuler 1992) and a plethora of rigorously conducted studies on the effects of high commitment work practices on aspects of organizational performance (see, for instance, Huselid [1995] or Pfeffer [1998:Ch. 2] for a review). Organization studies remain characterized by disciplinary fragmentation (Pfeffer 1993), but if there is a trend, it is the increasing use of economic ideas from perspectives such as transaction cost and agency theory (Pfeffer 1997:Ch. 1). In the case of both OB and HRM, the research questions seem to be primarily about the focal organization or the people within it, which is somewhat too narrow on a number of dimensions. Hence, my views about how to broaden the intellectual agenda are primarily about linking research

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with broader concerns of public policy and placing them in a comparative frame. I should note at the outset that there are a number of writings that already reflect what I am advocating, but they are too few and generally have too little influence on the current research agenda.

Moving beyond the Economic Model of Behavior

My first recommendation is to use a broader range of theoretical perspectives in our work and to get beyond economics. Economic theory, with its emphasis on rational, adaptive efficiency and a frame of methodological individualism, is growing in prominence in virtually all of the social sciences (Dosi 1995). Green and Shapiro (1994) noted its rise in political science, and a parallel rise can be seen in organization studies (Pfeffer 1997), where by 1994 some 45% of the articles in *Administrative Science Quarterly* cited economic literature. The influence of economic perspectives such as human capital, agency, and transaction cost theory is pervasive in studies of the operation of organizational labor markets; explorations of the growth in contingent employment arrangements; and understanding compensation, including CEO pay.

There are numerous problems with our overreliance on economic models as a conceptual framework for organizational behavior and human resource management. Among the most prominent of these problems are:

- 1. Assumptions of adaptive efficiency, characteristic of the economic approach, not only lead to tautological reasoning but fail to ask why particular organizational arrangements vary both over time and place—since the answer is assumed to be that they have efficiency advantages. This invariably leads to seeing "all that is *real* as *necessary*, all that exists as inevitable, and thus the present mode of production as eternal" (Braverman 1974:16).
- 2. The portrayal of human nature in the models is an "extreme caricature" (Milgrom and Roberts 1992:42) and, more importantly, has important practical consequences because of the fact that the behavioral assumptions become self-fulfilling (Frank 1988).
- 3. The methodological individualism characteristic of these models either ignores organizations and institutions completely or treats them as some residual category required by market failure or a contracting problem. As Simon (1991:26) noted, "A fundamental feature of the new institutional economics is that it retains the centrality of markets and exchange."
- 4. "There is evidence that both institutionalization and power theories of organizations occasionally are more successful than some presumption of rationality or efficiency in explaining both organizational structure and employment practices" (Pfeffer 1997:52).

There are alternative models available for conceptualizing behavior. Specifically, there are models of behavior which (1) emphasize social relationships and social influences (e.g., Burt 1992), (2) stress individual decision making that incorporates morals and values (Etzioni 1988) as well as economic self-interest, (3) consider behavior to be retrospectively (rather than prospectively) rational and explore the implications of this for commitment to decisions (Staw 1980), and (4) incorporate power and political interests as well as efficiency concerns (Pfeffer 1997). These models have much to recommend them in the analysis of both organizations and the employment relationship.

Incorporating a More Holistic Portrayal of Work and Organizations

We often recognize that organizations are systems, and open systems at that (Scott 1992). But when we come to study work and organizations, our systems view is frequently quite circumscribed. We demarcate work life from other aspects of life, and with the exception of some of the work on flexible manufacturing (e.g., Adler 1992; MacDuffie 1995), we frequently consider industrial relations and employment practices separate from other aspects of organizations such as their technical and production systems; financial, information, and measurement systems; and their relationships with suppliers, customers, and competitors. Both of these forms of narrowing of point of view have problems.

As feminist theorists (e.g., Martin 1994) remind us, the separation of home and work domains is artificial. Many talented women graduates of Stanford's business school drop out of the labor force when they have children, and because of social norms and corporate career patterns, most can never really recover from this career derailment even if they wanted to. Work life places stresses, strains, and demands on family roles, and in some instances, we escape family demands and pressures by working. Our civic roles are affected in important ways by what we achieve and our roles in the world of work, and there is evidence that suggests that communities of interest and interorganizational associations are formed from service on nonprofit as well as corporate boards. Our research would benefit from more fully exploring these interrelationships.

In addition, few organizational arrangements or human resource practices exist in a vacuum. Not only are they connected to the technology and logic of work processes, but they influence and are influenced by measurement systems, information technology, and capital market forces (e.g., Davis, Diekmann, and Tinsley 1994). Although we cannot study everything as being connected to everything else, our research would benefit from

more attention to the influence of social forces on organizations and vice versa, as well as the connections among the various systems within organizations.

Adopting a Comparative Frame

As others have noted, much of our research is too U.S.-centered (Clegg 1990) and "timeless and placeless" (Jacoby 1990), insensitive to either history or context. Thus we talk about the "new employment contract" and contingent work arrangements as though these were actually new, forgetting that this is precisely how work was organized more than one hundred years ago. We presume that our fixation with compensation and incentives characterizes other countries and cultures as well, but it does not. In our attraction to adaptive efficiency arguments, we too often fail to look for and, therefore, to observe the fact that other institutional arrangements are not only possible but, in many instances, are equally efficient and effective, even in terms of market-based competition. Other countries have a more unionized work force, have training levies, have mandated codetermination, have more regulation of the labor market, and not all such systems suffer in worldwide competition (e.g., Wever 1995). Many people presume that unions have permanently passed as major players on the social landscape, forgetting that it was not much more than seventy years ago that union density was about the same as it is currently.

There is, obviously, excellent work on both history and on comparative studies of the employment relationship (e.g., Jacoby 1985; Wever 1995; Locke 1995). There needs to be much more, and in the meantime we should be more circumspect in our theorizing in recognition of the principle of equifinality that characterizes much of the social world we observe.

Broadening Our Point of View

As noted previously, much of our research takes the perspective of the focal organization—what work practices enhance productivity; what determines the adoption of various management practices and various ways of organizing the employment relationship; what affects organizational size, boundaries, and births and deaths. What is frequently missing, except in some versions of critical theory or Marxist analysis, are people and society. A few scholars have sought to explore the effects of teams, lean manufacturing, and other management practices on the people who work under these management regimes (e.g., Barker 1993; Fucini and Fucini 1990; Graham 1995; Parker and Slaughter 1988). These analyses remind us that what may be good for organizations may not necessarily be unabashedly good for those working in them. As Stern and Barley (1996:148) wrote,

"Organizations can trample personal freedom and individual fulfillment." Although a stakeholder model has been described in both industrial relations (Rubinstein and Kochan 1997) and organizational behavior, little research attention focuses on the multiple stakeholders, their influence over organizations, and how various organizational changes that are occurring affect them.

As an example, contingent work arrangements such as part-time, temporary help, and contract work are important not just for their effects on organizational staffing flexibility and labor costs. Because various fringe benefits in the United States, such as medical insurance and pensions, are heavily dependent on voluntary decisions by employers—decisions which are often different depending on an individual's employment status—and because there is even evidence that wages vary by employment status, there ought to be more attention focused on the effects of contingent work arrangements on those who work in them, not just on the organizations that employ them.

A similar lack of attention characterizes much of our research and theorizing about societal-level effects. Stern and Barley (1996) argued that the relationship between organizations and society and various social problems and issues receives relatively little attention. There has certainly been research focused on the effects of various work arrangements on productivity and quality and, by extension, on organizational (and presumably, societal-level) economic competitiveness. And some research has asked about the effects of various training practices and high commitment work practices on social issues such as wage inequality. But this is the exception rather than the rule. Work arrangements affect not only wage inequality but the effects of gender and race on career outcomes. For instance, one might argue that as work has moved from an internal labor market model, one reason why there is less gender-based wage discrimination is that there are fewer career pattern differences between men and women. Work arrangements may have consequences for mental and physical health, for mortality, and for social adjustment. There has recently been interest in how childrearing and the welfare of children is influenced by the work arrangements of the parents. Such societal-level outcomes should be part and parcel of our research agenda.

Engaging in Public Policy Debates

For the most part and with some notable exceptions (e.g., Kochan and Osterman 1994), organization studies and human resource scholars have eschewed engagement in public policy debates concerning the amount and form of government intervention in the labor market and the governance

of the employment relationship. This results partly from the focus on the organization and the neglect of its social context and partly from the belief that the best public policy is as little as possible. Particularly in the United States, the general assumption is that "the role of government intervention should be largely limited to ensuring the existence of competitive market conditions" (Appelbaum and Batt 1994:146).

But there is accumulating evidence that neither the capital markets, dominated by comparatively young people with little or no experience outside the investment industry, nor the labor markets (Levine and Tyson 1990) (because of problems of externalities and free-riding) will provide either the socially optimal amount of cooperation, the best management practices, or the right amount of training and skill development. Moreover, some of the countries praised as poster children of free market competitiveness, such as Singapore, have pursued policies that at once provide more open product markets than the United States but also that are quite interventionist in assisting and encouraging firms to develop the capabilities to succeed in those markets (Kuruvilla 1996). While Wilensky (1992) showed that the great American economic miracle of job creation may not be all that it is claimed to be, and Buechtemann (1993) has reviewed evidence showing that there are relatively minor effects of government regulation of the labor markets in Europe on employment levels, studies of Louisville, Kentucky (Block, Beck, and Kruger 1996), and Wisconsin (Rogers and Parker 1996) demonstrate the potential for public policy to contribute to both economic development and the welfare of both employers and employees.

Research informing the public policy debate needs to both evaluate various policies and interventions, drawing on differences both over time and across contexts, and also to more fully explore the empirical evidence for various forms of market failure. Perhaps most importantly, we need to better understand how our assumptions and models of organizations and labor markets have affected what information we have collected, what we have learned and failed to learn, and how this has affected the development of policy positions.

Conclusion

As the foregoing brief summary of some promising research directions shows, there do exist examples of research that take context seriously, adopt a comparative frame, do not presume adaptive efficiency and the idea that things are always for the best, and speak to concerns with the effects of organizations and employment practices on both individuals and the larger society. But as other commentators have noted, such work and

the perspectives it represents is the exception rather than the rule. For the most part, the focal organization remains the centerpiece of research in both organizational behavior and human resource management, with more attention given to the point of view of the organization than to other stakeholders or perspectives. This is somewhat ironic, for the very fact that we have become a society of organizations means that organizational effects are pervasive. The study of such effects on numerous aspects of social and political life should become a more central research focus, along with the different models of behavior that can help enrich our understanding of these important issues instead of assuming them away.

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Back to Basics: Creating the Analytical Foundations for the Next Industrial Relations System

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Industrial relations has historically been a field of study with strong normative underpinnings that has encouraged researchers to focus on the most critical problems arising in employment relationships. John R. Commons and his associates established this approach to research in the early part of the 20th century. They studied the conditions of work in America, judged them to be unsatisfactory for large numbers of workers, and engaged in a thirty-year campaign of research, education, and policy advocacy that eventually laid the intellectual foundation for the New Deal labor policies. A second generation of industrial relations scholars was then left with the challenge of making these laws and institutions work during World War II and thereafter. Based in large part on their War Labor Board experiences, this generation developed a deep belief in the value of "free collective bargaining" (Taylor 1948) as the key institution in industrial relations. They therefore focused on the critical labor problem of their day, namely resolving the large number of labor-management conflicts that erupted in the immediate postwar years. Their efforts helped collective bargaining, personnel policies, and the administration labor market institutions and regulations contribute to three decades of gradual improvements in real wages in line with productivity growth and economic expansion.

Now, however, there is ample evidence that the New Deal industrial relations system no longer meets the needs of workers, employers, or the American economy. The evidence behind this statement has been presented and discussed extensively elsewhere and, given space constraints, will only be summarized briefly below. Moreover, private and public policy efforts to reform the system incrementally from within have failed. Therefore, I believe it is time to return to first principles by identifying and focusing our theoretical and empirical research around the critical questions facing employment relationships today. I will outline what I see as the critical questions after briefly reviewing the facts that lead to the conclusion that

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the current system and efforts to reform it have failed. My focus here will be mainly on the labor relations component of industrial relations, leaving labor market and human resource issues and institutions to others on this panel.

Indicators of a Failed Industrial Relations System

Labor Movement Decline amid Worker Interest in Representation

Trade union membership in the U.S. has been declining for over forty years, continuing through both Democratic and Republican presidents and majorities in Congress. A sizable portion of the decline can be attributed to inadequacies of labor law in the face of increasing managerial opposition. But there is a deeper problem: The single form of worker representation envisioned in the New Deal industrial relations system is too difficult to access and too restricted in form and function to fit today's labor markets, employment relationships, and worker needs and preferences.

Yet interest in various forms of participation and representation remain strong in the modern work force. From the 1970s to today, surveys document that 30% to 45% of the nonunion labor force would join a union if given the chance (Kochan 1979; Freeman and Rogers forthcoming; Lipset and Meltz 1997). But under current labor law and current union organizing strategies, one-third support produces no new union members and no representation for those who want it. A majority of workers must agree in order for any individual to get representation. The conditions required to achieve majority support for unions are so severe that absent a cataclysmic change in worker views of their jobs and their employers, unions are not likely to regain significant membership without equally significant shifts in organizing strategies.

These same surveys show that the vast majority of workers (often ranging from 70% to 90%) want to have more voice over how they do their jobs, how work is organized, how decisions are made that affect their day-to-day work experiences. There clearly is a participation and representation gap in the American industrial relations system today. Taken together, however, these survey data imply that different workers want (and need) different types of participation and representational arrangements. No single form of representation will suffice, particularly if that single form requires a majority of workers to agree that they are deeply dissatisfied with their employer and have to risk their jobs to gain access to it.

Traditional Collective Bargaining Is Uncompetitive

For some time evidence has been building that the defining features of the traditional New Deal system of collective bargaining (i.e., tight system of rules governing job responsibilities and worker rights, standardization of wages across competing groups and firms, and protection of management rights to make strategic decisions) cannot produce economic results required for firms to be competitive in product markets that demand high levels of quality, customer service, productivity. A large and growing body of evidence documents that what is variously referred to as "transformed" or "high-performance" work systems that incorporate various combinations of employee participation, flexibility in work organization, high levels of training, and some form of gain sharing or contingent compensation achieve higher levels of quality, productivity, and profitability (Ichniowski, Kochan, Levine, Olson, and Strauss 1996). Traditional unionized relationships also have higher costs than nonunion operations that seek to compete on the basis of low-cost labor (Freeman and Medoff 1984). Where there are few barriers to entry of new firms and little or no prospect of organizing the new entrants, these facts would predict a continued downward spiral of traditionally structured unionized jobs and bargaining relationships.

Limits of Traditional Negotiations and Conflict Resolution Tools

Formal collective bargaining developed an elaborate set of rituals, norms, and rules of conduct over the years that are no longer well matched to the environment, issues, and/or interests involved in employment relations today. Boiled down to its essence, the traditional negotiations process relied on the existence of a contract deadline and the threat of a strike to motivate negotiators to reach agreements that gradually, over time, produced improvements in wages and employment conditions for workers and led employers to professionalize the management function and respond in ways that increased productivity to offset their increased labor costs (Slichter, Healy, and Livernash 1960; Freeman and Medoff 1984). More recent evidence demonstrates, however, that neither contract deadlines nor strike threats are powerful enough forces to either produce settlements, gradual improvements in wages and other employment conditions of interest to workers, or innovations in workplace practices or relations that might signal that the bargaining system has adapted to its changed environment (Cutcher-Gershenfeld, Power, and McCabe-Power 1996; Cutcher-Gershenfeld and Kochan 1997). Instead, it is management threats to move to nonunion worksites, hire replacement workers, or close a facility that most heavily influence collective bargaining today. These same studies find that efforts to use new negotiations tools such as interest-based bargaining have yet to produce their promised mutual gains or improvements in relationships. Thus the traditional bargaining process no longer works as it was expected to do or as it did in past years.

Even if the bargaining process was more effective, given its limited coverage, the conflict resolution instruments associated with collective bargaining are not available to the majority of workers and employers. Recognition of this fact has led to the gradual expansion over the years of more direct governmental regulations of the workplace. Government regulatory agencies and the courts have essentially replaced the private dispute resolution institutions developed under collective bargaining as the dominant instruments for resolving conflicts between workers and their employers. The number of disputes referred to agencies such as the Equal Employment Opportunity Commission (EEOC) (approximately 95,000 per year with an equivalent 100,000-case backlog), the Occupational Safety and Health Administration (OSHA), the Wage and Hour Division and other agencies within the Department of Labor responsible for enforcing various labor standards and regulations swamp the number of cases handled either through private arbitration under collective bargaining or by the NLRB or the National Mediation Board (NMB). Thus collective bargaining institutions and procedures constitute only a small fraction of the regulatory and enforcement activity governing conflicts that arise in workplaces today.

Efforts to Reform the System

If the present industrial relations system is not capable of meeting the needs of contemporary workers, firms, or the economy, the question becomes: Can the system be transformed again as it was in the 1930s and through the adaptations that followed in the postwar period? And what, if any, role can ideas and research play in this process? Will it take a social crisis equivalent to the Great Depression to produce changes in legislation, labor organizations, and management practices needed to better respond to today's "labor problems"? While it is impossible to predict with certainty whether the U.S. system of industrial relations is capable of self-correction short of crisis, neither our history nor recent experience should lead us to be optimistic. Over the past two decades three types of efforts have been underway to "reform the system from within."

The first came from calls that some of us made for a "transformation" of industrial relations practices by encouraging existing union-management relations to support direct employee participation and work restructuring at the workplace along with broader consultation and direct engagement of strategic decisions that drive employment relations (Kochan, Katz, and McKersie 1986). While we have seen numerous examples of labor-management partnerships move in this direction, their record of sustainability is mixed and their number has been too small to produce a general transformation in industrial relations.

A second effort lies in the nonunion sector where the calls for a movement from personnel management to strategic human resources essentially asked human resource executives to take on the task of engaging top executives and line managers in ways that produced the transformation process. The reality is that in attempting to achieve a strategic role, HR executives became what one leading HR professional called the "perfect agents" of their CEOs (Doyle 1993). This led the HR profession to turn inward and basically take up top management's agenda. Thus there is a need to rebalance HR's role and perspective but little reason to believe that left to its own devices this will occur. Moreover, the reality in most corporations is that HR never actually gained a strong voice in strategic decisions.

A third related effort to reform from within focused on public policy. Over the past two decades two major efforts to reform labor law failed. First in 1977 and 1978 Democrats in Congress and President Carter failed in their efforts to enact changes in the law governing union organizing to strengthen the penalties against employers who violate the law and to speed up the processing of legal challenges that drag out the representation election and first contract negotiations process (Mills 1978). The second effort was the Commission on the Future of Worker Management Relations (better known as the Dunlop Commission) created by the Clinton administration shortly after it took office in 1993. From May 1993 to January 1995 the commission searched for ways of updating and modernizing labor law and the New Deal collective bargaining system that would be acceptable to leaders of the labor movement and business community. However, the commission's final recommendations (Commission on the Future of Worker Management Relations 1994) were greeted with nearly universal rejection from business, labor, the Republican majority in Congress, and ultimately from an administration paralyzed in the grip of this interest group gridlock.

The commission's inability to find a compromise or set of incremental changes to the existing law that were acceptable to labor and management should serve as the final nail in the coffin of the intellectual and analytic premises underlying postwar industrial relations research. There no longer is a shared consensus that "free collective bargaining" is the preferred means for setting and adjusting the terms and conditions of employment, nor that if left to its own devices, collective bargaining will produce the results best suited to a free market economy and democratic society. Thus the job of industrial relations researchers today has changed from one of identifying how collective bargaining works and/or how to adjust it at the margins to make it work better, to one in which we must return to first principles.

Redefining the "Labor Problem"

If the "labor problem" of reducing strikes and making collective bargaining work effectively served as the rallying cry for industrial relations professionals after WWII, today's analog might best be characterized as a breakdown in the implicit "social contract" that supported gradual improvements in working conditions, living standards, and competitiveness of the American economy from the 1940s to the mid-1970s. To reconstruct a set of social contracts suitable to the modern work force and economy will require some very basic changes in the institutions, laws, and practices governing employment relations. Achieving these changes will in turn require researchers to return to some equally basic questions and to be willing to propose changes that go beyond incremental adjustments, some of which will not be acceptable at the moment to business, labor, or the politicians these groups support. Our task, therefore, is to lay the intellectual and analytical foundations for the next industrial relations system. What follows, therefore, is a set of basic questions that I believe need to be answered if we are to contribute to this effort.

Key Questions

What expectations do workers and employers hold for each other and what interests need to be accommodated in employment relationships? The most basic building block for an industrial relations system lies in the interests and expectations parties bring to employment relationships. Industrial relations institutions must support pursuit of these interests and expectations, help the parties pursue integrative outcomes that work to their mutual benefit, and accommodate differences in interests efficiently and equitably. Nothing new here with respect to the basic functions. However, the New Deal model is based on a set of implicit premises that are outdated. It assumed workers expected to have long-term employment relationships with their employer as long as they exchanged a "fair day's work for a fair day's pay." Firms were expected to seek loyal, committed workers whose behavior was directed and controlled by managers. Interests could be accommodated through periodic negotiations over the division of economic returns to these ongoing relationships, individually, or where a union was present, collectively. All other interests were of secondary concern. Yet today, we observe a wide variety of diverse interests and expectations and employment arrangements which seem to depart from this traditional view. Some employees (consider most MBA graduates) do not expect to stay with a firm for long and see some jobs as mere training grounds or stepping stones toward longer-term career objectives. Others value flexibility in

work hours, assignments, and interesting work more than the level of pay or job security provided. Others work in contractual relationships in which they are excluded from the definition of employee, and who is the "employer" legally accountable for ensuring compliance with employment and tax laws is at best ambiguous. Some work for employers whose values, competitive strategies, or union relationship produce high employment standards and high trust, while others are in employment relationships in which labor cost competition dominates other considerations.

This diversity can no longer be governed by singular labor market institutions or policies that seek to regulate employment relationships with the same standards or enforcement regimes or represent workers with the same strategies or structures. One important research task, therefore, is to determine how to create institutions and policies that accept and incorporate diversity as the norm rather than seek to eliminate it through uniform standards or processes. Employment policy of the future will need to accept and work with this diversity rather than write standard rules that either exclude those that don't fit the model (e.g., independent contractors) or seek to eliminate variability that is functional for some parties (e.g., delegating managerial/supervisory work of "exempt" employees to hourly production "nonexempt" workers). Experimentation with ways to allow high-standards employment relationships to "internalize responsibilities" for meeting these standards in more flexible ways is just one option that is worth exploring. Broader use of alternative dispute resolution (ADR) systems for resolving workplace conflicts and enforcing policies may also help identify new approaches that allow for reasonable flexibility consistent with basic principles and policy objectives. Neither of these ideas are popular or acceptable today. Yet testing their viability is critical to deciding whether or not they should feature prominently in the industrial relations institutions of the future.

How do we reconceptualize employment relationships in a world where the traditional dichotomy of labor-management is more blurred and horizontal relationships among employees and between employees and external customers, clients, patients have become increasingly important in the division of labor? Industrial relations theory traditionally focuses on the hierarchical dimension of employment relations, assuming the basic task is to resolve conflicts and promote cooperation in this mixed motive relationship. Yet increasingly, the line between labor and management is blurred by the way work is organized. Moreover, coordination across horizontal relationships—inside the organization across functional groups or departments or with external customers—are equally important influences on the

quality of the work experience for workers and firms (Aoki 1990; Barley 1996; Kochan and Rubinstein 1997). Diversity in demographic features, occupational groups with overlapping skills (e.g., nurse practitioners and doctors, technicians and scientists, etc.), contingent and regular full-time employees, all are increasing sources of workplace conflicts that need to be resolved. Yet our traditional lens and the institutions that grow out of it tend to assume the critical interest divide is labor-management and the critical managerial task is controlling behavior of subordinates rather than coordinating efforts among horizontally linked individuals and work units. We need to recast industrial relations theory to better understand the implications of both the blurring of the labor-management divide and the role of lateral relationships at work. This type of understanding is critical to the design of institutions for representing, coordinating, and resolving conflicts among the constellation of interests found in today's workplace.

How does globalization affect industrial relations? The New Deal policies and institutions were designed to "take wages and employment standards out of competition" in the domestic economy. Among other things, globalization of product markets makes it impossible for domestic practices and institutions to perform this function. This implies a gradual downward spiral of wages and employment conditions and a shift in capital and jobs to lower wage countries. The standard industrial relations response would be to build global institutions capable of moderating or limiting the competitive pressures on employment standards. Unfortunately, we have few ideas of what these global institutions ought to be or how they could be built. Nor have we addressed what globalization implies for domestic institutions and practices.

Firms need to invest and operate in global markets and locations for economic and political reasons that are not driven by labor cost differences. Regardless of what drives them, these strategic decisions determine the global distribution and the quality of the jobs created by the firm. Yet our human resource and labor institutions were not designed to engage strategic decisions directly. Human resource executives lack the power to influence these issues directly and collective bargaining deals with their effects only after the fact. How to close the gap between these strategic decisions and industrial relations processes and institutions has to be a key theoretical and empirical question if we are to transform industrial relations institutions and practices to deal with the effects of globalization.

How do we rethink the role of the firm as an employer in an era where human capital may be one (if not the most) important asset or source of competitive advantage, as well as a cost of production? What are the possibilities and limits to what firms and employees, individually and collectively, can do to reconstruct social contracts suited to the needs of the work force and the economy? From Karl Marx on, labor has been viewed as a commodity whose costs need to be minimized. Indeed, as just noted, in global or highly competitive domestic product markets, labor costs once again are difficult to take out of competition and therefore have become an increasingly important source of competitive (dis)advantage, particularly for less skilled work. At the same time, highly skilled labor, or "knowledge workers," have also become an increasingly critical competitive asset for firms. When human capital begins to rival finance capital, technology, and other resources for influence, the governance structures and processes of the employer are likely to change in significant ways—ways that again were not anticipated in either labor or corporate laws and legal interpretations arising out of the New Deal system. Are employees now residual risk takers and therefore claimants similar to shareholders and thus entitled to a role in firm governance (Blair 1995) alongside those who risk their capital? Does this change the nature of the corporation from a shareholder-maximizing institution to one that must balance the interests of multiple stakeholders (Kochan and Rubinstein 1997)? Answers to these fundamental questions regarding the role and governance structure of the corporation need to inform the design of institutions governing the role of employees in organizations that depend heavily on their human capital as a source of competitive advantage.

What changes in labor market institutions—unions and professional associations, employment and training bodies, income security arrangements—are needed to meet the needs of a more mobile labor force employed in a wide variety of employment settings? Given the variations in workforce characteristics and expectations and employment arrangements, no single structure or process is likely to suffice for providing employees a voice in the decisions that are of central interest to them. Nor will a single representative arrangement allow employers to effectively aggregate, resolve, coordinate, and integrate interests found in modern employment relationships. Unions, professional associations, and/or other organizations that seek to represent workers will either need to specialize in specific forms of representation (e.g., unions may choose to focus on collective bargaining) or become more diversified, full-service organizations capable of (1) providing labor market, educational, and legal services to individual members; (2) building capabilities for direct employee participation; (3) organizing for and conducting collective bargaining; and (4) providing representation in corporate governance structures and processes.

Similarly, labor market institutions will need to cope with a work force that needs to be more mobile and that can move across jobs at lower cost. Building arrangements that encourage portability of pensions and health care benefits, reforming the unemployment insurance system to better deal with permanent displacement and transitions between employers, and building education and training institutions that support lifelong learning are only several of the more obvious institution building challenges we face.

Given the above, what changes in national labor and employment policies are needed? To remain true to our historical legacy, industrial relations researchers need to maintain a public policy perspective and avoid capture by the interest group politics of the moment. The search for acceptable ideas and options has an important tradition and place in our field; however, it can be dysfunctional in an era when more than incremental policy reforms are needed and there is no meaningful common ground among the most powerful interests groups. But to generate the new ideas needed to inform public policy making and institution building for the next generation, an industrial relations system first requires an understanding of the basic issues outlined above. Identifying the specific features of these institutions and policies remains the key intellectual challenge and responsibility of this and, perhaps, if history is any guide, the next generation of industrial relations researchers and professionals.

A Historical Parallel

This essay argues for a fundamental shift in the premises that motivated scholars from multiple disciplines to come together in the 1940s to create the modern day profession of industrial relations. But as noted at the outset of this essay, we may need to look even farther back in the history of our field to find the most appropriate historical analogy. John R. Commons and his associates labored from around the turn of the century to the 1930s before their ideas and research findings provided the intellectual foundations for the New Deal labor and employment laws and administrative procedures. We may now be in a similar situation. While it is impossible to know how long it will take for the political pressures to build to a point that they generate the debates needed to produce a new set of policies and institutions governing employment relations, our generation will be judged by the power of the ideas and evidence we bring to bear on these debates if and when they occur.

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DISCUSSION

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The papers in this session cover a wide variety of topics and perspectives. Kochan deals with the future of worker associations in the United States. His analysis is interesting and (in my opinion) largely correct. But the paper frustrated me greatly. I wanted a vision. After learning everything about how the current system of employee representation does not work, I wanted some possible models of how this can be improved. I'm left at the end of the paper with a big agenda, but no direction.

Pfeffer discusses problems in human relations research, and I read his paper as a labor economist listening to someone in an entirely different discipline. I was struck by how many of his criticisms were the opposite of what I would have made about my own field of research. In labor economics, there is too much focus on the impact of policies on workers and not enough discussion about firms as an entity; similarly, there is too much focus on public policy and too little focus on institutional or private sector structures and policies. All of this simply suggests to me that in both areas of research we could fill in some of our gaps by talking more with those who approach these issues out of different perspectives and disciplinary backgrounds.

Freeman's paper is much less linear than the other two. There are, he claims, lots of paths to truth and no one institutional structure or approach to the labor market promises economic success or efficiency. I find much to agree with here, but I want to ask some hard questions about where this leaves me as a social scientist. To understand the world, I need a model, not a collection of anecdotes. I wanted Freeman to say a bit more about the fundamental building blocks of economic success in labor markets. If what matters is not specific structure or design, then what should we be modeling? Perhaps it is something about the process or the dynamic paths, or the interaction between structure and the human expectations of workers and managers.

Of course, as a commentator in a session entitled "The Intellectual Agenda for the Future," I cannot possibly be satisfied with merely critiquing the existing papers but must present a bit of my own vision about

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where we are and where we should be going. Let me make two main points, slightly different than those made by the authors.

First, we need more attention to understanding and modeling the role of public versus private institutions and policies. Kochan encourages us to find models of worker participation in a world of growing diversity and increased mobility. The right path may not be revised private bargaining institutions but to improve public regulations that can deal with workers who may switch jobs, firms, occupations, and industries several times over their working life. The greater worker mobility and diversity, the harder it may be for private institutions to handle the problems that arise, given natural problems of externalities and inadequate information.

In contrast, there is also a great deal of public sector failure as well, of course. In fact, on many issues the world can often be divided between those who rage about public sector failures and inadequacies and call for greater reliance on the wonders of the private market and those who rage about private sector failures and demand greater public sector involvement. I want more discussion in the middle of this divide. We need to model both public sector and private sector failures and successes together, providing a direct prediction and comparison of when public sector interventions are superior to private institutions and when they are not. This type of nuanced comparison between public and private structures and policies may provide new and useful insights into how we can best deal with some of the real institutional problems that Kochan raises in his article.

Second, I want to emphasize the importance of what I will call "middle-think" analysis. Let me again describe the world (particularly the research world) in a simple dichotomy. On one side are the microthinkers (often microeconomists—and I include myself in this group) who focus on clean data, clear models and tightly defined questions. On the other side are the big-think analysts who are more interested in the questions that allow them to make comparisons across countries, historical eras, and institutional structures.

I want to ask both groups to do more middle-think. The importance of dynamics, of systems, and of the interaction between economic structure and human psychology (pointed to by all of these papers) suggests that we microthinkers need to push ourselves out of our tight models with more frequency and hazard to try and understand a few things that we can't model or analyze as neatly as we'd like. But the importance of knowing the details, making credible comparisons, and understanding the real functioning pattern of different systems requires that the big-think group needs to ground more of their analysis in microlevel detail. Both groups have something to offer to the research community, but both of us could offer more if

we borrowed more from each other and paid more attention to both the microlevel details and the larger, messier interrelated issues that affect economic reality.

These papers go a long way pointing out some of the faults in how we have done our analysis in the past. We shall all have to work on building new models and new approaches that try to remedy these faults.

XI. REFEREED PAPERS-LABOR MARKETS AND THE ECONOMICS OF COLLECTIVE BARGAINING

Fringe Benefits and Union Status: Members versus Covered Nonmembers

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It is well accepted that U.S. unions have been successful in increasing the incidence and value of fringe benefits received by employees covered by union contracts relative to nonunion employees (Freeman 1981; Freeman and Medoff 1984). However, previous analyses treat employees covered by a union contract as a singular concept and ignore a potentially important distinction: employees can be represented by a labor union and covered by a contract, but not be a member of the union (hereafter, covered nonmembers). In fact, in the April 1993 Current Population Survey (CPS) Employee Benefits Supplement, 11% of employees covered by union contracts are not union members. Blakemore, Hunt, and Kiker (1986), Hundley (1993), and Budd and Na (1997) find that union members earn higher wages than covered nonmembers. This paper extends this research by analyzing differences in fringe benefits, in particular the likelihood of being included in an employer's retirement and health insurance plans, between union members and covered nonmembers using the April 1993 CPS Employee Benefits Supplement.

Institutional Background

In the United States, an individual employed in a job covered by a union contract faces a decision: whether to become a union member by

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joining the union. Regardless of an individual's membership status, however, unions are legally obligated to equally represent all bargaining unit employees, members and covered nonmembers, in the context of the union's role as exclusive bargaining agent. Thus in negotiating contracts, applying contract terms, and processing grievances, unions are prohibited from discriminating against nonmembers.

Nevertheless, there are benefits and costs of being a member. Only members are typically allowed to participate in union governance, including the election of officers and participating in contract ratification and strike votes. Unions also often provide some members-only benefits such as scholarships, group-rate life insurance, or training and educational programs. The AFL-CIO's Union Privilege program provides members with a low-interest credit card, mortgage assistance, legal assistance, discount car rentals, etc. On the cost side, members must pay full union dues, whereas covered nonmembers only have to pay agency fees or no dues at all. Moreover, members must abide by union bylaws and can be fined for violations (e.g., crossing a picket line).

In light of these institutional realities, there are two general reasons why members might be more likely to receive fringe benefits than covered non-members: discrimination or attribute differences between members and covered nonmembers. In spite of the duty of fair representation, unions may try to discriminate against nonmembers to discourage free riding. Additionally, employers may try to take advantage of employee ignorance and illegally discriminate against covered nonmembers by not providing them with full contractual benefits. Alternatively, union members and covered nonmembers may have different characteristics. For example, probationary periods, during which individuals are not required to become members, may yield covered nonmembers with shorter average tenure and a lower likelihood of qualifying for benefit programs. There may also be unobservable differences between members and nonmembers such as motivation, ability, or the intention to stay in a certain job and invest in union membership.

There are also measurement-related possibilities. Union coverage might be measured with greater error than union membership so an estimated coverage effect is biased towards zero. Also, covered nonmembers might actually be included in fringe benefits programs to the same extent as union members but not be fully informed and therefore inaccurately report not being included.

Current Population Survey Data and Results

The CPS questionnaire asks individuals whether they are a member of a union. Those who answer yes are assumed to be covered by a union contract,

whereas those who answer no are asked whether they are covered by a union contract. The former are union members, and the latter are covered nonmembers. Many of the April 1993 CPS individuals were asked supplemental questions on employee benefits primarily relating to retirement and health insurance plans. Of particular interest in this study, individuals were asked, "Does your employer or union have any pension or retirement plan for anyone in your company?" Those responding yes were asked, "Are you included in this plan?" As illustrated in Table 1, 41.8% of nonunion individuals are included in a retirement plan, whereas the fraction of those covered by union contracts that are included in retirement plans is nearly twice as great: 79.9%.

TABLE 1
Fringe Benefits Coverage Rates by Union Status^a

	Covered by a Union Contract						
	Nonunion (1)	Total (2)	Nonmembers (3)	Members (4)			
Included in Employer's Retirement Plan	0.418 (0.004) [17998]	0.799 (0.006) [4126]	0.728 (0.021) [459]	0.808 (0.007) [3667]			
Included in Employer's Health Insurance Plan	0.570 (0.004) [17932]	0.858 (0.005) [4105]	0.799 (0.019) [457]	0.866 (0.006) [3648]			

Source: April 1993 Current Population Survey Employee Benefits Supplement.

Notes: ^a Each cell contains the sample fraction, standard deviation in parentheses, and sample size in brackets. Within each row, the means are statistically different from each other at a 0.001 significance level.

Individuals were also asked, "Does your employer offer a health insurance plan to any of its employees?" and "Are you covered by this health insurance plan?" While 85.8% of those covered by a collective bargaining agreement are included in their employer's health insurance plan, only 57% of nonunion employees are included. The union-nonunion differences in coverage rates for retirement and health insurance plans are statistically significant at the 0.0001 significance level. Controlling for observable differences in demographics, firm size, and the like (more specifically, the same control variables as listed in Table 2) also yields significant union-nonunion differences: an estimated marginal effect of a union contract-covered dummy variable in a probit model is 0.181 (p-value < 0.001) for retirement and 0.135 (p-value < 0.001) for health insurance. These results affirm the conventional wisdom that union workers are more likely than nonunion to receive fringe benefits.

TABLE 2
Probit Analysis of Fringe Benefits Coverage among Individuals
Covered by Union Contracts

	Meansa		Probit Margi	nal Effects ^b	
Variable	(1)	(2)	(3)	(4)	(5)
1 if Employer Offers a	0.900	Dependent	t —	_	_
Retirement Plan to Some	(0.300)	Variable			
1 if Included in Employer's	0.809	_	Dependent	_	_
Retirement Plan	(0.394)		Variable		
1 if Employer Offers a Health	0.955	_	_	Dependent	_
Insurance Plan to Some	(0.206)			Variable	
1 if Included in Employer's	0.865	_	_	_	Dependent
Health Insurance Plan	(0.342)				Variable
1 if a Union Member	0.889	0.005	0.064*	0.008	0.031*
	(0.314)	(0.013)	(0.023)	(0.007)	(0.017)
Age	41.493	0.000	0.001	-0.001	-0.001
	(10.592)	(0.001)	(0.001)	(0.001)	(0.001)
Educational Attainment	13.749	0.006*	0.001	0.001	-0.001
(Years)	(2.614)	(0.002)	(0.003)	(0.001)	(0.003)
1 if Female	0.430	-0.012	-0.003	-0.002	-0.032*
	(0.495)	(0.010)	(0.016)	(0.004)	(0.013)
1 if Nonwhite	0.139	-0.024*	-0.055*	-0.007	0.003
	(0.346)	(0.013)	(0.020)	(0.006)	(0.014)
l if Married	0.668	-0.006	0.006	-0.001	-0.042*
	(0.471)	(0.009)	(0.014)	(0.004)	(0.010)
Number of Children	0.801	-0.000	0.009	0.001	-0.002
	(1.075)	(0.004)	(0.006)	(0.002)	(0.005)
Log Wage	2.577	0.053*	0.142*	0.013*	0.074*
	(0.429)	(0.011)	(0.018)	(0.005)	(0.014)
1 if Part-time	0.088	-0.019	-0.186*	-0.023*	-0.204*
	(0.283)	(0.015)	(0.031)	(0.010)	(0.029)
Weeks per Year Usually	50.091	0.003*	0.006*	0.001*	0.005*
Worked at this Job	(5.614)	(0.001)	(0.001)	(0.002)	(0.001)
Years Worked at this Job	11.748	0.002*	0.007*	0.001	0.005*
	(9.013)	(0.001)	(0.001)	(0.001)	(0.001)
Firm Size (250 + Employee O	mitted)				
Less than 10 Employees	0.016	-0.476*	-0.362*	-0.334*	-0.329*
	(0.127)	(0.075)	(0.077)	(0.075)	(0.074)
10-24 Employees	0.025	-0.310*	-0.286*	-0.077*	-0.100*
	(0.157)	(0.056)	(0.058)	(0.030)	(0.042)
25-49 Employees	0.038	-0.156*	-0.150*	-0.050*	-0.044
	(0.192)	(0.038)	(0.043)	(0.021)	(0.029)
50-99 Employees	0.048	-0.071*	-0.063*	-0.016	-0.025
	(0.214)	(0.027)	(0.034)	(0.013)	(0.025)
100-249 Employees	0.074	-0.067*	-0.071*	-0.018*	-0.061*
	(0.262)	(0.022)	(0.028)	(0.011)	(0.023)

Variable	Meansa	Probit Marginal Effects ^b				
	(1)	(2)	(3)	(4)	(5)	
State Unemployment Rate	7.313	0.001	0.000	-0.002	0.001	
	(1.468)	(0.003)	(0.005)	(0.001)	(0.004)	
1 if State has a Right-to-	0.234	-0.016	-0.009	-0.006	0.029	
Work Law	(0.423)	(0.016)	(0.023)	(0.007)	(0.015)	
Major Industry, Occupation, and Region Effects Included	_	Yes	Yes	Yes	Yes	
Model χ ² Statistic	_	567.78	853.23	454.88	726.24	
(p-value)		(0.0001)	(0.0001)	(0.0001)	(0.0001)	

TABLE 2 (Continued)

Probit Analysis of Fringe Benefits Coverage Among Individuals

Covered by Union Contracts

Source: April 1993 Current Population Survey Employee Benefits Supplement.

Notes: a The sample size is 3784 for each variable except Health Insurance Plan Offered and Included in Health Insurance Plan which have 3769 observations. Standard deviations are in parentheses.

However, Table 1 also reveals that there are significant differences in the probability of benefit receipt among those covered by collective bargaining agreements. For both retirement and health insurance plans, union members are 7-8 percentage points more likely than covered nonmembers to be included in such plans. This difference has been overlooked by researchers and is the focus of this paper. To analyze members versus covered nonmembers further, a variety of demographic and job-related characteristics were constructed from the CPS data (see column 1 of Table 2). Note that Table 2 is restricted to individuals covered by collective bargaining agreements and the sample sizes are smaller than in column 2 of Table 1 because of missing data.

Column 2 of Table 2 reports the results of estimating a probit model in which the dependent variable is the indicator for whether the employer offers a retirement plan, and the independent variables are the demographic and job characteristics. The model also includes 8 region effects, 18 major industry effects, and 11 major occupation effects. The reported estimates in Table 2 are the estimated marginal effects (standard errors in parentheses) computed from the probit coefficients.

^b The sample size is 3784 in columns 2 and 3 and 3769 in columns 4 and 5. Each model also contains an intercept. Reported estimates are the estimated marginal effects (with standard errors in parentheses). For the continuous variables, the marginal effects are the derivative of the probit equation evaluated at the sample means. For the dichotomous variables, the marginal effects are the differences in the predicted probabilities with the variable of interest equal to 1 and 0 (with all other variables evaluated at the sample means).

^{*} Statistically significant at the 0.05 level (two-tailed test).

While firms with less than 10 employees are nearly 50 percentage points less likely than firms with more than 250 employees to offer a retirement plan, there is little evidence to suggest that union members are more likely to be at firms that offer retirement plans than covered nonmembers. Consequently, any differences in retirement plan coverage between union members and covered nonmembers are not because members are more likely to be employed at firms that offer such plans.

Column 3 presents the results of a probit model with the indicator variable for whether or not the individual is included in the employer's retirement plan as the dependent variable. While there are interesting results regarding the demographic and job characteristics variables (e.g., nonwhite, tenure), the primary result is that relative to covered nonmembers, union members are 6.4 percentage points more likely to be included in a retirement plan (p-value = 0.002). Above it was argued that a difference in benefits coverage could stem from either illegal discrimination by unions and/or employers or from different characteristics of the two types of employees. However, the probit models of Table 2 control for a variety of observable differences between members and covered nonmembers. While covered nonmembers have lower wages, shorter tenures, more education, and are more likely to reside in right-to-work states, the estimated 6.4 point differential is net of these attribute differences because these variables are included in the probit model.

Unfortunately, these variables can only control for observable differences between members and covered nonmembers. To investigate the importance of unobservable differences. I estimated a two-stage least squares (TSLS) model instrumenting for union membership and correcting for heteroskedasticity using White's correction because linear probability models are heteroskedastic. I also estimated a bivariate probit in which the probit model of column 3 of Table 2 is jointly estimated with a probit model for union membership, and the errors are allowed to be correlated.1 The union member coefficient's standard error gets very large (0.412) in the TSLS model, so it is difficult to make inferences. However, in the bivariate probit one cannot reject the null hypothesis that the error term correlation is zero (p-value = 0.511), implying that the probit in Table 2 is acceptable. Finally, it is likely that unobservable differences such as ability and motivation would be reflected in wage rates and each individual's wage is controlled for in Table 2. Taken together, these factors suggest that unobservable differences are not driving the results.

If an individual responded that their employer offers a retirement plan but that they are not included in this plan, the CPS asked why not. This information reinforces my contention that differences between covered nonmembers and members cannot explain the retirement coverage difference: there are not statistically significant differences in the responses of covered nonmembers and members. The types of retirement plans that covered nonmembers and members are included in are also quite similar, although there are some interesting differences between nonunion and union respondents. In particular, 46% of nonunion employees included in retirement plans have deferred benefit plans compared to 65% of unionized employees. Conditional upon being in a retirement plan, less than 10% of union employees have a 401(K), while nearly 25% of nonunion employees have one.

Columns 4 and 5 of Table 2 present the results of analogous probit models in which the dependent variable is whether or not the employer offers a health insurance plan and whether the individual is included in the employer's health insurance plan. The results are similar to the retirement plan results: there is little evidence that covered nonmembers work for employers that are less likely to offer health insurance, but union members are more likely to be included in such plans. The estimated difference between covered nonmembers and members is 3.1 percentage points, which is smaller than the retirement plan estimate but is still statistically significant at the 5% significance level. This estimate is net of differences in job tenure, demographic characteristics, firm size, and the like. I also estimated TSLS and bivariate probit models, and the results are very similar to the retirement plan results: the TSLS estimate is very noisy and the bivariate probit error term correlation is not significantly different from zero.

Where applicable, individuals in the CPS Employee Benefits Supplement were also asked why they are not included in the employer's health insurance plan, why they were denied, or the source of other health insurance coverage. There are no significant differences in the relative frequency of responses between union members and covered nonmembers. For example, 35% of covered nonmembers denied coverage stated that the denial was due to a probationary period not being completed. The analogous figure for union members is 33%. The similarity of responses suggests that discrepancies between members and covered nonmembers regarding information about fringe benefits are not driving the results.

Finally, recall that the CPS retirement question asks whether "your employer or union" has a retirement plan. It is likely that most union-provided plans are in the construction industry, but excluding construction from the probit models leaves the results unchanged. It does not appear that union-provided plans can explain why members are more likely to have fringe benefits.

Conclusion

This paper uses April 1993 CPS Employee Benefits Supplement data on 3700 individuals covered by collective bargaining agreements to analyze differences in retirement and health insurance plan incidence between union members and covered nonmembers. Controlling for a variety of demographic and job characteristics, it is estimated that union members are 6.4 percentage points more likely than covered nonmembers to be included in their employer's retirement plan. Similarly, union members are 3.1 percentage points more likely to be covered by a health insurance plan provided by their employer.

It does not appear that observable or unobservable differences in characteristics between union members and covered nonmembers can explain the differences in fringe benefits coverage. One alternative explanation is illegal employer and/or union discrimination against covered nonmembers. Unfortunately, there is no direct way to test this possibility using the CPS, although National Labor Relations Board cases illustrate that this occurs. Alternatively, covered nonmembers might be receiving the same benefits as members but are not becoming fully informed. In short, differences between union members and covered nonmembers seem to exist, but are not fully understood; further research is needed to analyze this overlooked aspect of U.S. industrial relations.

Endnote

¹ In the TSLS and bivariate probit models, union membership is identified using these state-level variables: indicators for restrictions on union political contributions, the average unemployment insurance (UI) takeup rate, the average in-state, four-year public university tuition rate, and the average life insurance cost. There is little reason to expect these variables to be related to fringe benefit coverage but may influence whether a covered nonmember becomes a member. The ability to make political contributions may turn off potential members, while the other variables capture members-only services: assistance in receiving UI, scholarships, and group life insurance.

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Falling Interindustry Wage Differentials: Has Contingent Work Had an Impact?

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This paper measures recent changes in interindustry wage differentials, the different wages paid by different industries to apparently similar workers. These differentials historically have been remarkably stable and have been documented in the U.S. as recently as the 1980s and as far back as the turn of the century; see e.g., Bell and Freeman (1991) and Allen (1995). They remain even after controlling for measurable human capital characteristics such as education and experience.

Several theories for these differentials have been posited. The first is that interindustry wage differentials might simply reflect ability differences, unmeasured by the researcher but known to the employer. A second theory is that interindustry wage differentials result from efficiency wages paid to workers to elicit greater effort. A third explanation is that because of higher profits and/or employee power, some industries may pay rents to their employees. During the 1990s, various trends indicate that U.S. labor markets have become more competitive. Company downsizing, outsourcing of jobs previously performed within the company, and increasing use of temporary workers may have created increasing competition for jobs. This increased labor market competitiveness has followed a period of increasing product market competitiveness, particularly in response to foreign competition and to deregulation.

Increasing labor market competitiveness is likely to have a profound impact on interindustry wage differentials if these differentials at least partially reflect rents. Thus as companies' monopoly rents fall, so would excess wages paid. As high-paying industries move towards paying workers their outside wage, interindustry wage differentials would fall. Similarly, firms may discontinue efficiency wages if the benefit of loyalty ties weaken.

Increasing returns to human capital would create a countervailing force tending to increase interindustry wage differentials, since different industries

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employ people with differing skill levels. This factor is alleviated by controlling for measured human capital characteristics; it is not eliminated, however, if there are increasing returns to *unmeasured* human capital characteristics.

This paper finds that interindustry wage differentials have shrunk dramatically in the period from 1983 to 1996 and particularly during the nineties. This reversal of trends is a dramatic indication of increasing labor market competitiveness. The paper further finds that the decline was particularly strong when human capital characteristics are controlled for, as predicted.

The paper then analyzes trends in *occupation-specific* interindustry wage differentials. There are two reasons that we do this. First, changing industry/occupation employment patterns could impact measured interindustry wage differentials, even if each employee's wages remained constant. For instance, if industries outsource noncore jobs, we would observe more concentration of occupations within industries. This would tend to raise interindustry wage differentials by concentrating high wage occupations in a few high-wage industries. We preclude this possibility when we look at occupation-specific interindustry wage differentials and use constant occupation/industry employment weights.

A second reason for studying occupation-specific interindustry wage differentials is to better understand the causes of changes in overall levels. A remarkable aspect of historical interindustry wage differentials has been that they carried across all occupations within industries: from secretaries, to skilled craftspeople, to executives; see, for instance, Dickens and Katz (1987); Katz and Summers (1989). This was generally seen as evidence either of rents being shared across all employees or of the influence of equity considerations operating to compress wages within a company. In an environment of intense competitive pressures on both product and labor markets, equity considerations would become less important. Moreover, in a labor market where outsourcing and contract work is prevalent, a worker's reference group may be transferred from the company to the occupation. Hence we may expect to find interindustry wage differentials fall most in noncore occupations, for instance in those occupations which tend to be outsourced. This paper tests these hypothesized correlates of trends in occupation-specific interindustry wage differentials.

Data and Methodology

Interindustry wage differentials were measured from wage data on the outgoing rotation groups of the Current Population Survey. Being individual-based, industry wage differential estimates using CPS data will cover fewer total employees than estimates using establishment surveys. The CPS, however, allows disaggregation by detailed occupational classifications.

The analysis excludes governmental or self-employed workers. The 42 industries are basically equivalent to the 2-digit industry recodes in the CPS but adjusted to ensure consistent industry definitions across the entire period. Occupations were divided into 44 occupations approximately identical to the CPS 2-digit categories, with some minor adjustments to ensure that occupational categories were more homogeneous (in terms of human capital). For the occupation-specific estimates, I excluded occupations employed in very few industries, leaving 34 occupations.

Interindustry wage differentials may occur because different industries tend to employ people with differing amounts of human capital. As such, it is informative to measure differentials both controlling for measurable human capital and without these controls. Both approaches are reported here. The specific measure calculated is the square root of the (weighted) cross-industry variance of average log wages, subtracting out the variance expected from sampling error. When human capital controls are included, the variances are based on the industry dummies from estimated log wage equations that include industry dummy variables as well as education dummies, age and age squared, sex, region, race dummies, a city center dummy variable as well an SMSA dummy variable, a dummy variable for jobs covered by collective bargaining, and a dummy variable for hourly workers.

In all analyses, industry-specific wages are weighted by 1988 employment. By using constant weights, changes in the industrial composition of employment are not allowed to obscure changes in industry wage differentials.

I follow the basic approach of Krueger and Summers (1988) to adjust for sampling error. However, the formula is adjusted to incorporate the weights and to correct for covariance between regressors. Krueger and Summers made the simplifying assumption to ignore covariance terms because it introduced very little bias in their computations. Here, this assumption would have introduced substantial bias in the present analysis, particularly in the occupation-specific estimates.

To measure the extent of contract work and other contingent work in the labor market, we relied on the February 1995 Contingent Work Supplement to the CPS. Note that this only measured the extent of contingent work at a single point of time and hence could not be used to measure trends.

Results

Overall Interindustry Wage Differentials

Table 1 presents results on interindustry wage differentials for the overall U.S. labor market. We see in the first row that wage differentials not controlling for changes in measurable human capital characteristics do not

	1983	1988	1990	1993	1996
Standard deviation of industry ln(wage) Standard deviation of industry parameters in	.2442	.2440	.2472	.2453	.2339
ln(wage) human capital equation	.1759	.1732	.1685	.1671	.1469

TABLE 1
Standard Deviation Across Industries of Ln(Wage)

All numbers weighted by 1988 employment. Estimated measurement error is subtracted out. See text for more details.

indicate a single trend from 1983 to 1996. The wage differentials increased from 1983 to 1990 and subsequently fell, with the fall particularly marked from 1993 to 1996.

In contrast, the second row, which controls for human capital, indicates a strong monotonic downward trend over the whole period. Interindustry wage differentials fell by 30% from 1983 to 1993, the majority of the fall occurring between 1993 and 1996. (Note that the same trends are observed if we look at the standard deviation of wage differentials without adjusting for estimated measurement error.) The differences between the two rows is consistent with increasing returns to human capital during the 1980s that slowed during the 1990s.

This remarkable decline in interindustry wage differentials marks the definitive end of a trend of rising interindustry wage differentials since 1970 (and since before 1950 in manufacturing industries) as documented by, among others, Allen (1995), Bell and Freeman (1991), Dickens and Katz (1989), and Krueger and Summers (1988). Allen (1995) covers a time period as recent as 1990, thus overlapping this paper and providing an interesting comparison. Allen found rising interindustry differentials in manufacturing (not controlling for human capital) from the 1950s through 1990, although one of Allen's measures of industry wage differentials did begin to drop in the late 1980s. Limiting my analysis to manufacturing industries, I find no clear pattern from 1983 to 1993 but a clear drop after that point, with or without human capital controls.

Occupation-Specific Wage Differentials

The theoretical considerations suggested that we could more accurately measure interindustry wage differentials if we could control for changing occupational distributions of industries, and that one way to do this was to measure *occupation-specific* interindustry wage differentials. These measures would also allow us to test hypotheses about the causes of falling interindustry wage differentials.

Table 2 shows the change in industry wage differentials from 1983 to 1996 for 34 occupations based on human capital log wage equations. The order of magnitude of 1983 interindustry wage differentials was remarkably similar across occupations, ranging from .05 to .16 for all but 3 of the 34 occupations. During the subsequent thirteen years, the industry wage differential fell in 30 of the 34 occupations. In fact, in one occupation (commodities sales representatives), the interindustry variance in wages in 1996 was actually estimated to be negative, i.e., the variance of average industry wage differentials was actually smaller than the variance expected from measurement error alone.

The (weighted) average of occupation-specific interindustry standard deviations in Table 2 decreased by .024 from 1983 to 1996, or more than twice the change observed in Table 1. (This calculation treats the 1996 value for commodities sales representatives as zero.) Thus rather than changing occupational distributions being responsible for narrowing interindustry wage differentials, we find that occupation-specific interindustry wage differentials have fallen even more than overall levels.

Contingent Work and Occupation-specific Interindustry Wage Differentials

To measure the relation between contingent work and falling industry wage differentials, the occupation-specific percentage changes in industry wage differentials were regressed on measures of contingent employment as a proportion of each occupation. These regressions included only 33 observations of two-digit occupations and as such were not expected to yield highly significant results. (Note that commodities sales representatives were dropped.)

A wide variety of measures of contingent work were used, all based on the February 1995 CPS Contingent Work Supplement. These included:

- 1. The CPS definitions of contingent work. The most narrow CPS definition included temporary workers, people with job tenure of a year or less and people who expected their job to last less than a year (for nonpersonal reasons). The wider definitions added independent contractors, self-employed, and people whose work was contracted out.
- 2. I also constructed measures of contingent work that did not include all people with less than one year seniority. One constructed measure included only temporary and on-call workers, another measured only self-employed and independent contractors, while other definitions included both these categories and/or added in people working for firms which contract out their services.

TABLE 2 Changes in Interindustry Wage Differentials by Occupation: 1983-1996

	Standard Dev.	Standard Dev.		% Self-employed,		
	1983	1996	% Change	Contract Workers	# industries	# in sample
Executives, Administrators, Managers	0.1667	0.1414	-15.18	0.26	62	2099
Management-Related Occupations	0.0944	0.0570	-39.66	0.15	49	846
Engineers, Architects and Surveyors	0.0565	0.0573	1.46	0.09	27	418
Mathematical Computer Scientists	0.0748	0.0490	-34.55	0.13	16	244
Natural Scientists	0.2660	0.2149	-19.21	0.09	5	78
Health Assessment and Treating Occupations	0.0680	0.0581	-14.59	0.04	5	565
Teachers (exc. college/univ.), librarians, curators	0.0769	0.0848	10.32	0.05	5	350
Counselors, Social Workers, Religious Workers	0.1190	0.0734	-38.29	0.04	8	234
Designers, Artists, Athletes, Writers, Editors	0.1182	0.1059	-10.37	0.37	25	341
Engineering and Science Technicians	0.0854	0.0595	-30.29	0.05	26	221
Technicians exc. Engineering, Science, Health	0.1444	0.0807	-44.08	0.09	23	210
Sales Occupations, Supervisors and Proprietors	0.1287	0.1058	-17.76	0.34	12	796
Sales Representatives, Business Services	0.0797	0.0413	-48.09	0.43	12	368
Sales Representatives, Commodities	0.0673	n.a.	n.a.	0.15	17	319
Sales Representatives, Retail & Personal Svce.	0.0452	0.0437	-3.37	0.10	16	1479
Supervisors-Administrative Support	0.0925	0.0857	-7.38	0.01	15	130
Computer Equipment Operators	0.0684	0.0928	35.66	0.03	16	109
Secretaries, Stenographers, Typists	0.0829	0.0655	-21.00	0.06	52	806
Record Processing, Admin. Support Occs: high wa	ge 0.1177	0.0998	-15.21	0.03	50	933
Record Processing, Admin. Support Occs: low wa	ge 0.1021	0.0695	-31.87	0.08	56	1504
Protective Service Occupations	0.1097	0.1034	-5.77	0.05	10	161
Food Service Occupations	0.0777	0.0768	-1.12	0.02	12	1415
Health Service Occupations	0.1482	0.0736	-50.31	0.04	7	510
Cleaning and Building Service Occupations	0.1305	0.0977	-25.17	0.09	30	553
Personal Service Occupations	0.1745	0.0931	-46.64	0.41	10	410

TABLE 2 (Continued)
Changes in Interindustry Wage Differentials by Occupation: 1983-1996

;	Standard Dev.	Standard Dev.		% Self-employed,		
	1983	1996	% Change	Contract Workers	# industries	# in sample
Mechanics and Repairers	0.1564	0.1104	-29.39	0.13	47	857
Extractive and Precision Production Occupations	0.1290	0.1113	-13.74	0.08	46	876
Machine Operators and Tenders (exc. Precision)	0.1466	0.1260	-14.02	0.03	43	1170
Fabricators, Assemblers, Inspectors, Samplers	0.1241	0.1268	2.14	0.07	36	571
Motor Vehicle Operators	0.1132	0.0958	-15.44	0.13	30	730
Other Transportation Operators, Material Moving	0.1329	0.0906	-31.82	0.06	24	247
Construction Laborers and Trades (exc. Supervisor	s) 0.0814	0.0605	-25.58	0.31	27	859
Freight, Stock and Material Handlers	0.1252	0.1148	-8.28	0.02	23	450
Other Handlers, Equipment Cleaners, Laborers	0.1584	0.1132	-28.54	0.04	37	516

3. Finally, I entered each separate category of contingent worker separately, i.e., temporary workers, on-call workers, independent contractors, people whose firms contract out their labor.

Measures of contingent work that included the self-employed, independent contractors, and/or people whose work was contracted out (but did not include all people with low job tenure) had the most significant impact. The t-statistic on the impact of the proportion of the occupation that was in one of these three categories was -1.95. The magnitude of the coefficient was -.51, so that an occupation with a one percentage point higher proportion of self employed or contract workers would tend to have a .5% smaller interindustry wage differential. (A robust regression to minimize the impact of outliers brought the t-statistic down to 1.85 but hardly impacted the magnitude of the impact.) This result confirms that one factor that may have contributed toward decreasing interindustry wage differentials is increased competitiveness in occupations with substantial numbers of self-employed or independent contractors. However, as of February 1995 this represented less than 13% of the labor market. Given the magnitude of the estimated coefficient, increases in the size of this group between 1983 and 1996 could not be responsible for more than one-third of the fall in interindustry wage differentials, even if not a single person was self-employed or contracted out in 1983. Measures of contingent work that included only temporary workers, on-call workers, and/or workers with low tenure had no discernible correlation with the occupation-specific fall in wage differentials. We must look beyond the competitive pressures placed by contingent and contract workers to explain the large drop in interindustry wage differentials observed in the 1990s.

Conclusion

This paper shows evidence of decreasing interindustry wage differentials in the late 1980s and in the 1990s. A disaggregated view by occupation finds that interindustry wage differentials fall for practically all occupations. The only two occupations with a considerable increase in industry wage differentials were "computer equipment operators" and "teachers (noncollege or university), librarians, and curators." While we found some correlation between occupations with large decreases in interindustry wage differentials and the proportion of the employment in an occupation which is self-employed or contracted out, this can account for a relatively small proportion of the fall in interindustry wage differentials. These findings call for additional research on these interindustry differentials to identify the causes of falling industry wage differentials and their future course.

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DISCUSSION

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Budd's paper, "Fringe Benefits and Union Status," presents us with an interesting puzzle: not all union coverage is the same. Union members are more likely to receive fringe benefits than covered nonmembers. My comments focus on the question of why, if the result stands, would such a difference exist and on some econometric issues.

On the first point as to why such a difference might exist, Budd posits two reasons: attribute differences and discrimination by the union and/or firm. With respect to attributes, differences in age and tenure seem likely to be associated with differences in fringe benefits. Due to probationary periods, covered nonmembers are likely to be younger and less tenured than union members and thus less likely to receive fringe benefits. The second reason, discrimination, is more intriguing. Given the union's duty of fair representation to all workers in the bargaining unit, it strikes me that the union faces high risk if found to discriminate. And why discriminate? Budd conjectures that the union might discriminate in order to reduce free riding. This seems unnecessary, since the union can charge a representation fee as a way of mitigating free riding.

The estimated union membership effects are small: 6.4% (for retirement) and 3.1% (for health insurance). There seems some chance that the difference is due to measurement error, and Budd acknowledges likely measurement problems. Coverage is likely measured with more error than membership, and fringe benefits may be measured with more error for covered nonmembers than members.

Turning to the probit analysis, the question arises as to whether union membership can be treated as exogenous to the receipt of fringe benefits. This question has a considerable history of treatment in the literature on union-nonunion wage differentials. Here the difference is perhaps smaller but still important. The TSLS results, not reported, yielded large standard errors (not unexpected), and union membership is identified off a set of state-level variables. I would like to see more of this first step. How well does the union membership model fit? Budd should consider using some

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individual-level variables in the first stage. Although Budd reports that a bivariate probit analysis shows that the errors in the two questions appear uncorrelated (justifying the use of a union membership dummy as an independent variable), I remain somewhat dubious. Why would a worker not join a union? If a worker does not expect significant retirement benefits, perhaps due to short expected job tenure, then she may not join. Alternatively, not all workers want retirement and health benefits. That is, workers have different preferences. Either way, unobservable differences between individuals may dictate both union membership and receipt of fringe benefits.

With respect to the influence of job tenure, there may be a limitation due to the Current Population Survey (CPS) coding. Job tenure is measured in years in the CPS. If a probationary period lasts six months and tenures of less than one year are coded "zero," then some zero tenure workers are included in these fringe benefit plans and other workers are not. This inaccuracy will produce an underestimate of the effect of tenure on the receipt of fringe benefits, and it may help account for the relatively small measured effect of tenure.

The paper by Fallick and Hassett, "Investment and Union Certification," is well done, thoughtful, and very interesting. It fits in nicely with the literature on union effects on stock market value, profits, and productivity. The bottom line of the paper is that certification produces a big decline in firm investment one year after the election. Looking two years out, however, there are no changes in investment of a positive or negative nature. Thus there is a sizeable negative effect on investment that disappears.

Explaining this result is of central importance. The one-year effect could be due to uncertainty involving the first contract. Both parties have much to learn about each other with respect to demands, negotiating, concessions, and there is also uncertainty about how much time it will take to reach a first contract. In the face of this uncertainty, the firm may postpone some investment. Once the first contract is signed, the uncertainty is resolved and the effect disappears. This distinction between uncertainty, which can be resolved and is therefore short-term, and certification, which is a relatively permanent outcome, is an important one. Uncertainty will not produce a permanent change in the firm's optimization problem, but it can produce a short-term decline in investment.

I have some questions for consideration:

1. The categorization "no win" includes both "no election" and "union loses the election." In theory, these two categories appear quite different. A better strategy would be to present results separately for "union win,"

"union lose," and "no election." On the same point, the authors should consider an "election" effect. If firms respond to all elections, the "win" effect measured in this sample might be attenuated. There is a related issue of the endogeneity of successful certification. Unions are more likely to target healthy firms, yet healthy firms may have more resources to devote to their side. In the q model, it is possible that certification may depend on "q" and factors in the error term. Overall, the authors should consider endogeneity in both elections and winning.

- 2. I have some unease about the assumption on timing. Can alternatives be tested? It would be useful to know something about time between election and first contract and/or certification and decertification.
- 3. In the q model, all changes in q from t-2 to t are represented by the variable CERT. Surely there are other changes in q besides a union "win." From this perspective, it is nice to have the VAR, or surprises, approach.

Kahn's paper, "Recent Changes in Interindustry Wage Differentials," addresses an important and interesting question. The persistence and stability of interindustry wage differentials is one of the stylized facts of labor economics, and the existence of interindustry wage differentials is one of the big, expansive topics in labor over the past decade. Kahn finds that the industry-specific component of wage determination has decreased over the 1983-96 period, with a sizeable reduction from 1993-96. This reduction is across the board and not specific to a few occupations. This finding is very interesting and provocative.

The next question is why. Kahn puts forward some hypotheses, among them increased labor market competition. If interindustry wage differentials are rents, then an increasingly competitive labor market might squeeze rents. Alternatively, if interindustry wage differentials represent unmeasured ability, then during 1983-96, industry-specific components might have increased, as the returns to skill, including unobservable skill, have increased. Yet another hypothesis is that as the labor market becomes more competitive and loyalty ties are weakened, interindustry wage differentials might fall as both efficiency wages and rent sharing lose importance. More generally, smaller interindustry wage differentials may be consistent with broad changes in wage-setting practices.

The problem for this paper is that the data on labor market competition are not up to the task. The CPS Contingent Work Survey is worth investigating, but there are problems with the various measures of contingent work, and at the time this paper was written, only the 1995 survey was available. The availability of the 1977 Contingent Work Survey allows investigation of changes over time in contingent and temporary work by industry.

Overall, a very interesting paper that should lead to a productive research agenda. In future work, I encourage Kahn to consider using more detailed measures of industry, perhaps at the 3-digit level. For the measured decline to be persuasive, the industry measures need to capture some entity that is an "industry," and at the 2-digit level, there is a great deal of heterogeneity in products, production techniques, skill. With more detailed industry codes, Kahn could also enhance the specification by including various industry-specific characteristics, such as capital-labor ratios, concentration ratios, profitability. The earlier literature on interindustry wage differentials (cited by Kahn) may be helpful with these enhancements.

DISCUSSION

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The papers presented in this refereed session represent interesting, provocative, and important empirical research on industrial relations and labor markets. While there is much to comment on, I will focus on the puzzles they present arising from the magnitude of their empirical findings.

John Budd's paper, "Fringe Benefits and Union Status: Members versus Covered Nonmembers," examines differences in health insurance and pension coverage between union members and nonmembers in workplaces covered by collective bargaining agreements. Using data from the CPS, Budd shows that covered nonmembers have a lower likelihood of receiving health insurance or pensions than do union members. While small in size, the reported differences in coverage persist even when he controls for a set of potentially confounding factors (education, age, job tenure, employer size, etc.).

Can the pension and health care coverage differentials be explained away by unmeasured factors? Budd includes many plausible controls in his regression models, in particular, job tenure which is correlated both with nonmember status and coverage likelihood. More troublesome is the potential that reporting error regarding union status and benefit coverage contributes to the measured differences.

Assuming that the differentials are valid, what might explain them? Most implausible is the presence of explicit discriminatory policies by either unions or employers against covered nonmembers. A union might adopt such policies to induce covered nonmembers to join and hence diminish potential free-rider problems. Employers might adopt such policies to reduce labor costs by skimping on noncovered members who presumably are less likely to complain because of their status. The relative costs of such policies are very high, however. They would represent a compensable breach in a union's duty to fair representation of all covered workers as well as potentially violate federal or state standards relating to health care and pension benefits (e.g., ERISA requirements establishing mandatory pension-vesting time limits).

A more plausible explanation arises from information asymmetries between members and nonmembers. Unions provide workplace public goods

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in the form of information on a variety of employer benefits and employee rights, via formal (newsletter, meetings, training sessions) and informal (shop stewards, member contact) venues. Budd's differentials may arise from the marginal impact of this information provision to members on take-up rates. This view is consistent with the larger member/nonmember differentials in the area of pensions than in health insurance, since establishing pension coverage is arguably a more complicated matter making differences in information provision more important. In any case, Budd's paper points us toward an important and largely uncharted area of empirical research regarding differences in employment conditions between members and nonmembers in covered workplaces.

The paper by Bruce Fallick and Kevin Hassett, "Investment and Union Certification," empirically analyzes the impact of successful union certification elections on subsequent firm-level investments. The estimated impacts of the paper are large—roughly equaling the doubling of the corporate tax rate—but transitory. These twin characteristics raise a number of questions.

One area regards the temporal model chosen by the authors. The assumption that all investment adjustments occur after union certification assumes that firms do not engage in any anticipatory adjustment behavior prior to the actual election (for example, after workers have signed sufficient numbers of cards to authorize the NLRB election or even earlier at the time a union enters the scene). Alternatively, it assumes that firms adjust entirely before a first contract is negotiated or approved. We know from a large body of research that there are substantial time lags on either side of certification elections, making the event window chosen here unrealistic in many circumstances. The chosen window, however, implies that the investment effects represent *lower-bound* estimates, further raising questions about the plausibility of the large investment effect.

Fallick and Hassett also report that the large negative investment effect of certifications is transitory. Specifically, two years after certification, investments return to their precertification level. While firms are still "behind" because of the one-year drop in investment, this return to previous levels raises the question of why firms react so dramatically but so fleetingly. Fallick and Hassett attribute the result to the statistical difficulty of picking up the certification effect after two years. This is somewhat unsatisfactory: if one can find persistent effects of corporate taxes several periods after imposition, why not union certification? Alternative explanations are that firms overadjust in the short term before they have complete information about costs or—more troubling—are behaving in an irrational manner to the prospects of unionization. Either interpretation certainly begs for additional empirical research on the matter to follow up this interesting paper.

XII. CURRENT ISSUES FOR FUTURE UNIONS

Do Unions Control Their Destiny?

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For many years, observers judged the fate of unions primarily by examining the shape of labor law, the opposition of employers, and the nature of market circumstances. Although unions have rarely been viewed as bystanders in this drama, the decline in union density suggested to many that organized labor lacked sufficient clout to turn its circumstances around. Organized labor's fate was considered to be largely beyond its own control.

For example, Troy (1990) argued that structural changes caused by competitive forces were eliminating unions and that increasing global competition ensured that the future would be even less kind than the past to private sector labor organizations. It has been speculated for many years that cost/benefit calculations by employers likely encourage the violation of U.S. labor laws, primarily because the penalties are mild if a firm is caught (Greer and Martin 1978). An important consideration is that employers stand to gain more from opposing unions than workers gain from selecting them (Freeman 1986). As a result, union supporters have emphasized labor law reform because such change represents the most direct way to create a level playing field where unions can compete effectively with antiunion employers.

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The reality is that trade unionists focused too much attention on achieving labor law reform. For too long, unions have accepted the assumption that U.S. workers want union representation and that union decline was a product of improper and illegal employer behavior. Unions were stuck in a frame of reference that refused to question what organized labor means to workers. In that frame there was a belief that eventually it would become clear to all that labor law and antiunion employers were unfairly hindering unions and undermining employees' desires. Two major events recently broke that frame of reference. First, although the 1992 election returned a Democrat to the White House and gave President Clinton a Democrat-controlled Congress, organized labor's legislative agenda never received serious consideration and was quashed by the Republican election victories of 1994. Second, John Sweeney was elected president of the AFL-CIO on a platform that included a heavy dose of union self-help. Unions were urged to go back to the drawing board and to start doing the things that led workers to desire union representation. At the same time, the AFL-CIO adopted novel programs to win workers back, including "union summer," "union cities," and the "executive pay watch" site on the federation's webpage.

Given a renewed emphasis on internal reform, it is a critical time to assess how successful union self-help can be. To provide such an assessment, we examine recent research on the effects of various union structures and tactics on union success. In addition, we examine whether combinations of union structures and tactics enhance union success above what would result from the adoption of individual elements.

Union Characteristics and Union Success

Research has reported that a variety of union characteristics are associated with favorable union outcomes. Although it is not surprising that some tactics and structures work better than others, few efforts have been made to understand the cumulative effects of union characteristics. Moreover, the divergent focus of individual studies has meant that little is known systematically about the relationship between combinations of union characteristics and union outcomes.

The obvious need for unions to recruit new members and readily available data on NLRB election outcomes have encouraged a great amount of research on organizing. Recent studies of specific union tactics during organizing campaigns were conducted as an extension of research on unions' success in certification elections and because of researchers' dissatisfaction with traditional explanations of unions' organizing success. Although some of the studies were narrowly focused, they called attention to new issues within the control of unions.

For example, Reed (1989, 1993) reported that the characteristics of union organizers were related to union election success rates and the successful negotiation of a first contract after controlling for other conventionally studied explanatory variables. Some differences in organizer scores on personality scales produced double-digit differences (1989:112-15) in the likelihood that unions would win representation elections and generally more modest (i.e., single-digit) differences in the probability of securing a first contract (1993:199-200). While Reed's studies were problematic in some respects, they left little doubt that the individuals sent by unions to organize workers contributed substantially in practice to the success of the organizing effort. To the extent that Reed is correct, unions could improve their odds of winning certification elections and first contracts by selecting organizers with specific personality characteristics, systematically evaluating organizers and campaigns, and providing training to organizers and local officials.

Bronfenbrenner's (1994, 1997) work extended Reed's conclusions. Her studies benefited from access to internal union information on hundreds of organizing campaigns and provided specific tests of relationships between union tactics and certification election outcomes. She verified Reed's contention that organizers mattered. More importantly, she identified specific union practices that were associated with union victories after controlling for organizers and other factors that Reed was forced to ignore. Her research suggested that union tactics had a greater impact on election outcomes than any other set of factors she studied (e.g., employer tactics, bargaining unit characteristics, and organizer backgrounds) and that unions could enhance organizing success by dramatically changing their organizing practices (1997:205). She advocated the adoption of a "rank-and-file organizing strategy" that focuses on building representative organizing committees; using rank-and-file volunteers to make house calls; and emphasizing dignity, justice, and fairness rather than bread-and-butter issues (p. 211).

The importance of innovation and reform to union organizing efforts is echoed in the results of more aggregate-level studies. Some of our research, which uses national unions as the unit of analysis, suggests that certain national union characteristics are associated with organizing success (Fiorito, Jarley, and Delaney 1995). For example, a national union's general propensity to innovate was strongly associated with several measures of organizing success. There was also some evidence that seemingly mundane union decisions about internal operating structures (e.g., centralization of decision making and administrative rationalization) were either directly related to union organizing success (Fiorito et al. 1995) or had an indirect effect through their impact on innovation (Delaney, Jarley, and Fiorito 1996).

We are unaware of studies that link national union innovation to general measures of bargaining effectiveness. However, some studies have examined links between such characteristics and union political activity (Delaney, Fiorito, and Masters 1988; Delaney and Masters 1991). Extensive membership participation and the adoption of innovative union practices were positively associated with union political action and success as measured by union leaders' perceptions of members' involvement in efforts to achieve legislative and political goals. In addition, the adoption of innovative union practices was positively associated with the extent to which unions emphasized the importance of political activity to members.

Although we do not claim to have reviewed all relevant literature, the studies reported suggest that unions can improve their success in organizing, the negotiation of first contracts, and political action by adopting specific structures or tactics. In combination, this implies that unions have an important degree of control over their destiny. An examination of the studies also suggests that unions need to adapt to their environment to be successful. Adherence to the old ways of doing things or traditional assumptions about workers' views and needs may be a recipe for disaster.

The Complementarity of Union Structures and Tactics

Evidence that union tactics and structures are individually associated with union success raises questions and concerns. In particular, if individual tactics contribute to success, might specific combinations of tactics (or "strategic bundles") magnify the effectiveness of union efforts? For example, might organizers with certain personality characteristics more effectively employ the types of tactics advocated by Bronfenbrenner than organizers who lack such traits? Or, might national unions following specific tactics that require specific structures exhibit greater effectiveness than those pursuing other strategies and structures? To our knowledge, the literature offers virtually no quantitative evidence on the issue of complementarity.

We sought to explore some of these questions by identifying unions that exhibited similar patterns in key elements of their administrative and governance systems. Employing cluster analysis and relying on established theories from the organizational science literature to interpret the emerging patterns, we developed an empirically grounded typology of national unions (see Jarley, Delaney, and Fiorito 1997; Jarley, Fiorito, and Delaney 1997, 1996). While an oversimplification, the essence of our four union types can be described by the degree to which their governance systems support centralized goal formation and the complexity of their administrative systems. For example, unions we call "empowerers" have elaborate national administrative structures and decentralized governance systems,

while "regulators" exhibit more rudimentary administrative structures and highly centralized governance systems. "Providers" exhibit both decentralized governance systems and rudimentary administrative structures, while the eclectic nature of the final group, "recruiters," produces medial governance and administrative systems.

After empirically grouping unions with similar administrative and governance systems, we calculated the association between membership in the four union types and several measures of organizing effectiveness. The analyses produced some interesting results. In particular, empowerer-type unions, which have highly developed administrative structures and decentralized governance systems, were moderately more successful on an array of organizing outcome measures than unions in any of the other clusters.

Interestingly, this empowerer configuration—essentially a type where elaborate national union administrative systems support local goal formation and implementation—appears on its face to be the national union type most likely to facilitate the "rank-and-file organizing strategy" advocated by Bronfenbrenner (1997). For example, the decentralized decision-making structures characteristic of the empowerer configuration would seem to give more authority over campaign conduct to organizers and enhance rank-and-file participation in campaign planning and execution. Whether there are specific links among the various "macrolevel" national union configurations, microlevel "strategic bundles," and outcomes merits further research.

Also of importance is the issue of organization-environment fit. Results suggest that the four national union types we identified are associated with different environments. That is, certain union types are more common in some environments than others. It seems reasonable to speculate that such differences exist because specific configurations are more functional in some environments than others. If so, there is no "one best way" to union reform and it may even be counterproductive for one union to imitate the reforms of another. Although union structures and tactics seem to matter and unions have some control over their fate, there is no standard recipe of reform that ensures success and it is not certain that a given reform will produce the same results for all unions.

Nevertheless, our evaluation of the evidence available to date suggests that the reforms begun by AFL-CIO President John Sweeney are generally consistent with the empowerer union type identified in our recent research and the "best practice" organizing strategies advocated by Bronfenbrenner (1997). Thus it appears that these reforms will likely improve organizing effectiveness for some unions.

Conclusions and Observations

Overall, our assessment of selected studies suggests that various union tactics and structures are associated with greater union success and effectiveness. Through structural reform and innovative tactics, unions can influence their own fate. This is not to say that all reforms will prove successful or that the current reform agenda offers the greatest potential for union resurgence. Recall that the field research summarized in this paper identifies selected practices that are *relatively* more (or less) effective in furthering labor's traditional organizing, bargaining, and political goals. While this research suggests that certain practices are more effective than others, the findings must be evaluated against the general level of union performance over the period under study. To put it crudely, some things "worked" better than others, but unions performed poorly overall. Thus even some of the modest changes advocated by the new AFL-CIO leadership may prove to be no more than "aborted excursions" on the path to greater union effectiveness.

This raises the issue of more radical reform. In recent years the union movement has been reluctant to embrace the possibility that workers may desire some other form of workplace representation or no workplace representation at all. If workers no longer desire traditional workplace representation, the new union tactics and approaches that make up the current reform agenda will prove to be a short-lived band-aid. This suggests that unions must continuously investigate, identify, adopt, and modify approaches. Real long-term improvements in overall performance may require radical reforms, ones that alter the very nature of unions—such as the effort being made by Australian unions to represent individual employees—and demand very different union structures and tactics. Such radical experimentation holds many risks, but may ultimately provide the key to union resurgence.

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Nonunion Representation: Complement or Threat to Unions?

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This paper will assess the three principal arguments that characterize the debate over loosening restrictions in the NLRA which pertain to nonunion employee representation (NER). The focus is on determining the effects of prior NER experience on the propensity workers might have to join unions. The NLRA's broad encompassing Section 2(5) definition of a labor organization, used in tandem with the Section 8(a)(2) prohibition on management participation or interference, quashes most company-initiated forms of nonunion representation (Finkin 1994). Thus in the U.S., most discussions of employee involvement currently deal with direct shopfloor systems of participation such as autonomous or semiautonomous teams, continuous improvement, or total quality management. By contrast, this paper is confined to formal nonunion representation plans rather than the gamut of shopfloor practices that involve employees in productivity enhancement. I review the dominant arguments for and against NER, using evidence drawn from contemporary practice in Canada where there are fewer legal impediments to NER plans.

In reality, the NLRA restrictions may be a chimera, as many American companies seem to be routinely violating the ban (Kaufman et al. 1997). Few charges are laid, and prominent attorneys have no hesitation in advising their clients to ignore the law in the interest of achieving employee input on matters of mutual interest (Kramer 1997; Devaney 1997). Nevertheless, the presumption that NER disappeared in the years immediately preceding the passage of the Wagner Act has caused a black hole in the field, with the result that today there is an ideological battlefield (exemplified by the recent TEAM Act debate) tottering on a very shaky empirical foundation.

The situation in Canada is different: nonunion plans continue to be lawful (Taras 1997a, 1997b). Many Canadian plans result in the drawing up of worker-management agreements which strongly resemble collective

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agreements in the unionized sector. These nonunion agreements technically are treated as individual contracts of employment. Federal and provincial labor statutes contain 8(a)(2) type provisions precluding management interference in union activity but define unions in a way that does not capture and ban NER forms. For this reason, Canada is an attractive site for more systematic research.

Effects of Nonunion Representation Plans on Union Propensity

There are three broad alternative perspectives on the effects of nonunion plans on the propensity of employees to join unions, each with its own literature and view of employee socialization. The first argues that formal nonunion settings are union avoidance mechanisms, either by intent or effect. The forums are dominated by management. Workers are programmed to avoid unions both for fear of reprisal, however subtle, and by the use of sound management practices which render unions unattractive (Brody 1964; Grenier 1988). The implication is that workers employed by companies that practice nonunion plans would be less likely than nonrepresented workers to assert their right to unionize. This is thought to be particularly true in the United States in recent years, where the employer opposition to unions is thought to be particularly virulent. It was on this reasoning that the trade union movement in the United States originally begged legislators to ban this form of employee representation in the Wagner Act. The AFL-CIO has continued this approach, arguing that "the ultimate goal is . . . to stifle legitimate worker voice and to stave off genuine worker organization" (AFL-CIO 1995:1). The view is that nonunion representation is an elaborate union substitution scheme.

There is meager evidence upon which to build this case. Brody (1964) reports that despite worker dissatisfaction with post-World War I wage cuts in the American meat-packing industry, unions were unable to woo employees, and when wages were finally increased in the early 1930s, the companies credited their decision to the action of employee representatives involved in their nonunion representation plan. Examinations of the movement from nonunion plans to unions caused by the Wagner ban (e.g., Gullett and Grey 1976) shed little light on the phenomenon of union propensity, since public policy exerted more effect (at least in its short-run shock) than the longer-term desires of employees. For example, when Standard Oil (New Jersey) was ordered to disband its Joint Industrial Council (JIC), despite the reported satisfaction of employees with the JIC, it took numerous attempts before Standard Oil employees were able to find a satisfactory union alternative (Chase 1946:24-27). The Canadian Exxon subsidiary, Imperial Oil, continued to operate JICs, and we turn to

evidence available from Canada. Imperial was widely regarded as impenetrable to unions and nicknamed "fortress Imperial" in union ranks, having withstood at least six nationwide union organizing drives from the mid 1940s until the early 1990s (ECWU Archives). Small breaches occurred, whereby the union made inroads into a particular plant (Taras and Copping 1998), but the companywide fortress held fast.

The available evidence in Canada indicates that companies which operate NERs tend to match or exceed the relevant union wage scale in the industry, offer relatively generous benefits, and are more attentive to employee relations issues. Economic inducements to unionize are eliminated, and often the noneconomic triggers (e.g., unsatisfactory supervision and lack of worksite justice) are minimized. Even if the representation plans were banned, the likelihood of successful union organizing is poor. Jacoby (1997) describes the interplay of elements in three U.S. companies.

The second perspective views employees as pragmatic "shoppers" searching for a vehicle that best suits their needs. (This is basically the instrumentality portion of the unionization process model.) Participation in a formal nonunion plan is merely one of many means to achieving a negotiated relationship with management whereby worker demands are heard. Whether these forums persist depends on the satisfaction with the relationship with management. If workers are dissatisfied, they will choose another method of representation that better meets their needs. As Walpole (1944:18) put it in his study of worker-management consultation in the British Masseeley Joint Works Council, "The employee of to-day is a 'brain' as well as a 'hand': he may not know enough to do his Manager's job, but he does know enough to recognize if his Manager (or his Manager's foreman) is making a mess of it." This perspective is embraced by Smith (1960) in his study of the Dan River Mills' nonunion congress plan. Although the plan had been operating successfully for over a decade, when the company reduced wages in 1930, employees abandoned the system and certified. As stated by one of the workers, "We cannot subscribe to a policy of so-called Industrial Democracy which forces the workers downward" (Smith 1960:302). Within Imperial Oil, there have been instances where JIC locals have withdrawn from the JIC, sometimes for periods of a few years, in order to protest company policies or practices (e.g., an "excessively" stringent drug and alcohol policy). Whether they unionize, rejoin the NER, or operate without representation, depends upon the situational contingencies.

The literature is rich with case studies where an attempt by management to adversely alter the terms and conditions of employment is the trigger to union certification. It would seem that as long as a nonunion plan's management matches or exceeds the conditions negotiated in relevant

unionized companies, the plans work well, but management finds itself unable to force reductions without risking unionization. I have witnessed NER employees' tactical use of the union threat with excellent results in terms of increasing their power and restraining management from taking unwelcome actions. From this point of view, nonunion plans in general have a *neutral effect* on employees' propensity to unionize, and the researcher must uncover the various facilitating and inhibiting contingencies at play, largely through institutional research. There may, however, exist two patterns: (1) the longevity of nonunion plans is dependent on matching or exceeding union gains (Ozanne 1968; Bernstein 1960:164); and (2) downward pressure on terms and conditions of employment will increase the union propensity of workers in a nonunion plan. I argue that unions which have a strong grasp of local issues and win the support of local NER leaders would have a strong organizing success rate.

The final perspective is that nonunion plans enable workers to experience collective representation and are the thin edge of the wedge toward certification. As noted by Bernstein (1960:173), "The significance of the company union movement lay not in what was achieved in the twenties—actually little was gained—but in the door it opened to education in industrial democracy." This progression from nonunion representation to certified local is clearly laid out in a study of Bell Telephone workers by Schacht (1975), who argues that nonunion plans contributed to eventual industrial unionism through erasing lines of differentiation between workers, providing workers with useful leadership skills, and providing information about company operations. White (1933) attributed the later vitality of British public sector unionism directly to experiences gained in participating in nonunion Whitley Councils launched in 1919. Writing on Canada's National Joint Council, Frankel (1962) argued that it helped create the antecedents for unionism.

In a 1976 study by Gullet and Gray, American firms which had nonunion plans before the passage of the Wagner Act were contacted in 1975, and nine firms provided information to the authors. In four firms, independent local unions were formed after the Wagner ban, and "union officers in these firms were typically former employee representatives." The other five firms went to national unions. The authors concluded that

in every company surveyed both management and operative employees agreed that the experience they gained under employee representation made the transition to a unionized relationship less traumatic. In each firm it had become the custom for management to deal with the employees on a collective basis. Bargaining and contract administration were therefore not entirely foreign to either side. (p. 99)

More recently, Ichniowski and Zax (1990) used American census data of local government departments to argue that the presence of an association was a strong predictor of the formation of a bargaining unit. Drago and Wooden (1991) found that high-level participation increased worker desires for more representation, while low-level shopfloor direct participation reduced desire for representation. Apparently, an appetite for representation may be whetted once a threshold level of participation is reached. I found evidence of these effects in a case study of a successful unionization at Imperial Oil's Norman Wells (Taras and Copping forthcoming).

In Canada there is strong anecdotal evidence that unions with organizing strategies of attracting affiliation or association agreements with nonunion plans were able to facilitate the harmonious transformation to national unions. For example, the Oil Chemical and Atomic Workers (later the ECWU and then the CEP) developed guidelines to help with affiliations and mergers (OCAW, "Independent Unions," pp. 1-7, Alberta Provincial Archives ECWU collection, Accession 91-378/64). The ECWU tried "for 23 years [to organize the resistant energy mega-project] Suncor, and in eight months got them with an affiliation" (1991 Interview with Reg Basken, then president of the ECWU, now senior vice-president of the CEP). Lynn Williams, former president of the Steelworkers and originally president of the union's Canadian district, also claimed at the 1997 IRRA New Orleans meetings that some of the greatest organizing victories of that union were achieved by winning company unions. In this view, dissatisfied workers in nonunion plans are more likely than nonrepresented workers to seek union structures because they already have developed leaders with the ability to articulate their own interests to management and have accepted the legitimacy of collective action.

The three perspectives are not mutually exclusive, but separating them into distinct streams tends to capture in a broad, if crude, fashion the assumptions which currently drive the debate surrounding American labor law reform of NLRA Section 8(a)(2), the proposed TEAM Act, and the various interpretations of the landmark *Electromation* and *Du Pont* cases (Finkin 1994; Freedman, Hurd, Oswald, and Seeber 1994; LeRoy 1996).

What I Would Assert

I have reviewed much of the documentation and debate that formed the foundation of the Wagner Act ban against company unions, and one of the strongest indictments against them was the fear that they would subject powerless employees to the employers' downward "niggling" tactics. Wages and working conditions would be eroded. The argument is based on the notion that company-situated forms of representation cannot provide any macroeconomic stimulus to take wages out of competition among firms. My research has shown quite the contrary, at least in the Canadian case. Because firms which operate nonunion plans are aware of the union threat or are paternalistic, they adjust wages to meet or exceed union wage rates and actually aid immeasurably in facilitating a stable wage contour. It is the less progressive, more autocratic, and tenuously viable firms that tend to attempt downward pressure on wages, and in these companies NER plans do not endure. In the Canadian natural gas industry, over 30% of rank-andfile workers are represented in NER plans considered illegal in the U.S., and the industry has the strongest and most tightly clustered wage contour in North America (Taras 1997c). It had this contour even before union organizing began in earnest in the 1950s. For over forty years, Imperial Oil has matched wages to those negotiated by its unionized counterparts, first Gulf and now Petro-Canada. In the heavy steel industry, Dofasco has remained nonunion by matching the wages of its unionized competitor, Stelco, and together these two firms have a stranglehold on wage determination in steel. Unions and NER together stabilize an entire industry. Unions have an easier time policing economic conditions throughout an industry in which nonunion companies match wages. The union/nonunion dynamic in petroleum and in steel is complex: informed respondents have told me that at least half the time, it is the nonunion company that sets the pattern of higher wages for the firm, which the union then spreads throughout the industry via collective bargaining.

Another compelling argument is that company unions poorly represent employee interests and, in fact, create a false consciousness. In 1921 Paul Douglas wrote that company unions neglect to provide vital resources and budgets which would help employees research issues and strengthen their power. I believe this remains true of the majority of nonunion plans, but there are exceptions. The Royal Canadian Mounted Police and Delta Airlines (U.S.) both allow their worker representatives adequate budgets, full-time positions, and sufficient latitude that they can develop in-house expertise or gather external resources to better represent their interests. I object to the paternalistic premise that employees cannot represent their own interests. My interviews in Canada with nonunion employees lead me to conclude that despite the admitted flaws in nonunion representation, employees generally are emboldened by nonunion representation.

Another flaw of company unions is the greater vulnerability of workers within them, with no union protection and no shields against unilateral management actions. There are cases where employees fear reprisal. However, greater timorousness due to fear of reprisal is not the exclusive creation of NER plans. These same companies likely would also intrude into union

organizing, and they do, in great numbers. NER plans and unfair labor practices should not be treated as two facets of the same phenomenon without significantly greater investigation. Indeed, there are motivations for company unions that go well beyond antiunionism but rather form a natural element of welfare capitalism and progressive human resource management practice (Kaufman 1997; Jacoby 1997). While there always are villains, the tendency to presume villainy overreaches the evidence.

Company unions can be used as an organizing strategy by unions, particularly where they do not work well. The Canadian practice in the energy sector of unions cooperating with company unions and organizing them with affiliation agreements is an excellent union-organizing model. Talented indigenous worker leadership becomes coopted easily into union structures, and the transition to unionization can be smoother.

On the other hand, where company unions work well, they have spillover benefits onto unionized sites: they elevate industry practices to a more cooperative level, raise wage rates, and allow employees greater voice and influence at their work sites. Companies which run effective nonunion representation forums are not the types of companies that would be easy to unionize anyway, and they have proven extremely resistant to unionization because there are no inducements to unionize. (I repeatedly question whether, ultimately, managing good NER plans with all their complexities, ambiguities, and rise in worker expectations is more difficult than simply accepting and fostering strong relations with a union.) In these situations, NER complements unions, and neither substitutes for unions nor threatens them. The two systems coexist.

The first threat posed to unions from NER comes from some of the characteristics of nonunion plans that make them attractive as union avoidance devices. Nonunion plans deliver captive audiences to management for the purpose of instilling antiunion messages; they provide sensing forums for management to assess union proneness and take remedial action; and they socialize workers to see the world through management eyes.

The second threat to unions operates at more of a macro level. NER neither institutionalizes worker activism within the context of political action and social change nor provides the mechanisms for diffusion from firm to firm. In North America only unions have these functions.

A Simple Quid Pro Quo Solution?

What are the implications of these findings for U.S. labor policy? First, the outright banning of company unions does not necessarily offer advantages to unions. The Canadian experience shows that company unions can assist in organizing, but only in the context of a relatively healthy union

movement. The key is to ensure that dissatisfied employees in a nonunion system can rapidly and effectively unionize. I realize that there is no appetite for the kind of reform that would move American labor law in whole cloth toward the Canadian system of expedited elections with no employer campaigning. But any move to make it easier for employers to have nonunion representation must be matched by changes which increase the union threat.

If a company operates a formal nonunion representation plan, that company must be restricted from any intrusion whatever into a union organizing drive. The NER plan should be no bar from union raids, nor should any agreements reached between nonunion workers and their companies be treated as collective agreements in the absence of union certification. Section 8(a)(2) should be left unchanged, because it is necessary to prevent the emergence of "rat unions." Section 2(5) should be modified to permit workers to meet and deal with management on matters of direct interest to their employment relationship in tandem with the insertion of appropriate provisions compelling greater speed and restricting management action during union organizing periods.

This is a quid pro quo proposal which would, in a very real sense, put only those American employers who wish to operate NER plans in exactly the same position as all Canadian companies are put every day. As for unions, they are offered the same organizing opportunities as exist for their northern neighbor unions.

My position is that only bona fide unions or serious union threats can provide safeguards of employee interests. Nonunion representation can work well, but only in the context of a viable union threat. Any changes to the NLRA must meet this requirement.

Conclusions

Nonunion representation systems are in direct competition with a viable union alternative in Canada, and my findings on NER must be understood as arising from this situation. Imperial workers, Dofasco workers, RCMP workers: they do compare the two systems. It is paradoxical that NER in Canada coexists with a relatively healthy union movement, while restrictions against NER in the U.S. have not made the American union movement any stronger. There are few complaints in Canada that nonunion representation has killed the vitality of union organizing in any way, and at least two unions in Canada have benefited greatly due to innovative organizing strategies which learned to harness company unions. I believe attention should be directed away from Section 8(a)(2) and placed on the real culprits: Section 2(5) and the lack of rapid certification procedures

and failure to safeguard union organizing from management intrusion. It saddens me to see a ban that reduces employees' opportunities to achieve strong workplace participation in the form which best suits them, whether it be union or NER. I argue that the best strategy would be to allow NER while simultaneously removing barriers that prevent employees from choosing unionization whenever it becomes a desirable alternative.

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Union Political Action after the 1996 Election

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Organized labor in the U.S. engages in political action to influence important outcomes (Dunlop 1958; Delaney and Masters 1991). After John Sweeney ascended to the AFL-CIO helm, the federation swiftly adopted a bold political program to influence the 1996 elections. Specifically, unions sought to reverse the 1994 congressional elections by targeting first-term House Republicans and re-electing Clinton-Gore. The results of these efforts were nominally mixed, but labor did shape the political debate and shifted the pendulum to the ideological center (Nation's Business 1996; Worsham 1997). Ironically, labor has become a victim of its own partial success. Unions are under attack for "misusing" rank-and-file dues for political purposes. Further, the allegations of improper union electioneering by Teamster President Ronald Carey have become intertwined in a broader debate about the propriety of labor's role in financing political campaigns. Top officials of the AFL-CIO have been implicated in this financial intrigue, which threatens to "stop the union comeback in its tracks" (Bernstein 1996:32).

The 1994 Congressional "Revolution"

The 1994 congressional elections were politically humiliating to labor. The Republicans gained 52 House seats in 1994 and captured that body for the first time in more than forty years. The "Contract with America" victory gave labor cold chills. Only President Clinton's veto stood in the way of harmful legislation.

The 1994 losses occurred under the old guard at the AFL-CIO, and they reinforced the sentiment that new union leadership was needed. Sweeney capitalized, pledging political mobilization by "creating a political training center to train political campaign organizers and campaign managers" (Nomani and Rose 1995:C13).

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In March 1996, the AFL-CIO declared war to return to Democratic control of Congress, especially the House. It launched Labor '96, a grass-roots and media campaign to "educate and mobilize working families" (AFL-CIO 1996). Labor '96 was the visible core of organized labor's broader efforts to influence politics.

Labor '96 and Beyond

Labor '96 orchestrated pro-working-family political debate to embarrass Republicans. It involved an unprecedented "soft-money" financed effort: a special 15 cents per member per month assessment to raise \$25 million, plus another \$10 million (see Table 1).

TABLE 1 Labor '96

Theme	Labor '96 is an effort to put working family issues in the fore- front of the national debate, inform working Americans about candidates' voting records on issues and hold elected leaders accountable.
Financing	Allocated 15 cents per AFL-CIO member per month to raise \$25 million; another \$10 million in other funds were added to create a \$35 million budget.
Issues	Focused on living wages, secure jobs, retirement security, health care, education, job safety, and workers rights.
Grass-Roots Activists	Placed 135 coordinators in 102 congressional districts, 14 senate races, and two Gubernatorial races.
Voter Mobilization	1,000 workers from 30 international unions were deployed to register voters and get-out-the-vote.
Communication	Placed radio and television commercials in dozens of cities; mailed nearly 10 million pieces of literature; placed four million calls to union members.

Source: Adapted from AFL-CIO single-page document titled "Labor '96: Working for Working Families," faxed to author on December 17, 1996.

This money was used to deploy union political activists in key congressional districts, mobilize voters through voter registration and get-out-the-vote drives, and communicate a political message. The AFL-CIO ran nominally "issue advocacy" advertisements on television and radio attacking union opponents (i.e., Republicans) on bread-and-butter issues such as Medicare and the minimum wage (Larson 1996; Ayres 1996; Shlaes 1996).

More generally, labor raised nearly \$105 million in political action committee (PAC) funds (see Table 2), of which \$48 million was contributed mostly to Democratic candidates. Unions also made "soft money" (treasury fund) contributions to the Democratic national party organizations and

TABLE 2

Union PAC Financial Activity, 1986-1996 (in millions)				
Receipts	Disbursements	Co		
¢104.06	¢00.77			

Cycle	Receipts	Disbursements	Contributions
1995-96	\$104.06	\$99.77	\$47.98
1993-94	90.30	88.47	41.87
1991-92	89.93	94.60	41.36
1989-90	88.93	84.61	34.73
1987-88	78.51	74.07	35.49
1985-86	65.31	57.88	31.04

Source: Federal Election Commission, Summary of PAC Financial Activity 1986-1996, 1997. http://www.fec.gov/finance/pac1rgye.htm

spent money on lobbying in Washington. The Center for Responsive Politics reports that unions gave \$9.5 million in such contributions to national parties and spent a reported \$18.45 million lobbying (see Table 3). With independent expenditures and individual hard money contributions added, unions spent close to \$120 million during the 1995-96 time period.

TABLE 3 Union Political Spending, 1995-1996

Type of Spending	Amount
PAC Contributions to Federal Candidates	\$49,026,005
Soft Money Contributions to National Parties	9,509,515
Individual Hard Money Contributions to Federal	
Candidates and Parties	243,394
Independent Expenditures and Communications Costs	6,766,179
Issue Ads	35,000,000
Lobbying (1996)	18,455,851
TOTAL	\$119,000,994

Source: Jennifer Shecter, Political Union: The Marriage of Labor and Spending (Washington, DC: Center for Responsive Politics, 1997).

Targeted Races

To return Democrats to Congress, labor targeted 45 House Republicans (AFL-CIO 1996), giving hefty PAC donations to the incumbents' Democratic challengers. However, these challengers were outspent by the Republicans, who were aided by the National Republican Congressional Committee (flush with soft money) and business-related PACs (see Table 4). In total, the Republican incumbents accounted for about 60% of the nearly \$89 million spent in these 45 races. While the Democrats received 95% of union PAC money, Republicans garnered 96% of the corporate PAC dollars.

TABLE 4
Overall Campaign Spending and PAC Donations in Targeted Races

	Overall		
Republican/Democratic	Campaign	Corporate	Labor
Sub Totals	Spending	PACs	PACs
Total Spending/Donations	\$88,688,366	\$7,868,329	\$7,471,977
Republican Incumbents	\$53,014,062	\$7,548,713	\$375,562
% of Total Spent/Donated	49.7%	95.9%	5%
Average Amount Spent/Received per Republican Candidate	\$1,178,090	\$167,749	\$8,346
Total Number & Percentage of Races in which the Republican Spent/Received more than the	27 (92 20)	41 (02 10)	0 (00)
Democrat	37 (82.2%)	41 (93.1%)	0 (0%)
Democratic Challengers	\$35,674,304	\$319,616	\$7,096,415
% of Total Spent/Donated	40.3%	4.1%	95%
Average Amount Spent/Received per Democratic Candidate	\$792,762	\$7,103	\$157,698
Total Number & Percentage of			
Races in which the Democrat			
Spent/Received more than the			
Republican	8 (17.8%)	3 (6.9%)	45 (100%)

The 1996 Outcome

On the surface, the 1996 elections seem bittersweet. Clinton-Gore coasted to reelection, but the Republicans retained control of the Congress (see Table 5).

Yet labor shaped the debate, won some key legislative victories (e.g., a hike in the minimum wage), and moved the political fulcrum of Congress

TABLE 5 Congressional Election Outcomes, 1996

	Hous	House Seats		Seats Senate Seats		Nonunion Household
	104th	105th	104th	105th	Household Vote	Vote
Republicans	235	228	53	55	35%	53%
Democrats	197	206	47	45	62%	45%

Source: Voting data: AFL-CIO, "Statement by John Sweeney President, AFL-CIO on Election '96," November 6, 1996.

to the center. "Working families are back as a political force. Our issues—pensions, education, Medicare—were the defining issues of 1996, propelled by an unparalleled campaign of grass-roots activism and issues education" (AFL-CIO 1996).

Labor did tout that (1) the union share of the electorate jumped to 23%; (2) 59% of union households voted for Clinton-Gore; and (3) 62% of union households voted for Democratic congressional candidates. Eighteen targeted Republicans lost and a shift in less than 15,000 votes in the 12 closest races would have given Democrats control of the U.S. House.

The Aftermath

Buoyed by 1996, organized labor began gearing up for a repeat performance. The federation announced plans to double its political grass-roots coordinators in 1998 (*Wall Street Journal* 1997:1), alarming business. "The fact that labor is airing TV spots more than a year before the 1998 congressional elections indicates that the AFL-CIO and its unions are deadly serious about politics and will be active in next year's campaigns" (Worsham 1997:17-18). The recent defeat of "fast track" illustrates the potential payoff.

But disturbing winds blow. The allegations of illegal financing in the Teamsters' presidential election have mushroomed to envelop top AFL-CIO officials. Congress is looking into an alleged fundraising quid pro quo between the Carey Teamsters and the Democratic national party and into the use of union dues for issue advocacy, which some believe should be illegal if it is not already. How this whole set of issues shakes out is important to labor's image and future. As Bernstein and Borrus (1997:32) write, "These developments mar the clean image of labor that Sweeney has worked to create and could undermine his campaign to rebuild labor's role in the U.S. economy." Political opponents have been handed a license to hunt.

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DISCUSSION

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This discussion focuses on the Jarley, Fiorito, and Delaney paper that addresses the question of whether unions control their own destiny. Underlying issues in this paper include those of organizational growth and decline, strategic management, and population ecology that have interested me for a number of years. Although this paper seems to raise more questions than it answers, I believe that these are crucial questions that industrial relations scholars and practitioners need to ask. Because of the extensive organizational theory literatures dealing with organizational survival, I believe we need to examine this paper against the pre-existing theoretical backdrop.

First, the literature concerning organizational growth and decline consistently presents the same logarithmic pattern of organizational growth. It starts with a period of startup with low levels of membership. This period is then followed by a rapid surge that ends with a leveling off of membership growth. American union membership patterns have clearly followed this pattern. The major failing of this literature is that it does not address what happens to organizational growth following the period of leveling off. Undoubtedly, the labor movement has suffered significant membership declines. What the Jarley et al. paper addresses is whether these declines can be reversed by the unions themselves. Two literatures suggest very different answers to this question.

The first literature is the strategic management literature. This literature suggests that organizations that pursue a clear goal or objective as basis of competitive advantage will outperform those organizations that lack a strategic orientation. Yet, my reading of industrial relations literature suggests that it has more or less ignored or downplayed union strategy. As Jarley et al. indicate, unions have been primarily viewed as pawns subject to the forces of a legal and social environment sympathetic to management. David Weil's recent book on union strategy ignores this trend and clearly suggests that unions do have strategies that can influence their performance. Weil's

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work is supported by the research of Bronfenbrenner and Reed. Thus what the Jarley et al. paper argues, albeit somewhat weakly, is that unions do indeed have strategies and that some strategies may be more successful than others. In particular, they argue that unions that they define as "empowerers" (complex administrative structures with decentralized governance) are more successful and effective. Consistent with this perspective, the authors suggest that reforms recently adopted by AFL-CIO President John Sweeney may lead to union strategic advantage. Thus this paper takes a strategic perspective that argues unions can change and that this change may help to reverse membership declines.

However, the authors are tentative in their conclusions and appropriately suggest that relative union successes must be evaluated against the backdrop of poor union performance overall. They suggest that more radical reform may be needed. These caveats are consistent with the population ecology literature that challenges the strategic management perspective. This literature suggests that organizations, once established, can only make minor adjustments to their essential structure. They argue that the organizational forms that fit with the environment are selected in and those that do not fit are selected out. The population ecology literature suggests that unions may be able to make modest reforms consistent with the environment but that these reforms may not be enough to ensure their survival. In fact, some authors argue that making dramatic organizational changes actually hastens organizational demise. Proponents of this position believe that meaningful organizational change disrupts organizational routines and destroys organizational competencies.

Thus the population ecology suggests that unions, as we currently conceive of them, cannot effectively change to control their own destiny. What this literature suggests is that new organizations and types of workplace representation will evolve and be selected that fit into today's environment. As Jarley et al. suggest, it may mean other forms of workplace representation or even no representation. The increasing prevalence of alternative dispute procedures in nonunion environments and individual employment-related lawsuits insinuate that unions may have become anachronistic.

The authors have initiated the identification of critical issues surrounding whether unions can reverse their decline. The debate between the strategic management and the population ecology literatures clearly informs this debate and may be useful in structuring future research. Their research, so far, suggests certain structures and strategies matter to union survival. However, the population ecology literature, along with the authors' discussion, indicate that the current research design cannot allow firm conclusions. Because this paper is cross-sectional, we do not know whether the

relatively successful unions have initiated these structural or organizational changes or whether this is the form into which they have evolved. In other words, did these unions make conscious strategic changes or have they more or less always had these structures and governance forms. Without time-series data, it is difficult to draw firm conclusions. Additionally, they defined the population as "national unions." We may learn more from examining a population that at least includes other union forms including independent unions and direct affiliate unions as these unions may evolve into the future national unions.

In sum, the organizational theory has yet to resolve the strategic management and population ecology debate. However, this paper serves to bring this very important debate to the industrial relations realm. Thus, although the question of "whether unions control their own destiny" has yet to be resolved, the fact that it has been raised remains significant.

XIII. THE INSTITUTIONAL THEORY OF JOHN R. COMMONS AND ITS RELEVANCE TO CONTEMPORARY IR

The Institutions of NAFTA: Implications of Commons's Theory

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This paper explores two competing hypotheses: (1) that institutionalist theory has limited usefulness for understanding the hemispheric integration of markets under NAFTA due to critical assumptions that institutionalists make about the role of government; (2) that the current configuration of NAFTA (including its side agreements) reflects, to some degree, the overall values of institutionalists, thus making their theory useful, despite problems in interpreting the role of government.

Free trade agreements like NAFTA are generally based on a set of assumptions which Kaufman associates with the doctrine of laissez faire and with Social Darwinism. The assumptions are (1) the existence of *certain fundamental laws of nature*, such as competition and survival of the fittest, and inalienable natural rights, such as individual freedom and liberty of contract; (2) the efficacy of *self interest*; (3) the merits of *free competition*; (4) the *inefficiency of government* and the stultifying effect of legislation on economic and social progress (Kaufman 1997:8).

Under laissez faire, tariff barriers are assumed to be inefficient, and international competition is viewed as good for all trading partners. The removal of tariffs will reduce the stultifying effects of government-created restrictions on economic and social progress. Customer needs will be more

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effectively met through free trade, and more material wealth will be generated as countries engage in the activities for which they have comparative advantage. Government's role is to stay out of the way, reinforcing the free market system by setting and enforcing competitive rules and by providing essential services for its citizens.

Institutionalists have a less sanguine view of the free trade world, however. For them, the purpose of the economic system "is not maximization of consumer satisfaction or material wealth . . . but facilitation of each person's quest for self-development and self-realization" (Kaufman 1997:11). Work is not simply a means for achieving income to buy more consumer satisfaction; rather, work opens up opportunities for self-development and self-realization. If the removal of tariff barriers increases international competition and economic insecurity, work may no longer provide as much opportunity for self-development.

The most important prerequisite for human self-development, according to Commons is security of one's person and livelihood. Without a minimum level of security, people revert to more primitive forms of behavior (e.g., physical violence) and shy away from cooperative enterprise and forward looking, economically productive investments. (Kaufman 1997:12)

For the institutionalist, the essential services provided by government include a guarantee for minimum work standards and a level of economic security necessary to achieve self-development and self-realization. In both cases, the policy problem is to determine what work standards or levels of security are reasonable.

Under laissez faire, competitive rules determine the pricing structure of the economic system automatically. Maximization of consumer satisfaction and wealth will occur automatically and efficiently through competition among individuals. No additional definition of reasonable value is necessary. But in Commons's view, nothing is automatic about an economic system.

Commons focused on the social group—a "going concern"—as the "pivotal unit of economic life" and not the individual (Ramstad 1987:10). Individuals are born into existing families in existing countries and will mostly work in already existing enterprises. For social groups to be ongoing (i.e., going concerns), they must maintain order by resolving conflicts and adopting working rules. When an individual joins a firm, he/she must accept a preexisting set of working rules, or sanctions will be applied. Ultimately, the person or group that controls the use of physical force controls the sanctions and, indirectly, the content of the rules.

For Commons, therefore, competition is not automatic—it is the end result of a rule-making process based on the need to maintain order. This is fundamentally different from a theory of individual competition where efficiency results automatically, based on the wants and demands of individuals (Ramstad 1987:11). For Commons, the rules of competition will constantly be changing, based on what going concerns determine to be reasonable. Fair trade supplants free trade as the objective. Fair trade is defined as a trading system that guarantees minimum work standards and a level of economic security necessary to achieve employee self-development and self-realization.

How can reasonable value be determined for a system of trade? For cases of unemployment insurance, worker's compensation, or industrial accidents, Commons believed that regulatory commissions would increasingly be called upon to create reasonable practices. "The commission's task should be to ensure fair competition by implementing reasonable working rules—rules that the affected groups themselves would agree to in collective bargaining between genuine equals" (Ramstad 1987:16).

Commons is careful to define what regulatory commissions should consider to be "reasonable." He argues that regulatory commissions should be empowered to seek out industrial best practices. Once identified, commissions would work to bring all firms up to the level of identifiable best practice. Commons says that "reasonableness is the upper practicable limit of idealism." It is not what courts determine as "customary." "With them, 'customary' is *not the best practicable*, it is something of a *mean* between the palpably inefficient or stupid and the exceptionally capable and efficient" (Commons 1934:860).

Regulatory commissions would be set up by enabling legislation. In effect, they would take the place normally reserved for the courts, namely to ensure that new working rules are reasonable. An increasingly complex economic environment made the commissions necessary. They would be comprised of representatives of labor, management, and government who were well versed in the technical problems of establishing reasonable working rules in the area outlined by the commission's enabling legislation. The various interest groups would have the right to select their own representatives, thereby leading to a decision-making process within the commission that would approximate collective bargaining.

Can the institutional structure envisioned by Commons for domestic rule making be modified to apply to international trade? An important assumption for the creation of industrial commissions is the existence of a legislative authority to establish the commission's scope of action. In the international arena, no such supranational authority exists. Does Commons's theoretical framework therefore only have domestic application?

The Secretariat of the Commission for Labor Cooperation was established on September 27, 1995, under the North American Agreement on Labor Cooperation, or NAALC (one of the "side agreements" to NAFTA). The secretariat is the administrative arm of the Council of Ministers, consisting of the Canadian minister of labor, the U.S. secretary of labor, and the Mexican secretary of labor and social welfare. The NAALC defines the mission for the Council of Ministers and for the secretariat, so together they could conceivably be considered a type of tri-national regulatory commission—but only if their composition and mandate fulfill the functions that Commons envisioned for the "fourth branch of government."

The NAALC provides that the secretariat be headed by an executive director. The staff composition of the secretariat departs significantly from what Commons envisioned for industrial commissions, however. The executive director serves for a three-year term and has the right to select fifteen staff positions, five from each of the three country signatories to NAFTA. Staff appointments are made from lists provided to the executive director by each of the three countries. Staff members broadly represent the various interests of NAFTA signatories, but the decisions of neither the secretariat nor the Council of Ministers approximate the bargaining process that Commons expected for industrial commissions. Instead, the NAALC requires that issues be resolved through consultation and cooperation. Methods for dispute resolution include consultation at the ministerial level, mediation of the full Council of Ministers if consultation fails, and finally, arbitration with a monetary assessment against the government in question if enforcement of the arbitration panel's recommendations are not implemented (Herzstein 1995).

The NAALC obligates each country to (a) ensure that its labor law and regulations provide for high labor standards and continue to improve those standards; (b) promote compliance with and effectively enforce its labor law through appropriate government action; (c) ensure that persons with a legally recognized interest have appropriate access to administrative, judicial, quasi-judicial or labor tribunals for enforcement of its labor law and that proceedings for the enforcement of labor law are fair, equitable and transparent; and (d) ensure that its labor laws, regulations, procedures, and administrative rulings of general application are promptly published or otherwise made available to the public and promote public awareness of its labor law (News Release 9/27/95).

Does the secretariat seek out industrial best practices and work to bring all three countries up to a level of reasonableness that represents "the upper practicable limit of idealism?" Certainly, it does the first of these two tasks. A study initiated in 1995 and expected to be published in 1998

focuses on best practices in the apparel industry of the three countries ("Standard and Advanced Labor Practices in the North American Apparel Industry"). The study will focus on the practices for consulting, communicating with and training employees. A question that may be raised by the study is how to diffuse best practices throughout North America (telephone conversation with Dalil Maschino, Secretariat of the Commission for Labor Cooperation, Dallas, Tex., 11/12/97).

The NAALC also sets up a procedure for "cooperative consultations" whereby the national administrative office (NAO) of any of the three countries may request consultations relative to the other country's labor law, its administration, or labor market conditions. "This provision establishes a broad opportunity for the three NAOs to interact with each other and learn about each country's system" (Herzstein 1995). A good example of this type of consultation is the newly released report on plant closings and labor rights (Commission on Labor Cooperation 1997). The study originated when the Mexican NAO issued a complaint regarding a 1994 plant closing of La Conexion Familiar, a California-based division of the Sprint Corporation. The Mexican NAO acted on a request from the Mexican telephone workers union to investigate a plant closing which occurred only one week before a union representation election was to be held.

The commission's comparative study of law regulating plant closings in the three countries revealed a fundamental difference in the purposes served by law and its administration. In Canada and the U.S., plant closures can be challenged only after the fact. The courts are obliged to examine the motivations of employers for plant closures. If the motive is economic, the closure is not regulated, but if the motive is union avoidance, it is defined as an unfair labor practice and workers will be subject to a variety of remedies spelled out in the labor codes of the two countries. In Mexico, on the other hand, labor has historically played a partnership role with the governing political party, concerned both for its own rights and for the economic development of the nation as a whole. Plant closures are regulated before the fact, requiring advance permission from labor tribunals. Employers bear the burden of proof to show that the reason for closure lies within legally permissible categories. Plant closures as unfair labor practices are not envisioned in Mexican labor law since certification elections are not held. Unions are usually registered without election.

In the case of La Conexion Familiar, the best that the commission could do was to point out the fundamental differences of regulation among the three countries and to trace out the implications for workers. This would certainly be a first step toward achieving a common "reasonable" regulatory practice. But given the longstanding historical differences

among the countries, the second or third steps would appear to be far in the future, if they could be taken at all.

To answer if the secretariat is empowered, in any way, to bring all three countries up to a certain level of reasonableness, we must examine the legal provisions of NAALC and how they have been implemented through cases brought before the commission. Article 2 of the NAALC obliges each signatory to "ensure that its labor laws and regulations provide for high labor standards, consistent with high quality and productivity workplaces, and shall continue to strive to improve those standards in that light." Article 3 obliges each signatory to "promote compliance with and effectively enforce its labor law through appropriate government action." The NAALC contains no obligations to have the same standards in each of the countries, thus differentiating the commission from the regulatory commissions advocated by Commons. Regulatory commissions for unemployment insurance, for worker's compensation, and for workplace safety and health were expected to survey firms for best practices, then negotiate a recommendation from the commission to government for establishing a single "reasonable" standard. Provisions of NAALC stop well short of recommending reasonable standards to be applied across all three countries.

In its administration, the NAALC comes somewhat closer to the ideal for a regulatory commission than would appear from its legal mandates. Seven cases have been submitted to the Commission for Labor Cooperation for "cooperative consultation" since 1994. Of these one was withdrawn. The remaining six deal with the enforcement of labor laws in the three signatory countries.

The NAALC defines labor law to mean regulations directly related to freedom of association, bargaining rights, right to strike, prohibition of forced labor, child labor, minimum employment standards, antidiscrimination, equal pay for men and women, prevention of occupational injuries and illnesses, compensation for occupational injuries and illnesses, and protection of migrant workers (NAALC Article 49). All of the six cases brought to the commission have dealt with freedom of association.

Of the six cases, one demonstrates how the commission does have a certain degree of power to establish reasonable best practice. In the Maxi-Switch case, an independent union tried to register with the local arbitration and conciliation board to represent workers at a plant in Cananea, Sonora, in northern Mexico. When trying to register, the union discovered that a "phantom" union tied to one of Mexico's "official" unions was already registered and, unbeknownst to the employees at the plant, had signed a "protection contract" with the employer.

This fairly familiar scenario protects Confederation of Mexican Workers (CTM) unions from interunion rivalry, reinforcing the CTM as the dominant labor federation in the country. Registration was denied to the independent union (Cook et al. 1997:13).

The influence of the commission was demonstrated in events following the U.S. NAO's agreement to review the case. Three days prior to a scheduled hearing, the independent union received its registration, and an election was scheduled to determine which of the rival unions would represent the workers. Petitioners withdrew their submission to the commission. "Mexican and U.S. unionists stressed the importance of the NAALC complaint in placing pressure on government authorities to register the union" (Cook et al. 1997:14). Enforcement of Mexican labor law in a way that traditionally would not have been done brought Mexico's registration procedures more in line with procedures used in Canada and in the U.S.

Conclusion

Which of the two competing hypotheses is supported? Does the absence of a supranational governing body to establish procedures of the Commission for Labor Cooperation severely limit its ability to create reasonable labor standards? The plant shutdown at Sprint's La Conexion Familiar highlights the limitations of the commission to act as a true regulatory commission. The legislative mandate for cooperative consultation sharply limits what the commission can do to lift labor standards to a common reasonable level of best practice. The follow-up study on plant closings and labor rights demonstrated fundamental differences in the motivation and administration of labor law in Mexico when compared with the U.S. and Canada.

On the other hand, the commission-sponsored study of the apparel industry has good potential for identifying, and perhaps disseminating, best practices. How to enforce those practices in the absence of transnational governmental authority is still a big question. Experience in the Maxi-Switch case shows that concerted efforts by unions inside and outside a country's borders can have a large impact on creating best practice, especially if coupled with the publicity of a commission-sponsored hearing. What we see in NAALC is tentative first steps toward innovative approaches to complicated problems. This was the original rationale for the regulatory commissions advocated by Commons. Thus the second hypothesis is supported. The current configuration of NAFTA (including its side agreements) reflects, to some degree, the overall values of institutionalists, thus making their theory useful, despite problems in interpreting the role of government. Given the success of commissions in regulating U.S. unemployment

and worker's compensation, any future extension and development of the NAALC should warrant the support of today's institutionalists.

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Commons's Institutional Economics: A Foundation for the Industrial Relations Field?

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In his recent historical survey and incisive analysis of academic industrial relations, Kaufman (1993) emphasizes the longstanding tension within the field arising out of two fundamentally different standpoints toward the analysis of labor issues embraced by industrial relations scholars, the "personnel management" orientation versus the "institutional labor economics" orientation. By Kaufman's analysis, scholars committed to the institutional labor economics orientation took control of the field during the "golden age" of the 1950s, after which the field has been in gradual decline. This decline, Kaufman submits, is in no small measure due to the failure of industrial relations researchers to develop a unifying theoretical conception of the market system—and, derivationally, of the labor market—harmonious with their commitments to collective bargaining and an interdisciplinary approach to research. That is, Kaufman argues, institutional labor economists who are favorably disposed toward collective bargaining and interdisciplinary research have failed to develop an "institutional" conception of market outcomes capable of providing a scientific warrant for those dispositions. Therefore, in an era in which "science building" is accentuated over "problem solving," labor specialists interested in industrial relations issues have increasingly come to view those issues through the narrow lens of the "commodity theory of labor" provided by neoclassical economic theory, wherein collective bargaining is discerned to be nothing more than an impediment to the attainment of efficient—that is, socially optimal allocational outcomes.

Significantly, Kaufman asserts that the failure to root industrial relations research in a foundational theory of market phenomena can be traced back to the field's birth in the 1920s. For even though the field's putative founder, John R. Commons, did make a "foray into theory," Kaufman

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(1993:56) concludes that the effort "was largely unsuccessful." Kaufman is not out on a limb here, as Commons has never been understood by industrial relations scholars to have provided them with a theoretical alternative to neoclassical economics or even a theoretical system per se. Indeed, one prominent industrial relations scholar has even submitted that Commons's "practical problems approach" was fundamentally atheoretical (see Chamberlain 1963).

It is of course true that scholars have not found it easy to penetrate Commons's idiosyncratic lexicon and discursive style. In point of fact, however, Commons did forward a coherent institutional (meta)theory of market activity in Legal Foundations of Capitalism (1924) and his magnum opus, Institutional Economics (1934). And Commons's theoretical standpoint does support the notion that collective bargaining improves the character of economic outcomes, and it does require the researcher who is interested in specific labor market issues to employ an interdisciplinary perspective. I have elsewhere attempted to demonstrate that Commons's theoretical perspective is fully harmonious with Michael Piore's conception of the dual labor market (cf. Ramstad 1993). My purpose in this very short essay—one that focuses on "high theory" but in which, by necessity, nuances regrettably must be ignored—is to outline the general contours of Commons's institutional standpoint, with its linchpin, the "theory of reasonable value," in the hope of stimulating greater interest in his writings among industrial relations researchers.1 I do so out of a belief that Commons's neglected ideas, which support his "citizenship theory of labor," may provide industrial relations with the unifying theoretical standpoint it has so long been lacking.

Methodological Presumptions

It is difficult for most economists to discern the abstract structure of Commons's theoretical system because it manifests heterodox methodological presumptions and because Commons, drawing mainly on Peirce, defended it in the unfamiliar language of American pragmatism. Economists are well known for their commitment to methodological individualism, formalism, and reductionism (often by means of statistical inference). When pressed, nominalism—or its modern variant, instrumentalism—is also espoused. In contrast, Commons embraced "collective volitionism" (explained below), constructed and elaborated his theoretical system using holistic methods, and employed "existential" pattern models to the problem of discovering solutions to actual problems. Economists today believe that economic processes are logically separable from other social and cultural processes and hence that their operation in a concrete context is

amenable to understanding through purely economic analysis. Commons, on the other hand, presumed that the ethical, psychological, and legal features of a problem interpenetrate the "economic" aspect and hence must be integrated into analysis directed to actual "real world" problems—that is, from the pragmatist standpoint, into *economic theory*.

Commons's Theory of Action

Mainstream economic theory encapsulates a distinctive conception of individual action. Action is seen to originate in individual preferences (voluntarism) that are interconnected in no direct way to "society" or groups (atomism). Individuals are understood to be not only exclusively self-interested (concerned with only their own utility) but also rational (optimizers, whether full or bounded). Commons's alternative theory of action is encapsulated into his construct negotiational psychology. It presumes the social conception of mind and action outlined by John Dewey in Human Nature and Conduct (1922), wherein physical and mental habits are understood to underlie behavior except when there are "entanglements" (instances where habits are impeded by the environment). Moreover, Commons's conception of the human will encapsulates a social psychological conception of the self concordant with the theory outlined by George Herbert Mead in Mind, Self, and Society (1932). By means of Commons's conception of the institutionalized mind, the concrete standards of evaluation used by individuals to guide their conduct (preferences) are presumed to be taken by a process of individuated habituation from practices already established within the ongoing groups (going concerns) into whose activity the individual enters. Significantly, by means of this same psychology, individuals are presumed to adjust their individual habits and habitual assumptions (which form the heart of their concrete aspirations), sometimes rapidly and sometimes only gradually, to fit with changes in the patterns of their activity. While Commons accepted that individuals are strongly self-interested and that their actions are purposive, he did not understand them to be rational as that term is understood today. Rather, his conception of decision making approximates what today is labeled "satisficing." This is particularly significant in regard to the goal of science building, since to date no one has developed a method of formalizing satisficing processes.

The Institutional Derivation of Market Values

Since Adam Smith, economists have treated the price system as equivalent to a natural mechanism capable of spontaneously harmonizing the competing ends of economic agents as it automatically and efficiently allocates productive resources, including labor services, among competing uses and produced outputs among competing claimants. For those embracing this conception, collective action intended to alter the operation of the price mechanism is understood to lessen its efficacy (via "frictions") or, alternatively, to cause "distortions" in allocational outcomes that are detrimental to aggregate welfare. Viewing the economy not as a mechanism but as a going concern enabling collective forward-looking activity, Commons rejected entirely the supposition that the price system has a "natural" logic and character, that is, an abstract logic separable from historical processes. Instead, he argued, its character has wholly been crafted out over many centuries, in a manner somewhat analogous to Darwinian artificial selection by means of the ongoing authoritative selection from among competing practices or customs of working rules, the most important of which are the rights, duties, liberties, and exposures specified in the common and codified law and enforced, ultimately, by the sovereign power. These working rules, which in their totality constitute the substance of property rights, structure production and distributional processes within the ambit of going concerns. That is, structurally, Commons regarded the economy to be an authoritatively instituted complex of intertwined working rules. But, Commons argued, there is nothing "natural" about the concrete character of those rules and the processes they effectuate; they simply give expression to the public purposes—for example, prosperity, economic efficiency, and yes, fairness—which have consecutively guided sovereign powers and their designated authoritative figures as they selected from among the competing customs brought before them the working rules that in the future were to be mandatory for all.

Commons concomitantly repudiated the conventional supposition that the price system is itself the source of order in economic affairs, tracing order instead to human volition, that is, to the historical process of authoritative dispute resolution. For, Commons argued, in the absence of group control over individual action, disorder occurs and the security of expectations on which forward-looking cooperative activity is premised cannot be attained. As Commons saw it, therefore, in the absence of the authoritative resolution of disputes and its product, mandatory working rules imposed on individuals by means of collective action, there can be no "market mechanism." Accordingly, "collective action in control of individual action"-Commons's definition of an institution-is understood not as a "friction" on the operation of more fundamental "market forces" but as the essential precondition of interdependent economic activity, indeed, in the form of property rights, as responsible for the character of market forces themselves and hence for the general contours of the market values produced by those forces. As there are no property rights inherent in "nature"

itself, Commons understood the alteration of the working rules (property rights) giving "competition" or "the market" its discrete character not as causing "distortions" in "natural" allocational and distributional processes but simply as a means of more efficaciously achieving *present* public purposes.

Transactions

Commons assumed that individuals are strongly self-interested and, hence, that they are continuously motivated, first, to find means of reducing the share of the concern's collective effort and financial costs that they bear individually and, second, to capture individually as great a share as possible of the fruits of that collective activity. However, an individual who aspires to have more and to bear less of a burden can attain this end only by gaining control over the use of objects and faculties currently possessed by another who would prefer not to surrender such control. According to Commons, economists had erred by focusing on the actual exchange or use of economic resources and outputs and by failing to distinguish between the legal transfer of the rights to a thing and its physical transfer. That is, they had failed to grasp that *legal* rather than physical control is the strategic element of economic life. In contrast to mainstream economists, Commons perceived economic life in processural terms as an ongoing series of legal transfers of property rights, and he accordingly made the transaction—a unit of transfer of legal control and the place where the wills of men meet—the basic unit of his institutional economics. His theoretical system, including his negotiational psychology, was designed to show how to holistically model the causal factors—or as he referred to them, "principles"—giving concrete form to particular transactional outcomes.

Commons determined that there are three distinct types of transactions within the ebb and flow of economic life based on their function and the legal status of their participants. Commons referred to them as bargaining, managerial, and rationing transactions. In *bargaining transactions*, the ownership of property is transferred, and commitments for future performance are entered into at terms mutually agreed to by legal equals ("persons") who have been authorized by the sovereign power to utilize persuasion and economic coercion (power) in their negotiations with each other. It is through bargaining transactions that individuals are provided with the inducement to produce and deliver wealth. It is by means of *managerial transactions*, however, that wealth is actually produced and delivered. In this type of transaction, a legal superior (for example, an employer) gives an order relating to the acquisition, alienation, or the use of a thing or faculty to a legal inferior (an employee) who must obey. In *rationing transactions*,

legal superiors (government, a board of directors), under the name of policy, decree an authoritative apportioning to legal inferiors (citizens, employees, and stockholders), as when government engages in tax and transfer activities and a board of directors announces a wage or dividend policy. In rationing transactions, of course, negotiated terms must not violate limits that have been established on the degree of power in acting prescribed by established rights and correlative duties (as, say, by ignoring established minimum wage laws) or be arrived at through the use of unauthorized inducements (for example, bribes). Similarly, in managerial transactions the superior must refrain from issuing commands that violate established working rules (as, for example, by commanding practices that violate OSHA procedures).

According to Commons, five considerations, in varying proportions, interpenetrate each other and coalesce into "willingness" as transactors engage in the "battle of wills" by means of which transactions are consummated. He used the term *scarcity* to capture the negotiator's wanting of something versus his/her understanding of its perceived availability, the term efficiency to capture the negotiator's understanding of the physical relationship between inputs and outputs, the term custom and working rules to capture the negotiator's commitment to or understanding of existing informal and formal working rules, the term futurity to capture an individual's anticipation of future developments, and the term sovereignty to capture his/her anticipation of the sovereign power's likely use of physical force to compel performance in compliance with the terms of a transaction. Perceiving a citizenry of varied personalities who are generally beings of "stupidity, passion and ignorance," and also perceiving a world of leaders and followers, Commons insisted, as previously suggested, that social, not individual, psychology provides the foundation for understanding the "willingness" of transactors underlying concrete transactional outcomes.

Following Dewey, Commons differentiated between what he called the "limiting" and "complementary" aspects of the whole environmental situation in a period of "disturbed adjustment." If the limiting factors could be got right, Dewey had argued, the other features of the environment would pretty much function in complementary fashion and the end-in-view of activity could be realized. Commons utilized this same mode of conceptualizing transactional activity in his negotiational psychology. Translated into volitional terms, the limiting and complementary factors became what was probably Commons's most important analytical distinction, the dichotomy between "strategic" versus "routine" transactions—with strategic transactions being those oriented to the gaining of future control over envisioned limiting factors, that is, over the future use of the limiting forces of nature and the limiting activities of other people.

Commons apprehended transactional activity not as a mechanism moving market phenomena toward their equilibrium values but, in a world "naturally" tending toward disorder, as the "unit" of volitional activity allowing human beings to gain some measure of control over their physical and social environment and simultaneously to bring into existence the "environment" needed for their aims to be realized. This is a far cry from the constrained maximization conception of decision making incorporated into conventional economics, in which adjustment to a given environment is the hallmark of rationality. But to return to the main theme, Commons argued that the role of the economist was similar to that of the transactor, namely, to gain enough understanding of concrete production and distributional processes to identify and alter "strategic transactions" in such a manner that the ongoing operation of "routine transactions" would allow for effective realization of public purposes. This, he insisted, requires the researcher to obtain a working knowledge of the "formula" encapsulating the interaction and significance of scarcity, efficiency, working rule, futurity, and sovereignty in a concrete context. Hence the view that Commons had no theory and was only interested in "practical" problems.

Reasonable Value

Commons discovered through historical research that the process of authoritative adjustment of working rules—that is, the historical process by which the market "machine" has been fabricated—has always been purpose driven. Authoritative figures (the sovereign power and designated surrogates such as judges and legislative bodies) have always selected from the competing practices/customs brought before them those that they understood to be the good ones in light of their anticipated consequences in relation to the various criteria that together comprise a specific conception of the good society. In other words, a judgment of the tradeoffs between various "good" and "bad" consequences is always a factor in authoritative resolution of disputes. This is significant because, as noted, Commons assumed that individuals are strongly self-interested and, hence, that they are continuously motivated to find means of reducing the burden they bear individually of the joint concern's activities and to capture individually as great a share as possible of the fruits of that collective activity. By specifying, as they resolve the disputes brought before them, what individuals can, may, or must do or not do within the ambit of the going concern as they attempt to induce others into actions that allows them individually to increase their benefit and/or reduce their burden, the selected working rules (property rights) represent an authoritative allocation of inducements, that is, manifest the authoritative figures' guiding vision of an appropriate sharing of

burdens and benefits among various classes of individuals. This being the case, Commons maintained that ethics is inextricably intertwined with "economics" and constitutes one of the causal factors responsible for market outcomes. Additionally, the infusion of purpose into the explanation of the price mechanism itself underlaid Commons's insistence that his was a "volitional" theory. Since he understood the volition of authoritative figures to have "caused," via the selected working rules, the patterns that individuals adhere to—and hence the patterns they take for granted and, in Deweyan and Median psychology, come to "prefer"—Commons proclaimed that his system manifests "collective volitionalism" in contrast to the more conventional standpoint of methodological individualism.

In regard to economic life, Commons rejected the view that there is an overarching "public interest" by which to guide public policy. Conflicting "private" interests are the only reality. Given his social psychological conception of the individual, Commons concluded that the presumptions about the "good" society utilized by authoritative figures, irrespective of their intended "objectivity" or "neutrality," are always rooted in their class position. In his reading, the authoritative figures who have been responsible throughout the past many centuries for cumulatively crafting out the property rights on which the present-day American market system (American-style "capitalism") is premised were almost uniformly "out of" the propertied class. Accordingly, Commons argued, working rule adjustments have always been rooted in a view of the future in which the private interests of wage workers has been slighted in favor of the property-owning class(es). Dating back to his involvement in the Social Gospel Movement, and as reflected in his short-lived advocacy, circa 1900, of a proportional representation system of government, Commons firmly believed that wage workers rightfully deserve to have an equal voice in determining the appropriate compromise between the various "good" and "bad" consequences used to decide whether or not to make a specific change in working rules and hence to have their private interests fairly reflected in that compromise.

It is important to understand that going concern is an elastic abstraction, encompassing, within the economic realm, ongoing groups as large as nations and as small as the family enterprise. Commons understood the process of establishing "law" (or working rules) through the authoritative resolution of disputes to be applicable to all going concerns, large and small. Thus a mechanism for ensuring equal participation by wage workers was needed at all levels. At the enterprise level, a union bargaining collectively for its members is an obvious accommodation—but clearly a corporate human relations department designing "humane" organizational mechanisms

for achieving greater productive efficiency is not (even though it may improve the worker's situation and in terms of the private interest of capital it might be efficacious). Moreover, since corporations were created through collective action and enable an agglomeration of capitals to bargain as one, Commons believed it only fair that labor be granted the same right. That is, while corporations and individuals are considered to be legal equals, since under the law both are "persons," Commons understood the greater economic power of corporations to be wholly a consequence of collective action (authoritative dispute resolution by the Supreme Court) reflecting the bias previously noted. Accordingly, Commons was a strong supporter of the union movement as the best social mechanism for ensuring "constitutional government in industry."

As participants in bargaining transactions, unions negotiate agreements particular to individual industries and sometimes only to individual enterprises within a specific industry. It should not be forgotten, however, that when collective bargaining agreements are negotiated, they must accommodate "market forces" engendered by working rules that have been instituted through the collective action of putatively "neutral" courts and legislatures, that is, in Commons's reading of history, by courts and legislatures predisposed to regard working rules from a perspective sympathetic to capitalists' conception of "good" property rights. It must also be kept in mind that most workers, particularly those in the lower reaches of the labor market, are not unionized. As Commons interpreted the previous decades, improvements in the real incomes and working conditions of wage workers had occurred mainly through the enactment of economywide labor standards raising "the plane of competition" in American markets by protecting vulnerable workers, and indirectly thereby also more well-off workers, from the "destructive competition" of other workers who are willing (or desperate enough) to agree to substandard wages and working conditions. In Commons's view, this pointed to the need for a "regulated Capitalism" with an institutionalized means of providing wage workers with an equal voice in effecting an ongoing "practical"—that is, economically viable—elevation of labor standards. Commons's regulatory schema for accomplishing this end cannot be explicated here. Suffice it to say that truly "reasonable" values, unlike the nominally reasonable values pursued by the courts, were for Commons values emanating from working rules jointly determined and adjudicated in their application to specific enterprises by self-selected representatives, in equal number, of capital and labor.2 And, it might be added, reasonable value attained in this manner, provided in Commons's view a practical means of resolving the vexing issue of economic justice.

Theoretical Shifts

Commons's "citizenship theory of labor"—his theoretical demonstration that just labor market outcomes can emerge only if "collective action in control of individual action" in the labor market is effected through working rules jointly determined by the worker "citizens" of enterprises—provides a theoretical rationale for elevating workers to the role of equal partner in determining the working rules that structure bargaining, managerial, and rationing transactions directly affecting workers. It is the basic premise of this short paper that Commons's theory, rooted in his larger theoretical conception of the market system, provides a coherent interdisciplinary conception of the labor market—one in which collective bargaining and labor participation, as equals in determining the working rules governing labor market transactions, can be understood to improve the social efficacy of labor market outcomes.

The adoption of Commons's standpoint, however, involves a fundamentally different gestalt from that generally reflected in the work of economists. The required shift in viewpoint entails the following elements among many others:

- from the practice of conceiving the price system as a natural mechanism subject to its own (economic) logic to that of perceiving it as an integrated going concern whose activities can be explained only by means of integrating economics (scarcity and efficiency), law (working rules), psychology (willingness and futurity), and ethics (sovereignty);
- *from* the practice of viewing individual decision making through the lens of individual psychology *to* that of viewing it through the lens of social psychology;
- *from* the practice of viewing the flux of economic activity as a series of exchanges *to* that of viewing it as a series of transaction;
- from the practice of understanding individual economic behavior as giving expression to individualism to that of viewing it as giving expression to institutions, that is, as giving expression to collective volition;
- from the practice of emphasizing the problem of market valuation to that of emphasizing the priority of social valuation (via collective action); and
- *from* the practice of viewing allocative efficiency as the overriding economic problem *to* that of viewing economic justice—the realization of reasonable values—as the paramount problem.

In order to utilize Commons's theoretical standpoint, it is also necessary to accept that it provides no means of identifying the abstract values of the

various market outcomes that together comprise reasonable values; reasonable values are not abstract in nature but the concrete values emanating from "equitably" (jointly) negotiated working rules—rules that cannot be identified prior to the bargaining that produces them. It must also be understood, and accepted, that Commons's theory manifests holistic methods of "doing" science and hence is rooted in a different philosophy of science from that now dominant in academic economics. In other words, if Commons's viewpoint is adopted, the priority of science building *in accordance with present day conventions* may have to be scuttled.

In short, in order to embrace Commons's institutional standpoint one must repudiate, or at least greatly discount, every presupposition associated with the conventional "economic" approach to the analysis of labor markets outcomes. However, if Kaufman's analysis of the industrial relations field is on target, there may be no other way to preserve it as a separate and distinct domain of academic inquiry.

Endnotes

- ¹ For more extensive treatments of Commons's ideas by the present author than can be attempted here, see Ramstad (1986, 1987, 1990, 1992, 1994a, 1994b) and Albert and Ramstad (1997, 1998). These essays provide extensive documentation of assertions made herein and provide a reasonably comprehensive listing of the pre-1997 secondary literature on Commons's theoretical standpoint. For Commons's own attempt to summarize his theory, see Commons (1931).
- ² See Ramstad (1987) for a more extended discussion of Commons's theory of reasonable value in the context of its application to the issue of free trade.

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Economic Insecurity and the Problem-solving Approach of John R. Commons

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John R. Commons developed and employed a number of theories during his career. But the fundamental motivating force behind Commons's scholarship was an attempt to resolve practical problems (Commons 1950:342). If we are to discuss the contemporary relevance of Commons's ideas, we should first recognize *problem solving* as the foundation of his institutional approach to social inquiry.¹

While the world has no scarcity of human problems, few within the social sciences are familiar with Commons's insights. A way to bring many of those insights to the fore is to consider the problem of economic insecurity by employing one of Commons's preferred research techniques—the comparative method.² This paper reviews Commons's 1921 essay on "Industrial Relations," in which insecurity plays a central role, and compares his remarks to present-day observations on the same subject (Commons 1921a).

Commons on Industrial Relations

Although Commons contributed to problem solving in many realms, labor problems constituted his primary area of interest. "Industrial Relations" appears as the first chapter in the 1921 edition of *Trade Unionism and Labor Problems* (Commons 1921a). The essay is derived from a 1919 address, "Bringing about Industrial Peace," presented before the Conference of the National Association of Employment Managers.

Commons's essay allows us to identify four possible means of establishing industrial peace—automatic methods, rough methods, misrepresentation, and investigative methods.³ One automatic method involves reliance on the forces of supply and demand via the price system. Another relies on the panacea of socialism. Commons rejects both as ineffective.

There are two dimensions to Commons's critique of the price mechanism as a generator of social harmony. On the macroeconomic front, he

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points to the disruptions and distress caused by business cycles. On the microeconomic front, he dismisses the suggestion that price theory reflects the reality of individual labor-market bargaining (partly because bargaining power is unequal) and criticizes the competitive process for bringing conditions of employment down to the level offered by the least progressive employer (see also Commons 1919:29, 47).

Socialism, meanwhile, is rejected for its inability to eliminate labor-management conflict without first abolishing the right to strike. Here we see the manifestation of two themes in Commons's writings: the desire to resolve problems in a manner consistent with individual liberty and the belief that conflicts of interest are a normal part of human life. As he wrote in another article a few years later, "[T]his entire idealism of harmony of interests, whether under capitalism or under socialism, falls to the ground once we recognize that social conflict has always been and always will be a fundamental fact in the progress of mankind" (Commons 1925a:692).

"Rough methods" are various devices that force industrial peace. One used by employers is a discharge threat designed to get workers to comply with demands out of fear of unemployment. Commons also identifies union restrictions on workers' entry into employment as a device of this sort, at least with respect to the goal of employment security in the face of slack aggregate demand (see also Commons 1921b:264-66).

Other rough methods include the court injunction, imprisonment of labor leaders, and the impoundment of union funds. Commons is emphatic: the industrial peace achieved through such methods can be neither meaningful nor long lasting. As he writes on government's use of these methods, "[I]f beneath what the leaders are doing there is a real grievance, a real unrest and a mass movement, we cannot permanently suppress it" (Commons 1921a:2). Commons is equally emphatic in rejecting the use of misrepresentation (i.e., distortion or falsification of an opponent's demands or goals) as a strategy for producing labor peace—in fact, he suggests this often serves only to produce greater labor-management unrest.

The key to industrial peace, then, rests in investigative methods. "We must investigate the conditions which cause this industrial unrest" (Commons 1921a:2). But Commons was not content with remedies alone. His preferred investigative method of problem solving was "the method of prevention"—an approach that applied investigative findings "to remove the conditions which cause unrest to awaken" (Commons 1921a:2).

Drawing on his own extensive inquiries into labor problems, Commons maintains that the primary cause of industrial unrest is uncertainty. Since time is an essential element in economic life, uncertainty must be dealt with by everyone (Commons 1921a:3-5; 1934:617-18, 676; 1919:65-6). In Commons's

view, however, capitalism in the early 1920s addressed the problem of uncertainty almost exclusively as it related to those engaged in financial transactions. Workers, in contrast, lived in a world filled with economic insecurity.

According to Commons, "confidence in the future"—not labor, management, or physical machinery—is the fundamental source of the vast wealth generated by twentieth century capitalism's large and often highly capital-intensive corporations. Borrowers, lenders, and investors find this confidence in "the expectation of industrial continuity," an expectation secured by the banking system. The key to the capitalistic system, he argues, is that it combines liberty to acquire wealth with "security of expectations" (Commons 1921a:8; see also Commons 1922).

The major weakness of capitalism, however, is "it has not furnished the working people a similar security to that which it has furnished the investors." Like the employer, "the workingman needs to have something to wait for and needs to have confidence in the future." Commons summarizes: "Not until the capitalistic system, not until the great financial interests that control this country, have learned that it is just as important to furnish security for the job as it is to furnish security for the investment will we have a permanent provision for industrial peace" (Commons 1921a:8-10).

Employment insecurity in Commons's day had many dimensions. One was the seasonal or otherwise irregular nature of much work. Another was the fact that workplace dangers threatened continued employment. Still others were the threat of illness and employer practices that produced high turnover. An even more widespread problem was unemployment caused by business cycles (Commons 1921a; 1921b; 1921c; 1922).

Having identified conditions thought to be the source of the problem, Commons then discusses how to remove them. Throughout his career, Commons maintained there was much that business leaders could do to address these conditions.⁴ He also stressed that such leaders could serve their own economic interest in the process (see, for example, Commons 1919:65-73; 1921c:5-6; Lewisohn et al. 1925; Commons and Andrews 1936:37-42). Using references to specific firms, Commons argues in "Industrial Relations" that corporations can generate efficiency gains by providing workers with employment security and other reasons to be confident in the future. Discussing one company, he writes:

I was impressed with the fact that it is not in detailed methods of piece and bonus payments that they try to reach the individual and increase his production, but it is in creating the conviction in every man in that industry that that is *his* industry, that the future of that concern is *his* future. (Commons 1921a:12)

In short, "Get capital to think of the security of the job and it begets efficiency of labor" (Commons 1921a:12).

Despite the potential payoff, Commons recognized that getting capital to think in this manner was seldom easy. He saw two classes of employers: those "who conduct their business in such a superior fashion, who have such personal relations developed with their employees, that labor has no desire to force a collective arrangement upon them" and those "who, either through their own attitude or through the stress of competition, are not free to deal with labor on these higher personal relations" (Commons 1921a:15). By his own estimate, progressive firms accounted for only about 10% to 25% of American employers (Commons 1921b:263). "It appears to me," he writes, "that we cannot get the large capitalistic interests awake to this subject of stabilizing employment unless the government takes hold of it" (Commons 1921a:10).

Accident-compensation law is one part of Commons's policy solution, not merely because it would compensate the injured but more importantly because a properly designed system would give firms an incentive to prevent accidents. Mandatory health insurance was thought to work in a similar manner for the threat of illness—and unemployment insurance was conceived as an initiative with the same effect on irregular work, high turnover, and cyclical employment (Commons 1921a:9-10; 1921b; 1925b). But not all of Commons's policy recommendations involve insurance arrangements. He also calls for a monetary policy that stabilizes the currency—and his later writings expand on the need for both monetary and fiscal components to countercyclical macroeconomic management (Commons 1921a:4-6; Whalen 1993:1165-67).

Insecurity Today

In the quarter century following World War II, America experienced a period of rather tranquil economic growth and widespread prosperity. While this prosperity was not universal, most U.S. citizens thought of themselves as part of an "affluent society." According to John Kenneth Galbraith's book with that title, life's major economic uncertainties "have already been eliminated." Although policy authorities had to remain vigilant in their macro-stabilization efforts, economic insecurity was otherwise considered "finished business" (Galbraith 1958:111-12).

Since the 1970s, however, many have come to believe that the return of economic insecurity has transformed America into an "anxious society." While cyclical fluctuations were the predominant source of insecurity during Commons's time, recent job losses have persisted—and even risen—despite macroeconomic expansion. Unlike the temporary layoffs of the

past, unemployment in the present era has increasingly involved permanent job loss due to organizational restructuring (Cappelli et al. 1997; Farber 1997; Davis et al. 1996).⁶

Commons's writings tell us little about the cost of job loss to an individual. Today, though, we know this cost can be substantial. According to a survey by the U.S. Census Bureau, workers losing their jobs between 1990 and 1992 saw their wages drop an average of 23% upon regaining full-time work (Zachary 1995). A U.S. Department of Labor report, meanwhile, finds that only one in three displaced workers is rehired at a full-time position that meets or exceeds the pay of their lost job (U.S. Bureau of Labor Statistics 1996). The duration of unemployment has been on an upward trend since the late 1960s (Cappelli et al. 1997:174-75).

Well-educated employees were once thought to have an especially high degree of employment security. Since the 1980s, however, downsizing "has hit virtually every industry and occupation" (Cappelli et al. 1997:7). Restructuring has increasingly affected managers, professionals, and other salaried employees (Cappelli et al. 1997; Farber 1997).

There are other dimensions to the current trend toward worker insecurity. They include an explosive growth of contingent work, the elimination of intraorganizational job ladders and employer-provided training opportunities, wage stagnation and benefit reductions, and rising income inequality. Today's organizations sometimes give individuals greater autonomy than they had under scientific management; overall, however, "more is expected of employees while less is offered to them" (Cappelli et al. 1997:10). On these dimensions there is much similarity between our time and that of Commons. Indeed, perhaps the major difference here is that the employment-relations system that we seem to be evolving *toward* is very much like the system that America was *moving away from* during his lifetime—one that treats labor as just another "spot market" commodity (Cappelli et al. 1997:5, 7, 11, 16-17).

Lessons for Contemporary Problem Solving

Commons's institutional approach to social research is a problem-solving approach. To apply his perspective to our own era, we must begin by identifying a social problem. We then use investigative methods to identify the problem's underlying causes and propose a remedy (ideally, one that will prevent the problem from recurring).

A commitment to investigative methods compels us to look beyond the temporary expedient of rough methods, such as the threat of unemployment that currently functions much as it did in Commons's time (Cappelli et al. 1997:11). This commitment also requires more than invoking the

blind forces that undergird neoclassical economics and Marxism. Solutions generated by investigative methods depend on the choices of individuals and groups, not on the invisible hand of competitive markets.

The institutional approach recognizes the notion of allocative efficiency. But institutionalists understand that other considerations may also be taken into account when evaluating economic performance—ones engendered, for example, by ethical concerns or by an interest in achieving greater efficiency over time. Most economics simply rationalize existing employment practices in terms of static efficiency. Institutionalism, always searching for ways to locate and reinforce the common ground shared by competing interests, seeks to structure institutions so that security begets *dynamic* efficiency.

Investigation, prevention, and the search for mutual-gains solutions are all important parts of Commons's unapologetically value-infused institutionalism. So is identification and diffusion of best industrial practices—a key element in his attempt to counter the socially harmful effects of both unbridled competition and static economic thinking (Commons 1950:11). Still another valuable component of Commons's institutionalism is the concept of the "advisory committee" or "administrative commission," an investigational body composed of scholars and representatives of diverse economic interests. There is much discussion of "reasonable practices" and "reasonable value" in Commons; these bodies are offered as one effective device for giving shape to what is meant by "reasonable" (Commons 1934:848-49; 1950: 11, 236-37, 257, 374).8

While there has been little attention to theory in this paper, many theories are presented in Commons's books and articles—including a general theory of economic transactions, historical theories of labor organization and industrial development, a "transactional" theory of money, and a "profit-margin" theory of business cycles. Numerous aspects of Commons's theories are likely to prove useful as we attempt to resolve the current problem of worker insecurity. But as we begin to dig into his writings for this purpose, we should first recognize that problem solving is the foundation of John R. Commons's institutional approach.

Endnotes

- ¹ Commons was critical of those who employed a single theory in problem solving: "Only the foolish, the ignorant, the biased or the arbitrary man ties himself up to a single theory. Every theory has its proper place as an instrument in weighing the facts" (Commons 1919:167). The challenge for an investigator, according to Commons, is to "give due weight" to political economy's many (and often conflicting) theories (Commons 1934:8).
- ² The comparative method involves exploring both the similarities and differences to be found when examining activities separated by time or space. It enables an investigator

to identify common (perhaps even universal) events, actions, and relations and to distinguish them from ones unique to a particular phenomenon. According to Commons, comprehensive examinations of similarities and differences should involve inquiry at three levels: facts, purpose, and theory (Commons 1950:120-21). While social researchers are often guided by their own purpose and theory, Commons also saw the need for investigators to understand the purposes and theories that motivated the individuals and groups being studied (Commons 1919).

- ³ The term "investigative methods" is my own (but see Commons 1950:ix).
- ⁴ Commons's investigations revealed that firms occasionally took important steps to promote worker health and safety. The investigations also revealed that some employers sought to prevent unemployment by stabilizing production or redeploying workers within their enterprise as external conditions changed.
- ⁵ Commons's fiscal policy measures include public works projects (see Commons 1934:589-90; Commons and Andrews 1936:5, 27-37). His unemployment remedies also call for regulation of private employment agencies, to prevent fraud and other abuses, and for an effective system of public employment offices (Commons 1919:74-82; Commons and Andrews 1936:5-27).
- ⁶ Approximately 20% of workers saw their job disappear permanently in the 1980s (Cappelli et al. 1997:68). In the period 1993-1995, nearly 6% of workers lost their jobs to plant closing or restructuring (Farber 1997:Figure 1).
- ⁷ The cost of job loss is often particularly great for high-seniority workers, many of whom may never see a return to their previous wage level (Jacobson et al. 1993).
- ⁸ Commons's present-day readers will find contemporary relevance not only in his overall approach but also in discussions of specific matters. These range from the need to open lines of promotion where industry has closed them to the desirability of reorganizing the Federal Reserve's Open Market Committee to include nonbank interests (Commons 1919:140-41; 1950:256-57).

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John R. Commons: His Contributions to the Founding and Early Development of the Field of Personnel/HRM

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Economist John R. Commons (1862-1945) of the University of Wisconsin is widely held to be one of the three cofounders of the field of institutional economics (with Thorstein Veblen and Wesley Mitchell), the founder of the "Wisconsin school" of labor economics, and the father of the academic field of industrial relations (Barbash 1994; Cain 1993; Kochan 1980; Kaufman 1993). Commons's seminal contributions to the field of labor history have also been widely acknowledged and many labor historians speak of a "Wisconsin school" of labor history.

Two other scholarly contributions of Commons have received much less attention and recognition. The first is his role as a founding member of the fields of labor law and law and economics, a facet of his career briefly touched upon in this paper. A second neglected area in which Commons played a leading role is the founding and early development of the academic field of personnel/human resource management (P/HRM). Of all the areas of Commons's work, this more than any other has to date languished in obscurity. But as I shall demonstrate here, Commons was in fact the first academic figure to write a major scholarly work on the management of labor and was widely acknowledged at the time as one of the nation's leading experts on the newly emergent field of personnel administration. Although in retrospect it is clear that the field of personnel/HRM has no single "founding father," Commons is without question one of the two or three key figures in its birth and formative development.

Pioneers in Personnel/HRM: The Prevailing View

Neither scholarly admirers of Commons nor historians of personnel/human resource management (terms I use interchangeably) cite him as a significant force in the development of the management side of industrial

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relations. Among the admirers, for example, is Thomas Kochan (1980), who says of Commons and colleagues, "The institutionalists made little effort, however, to develop a well-formulated theory of management in industrial relations" (pp. 8-9). Likewise, a number of in-depth accounts of Commons's career and contributions are available (e.g., Harter 1962), but these typically provide only modest mention of his involvement in the then-nascent field of personnel management (also often referred to then as labor, employment, or industrial relations management).

Nor is the situation different among scholars who have written on the history of personnel/human resource management. The authoritative text on the history of management thought, for example, is Wren (1994). In chapter 9 on the emergence of the field of personnel management, Wren devotes five pages to the role of Frederick Taylor and the scientific management movement, five pages to the role of Hugo Munsterberg and the emergent field of industrial psychology, and six pages to the role of industrial psychology and human relations and the various writers/researchers therein (e.g., Whiting Williams, Vilfredo Pareto, Elton Mayo). But he does not once mention the discipline of economics or the field of industrial relations, nor does he cite any economist as having made a contribution to the early development of P/HRM. The closest he comes is one passing reference to "the noted labor scholar John R. Commons" (p. 176) in a short section on employee representation plans.

Likewise, in their otherwise well-done history of the field of personnel/ human resource management, Dulebohn, Ferris, and Stodd (1995) divide its development into ten stages. Two of these span the years in which the P/HRM field germinated and was born (roughly 1890-1925). The first is Stage 4, entitled "Scientific Management, Welfare Work, and Industrial Psychology," the second is Stage 5 entitled "World War I and the Emergence of the HRM Profession." In five pages of text, the authors never once mention the discipline of economics or the field of industrial relations, nor do they cite the name of Commons nor acknowledge the P/HRM-related research done by labor economists of that era. (References are given to studies by Sumner Slichter, Don Lescohier, Robert Hoxie, and Dale Yoder, but they are nowhere identified as economists.) This treatment stands in sharp contrast to the extended discussion given to the field of industrial psychology and the work of Hugo Munsterberg, not to mention Frederick Taylor and scientific management.

Finally, I have examined a large number of popular textbooks in personnel/HRM and found among those that discuss the history of the field not a single mention of the role played by economists such as Commons, Slichter, and Leiserson in its early development. Nor, it might also be

noted, is industrial relations so mentioned in these texts, even though at the time P/HRM was widely regarded as a subfield of IR (Kaufman 1993).

Labor Problems and the Emergence of Personnel/HRM

A brief overview of the development of the fields of industrial relations and personnel/human resource management and their relationship one to the other is necessary for an understanding of Commons's place in their early history. Most contemporary accounts of the history of P/HRM largely neglect or omit altogether the considerations to be discussed here.

According to early writers on the subject, the field of industrial relations was conceived as the study of *labor problems* and the solutions thereto (Kaufman 1993). Labor problems took many forms and adversely affected employers, employees, and the broader society. Examples include high employee turnover, low work effort, poverty-level wages, excessive work hours, and arbitrary and often autocratic management methods. Labor problems, it was conceived, grew out of various imperfections, shortcomings, and maladjustments in workplace organization, labor markets, statute and common law, etc., and the focus of the field of industrial relations was held to be both descriptive (to understand and identify the causes of these problems) and prescriptive (to develop and help implement solutions to the problems).

By the 1920s a consensus had emerged that the solutions to labor problems fell into three separate categories (see, for example, Estey 1928). These were called the *workers*', the *employers*', and the *community's* solutions. The workers' solution was trade unionism and collective bargaining; the employers' was personnel management, human relations, etc.; and the community's was protective labor legislation and social insurance programs.

Academic writing and research on these three solutions developed sequentially. First to receive attention was the workers' solution of trade unionism and collective bargaining. This line of investigation commenced in earnest with the publication in 1886 of Richard T. Ely's book *The Labor Movement in America* and was carried on by a large number of scholars (e.g., Robert Hoxie, George Barnett, Jacob Hollander, etc.) after the turn of the century. But by popular agreement the single most influential academic person in this area of industrial relations scholarship was John R. Commons. Commons was Ely's student, was brought to Wisconsin by Ely in 1904, and proceeded to turn out two decades of research on trade unionism and collective bargaining that was widely acclaimed then—and remains so acclaimed now—as the leading work on the subject. Examples include his *Documentary History of American Industrial Society* (1910), *Labor and Administration* (1913), and *History of Labor in the United States* (1918).

The community's solution to labor problems was the second in chronological order to receive attention, with recognition, however, that several important ideas had been surfaced earlier in the 19th century by Henry Carter Adams (1886) and Sidney and Beatrice Webb (1897). But sustained research and debate on labor law per se did not really begin until the founding of the American Association for Labor Legislation (AALL) in 1906. And just as Commons was to emerge as the leading writer on trade unionism, so too did he do so in the area of labor law (Kaufman 1997a). He took the lead (with Richard T. Ely and several associates) in the establishment of the AALL. He then became the nation's leading academic expert on workmen's compensation, industrial safety, unemployment insurance, and the administration of labor law. Likewise, Commons's labor law text, Principles of Labor Legislation, published in 1916 with coauthor John Andrews and revised through four editions, was to remain the leading work of its kind through the mid-1930s. Finally, an important offshoot of Commons's work on labor law was his attempt to integrate legal concepts and reasoning into economic theory, an endeavor that made him a pioneer in the development of the field of law and economics (Kaufman 1997a).

Last in chronological order with respect to sustained scholarly research was the employers' solution to labor problems. This branch of research on labor problems did not begin until the last half of the 1910s and was effectively coterminous with and inspired by the birth and early development of the personnel management movement in this country. Prior to World War I, only a handful of firms had any kind of centralized and professionalized personnel function (Jacoby 1985). Rather, the standard practice was to delegate all but the broadest aspects of personnel policy and practice to the individual department foreman or labor gang boss who administered them informally, often arbitrarily and capriciously, and equally often with a heavy dose of authoritarianism and rough treatment. In effect, the standard approach of employers at the time was to treat labor as a commodity and, thus, their object was to pay wages as low as permitted by the market, get the maximum amount of effort from the workers by "drive" techniques (e.g., yelling at workers to move faster, threatening them with being fired), and then discard the labor when it was either worn out or no longer needed.

Needless to say, this approach to employment management and labor relations resulted in considerable production inefficiency, waste of both physical and human resources, and bitter strikes and wanton acts of violence. While trade unions and labor law were partial solutions to these problems, it became increasingly evident to scholars and practitioners alike that meaningful reform in the management of labor was also essential to improved industrial relations.

This effort at reform of the methods of employment management began in the late 1800s and involved the "three streams of influence" already mentioned, plus one other that Dulebohn, Ferris, and Stodd (1995) omit. Most notable was the work of Frederick W. Taylor and his doctrine of scientific management. Taylor sought to apply to management the same scientific methods and principles of engineering that he had earlier applied to production with such success. With regard to labor, he thought scientific management practices, such as functionalized foremanship, incentive systems of wage payment, careful screening of job applicants, and time and motion studies, would lead to a win-win outcome of greater productivity, profits and wages, and a sense of cooperation and partnership between labor and capital. Indicative of the purpose he hoped to achieve is the title of Taylor's first published paper (1895), "A Piece Rate System, Being a Partial Solution to the Labor Problem."

Second was the welfare work movement, which emerged in the early 1900s and peaked in popularity shortly before World War I. Although it lacked a visible, nationally recognized spokesman to popularize it (certainly none from an academic background), the welfare movement nonetheless enrolled a substantial number of employers in its ranks who sought to improve the lot of the worker through various company-provided "welfare" benefits, such as showers and eating areas, a plant doctor or nurse, recreation programs, libraries, and so on (Jacoby 1985). Since personnel departments hadn't yet been developed, these welfare programs tended to be run by women "welfare secretaries" or men who were social workers or ministers and were only loosely connected in an operating sense to the rest of the business.

The third was the birth and development of the field of industrial psychology. Dulebohn, Ferris, and Stodd (1995:24) cite the publication of Hugo Munsterberg's (1913) book *Psychology and Industrial Efficiency* as marking the birth of the field. The main theme of Munsterberg's work was that a better understanding of human psychology in the workplace will make it possible to attain both greater productivity and job satisfaction (another win-win outcome). Several years later, the practical merits of industrial psychology gained national attention when psychologist Walter Dill Scott and colleagues convinced the Army to use intelligence tests to screen new recruits who were volunteering to fight in World War I.

A fourth development that was heralded at the time as an approach that employers could adopt to solve labor problems went under the banner of "industrial democracy" (Derber 1970.) Although the exact meaning of the term varied considerably depending on who was espousing it, the basic idea was to replace or at least soften the authoritarian nature of the

employer-employee relationship then enshrined in the legal doctrine of "master and servant," and widely practiced in the "drive" system of employment management, with some mechanism that provides employees with an opportunity for participation and voice in the important employment decisions affecting them and a measure of protection from arbitrary or unfair management decisions. The most discussed form of industrial democracy in employer circles was some form of nonunion employee representation, such as a works council or shop committee. William Lyon McKenzie King, a former Deputy Minister of Labor in the Canadian federal government and noted mediator of labor disputes, was the most recognized name in this movement in the late 1910s.

Commons and the Birth of Personnel/HRM

The four developments identified above came together in the World War I period (1917-1919), and out of their union was born the field of personnel management. The first glimmering of what was to become the personnel management movement appeared in Boston in 1911 with the founding of the Employment Managers Association, a group dedicated to advancing public awareness and the professional practice of employment (or labor) management (Jacoby 1985). Meyer and Daniel Bloomfield, two prominent business practitioners and consultants in Boston, deserve credit for taking a leading role in the founding of this group, the establishment of similar organizations in other major cities, and for calling attention to this new business function through a stream of articles and books in the practitioner press through the mid-late 1910s.

But it was only with the severe labor shortage spawned by World War I—coupled with tremendous rates of employee turnover, a dramatic rise in union membership and strikes, and much publicized shortfalls in war production—that the need for a more formalized, scientific, and humane system of labor management became both widely recognized and urgently felt. Out of this need was born the personnel management movement, which quickly became the centerpiece of the employers' solution to labor problems.

When the war started, only a handful of companies had a personnel department and, indeed, the very term "personnel management" was at that time relatively unknown. But by 1920 the situation had dramatically changed. Hundreds of companies rushed to put in place personnel (or industrial relations) departments, and suddenly the pages of periodicals catering to management practitioners (e.g., *Industrial Management*) were full of articles touting the benefits of this new business function.

And what was this new business function? In effect, the personnel movement took away many of the employment functions from the individual

foreman and placed them under the control and administration of trained professionals in a newly created, centralized personnel department. The mission of the personnel department was to apply the scientific methods of management advocated by Taylor to the tasks of employee selection, compensation, training, etc.; establish and administer those employee welfare benefits that promoted the employer's interests; incorporate "human relations" practices (e.g., foremen training in how to handle employees), as inspired by industrial psychology and the then nascent field of industrial sociology, into the workplace; and ensure that mechanisms and procedures were in place to promote voice, participation, and equity for employees.

We now come to the vital question: Was there any person who in his/her professional writings not only heralded the birth of the personnel management movement but also first articulated its fundamental principles and point of view? It appears that three people jointly share this honor, one being John R. Commons and the other two the publishing duo of Ordway Tead and Henry Metcalf.

In the late 1910s-early 1920s, the subject area of personnel management was typically conceived as a part of the field of industrial relations for reasons previously explained. Organizationally, P/HRM was most often housed in a school of business or commerce. Within business schools of the early 1920s, the discipline of economics was typically viewed as providing the core intellectual foundation for the curriculum, and various management-oriented subjects, such as accounting, finance, and personnel, were often regarded as subjects in "applied economics" (Kaufman 1993). Since the behavioral sciences at that time were in their infancy (industrial psychology was not more than a decade old and the human relations movement and associated field of industrial/organizational sociology did not emerge until the 1930s under the influence of the Hawthorne experiments and the writings of Elton Mayo), in practice both the teaching and research on P/HRM in universities tended to be split among two groups. One was the labor economists, who typically approached the subject from a broader "social" point of view; focused on the role of external (to the firm) economic, legal, social, and political determinants of employment practices/outcomes; and often took a sympathetic position vis à vis labor unions and employee rights and interests. The second group was made up of people, often with previous work experience in industry, who combined elements of management/administration, industrial psychology, and personnel work and took a relatively "business" or "organizational performance" perspective on the subject of P/HRM; focused on the role of internal (to the firm) psychological, social, and management factors as determinants of employment practices/outcomes; and generally looked at issues related to employee

rights, human values, and unions as instrumental "means to an end" rather than as ends in themselves.

The duo of Ordway Tead and Henry Metcalf were the most visible and influential representatives of the "internalist" management/administration group. Both had a marked impact on teaching and research in the formative years of the P/HRM field (Spates 1960). Tead was a consultant and writer on personnel management in the late 1910s, an active member of the Taylor Society, a lecturer on industrial relations at Columbia University, and coauthored with Metcalf the first university-level textbook in the United States on the subject of personnel management, Personnel Administration: Its Principles and Practice (1920). As documented later, Tead also produced numerous books and articles on general management and P/HRM topics that were widely read and cited. Henry Metcalf, partner with Tead on the textbook Personnel Administration, was a professor of political science at Tufts University until 1918, after which he pursued management consulting, headed-up (with Tead) an emergency World War I government program to train people in employment management, established in 1920 the Bureau of Personnel Research (a leading "think tank" for progressive management practices), published several influential books on general management (e.g., Business Management as a Profession 1927), and brought to national attention colleagues such as Mary Parker Follett.

Among the labor economists in the "externalist" wing of the P/HRM field, Commons was surely the first and most important in terms of early impact. He never wrote a textbook on personnel/HRM, as did some later labor economists (e.g., Dale Yoder), but he was instrumental in the creation in 1920 at the University of Wisconsin of one of the first full-fledged P/HRM courses in an American university. More important, however, were several other contributions. The most notable were two books published in 1919 and 1921, respectively, entitled Industrial Goodwill and Industrial Government. Although these books are among the most neglected of Commons's major publications, the former is the first monograph by an American academic to assess the newly emergent business function of personnel management, while the second provides the first set of case studies in this country on "what works and what doesn't" with regard to various P/HRM practices. Part of Commons's insights and interests on these matters stemmed from plant tours done with Frederick Taylor earlier in the 1910s. An indication of the pathbreaking nature of this work is illustrated by the comment in the Bulletin of the Taylor Society (10/19:5) that Commons's Industrial Goodwill is in "a class of its own."

Commons did not devote much attention in either book to a descriptive "how to" with regard to the various functional parts of P/HRM. But from

the very first sentence of *Industrial Goodwill* (about his visit to a particular company's employment office), he offered a wide-ranging overview and assessment of different management approaches and philosophies toward labor and their potential for resolving employment problems at both the level of the firm and nation. In *Industrial Goodwill*, for example, Commons explicitly refers to employees as "human resources" (p. 129); describes how the government and business sectors create these human resources through investments in education and training (p. 130); describes the existence and importance of informal work groups and notes how these groups regulate social behavior in the shop and restrict output (pp. 18-19); argues that increased work effort and efficiency must ultimately be obtained, not by use of drive methods and fear tactics but by positive management practices that develop mutual "goodwill" and a community of interest between employer and employee (pp. 24-28); notes that employment security and fair dealing are crucial ingredients to creating high levels of employee motivation (pp. 72-73, 106-107); maintains that providing some form of worker participation in management (he uses the term "voice") is crucial to winning employee loyalty and commitment (pp. 110-112); states that scientific application of psychology to the management and organization of work is fundamental to the success of the enterprise (p. 140); and denies that workers are motivated only by economic incentives (p. 148).

With regard to the personnel function itself, Commons clearly perceived that it was a major innovation and of considerable potential benefit for solving labor problems. Thus he states in this regard: "The personnel function . . . is the department that deals with every human relation within and without the establishment. It is the department of industrial goodwill. . . . Raised to its proper place of equality with other departments it is the department that guides the entire establishment in the administration of justice, industrial welfare, and service to the nation" (p. 165).

While Commons gave relatively short shrift to the administrative "nuts and bolts" of P/HRM in *Industrial Goodwill*, his more "macro" perspective is noteworthy because it effectively laid the intellectual groundwork for what is today quite possibly the most exciting area of P/HRM research—*strategic personnel/HRM* (Kaufman 1997b). In the book he identifies five different "models" of labor management and discusses, albeit in admittedly heuristic terms, the different "bundles" of personnel/HRM practices that accompany each. Briefly described, these five models are:

• Commodity. In this model management treats labor as if it were a commodity. Labor is bought for as little as possible and used only as long as profitable. Supply and demand determine the terms and conditions of

employment and these fluctuate up and down with the market. This is the neoclassical economist's model.

- Machine. This model of labor management views workers as a machine, albeit a human one, and thus uses principles of "human engineering" to determine optimal labor practices. Drawing its inspiration from Taylor's scientific management, this model attempts to discover through scientific investigation what "makes the worker tick" and then, using these insights, create an appropriate organizational structure, work process, and set of administrative practices to gain maximum production.
- •Public utility. Rather than a commodity, in this model labor is viewed as a valuable natural resource and asset for business firms. From this perspective, labor will be exploited and wasted, like other natural resources, if labor practices are totally left to the forces of supply and demand. In what is one of the first uses of the term "human resources" in the literature, Commons states of workers, "These human resources come to them [employers] after a heavy investment. The parents have invested something. The taxpayers and the schools have invested something" (p. 130). He then says, "Somebody must pay for the conservation of the nation's human resources. If left to demand and supply, the most valuable resources are not conserved" (p. 129). Thus to protect the nation's human resources labor should be treated as a "public utility" in the sense that its use in production is made compatible with the public interest through labor practices constrained and shaped by government legislation and regulation.
- Goodwill. This model of labor relations views the worker as a customer whose goodwill, or repeat business, the employer strives to attain and keep. Goodwill, in turn, is important because it creates the psychological conditions necessary for effective organizational performance—high employee morale, loyalty to the firm, and a willingness to cooperate and work hard toward a common end. Important determinants of goodwill are trust, fair dealing, and expectations of mutual gain and, thus, labor practices in this model are significantly shaped by these considerations.
- Citizenship. In all of the above models the employer is, in effect, a dictator, albeit a potentially benevolent one, in that it is the employer who unilaterally determines the labor practices in the workplace. The employee's only option if dissatisfied is to quit and find a different job. In anticipation of the "exit-voice" model pioneered by Hirschman (1970) and popularized by Freeman and Medoff (1984), Commons posits a fifth model of labor management which treats the firm as a form of industrial government in which workers, like citizens in a democracy, are given a voice in the determination of the terms and conditions of employment and are protected from arbitrary

and capricious actions of management ("the rulers") by a system of due process in the shop. Among the various labor practices necessary to implement this model (e.g., methods of dispute resolution), he states that effective voice (like the human resource terms, his use of the word "voice" is one of the first in the literature) typically requires in all but the smallest firms a collective form of worker organization either in the form of a trade union or some type of employer-sponsored informal committee or formal representation plan (p. 43).

This five-fold typology of employment relations models outlined by Commons anticipates by six decades more recent typologies in the strategic HRM literature (e.g., "prospector" versus "defender" organizations). And, like this more recent work but arguably with greater insight, Commons's models clearly give rise to predictions about the composition of alternative "bundles" of HRM practices. A commodity model of labor, for example, will feature a cost minimization approach to compensation and benefits (e.g., wages as low as the market permits), a perfunctory system of employee recruitment and screening, little in-house training, and few if any mechanisms for voice and due process. In a goodwill model, on the other hand, security of employment is crucial to fostering labor's willingness to cooperate, as is fairness in the payment of wages and administration of discipline. Accordingly, firms will have a more elaborate employee selection process, above-market wages, extensive training programs and a promotion from within policy, and formal methods of dispute resolution.

Finally, Commons also clearly anticipates the notion of *contingency* that is now a staple of the modern management literature and recognizes that the choice of an employment relations strategy depends not only on the objective external and internal conditions facing the decision maker but also the decision maker's philosophy toward business and labor. Both considerations are evident in these remarks: "If the . . . employment manager looks upon labor as a commodity, then he weighs the facts according to the theory of demand and supply. If he looks upon labor as a machine he gives weight to the facts that get maximum output from the individual. If he entertains a goodwill theory then the facts that promote goodwill are looked for and get a proper emphasis in mind. . . . Only the foolish, the ignorant, the biased, or the arbitrary man ties himself to a single theory" (pp. 166-67).

Did Commons Impact the Field of Personnel/HRM?

The gist of the argument made above is that the field of personnel/human resource had not one but several "founding fathers" and that the

most directly connected and influential of these men, as seen by their contemporaries, were John R. Commons and the duo of Ordway Tead and Henry Metcalf. Somewhat ironically, none of these three men are given more than passing coverage in contemporary accounts of the birth and early development of the field, with attention instead given to people such as Frederick Taylor, Hugo Munsterberg, and Elton Mayo who were at once further removed in both time and contact with the central subject matter of the field. Also noteworthy is the fact that Commons and the duo of Tead and Metcalf exemplify the deep intellectual fault line that has run through the field of personnel/HRM from its earliest days, with the labor economists or "externalists" on one side of this divide and the "internalists" of the administrative/psychology group on the other side.

Evidence in support of the major role of Commons and Tead and Metcalf in the birth and early development of the field of personnel/HRM is provided by the massive (365 pages) bibliography of the literature on personnel management published in 1925 by Rossi and Rossi. Of the several hundred authors included in the bibliography, the person who had the greatest number of books and articles cited (sixteen separate listings) was John R. Commons and on subjects as disparate as training, profit sharing, and works councils. The next most cited person (seven separate works, several coauthored with Metcalf) was Ordway Tead. Metcalf had four works cited, Frederick Taylor and Elton Mayo each had one, while Hugo Munsterberg had zero.

With respect to Commons, who is the focus of this paper, a second piece of evidence comes from the various issues of the journal *Personnel*. Perusal of the monthly issues of the journal reveals that Commons is listed on several occasions as a keynote speaker at a regional or national meeting of employment and personnel managers. Likewise, in the May-June 1921 issue the editors solicited letters of opinion from twenty leading experts on the future and potential of personnel management. Included were James Davis (U.S. secretary of labor), Eugene Grace (president of Bethlehem Steel), and Harold McCormick (president of International Harvester). Only two academics were included: John R. Commons and Leon Marshall, dean of the University of Chicago business school.

Also relevant is the number of citations given to Commons by Tead and Metcalf. In their personnel text (Tead and Metcalf 1920), Commons's name is cited more often than any other in the index, and Tead (1923) lists Commons's book *Industrial Goodwill* as one of three required readings for students beginning a course in personnel administration.

Finally, a person reputed to be one of the "founding fathers" of an academic field must have inspired a younger generation of scholars to carry on his pioneering line of research. Certainly John R. Commons so qualifies.

The three leading academic writers on personnel management in the 1920s and early 1930s were labor economists and students of Commons: Sumner Slichter, William Leiserson, and Don Lescohier. Their articles on the development of P/HRM prior to the Great Depression are still the definitive works on the subject by contemporaries of that period (see Slichter 1919, 1920, 1929; Leiserson 1929; Lescohier 1935).

The reasons why Commons and Tead and Metcalf have to date received only scant recognition for their pioneering roles in the birth and early development of the field of personnel/human resource management relate, no doubt, to the fact that neither are prominent academics in the behavioral science disciplines that after the 1930s increasingly have come to dominate the field and, in the case of Commons, to the fact that the management side of industrial relations was only one of his many areas of scholarly investigation. But the contributions of all three men are in many respects seminal and thus deserve wider recognition than has heretofore been accorded them.

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DISCUSSION

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These four enlightening papers raise six issues. First, were certain "presuppositions" and, second, presuppositions of a "methodological" character the foundation, as Ramstad proposes, for Commons's position? The presuppositions are many. Commons apparently doubted the idea that a layer of fixed, natural phenomena lies beneath the flux of social facts, and so he took the idea of evaluation seriously. He doubted methodological individualism and believed that institutions and other collectivities are real and can be seen as both dependent and independent variables; accordingly, he accepted some of the ideas of social psychology and the notion that minds can be institutionalized. He doubted whether the economic system is quite analogous to a machine housing a mechanism wherein forces mechanically interact and move toward an equilibrium. He rejected Wertfreiheit. In his own work he dissented from the idea of partial social science and tried to integrate ethics, psychology, sociology, political science, law, and economics. These among others are his presuppositions. As for the second issue, whether the presuppositions are of a methodological or a metaphysical character is an unresolved issue. In any case, were these presuppositions the foundation for Commons's position? They were in part, and to this extent I believe that Ramstad is correct.

Third, is "problem solving," as Whalen states, the foundation of Commons's "institutional approach?" Problem solving is a generalization with many possible meanings. Aside from the specific problems and how in light of values they are identified, a particular meaning of a problem-solving approach could depend upon one's beliefs about discovering the causes of the problems. For example, one might believe that a theory of spatiotemporal generality can be developed and then applied to explain the causes of the problem and to indicate policies to solve it, or believe that such a theory cannot be developed but that hypotheses can be devised relative to time and place and tested experimentally in the hope that this will solve the problem. In short, *solvitur ambulando*. Or one might believe that causes

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cannot be found and that problem solving only in the form of symptomatic relief is possible. Because various meanings exist, to clarify the meaning of Commons's "problem-solving" approach would be a valuable contribution.

Fourth, what method or methods did Commons use? He employed methods that Whalen calls "investigative." Many kinds of revelatory, rationalist, and empirical methods all could be called "investigative." The meaning of Commons's "investigative" methods is a worthwhile question to be answered.

Fifth, whatever may be said about Commons's presuppositions, approach, and method or methods, an issue remains: Did he create a theory, given some meaning of the term theory? One meaning, perhaps the one mainstream economists accept, is that theory signifies a set of logically related, reasonably exact laws holding true through space and time and providing empirical powers of explanation, prediction, and control. Meanings other than this mainstream or orthodox one may also exist. A. W. Coats explains: "In their respective ways, Veblen, Commons, Mitchell, and Ayres were all theorists; but theorists of a very different kind from most classical and neoclassical economists. They were seeking to develop a much broader, more historical, less formalistic, systematic, rigorous . . . type of theory than their orthodox critics, and there is no reason why the latter should be allowed to preempt the term theory as if it were capable of only a single legitimate usage."

Ramstad encounters this fifth issue when he argues, if I understand it aright, that Commons created a theory of the market system that provides a "coherent interdisciplinary conception of the labor market," which in turn establishes a "foundation" or "theoretical standpoint" for the field of industrial relations. Did Commons create such a theory? As Ramstad insightfully points out, Commons did use social psychology to interpret the self, distinguish between limiting and complimentary factors and between strategic and routine decisions, analyze transactions into three types and going concerns into three parts, discuss five considerations (scarcity, efficiency, custom, sovereignty, and futurity) that in "varying proportions" affect transactions, assert that conflict rather than harmony of interests prevails, and contend that authoritative conflict resolution establishes and progressively maintains social order. However, these ideas do not constitute a theory of the market system in the mainstream sense of the term theory. It follows that in this sense of the term theory, Commons's work provides by derivation neither a theory of the labor market nor a theoretical standpoint for the field of industrial relations. Ramstad may have in mind a different meaning of the term theory though, and if so, an elaboration would be of great value.

Kaufman also encounters this fifth issue. He proposes that to qualify as the father of an academic field, one must satisfy four criteria; and one criterion among them is that one must have made a theoretical contribution. He argues that because Commons contributed theory in the field of industrial relations (IR) and moreover in its subfield of personnel/human resources management (P/HRM), he can qualify as the father of P/HRM. Kaufman shows that in response to the labor problem, the field of IR dealt with the workers' solution and the community's solution and that Commons's ideas about trade unions and collective bargaining contributed to the former and his ideas about labor legislation to the latter. Whether his ideas go beyond description and prescription to theory is not argued. Kaufman next shows that from out of IR emerged the subfield of P/HRM and that Commons contributed to it by discussing "albeit in admittedly heuristic terms" a "five-fold typology of employment relations models "and the bundle of practices accompanying each one. Whether these represent theory is not argued. Kaufman summons interesting evidence but not enough to prove that Commons contributed theory in the mainstream sense of the term to the field of IR or its subfield P/HRM. However, he, like Ramstad. may have in mind a different meaning of the term theory.

Sixth, can Commons's ideas about administrative commissions be carried from the national to the international level, applied to the case of the North American Agreement on Labor Cooperation (NAALC)—a side agreement of the North American Free Trade Agreement (NAFTA)—and rationalize it such that it can be concluded that the "current configuration" of NAALC "reflects, to some degree," Commons's values? Hills, I believe, advances this fascinating thesis. To prove it would call for two steps. The first would be to set forth Commons's values concerning administrative commissions. To begin, he entertained these values for the case of the U.S. and, as he would say, its Anglo-American legal system. Believing that the members of the traditional legislature neither proportionally represented conflicting social class interests, and especially the labor class interest, nor had the expertise necessary to regulate special areas of the economic system, he proposed to circumvent those problems by creating commissions. The commissions should satisfy certain values. Given the purview of the commission, the interests of the conflicting classes, and especially the labor class, should be proportionally represented not by pols and hacks but by democratically elected individuals having the expert knowledge of the classes they represent. A disinterested research staff should also be included. The legislative function would be carried on: based upon research findings, collective bargaining would ideally settle upon the best practicable in some sense of the already-existing practices and enact them into law.

Executive and judicial functions would also be performed. All told, in Commons's eyes the commission, plainly an innovative political institution empowered to perform all three functions of government, would be a fourth branch of government.

The second step would be in light of Commons's values to examine the facts about the NAALC. Three nations are involved, and while the U.S. has an Anglo-American legal system, Canada has its own system, and Mexico has a different one; as Hills diplomatically puts it, there are "longstanding historical differences among the countries." The institution seemingly analogous to a commission is hard to identify but appears to be both the Council of Ministers, and subordinate to it, its administrative arm, the Secretariat. Heading the Secretariat is an executive director who receives a list of names sent up by each of the three nations and from each list selects five names, thereby constituting a staff of fifteen. Hills in his paper does not indicate whether the U.S. and Canada each send up a list of names of democratically elected experts who proportionally represent the relevant conflicting class interests, within their nations, but he does present evidence that can stir doubt as to whether Mexico sends up such a list. In Mexico, it seems, "labor has historically played a partnership role with the governing political party." The facts in the Maxi-Switch case cited may suggest some of the meaning of "partnership role." The Confederation of Mexican Workers, "the partner of the governing party," comprises an array of "official" unions. One of the "official" unions, unbeknownst to the workers, created a "phantom" union that signed a contract with an employer. When the workers tried to set up their own independent union they were prevented from doing so by law. This was a "fairly familiar scenario," Hills believes, adding that in this particular case the workers petitioned in the U.S., and that apparently under pressure from the U.S. the Mexican authorities granted registration before any adjudication under the existing legislation could begin. But however selected, the lists of names from each of the three nations are sent up to the executive director who chooses his staff of fifteen. Looking at the Council of Ministers, the executive director and the staff of fifteen of the Secretariat, are they democratically elected experts who proportionally represent the relevant conflicting class interests? Does a disinterested research staff exist in the Secretariat? Well, legislative activity begins, but as Hills states, "The decisions of neither the Secretariat nor the Council of Ministers approximate the bargaining process that Commons expected for industrial commissions." Whether or not the best practicable existing practices are decided upon as standards, the NAALC "contains no obligations to have the same standards in each of the countries, thus differentiating the commission from the regulatory

commissions advocated by Commons," Hills observes and remarks that the power of the commission to enforce its standards is sharply limited.

Hills deserves congratulations for adducing much informative evidence. The evidence presented thus far supports the conclusion that the current configuration of NAALC does not to a large extent reflect Commons's values.

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XIV. 1997 ANNUAL STUDENT WRITING COMPETITION

The Striker Replacement Doctrine and State Intervention in Labor Relations, 1933-38

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If the theory of giving permanent status to an employee, who was called in to replace a man on strike is followed to its logical conclusion, it would destroy all unions, abolish all efforts at bargaining and emasculate all strikers. . . . Such a practice would put before an employer a temptation, perhaps too great to withstand.

Daniel Shortal, NLRB Attorney, memorandum to Samuel Surrey, March 2, 1936

[A]ll strikes involve economic pressure by both sides. It is clearly impossible to prevent employers from exercising any pressure upon strikes in the same sense that we want to prevent them from exercising any pressure upon free organization and unionization of their workers. . . . The object of unionism should not be to outlaw the exertion of economic pressure . . . by either employer or employee in the actual process of collective bargaining.

Robert Wagner, letter to the Newspaper Guild of New York, March 8, 1935

Most labor scholars agree that employers' market-driven antiunionism during the past two decades has contributed significantly to the decline in union membership in the United States. Since the 1970s, employers' legal "right-to-fight" unions during industrial disputes through the use (and

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threatened use) of replacement workers has altered the balance of power in labor-management relations more than any other aspect of federal labor law. "The right to permanently replace," writes current NLRB chairman William Gould, "is the right to use nuclear weaponry in the arsenal of industrial warfare." A major focus of the AFL-CIO's political efforts during the past four years has been the passage of a law banning employers' use of permanent striker replacements, and organized labor's failure to achieve such a law, even under the Democratic administration and Congress of 1992-94, indicates the extent of its political weakness.

Heretofore scholarly analyses of the striker replacement doctrine have focused almost exclusively on the Supreme Court's 1938 *Mackay Radio and Telegraph* decision, which established employers' right to hire permanent replacement workers during economic strikes, and the subsequent refinement of the *Mackay* doctrine by the courts, the NLRB, and Congressional statute.³ But the debate over the legal status of striker replacements in the modern system of industrial relations predates the Court's *Mackay* decision. It began with labor policy developments under the National Recovery Administration (NRA), the struggles over the particular provisions of the 1934 Labor Disputes Bill and the 1935 National Labor Relations Act (NLRA), and the National Labor Relations Board's (NLRB) policy prior to the Supreme Court's Mackay decision.

Between 1933-38, key labor policy makers, the NLRB, and the Supreme Court constructed an industrial relations regime which defined workplace rights narrowly, placed relatively few restrictions on the economic freedoms of employers or workers, and left the outcome of collective bargaining to the "free play of economic forces." During the immediate post-World War II years of relative economic prosperity and United States domination of international markets, this industrial relations regime provided most unionized workers with a stable system of workplace representation, improved conditions of work, and increasing wages and social protections. In today's era of deregulation, fierce global competition, and capital mobility, however, employers frequently interpret the NLRA's lack of restrictions on their economic weapons, particularly on the issue of permanent replacement workers, as an open invitation to bust unions and replace their supporters.

Legal Status of Replacement Workers under the NRA

In June 1933 Congress passed the National Industrial Recovery Act; until the Supreme Court ruled it unconstitutional in May 1935, this statute provided the legal framework for labor-management relations. Considerable confusion surrounded the legal status of strikers and striker replacements under the Blue Eagle, as it did most aspects of NRA labor policy.

During the period 1933-35, labor board members divided into two camps concerning the legal status of replacement workers. Some, like NLB counsel general Milton Handler, doubted whether Section 7(a) of the NIRA prohibited employers' use of permanent replacement workers. Others, such as NLRB member Edwin S. Smith, considered the proper goal of federal labor policy to be the promotion of collective bargaining and the strengthening of independent unionism. Smith thus favored active state regulation of employers' behavior during industrial disputes, including the prohibition of permanent striker replacements. These divisions among NLRB members on the legal status of striker replacements continued until the late 1930s.

In early 1934 Milton Handler discussed employers' right to hire permanent striker replacements at an address before the Legal Division of the NRA. Handler asked his audience to "suppose during the strike an employer hires 'scabs' and refuses to bargain collectively with the representatives of the strikers." On such occasions, Handler pointed out, both National Labor Board and the courts had "ruled that a striking employee is an employee and thus entitled to a vote and to be represented for purposes of collective bargaining. It has frequently recommended reinstatement of such employees . . . discrimination in the reinstatement of striking employees is inconsistent with the statutory requirements" of the NIRA. But, he continued, "whether there is any legal power to require such reinstatement, where there has been no violation of the statute by the employer, is doubtful." Thus Handler argued that under Section 7(a) striking workers had no legal right to automatic reinstatement if an employer not guilty of an unfair labor practice recruited replacement workers. Handler concluded that along with the question of whether the law required employers and labor organizations to produce written contracts, the legal status of strikers and striker replacements was the most important issue the 1934 Wagner labor bill had to clarify.6

Other board members, in contrast, believed that the board had both a mandate and a duty to actively regulate employers' economic weapons during industrial disputes. In October 1934, NLRB member Edwin S. Smith, a former Massachusetts' commissioner for labor who would soon establish a reputation as the most "prolabor" member of the board, circulated a memo among NLRB members on the subject of "the status of strikers as employees." Smith argued that because the threat of a strike and the strike itself "are properly included within the bargaining process," the striking worker "must therefore be regarded still as an employee who is attempting by voluntary abstention from work . . . to influence the employer to broaden the terms of the bargain." This interpretation, Smith believed, strictly limited employers' right to hire permanent striker replacements:

If at any time during the progress of the strike a worker, or group of workers, go to the employer and state they are willing to resume their working relationship . . . the employer must receive them back, displacing if necessary other workers who may have been hired during the period of the strikers' absence from work. . . . When strikers have declared their willingness to return to work on the employer's own terms, the utility of the strike breaker to the employer has ended. As a tool the strike breaker can be discarded—as an employee, dismissed.

Thus, Smith believed, employers could hire replacements to continue production during a strike but could not legally retain replacement workers beyond the duration of a current strike.

Edwin Smith's opinion on the legal status of striker replacements soon was a minority one within the labor board, however. In several labor disputes between 1933 and 1935, the labor board reached conclusions similar to Handler's concerning the legal status of replacement workers: an employer not guilty of discrimination against union members or of other unfair labor practices could hire permanent replacement workers during strikes, and striking workers had no legal right to automatic reinstatement at the end of an economic dispute. In the 1934 Century Electric case, for example, the first NLRB decided that the company had not acted unfairly simply because it failed to find positions for all its workers after an unsuccessful strike over inequitable wage differentials. Finding no evidence to sustain the International Association of Machinists' charge of illegal discrimination against its members in rehiring, the labor board ruled that "the company is in fact rehiring strikers as the need for men arises. . . . The case for the employees seems reduced to the contention that the 213 employees who were hired during the strike should be dismissed to make way for the 213 of the 297 strikers who have not been reinstated. In the absence of persuasive evidence that a violation of Section 7(a) by the company has caused all or some of these 213 men to be out of work, there is no legal basis for requiring the company to make room for them by discharging other employees."8 Although lacking the power of legal enforcement during the NRA years, these pre-NLRA labor board decisions created a "common law of industrial relations" which continued into the Wagner Act era and significantly shaped Senator Wagner's ideas on employers' "right to fight" unions during economic disputes.9

The Struggle over Section 2(3)

Section 2(3)—defining an "employee"—of the 1934 Labor Disputes Bill and the 1935 National Labor Relations Act determined the legal status

of strikers and striker replacements. Between the introduction of the Labor Disputes Bill in March 1934 and the passage of the National Labor Relations Act in May 1935, several groups participated in a contentious discussion over the exact wording of this section. The debate over Section 2(3) determined which workers were "employees" and thus entitled to the legal protections of the act and which were not. More importantly, this debate, which appeared to concern a relatively technical aspect of the law, was central to the discussion over both state regulation of employers' economic weapons during industrial disputes and the extent of state intrusion in the actual *process* of collective bargaining.¹⁰

As a result of the NRA's unmitigated failure to promote industrial stability or solve the problem of worker representation, Wagner instructed his legislative aid Leon Keyserling, Department of Labor solicitor Charles Wyzanski, and Milton Handler to draft a bill which provided unambiguous legal protection for workers' basic "industrial liberties": the right to organize and engage in collective bargaining. The early versions of the 1934 Labor Disputes Bill made no reference to the legal status of striker replacements. As a result of pressure from the AFL leadership, however, Section 2 (3) of the final draft of Wagner's 1934 bill declared that the term "employee shall not include an individual who has been put to work in place of a striking employee."

The nation's two most powerful employers' organizations, the National Association of Manufacturers (NAM) and the Chamber of Commerce, both relentlessly criticized Section 2(3) of the Labor Disputes Bill. Employers' organizations provided two main arguments against this provision of the bill. First, they contended that Section 2(3) demonstrated the bill's "one-sidedness," since striking workers retained their employee status, even if they had found alternative employment, while striker replacements were excluded from the protections of the bill, no matter how long they held their positions.¹² Second, employers argued that this provision would increase, not decrease, the number of industrial disputes by encouraging unions to call reckless strikes.¹³ Although these arguments simply provided employers with an additional method of attacking the Labor Disputes Bill, they also influenced Wagner's assessment of the political feasibility of his next labor bill. After the defeat of his 1934 labor bill, Wagner revised several of the bill's provisions—including its position on striker replacements—in order to protect it from conservative criticism encountered during the 1934 debate and ensure that the bill gained sufficient votes to pass Congress in 1935.14

Antiunion employers' organizations were not alone in their opposition to the 1934 labor bill's exclusion of striker replacements, however. Individuals and groups sympathetic to the bill's larger goals of protecting workers' right to organize and engage in collective bargaining also criticized Section 2(3). When Wagner's office solicited private comments on the specific provisions of his 1934 Labor Disputes Bill, several respondents questioned the logic of explicitly excluding striker replacements from the bill's definition of an "employee." Professor John Fitch of the New York School of Social Work, a labor relations expert and close associate of Wagner's, inquired how long replacement workers would retain this "nonemployee" status: "It would seem to me that if strike breakers are not to be included under the term 'employees,' some definition of the degree of permanency of that status should be inserted. If a man takes a job as a strike-breaker, would not this section [defining an "employee"] as it stands cause him to retain his nonemployee status permanently?" Fitch concluded that he did "not believe that any harm would be done by dropping this reference to strike-breakers altogether."15 After consulting with key academic advisors, Wagner replied that "practically every one of the criticisms which you make seems to me exceptionally well taken and will be invaluable to me when I attempt to iron out this legislation."16

The nation's two most important civil rights organizations, the National Urban League (NUL) and the National Association for the Advancement of Colored People (NAACP) also opposed the bill's exclusion of striker replacements. These two organizations argued that the wording of Section 2(3) of the Labor Disputes Bill would hurt the already precarious position of black workers in American industry, particularly that of black workers who, because of racist unions, could gain access to certain jobs only by working as strikebreakers.¹⁷ Under the Labor Disputes Bill, civil rights leaders contended, black workers who secured "an opportunity to work in the jurisdictions of the aforementioned unions during a period of labor difficulty [i.e., as replacement workers during a strike] would immediately lose their status as employees, despite the fact that they are barred from normal employment."18 T. Arnold Hill, executive secretary of the NUL,19 emphasized that "if the Wagner Bill passes in its present form, the power and influence of the labor movement will be greatly enhanced with the consequent danger of greater restrictions being practiced against Negro workers by organized labor. . . . the bill favors labor organizations, but does not benefit employees who replace striking employees." The exclusionary practices of racist unions, Hill insisted, were largely responsible for employers' use of black workers as strikebreakers: "[Trade Unions'] practice of barring Negroes from membership forces them to work as strikebreakers when strikes are called by unions that bar them. As strikebreakers they have no rights under the proposed Wagner labor bill. Therefore, the Negro's position will be made worse as that of other workers is enhanced."20

To counteract organized labor's discriminatory practices and protect the job interests of black workers, the NAACP and the NUL proposed an anti-discrimination clause in the Labor Disputes Bill. During the Senate Labor Committee hearings on the bill, Hill suggested that Section 2(3) be revised to read: "The term 'employee' shall not include an individual who has replaced a striking employee, except when the labor organization either by direct constitutional or ritualistic regulation and/or by practices traceable to discriminatory policies bars an individual from joining such labor organization or restricts rights, privileges, and practices usually accorded members of such organizations."²¹

As a result of the continued opposition of the more politically powerful AFL, the civil rights organizations failed to obtain an antidiscrimination clause in either the 1934 or 1935 labor bills. Nevertheless, their arguments against excluding replacement workers from the Labor Disputes Bill's legal protections profoundly influenced Robert Wagner's views on the desirability of keeping this clause in his 1935 National Labor Relations Act. Wagner assured NUL leaders that he would give "sympathetic consideration" to their arguments on the legal status of striker replacements and told them he would be "very receptive to any amendment to [the 1935] bill that might accomplish the objective" of protecting black workers from additional hardship.22 "Nothing would shock me more," Wagner maintained, "than to find a measure which I have introduced to protect all working men used as an instrument to discriminate against some of them, and I shall examine my bill with the utmost care to prevent any such eventualities."23 Thus to counteract institutionalized trade union racism. Wagner reevaluated the desirability of excluding striker replacements from the legal protections of his 1935 labor bill.

In March and April of 1934, employers conducted an unprecedented, and ultimately successful, campaign of "calculated misinformation" to defeat the Labor Disputes Bill in Congress. When the Labor Disputes Bill failed to pass the Senate Committee on Education and Labor, David Walsh, chairman of the Senate Committee, introduced a substitute bill, drafted by Charles Wyzanski, solicitor for the Department of Labor. Despite Walsh's protestations that the "general philosophy and most of the fundamental purposes of the original Wagner bill have been retained," the Wyzanski-authored bill bore scant resemblance to Wagner's original: it failed to prohibit company unions, provided weak and ambiguous reinstatement rights for striking workers, and made no mention of the legal status of striker replacement. The Walsh bill encountered hostile resistance from employers, failed to win enthusiastic support from the Roosevelt administration, and was defeated in Congress in June 1934. In its place,

Roosevelt signed into law Public Resolution 44, an even weaker measure drafted by Wyzanski and NRA chief Donald Richberg. Although he publicly supported FDR's new proposal, Wagner immediately asked his advisors to draft a new version of his own labor bill, which he reintroduced in February 1935 as the National Labor Relations Bill. Section 2(3) of the final draft of Wagner's 1935 bill made no mention of the legal status of striker replacements.

Nothing I have written thus far adequately explains why the authors of the NLRA—whose explicit purpose was to encourage "the practice and procedure of collective bargaining"—did not prohibit employers' use of permanent striker replacements. To understand this apparent contradiction, we must examine both competing proposals of state intervention in labor relations and the larger public policy context (i.e., the NRA) in which the Wagner Act was drafted. The NRA established a massive level of state intrusion in labor-management relations and failed utterly to protect workers' right to organize and bargain collectively. Wagner introduced his 1934 Labor Disputes Bill in response to this failure. In place of Wagner's doomed 1934 labor bill, several influential members of the Roosevelt administration—such as NRA chief Donald Richberg—proposed bills providing for a greater degree of state intervention in labor-management relations, including strict legal restrictions on labor's right to strike.26 Wagner adamantly opposed these "coercive" proposals and thus decided by early 1935 that prohibiting permanent replacement workers amounted to an undesirable level of state intrusion in the actual process of collective bargaining; consequently, he argued against limiting employers' economic weapons in this respect. In a letter explaining the underlying logic of his new bill to the Newspaper Guild of New York, Wagner pointed out that "it is clearly impossible to prevent employers from exercising any pressure upon strikes in the same sense that we want to prevent them from exercising any pressure upon free organization and unionization of their workers. . . . The object of unionism should not be to outlaw the exertion of economic pressure . . . by either employer or employee in the actual process of collective bargaining."27 By limiting the extent of state intrusion in collective bargaining and allowing the economic strength of the respective parties to determine the outcome of the bargaining process, the Wagner Act implicitly sanctioned the "exertion of economic pressure" during industrial disputes by both employers and workers, including employers' use of permanent replacement workers. Because the NLRA made no explicit reference to the legal status of striker replacements, however, the labor board and the courts determined the precise character of state intervention on this crucial issue in two landmark cases following the enactment of the new labor law.

The 1936 Birge Decision and the 1938 Mackay Ruling

In the months after July 1935, NLRB members debated vigorously the extent to which the new labor statute mandated the board to limit the employers' economic weapons during industrial disputes. Board personnel held two conflicting interpretations of the law's intent. NLRB Chairman J. Warren Madden argued that the board had no policy mandate to regulate employers' behavior during economic disputes beyond prohibiting the unfair labor practices specified in Section 8 of the act. Board member Edwin Smith, in contrast, supported greater legal restrictions on employers' conduct during industrial disputes in the broader interests of promoting collective bargaining and building strong independent unions. The Madden labor board first discussed the striker replacement issue in the 1936 case M.H. Birge & Sons Company. Although Madden found himself in the minority position in the Birge case, his interpretation of the Wagner Act, in which he advocated minimal state regulation of employers' economic weapons during strikes, soon dominated board policy.

In September 1935, M.H. Birge & Sons, a Buffalo, New York, wallpaper manufacturing company employing approximately 150 workers, attempted to persuade its unionized employees to break an industrywide strike over wages and renounce the union, the United Wallpaper Crafts of North America (UWC). When approaches to the workers on an individual basis failed to break the strike, the company offered striker replacements higher wages and guaranteed jobs for at least a year. After the company resumed production with striker replacements, it invited the strikers to reapply for employment as positions became available. In its complaint to the labor board, the UWC maintained that the company was determined to operate nonunion and pointed out that all other companies in the wallpaper industry had settled with the union.²⁸

In his initial report on the *Birge* case, Daniel Shortal, the investigating NLRB regional attorney, found that "there does not seem to be any evidence of individual cases of discrimination, the respondent not reinstating any of the strikers, but willing to re-employ some."²⁹ But even in the absence of other unfair labor practices, Shortal argued, the board must deny employers the right to hire permanent replacement workers or risk allowing them to evade their responsibilities under the new labor statute:

To hold that in strikes, not caused by an alleged unfair labor practice, where the job of a striking employee had been filled before the striker signified his willingness to return to work, it would not be a violation of the Act to retain the new employee and to refuse to replace them with the striker would open up a most prolific

field for hostile employers to circumvent the true purpose of the Act. This could, in effect, amount to a diminution of the right to strike and permit employers to practice many different forms of interference and coercion by the use of strike-breakers immediately after the commencement of a strike.³⁰

In a subsequent memorandum to Stanley Surrey, the NLRB attorney who had prepared the board's important Remington Rand and Fansteel decisions, Shortal was even more emphatic about the broader significance and potentially destructive consequences for collective bargaining of employers' practice of hiring permanent striker replacements. Shortal insisted that:

If the theory of giving permanent status to an employee, who was called into replace a man on strike is followed to its logical conclusion, it would destroy all unions, abolish all efforts at bargaining and emasculate all strikers. When any difficulty arose an employer could at once hire all or nearly all new employees and promptly regard the matter as ended. . . . Such a practice would put before an employer a temptation, perhaps too great to withstand. Such an abortive construction cannot be drawn within the contemplation of the law. An argument "reductio ad absurdum" can be advanced whereby an employer one hour after a strike, and possibly even by strike-baiting, by hiring new employees could render the administration of the Act anemic. This could in effect, amount to a diminution of the right to strike.³¹

Even Shortal, however, admitted that the Birge case fell into the category of "doubtful cases for early presentation" before the courts, while Surrey warned him that it was imperative that the board "establish an anti-union motive on the part of this company . . . since without that motive the facts tend to point to no violation."

In 1936, Shortal's seemingly prophetic warnings conflicted with other NLRB staff members' interpretation of the new labor statute's intent on the legal status of striker replacements. NLRB attorney Philip Levy, who had played a central role in drafting the NLRA's procedural provisions, also believed that the board should rule against the employer in the *Birge* case. But, unlike Shortal, Levy somewhat reluctantly accepted the principle that an employer could hire permanent replacement workers without necessarily violating the act's provisions. "The employer," Levy allowed, "is privileged to defeat a strike of this type by running his plant with such new men as he can avail himself of, and it would seem inconsistent with this privilege to require that he nullify his efforts to obtain the services of skilled new

workers for permanent employment." Levy further conceded that, "if the Board takes the view that the strikers do not, as a matter of right, have priority over employees newly-hired where the strike was not caused by an unfair labor practice, then the company seems justified in its stand, provided that discrimination against strikers in individual cases is not made out." He also believed, however, that "such discrimination will almost always be found, since strikers will typically be more experienced and more desirable employees than those newly-hired, once we put to one side their having engaged in lawful concerted activity." As a result of the employer's approaches to individual strikers and his offer to pay strike-breakers at a higher rate, Levy concluded that, although the violations in the *Birge* case were "rather subtle," the board should decide against the employer.³³

In its May 1936 *Birge* decision, the NLRB ruled that the company's decision to approach the strikers on an individual basis amounted to "interference, restraint and coercion of its employees in the exercise of their right to concerted activities for mutual aid and protection," and that the employer was also guilty of an unfair labor practice by refusing to negotiate with union representatives during and after the strike.

In his dissenting opinion in the Birge case, the new labor board's first chairman, J. Warren Madden, proposed a markedly different interpretation of the Wagner Act's intent on state regulation of employers' economic weapons. Madden argued that the NLRA would achieve its goal of creating an equality of bargaining power through strict enforcement of the unfair labor practices listed in Section 8 of the act and that additional state regulation of employers' economic weapons was both unnecessary and contrary to the intent of the law: "The statute which we administer forbids certain unfair practices of employers. . . . But having created this nearer approximation of equality of bargaining power, it leaves the parties to depend upon their economic power. It does not require either side be kind, or even considerate and mindful of former happier relations. Good morals might teach such conduct, but the law has not undertaken to enforce it." On the particular question of whether an employer must refuse the option of hiring replacement workers, Madden stated categorically, "I see no such provision in the statute."34

Immediately following the passage of the Wagner Act, employers, the mainstream press, and conservative politicians attacked relentlessly the board's "lack of impartiality." Chairman Madden firmly believed that if the Wagner Act were to have any hope of withstanding employers' legal challenge to its constitutionality, the NLRB must administer it effectively in the first few months of its operation. Madden thus sought to avoid rulings which extended the board's authority into areas not clearly intended

by the NLRA's provisions. Madden's dissenting opinion in the *Birge* case, however, did not distinguish between temporary and permanent striker replacements. Instead, he mistakenly believed that the board's *Birge* decision "amounts to a holding that an employer whose employees have struck, not as a result of any unfair labor practice on the part of the employer, is legally obliged to *close his plant* for an indefinite time while he negotiates with the strikers for their return to work." Thus for the most part, the Madden NLRB did not debate the option of allowing employers the right to hire only temporary striker replacements.

Although in a minority position on the board in the Birge case, Madden found a sympathetic ally in William Leiserson, a Wisconsin school labor arbitrator who played a crucial role in redirecting NLRB policy after his appointment to the board in 1939.37 Leiserson, chairman of the National Mediation Board, wrote that Madden was "entirely right in this matter. It seems to me very strange," Leiserson explained, "that your Board should take any other position because that involved a ruling in effect that the employer's hands are to be tied when the employees resort to a strike. Once the employees strike, the employer, of course, must discriminate against the strikers and must try to defeat the strike. If in doing this he is to be charged with unfair practices, the law is reduced to an absurdity. I am glad that you registered your objection to any such ruling."38 Leiserson opposed the Birge decision because he sought to maintain free collective bargaining as a contest of economic strength between equals, which, he believed, would promote stable and long-lasting bargaining relationships. To prohibit employers' use of permanent striker replacements, Leiserson insisted, would unjustifiably assist unions that called ill-considered strikes which they did not have the economic power to win.³⁹ In the years after the Birge decision, Madden's and Leiserson's position of allowing employers to permanently replace economic strikers soon dominated board policy on this crucial issue. The appointment of another Wisconsin school labor arbitrator, Harry Millis, 40 as Madden's replacement in 1940 reinforced this interpretation of the act.

The board's *Birge* decision—in particular Madden's dissenting opinion—attracted considerable interest from employers' organizations, especially the NAM which hoped that Madden's position on the legal status of replacement workers would provide American employers with a powerful *legal* weapon with which to fight organized labor during strikes. The organization reported on the *Birge* case at length and emphasized that the board's decision was "of particular interest [to employers] because of the dissenting opinion of Mr. Madden."⁴¹ In the years immediately following the enactment of the Wagner Act, most employers did not yet accept the

legitimacy of collective bargaining with outside unions, and thus they searched for strategies—some legal, some not—with which to exploit the vulnerability of the fledgling industrial union movement. For many employers, the recruitment of permanent replacement workers during industrial disputes offered one possible method of resisting unionization, and thus employers hired permanent striker replacements in more strikes in the years 1935-1942 than in any other period during the sixty years after the passage of the Wagner Act, with the exception of the past two decades.⁴²

While employers' organizations welcomed Madden's dissenting opinion, the majority Birge decision created considerable confusion among NLRB officials. Regional attorney Harry Lodish, coauthor of the board's important 1936 Sands decision, inquired about the potentially sweeping implications of the ruling. Drawing directly on Madden's minority opinion (which did not distinguish between temporary and permanent striker replacements), Lodish questioned whether the Birge decision made "it imperative that the employer close his plant in the event of a strike, regardless of whether the strike was caused by an unfair labor practice or by the caprice of a union leader?"43 In response, the board asked Fred Krivonos, appointed special examiner by Nathan Witt in 1937 to assist him with regional NLRB directors, to prepare a memorandum discussing "the extent to which the provisions of the National Labor Relations Act in declaring certain conduct by an employer to be unfair labor practices limit his conduct in the course of combating a strike." Krivonos argued that in the Birge case, the NLRB "expressly declared that the Act does limit the employer's conduct in combating a strike." "The declared purposes of the Act," Krivonos concluded, "lends support to this interpretation."44 Madden, however, was not convinced and wrote, "I disagree with Krivonos's conclusions" on his copy of the memorandum. Madden believed that under the provisions of the NLRA, "legitimate" efforts by employers to defeat economic strikes, including the permanent replacement of economic strikers, were perfectly legal and thus should not be subject to regulation by the board.45

If the *Birge* case indicated the extent of the continuing disagreement between board members on this contentious issue, the *Mackay* case effectively determined the legal status of striker replacements for the next six decades. In October 1935 the Mackay Radio and Telegraph Company hired replacement workers to continue its San Francisco operations during an economic strike over contract negotiations. As a result of the company's success in continuing operations through the employment of striker replacements, the union, the American Radio and Telegraphists' Association, ended its strike. After the company reinstated all of the strikers except five union leaders, the NLRB ruled in February 1936 that the company had

violated the terms of the Wagner Act by discriminating against the five men on the basis of their union activism. The board, however, made no ruling on the legal status of striker replacements in the absence of an employer unfair labor practice. After the circuit court overturned the board's reinstatement order, the NLRB appealed the decision to the Supreme Court.

In its May 1938 ruling, *N.L.R.B. v. Mackay Radio and Telegraph Co.*, the Supreme Court upheld the board's ruling ordering the reinstatement of the five union activists but stated that under the Wagner Act's provisions, the company had not committed an unfair labor practice by replacing "striking employees with others in an effort to carry on the business." The Court (in an oft-quoted passage) declared that "it does not follow [from the Wagner Act] that an employer *guilty of no act denounced by the statute*, had lost the right to protect and continue his business by supplying places left vacant by strikers." Under the limited protection of workplace rights accorded by the Wagner Act, employers hiring permanent striker replacements were "guilty of no act denounced by the statute." Indeed, the NLRB's brief to the Court also recognized employers' right to avail themselves of this particular economic weapon:

The Board has never contended . . . that an employer . . . cannot take full advantage of economic forces working for his victory in a labor dispute. The Act clearly does not forbid him . . . to replace the striking employees with new employees or authorize an order directing that all the strikers be reinstated and the new employees discharged. . . . [A]n employer is fully within his rights under the statute in refusing to reinstate striking employees.⁴⁶

In order to understand the board's somewhat surprising admission that economic strikers may legally be permanently replaced, we must examine the circuit court's 1937 decision overturning the board's initial reinstatement order in the *Mackay* case. The circuit court ruled that the board had predicated its reinstatement order "solely upon the fact that they were union employees who had engaged actively in an unsuccessful strike and who desired and were refused re-employment." NLRB regional attorney Bertram Edises warned general counsel Charles Fahy that the circuit court "distinguishes between 'reinstatement' of employees wrongfully discharged, and 're-employment' of striking employees, which [it] declares to be beyond the constitutional powers of the Board." In reply, the board emphasized that its reinstatement order in the *Mackay* case was based upon clear and unequivocal evidence of employer discrimination against "the most active union officers or strike leaders," not simply the participation of the men in a failed strike. Thus the board stressed that its order contained "no requirement . . .

that the respondent fire any of the strikebreakers, but only that it reinstate the men wrongfully denied reinstatement; that the strikebreakers were afforded work, or continue to be afforded work, on jobs which are available only because of the unfair labor practices committed against" the union activists; and that "such contracts of hiring as were made with the strikebreakers are subordinate to the power of Congress to legislate" on employers' discrimination against union members.⁴⁹ In making this important distinction, however, the board effectively conceded that under the provisions of the NLRA, employers could permanently replace economic strikers if no unfair practices were involved.

In the last two decades, the Court's *Mackay* decision has been vilified by labor scholars as a clear indication of the 1930s Supreme Court's lingering antipathy towards organized labor.⁵⁰ This is not how most contemporary observers interpreted the Court's decision, however. In the hostile political and industrial relations climate of the late 1930s, many supporters of collective bargaining welcomed the Court's Mackay decision as a victory, albeit a qualified one, for the trade union movement. It was, as the Bureau of National Affairs pointed out, "the first decision made by the Supreme Court in which an employer was required to reinstate persons who struck in a dispute which did not arise as the result of any unfair labor practice."51 The chief architect of the new industrial relations order, Robert Wagner, shared the bureau's positive interpretation of the *Mackay* decision. Wagner's only public comment on Mackay made no reference to the striker replacement issue but simply noted that the Court had upheld the board's original reinstatement decision, making the ruling "the eleventh straight victory for the Labor Board in the Supreme Court, and the seventh in which the Court reversed a circuit court of appeals decision adverse to the Board."52

Contrary to what previous labor scholars have suggested, moreover, the Court's *Mackay* decision was not entirely incongruous with New Deal labor policy.⁵³ Rather, it represented the legal codification of, in the words of board secretary Nathan Witt, "the drift of the Board's policy" on striker replacements⁵⁴ and was perfectly consistent with the Wagner Act's narrow definition of workplace rights and its lack of restrictions on workers' and employers' economic freedoms. Under the provisions of the Wagner Act, if an employer bargained "in good faith" over the terms and conditions of employment, he was then free to use the economic weapons at his disposal—including permanent striker replacements—in order to win an industrial dispute.

Like Chairman Madden's dissent in the *Birge* case, the Court's *Mackay* decision attracted considerable interest from employers' organizations. The Chamber of Commerce pointed out that "a vital point in the court's decision

in the *Mackay* case was the circumstance that the men involved had gone on strike because of a controversy over terms of employment rather than a protest against alleged violations of the act. Consequently, the court ruled, the strikers were not entitled to automatic reinstatement."⁵⁵ The Chamber of Commerce also praised a number of Supreme Court decisions in the late 1930s which, it believed, "were in defense of the rights of employers against attacks from the Board going beyond the Labor Relations Act itself, with its one-sided provisions." Chief amongst these decisions were those which established the rights of "an employer who, without himself engaging in any unfair labor practice, is confronted with a strike . . . filling the places left vacant by the strikers and promising the new workers permanent employment."⁵⁶ In a number of subsequent disputes, moreover, employers cited the court's *Mackay* doctrine as legal justification for their decisions to permanently replace economic strikers.⁵⁷

By the late 1930s, the Wagner Act, the NLRB, and the courts had constructed a labor policy which clearly established employers' right to hire permanent striker replacements during economic disputes and placed strict restrictions on striking workers' right to reinstatement. However, most labor policy experts recognized that although consistent with the NLRA's model of limited state intervention in collective bargaining, employers' right to permanently replace economic strikers was inconsistent with the original "spirit" of the law. In February 1947, almost a decade after the Court's *Mackay* decision, the Truman NLRB acknowledged that the striker replacement doctrine, "formulated by the Board and the Supreme Court in the early days of the board's history in *Matter of Mackay Radio and N.L.R.B. v. Mackay Radio*," had created a policy and legal precedent "perhaps more liberal in the employer's favor than the [Wagner] Act concept." 58

Conclusion

In October 1941 Robert Wagner received a letter from an official at the Office of the President reporting on a conversation with "an important executive of a very large steel corporation." According to the White House official, the steel executive stated, "As you know we fought the Wagner Act and the NLRB. I believe now in the light of our experience operating under these laws that the day will come when the industrialists of the United States will build a monument to Senator Wagner." The Roosevelt administration official, of course, offered the remark as a compliment to Wagner's role in promoting stable labor relations and collective bargaining. In recent years, however, certain labor historians have argued that industrialists might build such a monument for Wagner in recognition of the NLRA's role in co-opting shopfloor militancy and ensuring that the labor movement was ill-prepared

to resist the employers' antiunion offensive during the past three decades.⁶⁰ Contrary to what these historians have argued, the drafters of the Wagner Act intended to strengthen, not undermine, the independent power of the industrial union movement. Nor did the NLRB and Supreme Court reinterpret the original "radical intent" of the Wagner Act⁶¹ on the question of striker replacements. Rather, in the final version of the NLRA, although scarcely realizing the long-term consequences of their decision, Wagner and his political allies opted for a model of limited state intrusion in labor-management relations which permitted "legitimate" employer resistance during economic strikes, including the right to hire permanent replacement workers. While certain NLB and NLRB members favored aggressive state regulation of employers' actions during industrial disputes, this more interventionist interpretation of New Deal labor policy quickly lost support, especially after the appointments of William Leiserson to the NLRB in 1939 and Harry Millis as the new chairman of the board in 1940. By the early 1940s, their "noninterference" interpretation of the Wagner Act's intent, backed up by court decisions, dominated the board's policy on state regulation of employers' economic weapons.

The debate over the legal status of replacement workers is important in its own right, particularly today. Employers' right to hire replacement workers did not appear terribly important in the 1940s-1960s, when the actual incidence of employers hiring striker replacements was relatively low, and it rarely resulted in union decertification. In the hostile economic and political climate of the 1980s and 1990s, however, employers' use of striker replacements has risen dramatically, and the number of strikes has fallen significantly, in large part because of workers' fear that employers will hire replacement workers. 62 During the past two decades industrial disputes involving striker replacements have become longer in duration and more likely to result in union decertification. Today, federal labor policy on the permanent replacement of economic strikers enables, and even encourages, American employers to express openly their hostility to unionization and collective bargaining.

On February 2, 1996, a unanimous three-judge panel of the United States Court of Appeals for the District of Columbia Circuit overturned President Clinton's March 1995 executive order prohibiting government agencies from contracting with employers that permanently replace economic strikers. In the decision, Judge Lawrence Siberman criticized Clinton's executive order as an improper attempt to set "broad" and "quite farreaching" labor policy which violated the NLRA by interfering with employers' legal right to hire permanent striker replacements. Siberman argued that Clinton's executive order was "in conflict with the NLRA" and

that it was "undisputed that the NLRA preserves to employers the right to permanently replace economic strikers." Siberman did not rule on the merits of the executive order's premise that the "permanent replacement of strikers unduly prolongs and widens strikes and disrupts the proper 'balance' between employers and employees" but concluded that "whatever one's views on the issue, it surely goes to the heart of United States labor relations policy." Whatever one's views of Siberman's decision, on this last point surely he was correct. The question of the legal status of striker replacements was central to the debate over the extent of government intervention in labor-management relations during the 1930s, and it remains so today.

Acknowledgments

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Endnotes

- ¹ Two prominent scholars of contemporary American labor, Richard Freeman and James Medoff, for example, argue that employer "opposition, broadly defined, is a major cause of the slow strangulation of private sector unionism [in the United States]." Freeman and Medoff, *What Do Unions Do?* (Basic Books, 1984), p. 239. See also, Paul Weiler, "Promises to Keep: Securing Workers' Rights to Self-Determination under the NLRA," *Harvard Law Review* 96 (1983). Weiler argues that illegal employer practices, and the NLRB's failure to police and remedy them, is a crucial factor in the decline in private sector union membership in the United States.
- ² Williams B. Gould, Agenda for Reform: The Future of Employment Relationships and the Law (The MIT Press, 1993), p. 202.
- ³ See, for example, James Atleson, *Values and Assumptions in American Labor* (University of Massachusetts Press, 1983), pp. 19-34. Atleson begins his analysis of the striker replacement issue with an account of the *Mackay* decision and then examines subsequent board and court cases involving replacement workers. Three influential accounts of New Deal labor legislation, Melvyn Dubofsky's The State and Labor in Modern America; Christopher Tomlins' *The State and the Unions: Labor Relations, Law, and the Organized Labor Movement in America, 1880-1960* (Cambridge UP, 1986); and James Gross' *Reshaping the National Labor Relations Board, 1937-1941* (State University of New York Press, 1981); barely mention the *Mackay* decision.
- ⁴ Chief Justice Felix Frankfurter used this phrase in the 1941 Supreme Court case *N.L.R.B. v. Phelps Dodge Corporation*.
- ⁵ G. Schatzki, "Some Observations and Suggestions Concerning a Misnomer— 'Protected' Concerted Activities," *Texas Law Review* 47 (1969), p. 383.
- ⁶ Milton Handler, Address to Legal Division of the National Recovery Administration (no date). Georgetown Special Collections, Leon Keyserling papers, Box 1, Folder 10.

- ⁷ Edwin S. Smith, "The Status of Strikers as Employees." National Archives, RG 25 (Records of the National Labor Relations Board), National Labor Board, 1933-34, Office of the Executive Secretary, Case Files with Some Exhibits and Briefs, 1933-35, Cases 99-100, Case No. 99, New Series, Eagle Rubber Company, Ashland, Ohio.
- ⁸ NLRB, *In Matter of Century Electric Company*, September 19, 1934. Decisions of the National Labor Relations Board, July 9, 1934-December 1934 (Washington, D.C., 1935), p. 81, emphasis added.
- ⁹ According to Milton Handler, the NLB developed a "set of principles which later became the intellectual heritage and the foundation for the National Labor Relations Board." Quoted in Peter Irons, *The New Deal Lawyers* (Princeton, 1982), p. 225. David Walsh, Chairman of the Labor and Education Committee, emphasized the importance of Wagner's experience as chairman of the National Labor Board in shaping his ideas concerning state regulation of employers' behavior during industrial disputes. "It was the result of his experience as a member of that Board," Walsh believed, "which prompted him and others associated with him to draft some legislation which would be beneficial in not only defining clearly the rights of workers, but, by reason of the clarification of the rights of both employers and employees in preventing or settling labor disputes." *Congressional Record*, June 16, 1935, p. 12198.
- ¹⁰ The drafters of the 1934 and 1935 labor bills discussed the rights of economic strikers at length. During one meeting attended by Wagner, Keyserling, and Wyzanski in early 1934, the twelve main agenda items included "reinstatement," "scabs," "rights of striking employees as a group for bargaining," "who is an employee," and "treatment of a striker who has failed." Harvard Law School Special Collections, Charles Wyzanski papers, Box 3, Folder 13 (National Labor Relations Board).
 - ¹¹ Leon Keyserling Papers, Box No. 1, Folder 20.
 - ¹² Legislative History of the National Labor Relations Act, Volume 1, pp. 535, 406.
- ¹³ See, for example, Associated Industries of Massachusetts, March 14, 1934. Leon Keyserling Papers, Box 1, Folder 4.
- ¹⁴ During the 1935 Congressional debate on the NLRA, the bill's supporters emphasized repeatedly the difference between the two bills' definitions of an employee. The Senate Labor Committee, for example, stressed that "the broader definition of 'employee' in [the 1935 bill] does not lead to the conclusion that no strike may be lost or that an employer may not hire new workers, temporary or permanent, at will." Legislative History of the National Labor Relations Act, Vol. 1, p. 1346.
- ¹⁵ John Fitch, letter to Robert Wagner, March 7, 1934, Leon Keyserling Papers, Box 1, Folder 12.
- ¹⁶ Robert F. Wagner, letter to John Fitch, March 12, 1934. Georgetown Special Collections, Robert F. Wagner papers, Reel 42.
- ¹⁷ As early as 1919 the Urban League had embraced collective action as the only realistic solution to the problems of black workers and cautioned black workers to accept positions as strikebreakers "only where the union affected had excluded colored men from membership." Quoted in James Grossman, *Land of Hope: Chicago, Black Southerners, and the Great Migration* (University of Chicago Press, 1989), p. 237.

¹⁸ Legislative History of the National Labor Relations Act, Volume 1, p. 1059.

- ¹⁹ During the 1910s Hill served as executive secretary of the Chicago Urban League; in contrast with other NUL officials, Hill generally supported unionization. See Grossman, *Land of Hope*, pp. 237-38.
- ²⁰ T. Arnold Hill, Acting Executive Secretary, National Urban League, April 3, 1934, memorandum to all coworkers, emphasis added. Library of Congress, NAACP Papers, Group 1, C-257.
 - ²¹ Legislative History of the National Labor Relations Act, Volume 1, p. 1059.
- ²² Robert F. Wagner, letter to T. Arnold Hill, April 24, 1935. Robert F. Wagner Papers, Reel 46.
- ²³ Robert F. Wagner, letter to Lloyd Garrison, April 14, 1934; Wagner, letter to Dr. D. Witherspoon, chairman, Atlanta Urban League, April 24, 1934. Robert F. Wagner Papers, Reel 44.
- 24 Robert F. Wagner, letter to Harry Millis, May 15, 1934. Robert F. Wagner Papers, Reel 44.
 - ²⁵ Legislative History of the National Labor Relations Act, Volume 1, p. 1122.
- ²⁶ See, for example, Donald Richberg's draft 1934 labor bill, which Wagner opposed because it "provided rigorously for compulsory arbitration." Robert Wagner, comments on Richberg draft of 1934 labor bill, no date. Charles Wyzanski papers, Box 4, Folder 1, Harvard Law School Special Collections. The AFL, of course, also vehemently rejected any proposals to place legal restrictions on its unions' right to strike.
- $^{\rm 27}$ Robert Wagner, letter to Newspaper Guild of New York, March 8, 1935, emphasis added. Leon Keyserling papers, Box 1, Folder 10.
- ²⁸ Memorandum, Re: Alleged Unfair Labor Practice. In the Matter of M.H. Birge & Sons Company and United Wall Paper Crafts of North America, emphasis added. RG 25, Formal and Informal Unfair Labor Practices and Representation Case Files, 1935-48, 1935-37, Box 48, Birmingham Shoe Range Company through M.H. Birge & Sons Company.
 - ²⁹ Ibid.
- ³⁰ Daniel Shortal, memorandum to Samuel Surrey, Re: M.H. Birge and Sons Company, February 24, 1936, emphasis added.
- ³¹ Daniel Shortal, memorandum to Samuel Surrey, Re: M.H. Birge and Sons Company, March 2, 1936, emphasis added. Two years later, Milton Handler also acknowledged that employers' right to permanently replace economic strikers might ultimately undermine the acts' stated purpose of encouraging the practice and procedure of collective bargaining. In a 1938 article, Handler argued that although the NLRB had not yet ordered the reinstatement of economic strikers in the absence of employer unfair labor practice, "the Board, even here, may regard reinstatement as essential to achieve the purposes of the statute. . . ." Milton Handler, "Affirmative Orders of the National Labor Relations Board, *Labor Law Comments*, No. 3, August, 1938.
 - ³² Stanley S. Surrey, letter to Daniel B. Shortal, February 26, 1936.
 - ³³ Philip Levy, memorandum to Charles Fahy, October 28, 1935, emphasis added.
- ³⁴ J. Warren Madden, dissenting opinion, In the Matter of M.H. Birge & Sons Company, May 14, 1936, emphasis added. RG 25, Formal and Informal Unfair Labor Practices

and Representation Case Files, 1935-48, 1935-37, Box 48, Birmingham Shoe Range Company through M.H. Birge & Sons Company.

- ³⁵ Fortune Magazine reported on the widespread attacks on the board's alleged lack of impartiality in its October 1938 article, "The G__ D__ Labor Board."
- ³⁶ J. Warren Madden, dissenting opinion, In the Matter of M.H. Birge & Sons Company, May 14, 1936, emphasis added.
- ³⁷ The comprehensive account of Leiserson's influence on NLRB policy after 1939 is found in Tomlins, *State and the Unions*, pp. 197-243.
- ³⁸ William Leiserson, letter to J. Warren Madden, June 3, 1936, emphasis added. RG 25, Formal and Informal Unfair Labor Practices and Representation Case Files, 1935-48, 1935-37, Box 48, Birmingham Shoe Range Company through M.H. Birge & Sons Company. Madden replied that it was "a satisfaction to me to know that you agree." J. Warren Madden, letter to William Leiserson, June 8, 1936. RG 25, Formal and Informal Unfair Labor Practices and Representation Case Files, 1935-48, 1935-37, Box 48, Birmingham Shoe Range Company through M.H. Birge & Sons Company.
- ³⁹ William Leiserson, memorandum to J. Warren Madden and Thomas Emmerson, August 21, 1939. RG 25, Program Correspondence Files, 1934-79, Group 1, Former Chairman, 1934-70, Box 4.
- ⁴⁰ Both Leiserson and Millis were students of University of Wisconsin labor economist John R. Commons.
- ⁴¹ National Association of Manufacturers, Labor Relations Bulletin, "Answers to Questions on the Wagner Act," May 23, 1937, pp. 13-14. Robert F. Wagner papers, Reel 48. Madden's dissent, the NAM pointed out, was "based upon the facts that the respondent in no way interfered with the development of the union, that it bargained in good faith to the time of the strike, and that it offered to reinstate all union men for whom there were vacancies."
- ⁴² On the employers' use of striker replacements in the decades after the passage of the Wagner Act, see Michael H. LeRoy, "The Changing Character of Strikes Involving Permanent Striker Replacements, 1935-1990," *Journal of Labor Research*, Volume XVI, no. 4 (Fall) 1995, pp. 423-38. Employers used extensively striker replacements in their fight against Operation Dixie, the CIO's "hold crusade" to extend industrial unionism to the South in the 1940s. See, for example, Timothy J. Minchim, *What Do We Need a Union For? The TWUA in the South, 1945-1955* (Chapel Hill, 1997).
- ⁴³ Harry Lodish, "Legal Questions and Suggestions from Regional Offices" (no date), emphasis added. RG 25, Records Relating to the Legal Division, 1935-39, General Counsel's Reports on Section 8 Cases, Assistant General Counsel Witt's Records, 1935-36, Box 1.
- ⁴⁴ Fred G. Krivonos, "Employers' Conduct in Combating Strike as Unfair Labor Practice," National Labor Relations Board Memorandum, June 3, 1936. RG 25, Records of the Legal Division, Records Relating to the Legal Division, 1935-39, General Counsel's Reports on Section 8 Cases, Assistant Witt's Records, 1935-36, Box 1.
- ⁴⁵ In an interesting epilogue to the *Birge* case, Nath Witt, NLRB attorney and by 1937 board secretary, responded to a letter from Harvard economist Sumner Slichter on the legal status of replacement workers by suggesting that he look at Madden's minority

opinion in the *Birge* case. Witt pointed out that the NLRB had not yet "disagreed with [the] proposition that if there has been no unfair labor practice the employer is free to restaff his plant if his employees go out." He continued that the board had established that "if the strike was not caused by an unfair labor practice, and if there is no unfair labor practice during the course of the strike, the employer is not required to reinstate the strikers. (There has been no specific holding to this effect, but this is the drift of the Board's policy. See Chairman Madden's dissent in the *Birge* decision.)" Nathan Witt, letter to Sumner Slichter, May 21, 1936, emphasis added. RG 25, Records of the Legal Division, Records Relating to the Legal Division, 1935-39, General Counsel's Reports on Section 8 Cases, Assistant Witt's Records, 1935-36, Box 1.

- ⁴⁶ N.L.R.B. v. Mackay Radio and Telegraph Company, 304 U.S. 333, Record on Appeal, Reply Brief of the Board, pp. 15-16.
- ⁴⁷ Charles Fahy, memo to Norman Somers, Re: Mackay Radio Argument, June 4, 1937, original emphasis. RG 25, Formal and Informal Unfair Labor Practices and Representation Case Files, 1935-48, 1938-39, Box 859, Mackay Radio and Telegraph Company through Mackay Radio and Telegraph Company.
- ⁴⁸ Bertram Edises, memo to Charles Fahy, Re: Mackay Radio and Telegraph Company, Decision on Rehearing, October 19, 1937. RG 25, Formal and Informal Unfair Labor Practices and Representation Case Files, 1935-48, 1938-39, Box 859, Mackay Radio and Telegraph Company through Mackay Radio and Telegraph Company.
 - 49 Ibid.
- ⁵⁰ See, for example, Daniel Politt, "Mackay Radio: Turn It Off, Tune It Out." *University of San Francisco Law Review* (1991), pp. 295-332.
- ⁵¹ In its ruling, the bureau emphasized the Court had "held that the employer was under no obligation to rehire strikers as a group and that he might replace them with other persons, but once he offered to take back those who struck, he might not single out union leaders and deny them reinstatement while giving employment to other strikers." The Bureau of National Affairs, *Labor Relations Reporter*, May 17, 1938, emphasis added. Robert F. Wagner Papers, Reel 49.
 - ⁵² Senator Robert F. Wagner, Congressional Record-Senate, May 16, 1938, p. 6905.
- ⁵³ The only extensive historical analysis of the Court's 1938 *Mackay* decision is found in James Atleson's *Values and Assumptions in American Labor Law*. Atleson concludes that the *Mackay* decision has had "drastic effects on statutory rights and employee interests" and that it was inconsistent with the NLRA's unqualified protection of workers' right to strike. Instead, Atleson views the decision as a continuation of proemployer judicial rulings "separated by forty years and a supposed social and legal revolution." James Atleson, *Values and Assumptions in American Labor Law*, p. 27.
- ⁵⁴ Nathan Witt. Letter to Sumner Slichter, May 21, 1936. RG 25, Records of the Legal Division, Records Relating to the Legal Division, 1935-39, General Counsel's Reports on Section 8 Cases, Assistant Witt's Records, 1935-36, Box 1.
- ⁵⁵ The Chamber of Commerce also (mistakenly) believed that "the court left open the question whether, in other situations where strikes have arisen because of employers' violations of the Act, the Board could not validly order replacement of newly hired employees be strikers." *Washington Review*, May 23, 1938, pp. 2-3.

- ⁵⁶ Washington Review, August 22, 1938, p. 1.
- ⁵⁷ See, for example, the 1939 *Johnson-Carper Furniture* case in which the company insisted that "we have followed the decisions of the United States Supreme Court by replacing the strikers with new employees. . . . We will not, therefore, discharge any employee in order to give a striking employee a job." D.L. Jordan, Johnson-Carper Furniture Company, letter to Lawrence Seton Ross, Representative, United Furniture Workers of America, September 1, 1939. RG 25, Formal and Informal Unfair Labor Practices and Representation Case Files, 1935-48, 1939, Johnson-Carper Furniture, Box 792.
- ⁵⁸ NLRB, "Rights and Privileges of Strikers and their Employers," February 3, 1947. RG 25, Committee Management File, 1934-74, Former Chairmen, 1934-74, Box 4. On the legal status of economic strikers, the board stated that "such strikers take their chances on losing their jobs as a result of the strike, for the employer is privileged to replace them permanently."
- ⁵⁹ "Lowell" (Millett or Lingus), letter to Robert F. Wagner, October 25, 1941. Robert F. Wagner papers, Reel 55.
- ⁶⁰ See, most recently, Colin Gordon, New Deals: Business, Labor, and Politics in America, 1920-1935 (Cambridge, UP, 1994).
- ⁶¹ Karl Klare argues that Supreme Court decisions in the late 1930s and early 1940s undermined the radical potential of the Wagner Act. See Karl Klare, "Judicial Deradicalization of the Wagner Act and the Origins of Modern Legal Consciousness, 1937-1941," *Minnesota Law Review* 62 (March 1978), pp. 265-339.
- ⁶² In 1995 the number of strikes fell to its lowest level since World War II. Although the fall in union membership is partially responsible for this decline, workers' fear of employers' use of permanent replacement workers also explains the low number of strikes. In the 1980s and 1990s, important employers such as Greyhound, Phelps Dodge, Eastern Airlines, and the Detroit News and Free Press hired permanent replacement workers. As a result of employers' frequent resort to hiring permanent striker replacements in the 1980s and 1990s, workers have been increasingly reluctant to put their jobs on the line by striking. On the decline of the strike level, see *New York Times*, January 29, 1996, p. 12.
- ⁶³ Daily Labor Report, February 5, 1996, AA-1, E-11. According to Steve Bokat, vice president and general counsel for the Chamber of Commerce, the ruling was "very, very significant" because it was "really one of the first opinions to clearly delineate the power of the president vis-à-vis Congress in the arena of labor-management relations." See, Washington Post, February 3, 1996, p. A12. In September 1996, the Clinton administration announced that it would not appeal the decision. Labor Secretary Robert Reich stated that while the president still believed that he had the authority to issue such an order, "further litigation on the validity of the executive order is not productive." New York Times, September 12, 1996, p. A9.

XV. POSTER SESSION I

Union Effects on the Duration of Nonwork Spells in the Workers' Compensation System

YONG-SEUNG PARK AND AVNER BEN-NER

University of Minnesota

This paper analyzes the effect of unions on the duration of nonwork spells on claimants in the workers' compensation system. It has been argued that a union may affect the duration of nonwork spells in two ways. First, a union may alter the true level of workplace safety and in turn affect both the frequency and severity of work-related injuries ("true safety" effect). Second, a union may influence workers' incentives to file claims or stay in the system for a longer nonwork spell ("moral hazard" effects). This study analyzes 9,818 workers' compensation claims filed with the Minnesota Department of Labor and Industry (DLI) for injuries that occurred in 1993 and 1994 in 873 sample firms in the Minnesota Human Resource Management Practice (MHRMP) Survey. To correct for the right-censoring data problem, we use a maximum likelihood estimate of duration of nonwork spells using the Weibull distribution. Empirical results show that being a union member is associated with a 19% increase in the duration of nonwork spells. This means that on average, the nonwork spells are approximately ten days longer for workers from unionized firms as compared to their nonunionized counterparts in the sample of this survey.

Decision Making under Final-Offer Arbitration: A Bivariate Probit Approach

JOHN L. FIZEL Penn State-Erie

Marie D. Connolly *Chatham College*

Empirical studies provide limited support for the theoretical implications of FOA. These studies, however, fail to model the observed outcome (arbitration

or negotiation) as a joint choice by labor and management. The bivariate probit model jointly estimates the reduced form equations which allows the effects of variables on labor decisions to be separated from the effects on management decisions. Using data from major league baseball, preliminary results suggest countervailing pressures on the parties mask key empirical relationships in standard probit models. For example, management risk is significant in the bivariate probit estimation but not in the probit estimation.

Empirical Evidence of Organizational and Union Commitment during Corporate Restructuring

JEAN CLIFTON
Cornell University

THOMAS CLIFTON Le Moyne College

Experimentation with organizational restructuring is becoming increasingly widespread as firms attempt to compete in increasingly diverse and competitive markets. This paper provides preliminary evidence of the complex implications for employee job-related attitudes of implementing contradictory restructuring programs. We look at the effects on both organizational and union commitment of one firm's restructuring strategy that combines significant downsizing and minimal employee participation with commitment-enhancing practices, including investments in training and employment security.

Survey data collected from a sample of 465 nonmanagement employees in three occupational groups within one telecommunications firm were analyzed. Regressions are estimated for both union and organizational commitment for the sample and for each occupational grouping separately. The fully interactive estimates, with occupations as the moderators, produce results that differ in significance or direction for a number of variables of interest. These results suggest that occupation has a moderating influence on the relationship between restructuring program and both organizational commitment and union commitment.

Although some restructuring variables do influence union and/or organization commitment, a number have little or no direct effect on either of the dependent variables. Further research exploring the potential mediating effects of job satisfaction and labor-management relations is recommended in order to determine whether the restructuring variables indirectly affect organization commitment or union commitment.

Drug Testing and Labor Productivity: Estimates Applying a Production Function Model

EDWARD SHEPARD AND THOMAS CLIFTON

Le Moyne College

The use of preemployment and random drug testing by companies in the U.S. has grown rapidly during the past decade. This paper provides statistical evidence about the economic effects of drug-testing programs by applying a production function model to a test sample of 71 firms within the computer and communications equipment industries in the U.S. The sample of firms comes from two (3-digit) SIC code areas that comprise a portion of the "high-tech" industries in the economy. An economic production function model is specified and estimated using cross-sectional firmlevel data on the presence and type of drug-testing programs, combined with financial data on companies available through COMPUSTAT. The empirical results suggest that drug-testing programs do not succeed in improving productivity. Surprisingly, companies adopting drug-testing programs are found to exhibit lower levels of productivity than their counterparts that do not. The regression coefficients representing potential effects or drug-testing programs on productivity are both negative and significant. Both preemployment and random testing of workers are found to be associated with lower levels of productivity. Theses results hold up under alternative specifications and estimation techniques, including controls or corrections for capital quality and heteroskedasticity. Finally, several alternative hypotheses providing possible rationales for these negative findings are considered.

Transformation of Human Resource Management in Korea: The Case of Samsung

SEONGSU KIM
Seoul National University

In response to globalization and slow economic growth, South Korean firms are in the process of transforming their HRM systems to effectively compete in the global market. The traditional HRM system in Korea has long emphasized group harmony and age norms. However, the "new HR policy (*Shin In Sa*)" emphasizes a performance-based system, which observers think will be met with resistance from employees. Whether the new HR policy can achieve its objectives remains to be seen. This radical

change from the traditional HRM system to a new one is likely to cause a variety of problems. Specifically, four potential problems are discussed in the case of Samsung.

Trends in Establishment Growth in the Construction Industry: Is Double Breasting a Factor?

MATTHEW M. BODAH University of Rhode Island

Following a review of legal and policy questions, the author examines trends in establishment creation in the construction industry for evidence of double breasting. Although the relationships between variables are somewhat weak, there is evidence that higher levels of unionization by state become better predictors of establishment growth after the mid-1970s, controlling for increases in the value of construction by state. This finding is consistent with the argument that double breasting increased after the *Kiewit* decision of the mid-1970s. A pooled cross-sectional regression analysis was conducted on data from fifty states between 1964 and 1994, with deletions for missing data (N = 1328).

Vertical Integration Strategy and Relative Power and Outcomes in IR

Stephen B. Blumenfeld University of Illinois at Urbana-Champaign

This paper considers the relationship between backward and forward integration of production and operations and relative power and outcomes in union-management relations. Cross-sectional and time-series analysis of company, union, and industry data suggests union bargaining power is enhanced by vertical integration. When the output of each subsidiary or division of a company is essential to the overall production process, the firm's capacity to continue operations in the event of a strike—even by only one of its unions—is greatly curtailed. As a consequence, a vertically integrated employer is more vulnerable to its unions' strike threat than is a purely diversified employer.

The Impact of Human Resource Diversity Practices on Firm Effectiveness: A Configurational Framework

Orlando C. Richard and Nancy B. Johnson University of Kentucky

The recent business trends of globalization and increased demographic diversity in the workplace has motivated companies to implement a variety of human resource practices. This paper employs a holistic approach to strategic human resource management (SHRM) to develop the diversity orientation concept as a configuration of human resource policies. We then theorize on the performance implications of the diversity orientation construct considering a number of contingency factors. Next, diversity orientation is used to articulate predictions about the impact of demographic diversity (i.e., racial, gender) or organizational effectiveness. Implications for future research and practices are presented.

The Effects of Gainsharing on Grievances and Absenteeism over Time

JEFFREY B. ARTHUR Fairfield University

Gregory S. Jelf Purdue University

We sought to better understand the long-term impact of gainsharing by analyzing longitudinal changes in two key indicators of workplace union-management relations: grievance rates and employee absenteeism. Using a 7.5 year longitudinal data set and an interrupted time-series design, we found that the introduction of a Scanlon-type gainsharing plan was followed by a gradual and permanent decline in both of these indicators. These results provide strong quantitative evidence for the ability of gainsharing to transform existing labor-management relations. Using qualitative data, we consider the relationship between labor relations outcomes and performance improvements following the introduction of gainsharing.

Impact of Work on the Health of Persons with Disabilities

IŞIK URLA ZEYTINOĞLU, MURIEL WESTMORLAND, PAM PRINGLE, MARGARET DENTON, AND VERA CHOUINARD McMaster Research Center for the Promotion of Women's Health

This study uses participatory action research methodology to examine the impact of paid and unpaid work on the health of persons with disabilities. Six focus groups were held in 1995 with disabled persons who were currently working (N = 35). Results were analyzed using a qualitative data analysis package called NUD*IST. The majority of participants stressed the positive effects of work on mental health and well-being, such as improved self-esteem and a goal in life, and reported that work helped them to overcome their disability. The issue of physical health improving in relation to mental health was also discussed by a third of the participants. Negative effects of work on physical health were not discussed in the focus groups.

Defining and Measuring Workplace Violence

JACK L. HOWARD Illinois State University

RICHARD B. VOSS
Western Illinois University

While violence appears to have become commonplace in today's workplace, there is a dearth of statistics measuring and tracking its development. This paper presents a definition of workplace violence. Additionally, a measurement tool for classifying acts of workplace violence is developed. The measurement tool assesses the act itself and its influences on victims, owners, management policies and procedures, and the external environment. The measurement tool should help practitioners and academics assess the acts of workplace violence, leading to a better understanding of workplace violence.

Obesity Discrimination: A Multidisciplinary Analysis

Ann Fraedrich Stenoien and Cheryl L. Maranto Marquette University

Obese plaintiffs have never won an Americans with Disabilities Act (ADA) case under the actual disability theory. Two have won under the

"perceived disability" theory: although the obese plaintiffs were not disabled, employers believed they were disabled. Weight-related appearance standards are legal, and the obese are expected to suffer wage penalties. We estimate a model in which wages and weight are endogenously determined and productivity effects of obesity (health limitations and intelligence) are controlled. We find that women, but not men, suffer a significant weight-related wage penalty. Overweight women might obtain Title VII protection with a "sex plus" analysis. Applying weight standards only to women constitutes gender discrimination.

Factors Affecting the Use of New Technology

TERRY H. WAGAR
Wilfrid Laurier University

This study investigates factors affecting the use of new technology using data from 1,117 Canadian establishments. Use of new technology was higher among establishments experiencing organizational restructuring, more environmental turbulence, and greater use of contracting out work. Technology use was lower among establishments using a defender or analyzer strategy, while the presence of an entrepreneurial culture, progressive decision-making ideology, and a higher number of team-based programs were positively and significantly related to use of technology. Although technology use increased among larger establishments, it was not significantly associated with the union status of the establishment.

XVI. POSTER SESSION II

Coping with Downsizing and Job Loss

STEPHEN J. HAVLOVIC Simon Fraser University

France Bouthillette St. Paul's Hospital

RENA VAN DER WAL Vancouver Hospital

MARJORIE ARMSTRONG-STASSEN University of Windsor

A study was conducted on the impact of hospital closure on employees. Coping methods were found to be stable over time. Differences in work-related outcomes were found between closure and control sites. Higher levels of work-related stress and lower levels of job security were experienced during the closure. Workers from the closure site experienced decreased levels of job satisfaction on their new jobs. Those using problem-focused coping methods were found to cope more effectively. Advanced planning and coordination of outplacement services is recommended to reduce the trauma of closure and to ensure a smooth job transition.

The Impact of Conservative Interest Groups on Union Member Voting Behavior in the 1994 Elections

PAUL F. CLARK
Penn State University

MARICK F. MASTERS University of Pittsburgh

Anecdotal evidence suggests that conservative interest groups have become increasingly effective in politics, in part, because of their ability to convince union members to support their political candidates instead of labor's endorsed candidates. In order to gain insight into this phenomenon, a survey of union member political attitudes and behaviors was conducted following the 1994 elections. The survey data suggest that while union members were generally supportive of the labor movement's political goals (and voted accordingly for labor's candidates), a significant minority were supportive of the political goals of the National Rifle Association and the Christian Coalition. Members who held these views were more likely to vote against labor's endorsed candidates than other members.

Applying Preclusion in Arbitration: Demographic Influences

CAROL M. CARNEVALE SUNY Empire State College

CRAIG A. TUNWALL SUNY Institute of Technology at Utica

Using a policy-capturing approach, this study examines how a sample of arbitrators would decide a hypothetical case involving preclusion. Facts are manipulated to identify the decision cues used by the arbitrators. Demographic variables are also examined to determine whether differences exist between the group applying preclusion and the other group.

Significant differences between the two groups of respondents occur in two demographic characteristics—legal background and age. Based on difference of means analysis, the group applying preclusion is younger and more likely to have a legal background. The other group is older and has significantly less legal education/experience.

The New Consensus on Work Reform: An Assessment

John Godard University of Manitoba

Over the past decade a new consensus has begun to emerge in the field of industrial relations in the U.S. According to this consensus, various innovations in work practices (and the human resource management practices associated with them) have positive performance effects and as such are to be promoted as the "wave of the future." This paper is intended to provoke

critical reflection on this consensus as a direction for the field. It also discusses the relevant U.K. literature and argues that it represents a more desirable direction.

Workplace Reforms, Managerial Objectives, and Managerial Outcomes: The Perception of Canadian IR/HRM Managers

John Godard
University of Manitoba

This paper relies on subjective data obtained from a survey of managers with primary responsibility for human resource management in 141 Canadian firms reporting a workplace reform program. It explores the *beliefs* of respondents as to the objectives and outcomes of workplace reform programs and the extent to which these vary in accordance with the specific reforms adopted.

Works Councils in Korea and Taiwan: A Comparative Perspective

Dong-Heon Kim University of Illinois at Urbana-Champaign

This paper analyzes the operation of works councils in Korea and Taiwan. In Korea the early stages of the establishment of works councils met with strong opposition from both unions and employers. However, Korean works councils survived the turbulent period of the late 1980s and have been solidly in place during the 1990s. In contrast to Korea, the institution of works councils has not been firmly established in the Taiwanese industrial relations system. We discuss what lessons Taiwan could learn from the works council experiences of Korea and other countries.

Social Networks and Self-Employment

W. DAVID ALLEN University of Alabama-Huntsville

To what extent are entrepreneurs influenced by family, friends, and other entrepreneurs? We address this question by applying the concept of social networks developed by sociologists to the self-employment decision.

A unique new data set, the Wisconsin Entrepreneurial Climate Study, allows an empirical analysis of individual self-employment in a social context. Individuals who choose self-employment are highly influenced by the size and composition of the social network, holding constant other factors. Women receive different and less influential social support for entrepreneurial activity than men receive, a finding that may help explain historic gender differences in self-employment. Facilitating social contact between nascent entrepreneurs and established entrepreneurs may be beneficial as a matter of public policy.

Mediator Effectiveness and the "Good Ole Boys" Network: Dispelling Myths about Sex, Race, and Age

RICHARD A. POSTHUMA AND JAMES B. DWORKIN

Purdue University

MARIS STELLA SWIFT
Grand Valley State University

This paper studies the potential impact of sex and race on the effectiveness of mediators in labor-management conflicts. A survey of 222 labor and management representatives found no difference in satisfaction with mediators based on mediator race, mediator sex, party sex, party age, and party experience. However, there was evidence that labor representatives were less satisfied with mediator performance.

Arbitrator Acceptability: A Justice Analysis

RICHARD A. POSTHUMA AND JAMES B. DWORKIN

Purdue University

Maris Stella Swift Grand Valley State University

Justice theories were used to predict the acceptability of arbitrators in dispute resolution processes involving labor and management. The hypotheses that arbitrator distributive, procedural, and interactional justice would predict acceptability of arbitrators was supported. The data indicate that procedural and interactional justice are differentially related to outcomes and may be separate constructs.

Unions and Wages in Nevada's Hotel-Casino Industry

C. Jeffrey Waddoups University of Nevada, Las Vegas

A significant union presence in Las Vegas's hotel-casino industry juxtaposed to the near absence of union representation in Reno provides a unique natural experiment which I use to estimate union wage differentials in Nevada's hotel-casino industry. Results of the analysis using state wage survey data indicate a union wage premium of 23.8%. In a similar analysis using 1990 census data, my results suggest a 19.3% union wage premium for workers employed in occupations in which a substantial union representation exists in Las Vegas.

Political Arguments, Legal Principles, and Evidence on Strike Replacement in North America

HARISH C. JAIN AND PARBUDYAL SINGH

McMaster University

Legislation on the use of strike replacements usually generates passionate debate. In this paper we systematically compare the "rhetoric" (used by employers, trade unions, and legislators) against the empirical evidence and legal principles on this issue in Canada, the United States, and Mexico. The paper concludes with public policy recommendations.

Unfair Labor Practices Filed in Organizing Elections: An Empirical Analysis

KAREN E. BOROFF Seton Hall University

The scholarly research on union organizing drives conducted under the aegis of the National Labor Relations Act is extensive. A dominant theme that arises in some of this work centers on whether or not the act adequately protects those who seek to unionize. While this theme has surfaced, there is no research that actually studies the extent to which alleged violations (that is, unfair labor practice charges) of the act are filed in the context of *all* organizing elections. To overcome this gap, the author creates

two unique data sets. These data sets study the rate at which unfair labor practices occur in all representation elections (1) for a specific region of the National Labor Relations Board and (2) for a specific industry. The author finds that at least one out of every five representation elections generates unfair labor practice activity where unionists allege employer misconduct. Even so, the author was unable to measure any association between whether an alleged misconduct occurred and the eventual outcome of the representation election. The author concludes by recommending that a model be constructed that will predict the likelihood of unionists to file unfair labor practices.

XVII. ANNUAL REPORTS

IRRA EXECUTIVE BOARD MEETING April 17, 1997 Marriott Footoide Hotel New York City

Marriott Eastside Hotel, New York City

The meeting was called to order at 7:10 a.m. by President Francine D. Blau. Present were President-elect Don O'Brien, Past President Hoyt N. Wheeler, and Board members Sue Cobble, Janet Conti (also Chapter Advisory Chair), Roger Dahl, Bernie DeLury, Morley Gunderson, Rachel Hendrickson (also Newsletter Editor), Bruce Kaufman, David Lipsky, Craig Olson, Robert Pleasure, and Gregory Woodhead. Also present were IRRA Administrator Kay B. Hutchison, Secretary-Treasurer David R. Zimmerman, Editor-in-Chief Paula B. Voos, and Lynn Case from the national office. Absent were Board members Katharine Abraham, Eileen Appelbaum, John Serumgard, and Jan Sunoo.

Guests at the meeting were Trevor Bain, Publications Committee; Marlene Heyser, Program Committee Vice-Chair; Joan Ilivicky, New York City Chapter; and Steven B. Rynecki, Legal Counsel.

Approval of Minutes. Minutes of the January 1997 Executive Board meeting in New Orleans were approved as distributed.

Old Business. Kay Hutchison distributed copies of communications from Roy Adams regarding his proposal to change the IRRA mission statement to include core labor standards. She summarized developments regarding the IRRA mission statement at the general membership meeting in New Orleans, subsequent to the Executive Board's adoption of a revised mission statement at its January 2, 1997, meeting. Members present at the general membership meeting on January 5, 1997, voted to have Adams' proposal included as an alternative to the revised mission statement on a mail ballot. Adams' proposal would amend the Board-revised mission statement by adding a sixth section to the mission statement to read, "While encouraging open and frank discussion of issues in these fields, the Association strongly affirms its support for the following core standards: (1) freedom of association, (2) the right to organize and bargain collectively, (3)

prohibition of forced labor, (4) elimination of exploitative forms of child labor, and (5) nondiscrimination in employment or occupation."

A discussion of the Adams' proposal followed. Steve Rynecki noted that as a 501(3)(c) organization (nonprofit educational), the IRRA is precluded from taking political positions without potentially jeopardizing its tax exempt status. He characterized the proposal as "advocacy language" that could eventually lead to challenge of the association's status in the future. Board members discussed whether or not the proposal could be construed as partisan activity that could affect the IRRA's tax exempt status. Some members expressed concern that the original purpose of the association was to encourage research and expression in a nonadversarial setting and that the proposed language would make the organization exclusionary rather than more inclusionary. Further discussion focused on whether or not placing the statement approved at the general membership meeting on the ballot was consistent with the requirements of the Constitution and Bylaws, since Adams' final language was different from that originally proposed and rejected by the Board. There was discussion of how many proposals would go to the general membership and agreement that an explanation of the Board's position on the proposed changes to the mission statement should accompany the ballot. There was consensus that the Board's statement required unanimity and should indicate that serious consideration had been given to the issue. Members discussed several alternative statements without consensus.

David Lipsky made a motion that the president appoint a subcommittee of the Board to revise the previously adopted language of the mission statement subject to the approval of the entire Board. The Board approved the motion on a voice vote, and President Blau appointed a subcommittee consisting of Janet Conti, Bob Pleasure, Hoyt Wheeler, Roger Dahl, and Dave Lipsky. During the course of the meeting, the subcommittee subsequently presented the following language to be added at Section f to the Board's previously adopted mission statement:

f. The Association affirms its support for fundamental worker and human rights in the workplace and for the rights of employees, employers, and their organizations to full freedom to organize and administer their activities and to formulate and pursue their lawful purposes.

The Board adopted unanimously the recommendation of the subcommittee and directed that the Board's revised statement and the statement proposed by Roy Adams be submitted with accompanying explanations to the IRRA membership for a mail ballot.

Spring Meetings. Hutchison reported that recent spring meetings had experienced low revenues and increased costs. Given the costs and lower attendance, the financial viability of the IRRA spring meeting is in question. The association anticipates a \$4,000 to \$5,000 loss on the New York City spring meeting. The 1996 spring meeting in St. Louis did not draw as well as anticipated, and the national office is concerned with the financial prospects for future spring meetings. Initial plans are underway to hold a 1998 spring meeting in San Diego. However, such a meeting would again compete with the FMCS biennial conference in Chicago. Marlene Heyser indicated that she did not think the San Diego Chapter would be disappointed or adversely affected if the association decided to cancel or postpone the meeting in San Diego. Don O'Brien moved that the association not hold a spring meeting in 1998. Motion seconded and carried on a voice vote.

A discussion ensued on the reasons for low attendance at spring meetings. The reasons identified include that meeting costs are significantly higher in the spring than they are for the winter meeting, that our spring meeting competes with other organizational meetings, and that organizations have cut back on conference registrations and travel costs.

Motion was made and carried on a voice vote for the president to appoint a committee to examine the future of IRRA spring meetings. Hoyt Wheeler suggested the committee look at the idea of a fall training meeting. Rachel Hendrickson said the committee should look at the possibility of piggybacking our spring meeting with that of another organization. Don O'Brien suggested that the committee revisit the issue of conducting a policy meeting in Washington, DC, every second year (the non-FMCS year).

IRRA Awards. No action was taken on the recommendation of the 1996 Awards Committee, chaired by Harish Jain, to create additional categories of annual awards for "Best Doctoral Thesis" and "Best Annual Meeting Paper."

National Chapter Advisory Committee (NCAC) Report. Chair Janet Conti reported that the Chapter Handbook is being revised and will be available for distribution to chapter presidents later this year. The NCAC met in Chicago in March and reviewed the changes. The committee has assigned five or six chapters to each member for personal contact and liaison. Chapter representatives and NCAC members are working on a series of frequently asked questions about chapters and the national to be posted on the IRRA website. Chapters are being encouraged to use the IRRA video and/or the 50th anniversary magazine, Perspectives on Work, as a national topic for a program in the coming year. Conti reported that NCAC has developed three levels of chapter recognition awards for presentation to nominated chapters at the NCAC meeting in January. An announcement

about the awards, criteria, and nominating process will appear in the *IRRA Newsletter* and be sent to chapter presidents and contacts. Conti recommended approval of the chapter awards program, and the Board approved on a voice vote.

Editorial Committee Report. Editor-in-Chief Paula Voos reported that the committee has approved Adrienne Eaton and Jeffrey Keefe's proposal for the 1999 research volume entitled Employment and Dispute Resolution in the Workplace. She presented the committee's recommendation that the Editorial Committee be expanded by four members to increase the areas of expertise represented on the committee and that current board policy be modified to allow any member of the committee to be involved as an author in one IRRA volume during a three-year term. The Board approved the recommendation on a voice vote.

50th Anniversary Committee Report. Hutchison said that production work continues on the 50th anniversary video. The video will be featured at the 50th annual meeting in Chicago and be made available to IRRA chapters, educational institutions, and others interested in the field. Contributions to fund the 50th anniversary video and magazine have been solicited from members and organizations, and approximately \$14,000 has been raised to date. Several sessions will be devoted to the IRRA anniversary at the annual meeting in Chicago next January.

Publications Committee Report. Chair Trevor Bain reported that the first issue of the 50th anniversary magazine, Perspectives on Work, was published in April and has been met with enthusiasm. Craig Olson has offered to survey chapter members and others to determine the value of Perspectives for membership recruitment. The committee recommends future issues of Perspectives be shorter in length, employ an issue theme, be practitioner friendly, and be featured on the IRRA homepage. Bain said that a new editor would be needed if the magazine continues, since Tom Kochan, the current editor, has committed only to the first three issues. The committee is concerned about the cost of producing both the Proceedings and Perspectives and is cognizant that costs will need to be reduced to continue the magazine.

Report of the Administrator. Kay Hutchison reported that the association financially broke even for 1996. Membership continues to decline at the rate of 200 members per year. Of the 400+ new members joining in 1996, half of them were for the special introductory half-price offer. She will report on how many of those new members maintain their membership at the regular rate. Hutchison expressed concern for the need to establish association priorities, to identify and strengthen what we do well, and to develop a marketing plan. Jan Conti suggested a planning meeting

of the Board. Craig Olson suggested there be a planning meeting first to define and narrow the issues and possibly work with a facilitator. The Board approved creation of a strategic planning subcommittee to meet in the fall in Madison (to coincide with the IRRI's 50th anniversary meeting in September). A strategic planning meeting of the entire Board will be held in Chicago in January or at a later time.

Hutchison said publication costs continue to represent a significant portion of the IRRA annual budget. She circulated a proposal to produce the Annual Proceedings in unedited form as submitted by the authors and to make receipt of the Proceedings optional for an additional charge to members. Morley Gunderson said unedited Proceedings would be less professional and of less value to contributors and libraries. Once the decision is made, it would be largely irreversible. Sue Cobble said academics may not want to publish if it is not edited work. Gunderson asked if the membership could be asked for their priorities. After much discussion, the Board decided to take no action at the present time but that publications should be discussed as part of the Strategic Planning Committee's agenda.

Chapter Requests for Affiliation. Hutchison reported that two chapters had submitted requests for affiliation with the national association. The Board approved by voice vote the affiliation of the Tennessee Employment Relations Research Association (TERRA) Chapter, provided they adopt language consistent with that of the national constitution and bylaws with respect to the mission of the organization.

A second request for affiliation was presented from the Greater Bay Area IRRA Chapter (Oakland-San Jose). Janet Conti, Chair of the Chapter Advisory Committee, said the national office had asked the committee's review of the request because of the objection of the San Francisco IRRA Chapter to the formation of a new chapter in the geographic area. Roger Dahl felt the name of "Greater Bay Area Chapter" was a concern and moved to table the affiliation until a future meeting. The Board approved on a voice vote.

New Business. President Fran Blau presented her selections for the 1998 Nominating Committee, including Harish Jain as chair. The Board approved the selections on a voice vote.

Other Business. Craig Olson reported that a proposal has been made to the Sloan Foundation for three-year funding of the HRM Network. Under the proposal the funds would be administered by the IRRA in support of conference and publication activities. On a voice vote the Board affirmed its support for such funding and approved the establishment of the network as an IRRA section to facilitate the proposal process.

The meeting adjourned at 11:10 a.m.

IRRA EXECUTIVE BOARD MEETING Friday, January 2, 1998, 6:00 p.m. Chicago Hilton and Towers, Chicago, Illinois

The meeting was called to order at 7:20 p.m. by IRRA President Francine Blau. Present were Past President Hoyt Wheeler, President-elect Don O'Brien (also Program Committee Chair), and Board members Eileen Appelbaum, Janet Conti (also Chapter Advisory Committee Chair), Dorothy Sue Cobble, Roger Dahl, Bernie DeLury, Morley Gunderson (also Program Committee Co-vice Chair), Bruce Kaufman, David Lipsky, Craig Olson, Robert Pleasure, John Serumgard, Jan Sunoo, Gregory Woodhead (also Finance Committee Chair), and incoming Board members Bonnie Castrey, Mary Mauro, Paul Osterman, and Beth Shulman. Also present were David Zimmerman, Secretary-Treasurer; Paula Voos, Editor-in-Chief; Kay Hutchison, Administrator and Managing Editor; and Lynn Case of the national office. Absent was Board member Katherine Abraham.

Guests at the meeting were Tom Kochan, IRRA President-elect in 1998 and 50th Anniversary Committee Co-chair; Maggie Jacobsen, 50th Anniversary Committee Co-chair; Harish Jain, Nominating Committee Chair; David Lewin, Awards Committee Chair; John Burton, Jr., Spring Meeting Committee Chair; Trevor Bain, Publications Committee Chair, and Nancy Biagini, representing the East Bay/Greater Bay Area proposed chapter.

President Blau recognized and thanked retiring Board members Abraham, Conti, DeLury, and Gunderson. David Zimmerman was recognized and thanked for his twenty years of service as Secretary-Treasurer to the IRRA.

Minutes of the April 19, 1997, Executive Board meeting in New York City were approved as distributed.

Old Business. A request for affiliation of the East Bay/Oakland Chapter, tabled at the previous Board meeting, was discussed. Nancy Biagini, representing the group, gave a brief history and background of the proposed chapter's organization and meetings. The group has met several times with approximately 100 attending each time. Maggie Jacobsen, member of the San Francisco Chapter, expressed continuing concern over the proposed chapter name and the chapters' overlapping territories. Jan Sunoo reported that efforts to mediate a resolution between the two chapters had been unsuccessful. Janet Conti said that the consensus of the National Chapter Advisory Committee (NCAC) was that the area was large enough to support two chapters and that NCAC was cognizant of the need

to add to, not detract from, the growth of the national organization. Following lengthy discussion, a motion was made by Paul Osterman to have both groups (the San Francisco Chapter and the proposed group) resolve the dispute over the name of the new chapter within the next two or three months, and if agreement was not reached, President O'Brien would select a name. The motion was seconded and approved on a voice vote.

Two additional requests for chapter affiliation from the Alaska IRRA Chapter and the Boise (ID) IRRA Chapter were presented. Administrator Hutchison said the constitution and bylaws from both groups were in compliance with that of the national organization. Hoyt Wheeler motioned for approval of the Alaska Chapter. It was seconded and approved on a voice vote. Jan Sunoo motioned for approval of the Boise Chapter. It was seconded and approved on a voice vote.

Report of the Nominating Committee. Harish Jain, Chair of the Nominating Committee, reported on the success of using a conference telephone call to convene the committee and recommended that the process be continued. Jain said that there was committee discussion about a conflict of interest in the nomination of people who are also serving as members of the nomination committee. The committee recommends that a rule be established that members who agree to serve on the nominating committee cannot be nominated to serve in the year they are on the committee. Hutchison said members of the nominating committee are currently not precluded from accepting a nomination. David Lipsky recommended that this be changed and that members of the nominating committee in the future be advised that they may not be a candidate for the board in the year that they serve on the nominating committee. The committee also discussed the issue of excluding people who are not yet members of the IRRA from nomination. The committee recommends that either a category for preeminent people or an ex-officio category be established for people who are not currently members of the Association. The committee noted that the need for preeminent people in the field to serve on the Board is often stymied by the fact that those individuals are not current members. President Blau suggested that the nomination of nonmembers be put to the Strategic Planning Committee for further discussion. The Board agreed by consensus to both recommendations of the Nominating Committee.

Jain reported that the committee's unanimous selection for 1999 IRRA President-elect is Sheldon Friedman, and he announced the committee's selection of candidates for the Executive Board for terms beginning in 1999. Motion was made to accept the committee's recommendations in compliance with the requirements of the constitution and bylaws. The motion was seconded and approved.

Report of the Awards Committee. Chair David Lewin reported for committee members Cheryl Maranto and Marlene Heyser on the young scholar and practitioner awards. Since only two names were submitted and the committee was reluctant to draw up its own nominees, it recommends no awards be made this year. Members discussed how to encourage future nominations. The committee recommends that local chapter presidents be contacted to solicit nominations for the practitioner award and that they be given a clear definition of the term "young practitioner." The committee further recommends that the UCIRHRP organization be contacted for nominations for the young scholar award. The committee recommends "young scholar" also be clearly defined. Gunderson suggested use of "nontenured/junior position" as the criteria. Kochan said that the awards were originally designed to encourage the participation of younger members in the IRRA. Wheeler said the criteria should reflect innovative and creative work rather than a certain number of years in the field. The committee consensus was that the award for contributions to the field was primary and IRRA membership was secondary. Shulman said that the awards could be a way to bring people into the organization who might otherwise not join. Kaufman said that membership in the organization should be a requirement to receive the award and that this was a way to honor those who are doing the work of the organization. There being no consensus on the requirement for IRRA membership, President Blau charged the committee to continue its discussion and to work together with the national office to establish award criteria.

Report of the 50th Anniversary Committee. Co-chair Tom Kochan reported that the committee has completed its work. Highlights of the celebration include a Distinguished Panel of IRRA Past Presidents and a session showcasing the IRRA video during the 50th annual meeting, as well as the publication of three issues of the new practitioner-oriented magazine Perspectives on Work. Administrator Hutchison acknowledged the support and contributions of individual members and the \$20,000 grant received several years ago from Ford Motor Company through the efforts of former President Ernie Savoie. Hutchison asked for Board support to send a letter of appreciation and certificate of recognition to Susan Wright of MIT for her assistance with the development and publication of Perspectives. The Board approved by consensus.

Report of the National Chapter Advisory Committee: Chair Janet Conti reported that the revised Chapter Handbook was now available for distribution to chapter presidents. She thanked NCAC Committee members, especially Jim Power, Maggie Jacobsen, and Ed Pereles, and Lynn Case of the national office, for their work on the handbook. Conti announced the

recipients of the first annual chapter awards. The first Outstanding Chapter Award will be presented to the Wisconsin Chapter. In addition, the Chicago, Gateway, Cincinnati, Hudson Valley, Arizona, Western New York, and Philadelphia IRRA Chapters will receive awards. Chair Conti recognized NCAC members whose terms are ending this January: Joan Ilivicky (New York City), Ed Pereles (Philadelphia), Bob Simmelkjaer (New York City), and Colletta Moser (Mid-Michigan). Replacements will be named prior to the next annual meeting in January 1999. NCAC members serve as consultants and advisors to individual local chapters on matters of membership, programming, organizing, and meeting constitutional requirements. In the future NCAC will also assist the Finance and Membership Committee with identifying ways to generate more income at the national level through organizational or institutional memberships.

Report of the Program Committee. President-elect Don O'Brien reported on the program for the 51st Annual Meeting in New York City. In addition to reviewing proposals for symposia and workshops, the committee discussed potential distinguished speakers and training sessions and the need to have more practitioner discussants, particularly on academic panels. Osterman suggested that priority be given to how the program can be used to develop membership. Zimmerman said the association should better promote the variety within the whole program with sessions for both academics and practitioners rather than individual sessions. Serumgard said the association should market the program with some discussion of the content and theme of the sessions. Wheeler suggested coordinating a national theme with a chapter theme so there could be more coordination between the two groups. Gunderson said that criteria for selection of a proposal should be specified ahead of time to those submitting. Osterman said the program should be developed as a whole and not as individual sessions. Wheeler said that several interest group sections have been active in submitting proposals for sessions and others have not been active.

Report of the Editorial Committee. Chair Paula Voos reported that the 1998 research volume Disability in the Workplace was on schedule and that the 1999 volume will be Employment Dispute Resolution and Worker Rights in the Changing Workplace, to be edited by Adrienne Eaton and Jeffrey Keefe. The committee is reviewing a proposal on nonstandard work for the research volume for the year 2000. The committee will give its feedback to the editors of the proposed volume and report to the Executive Board at a later date. Voos announced that Rachel Hendrickson has suggested that her position as Newsletter Editor be eliminated and that Kay Hutchison assume responsibility for the newsletter. Appelbaum moved to accept that recommendation and the report. It was seconded and approved.

Report of the Finance and Membership Committee: Greg Woodhead, chair of the Finance and Membership Committee, reviewed current financial data and membership statistics. He reported that 1997 income is expected to fall short of expenses. Regular income was supplemented in 1997 by grant money and special donations to the 50th anniversary fund. Woodhead expressed concern for the continuing loss of membership and the imminent need for action to stop that trend. The committee proposed several specific actions the association should take to increase both organizational and individual memberships. The committee recommends (1) that the association continue the introductory half-price offer for the first year of membership for one more year; (2) that the contributing level of the membership categories be raised from \$100 to \$150, noting that it had remained at this level since dues were \$40; and (3) that individual dues be provisionally raised in 1999 to \$75 per year and that the additional money be targeted for marketing the association. Woodhead said that as a result of the vote of the membership last year, 1999 will be the first year that a dues increase will not be tied to the cost of living increase. He said that it was time for everyone to commit to increasing the membership. Kochan suggested that the issue of unitary membership for chapters and national be considered by the Strategic Planning Committee. Woodhead said that current members need to mentor younger members into the organization. O'Brien said that the issue of unitary membership had been discussed for at least ten years and that until the publication of *Perspectives*, it was felt that the national did not have a product that appealed to chapter members. Hutchison said there was also a need for an expansion of organizational members and that it could be best achieved through personal contact. Lipsky said that the third recommendation for a regular member dues increase to \$75 was provisional until a more specific plan of action could be developed by the Strategic Planning Committee. Wheeler moved that the first two recommendations be approved as presented and that the third recommendation be approved in principle contingent upon the recommendation of the Strategic Planning Committee and a poll of the Board at a later time. The motion was seconded and passed by voice vote. Serumgard moved for approval of the 1998 budget. It was seconded and passed.

Report of the Spring Meeting Committee. Chair John Burton reported that the committee would meet during the 50th Annual Meeting to discuss the future of the IRRA Spring Meeting. He outlined several options that will be discussed and reminded Board members that no spring meeting will be held in 1998 while the committee deliberates. Burton invited Board input for the discussion. Castrey suggested the possibility of regional meetings and the use of tracks and themes to connect the national and the chapters.

President Blau suggested the possibility of meeting every other year instead of yearly. Hutchison said that the issues of poor attendance at recent spring meetings combined with the increasing costs and value to members were concerns that needed to be discussed.

Report of the Strategic Planning Committee. Chair O'Brien highlighted the written report presented to the Board and said there was a continuing need to determine our competencies and to identify our constituencies. Kochan proposed two outcomes: (1) to double the membership by the year 2000 and (2) to establish preeminence in the field and study of all aspects of work. Woodhead stated the need to appeal to young people was not addressed in the report. O'Brien said the Strategic Planning Committee gave high priority to membership growth and that the committee would discuss the needs of our constituencies, the continuation of Perspectives, winter and spring meetings, and a campaign for renewal through funding and the hiring of additional staff. O'Brien said if we don't do this right and do it now, the organization will wither away. He said the purpose of the strategic planning meeting on January 5 will be to get further input from the Board.

Report of the Publications Committee. Trevor Bain, Chair of the Publications Committee, gave the final report of that committee. He cited information from the national office on the costs of the various IRRA publications, including the new *Perspectives* magazine and recent membership surveys on the value of association publications. Craig Olson has randomly surveyed academic members, and a written survey questionnaire was sent to all members on the back of the 1998 Directory questionnaire. The Strategic Planning Committee will review the data at its next meeting.

Report of the Statistics Committee. Hutchison announced the resignation of Paul Weinstein as chair of the committee and asked for volunteers to serve on the committee or to serve as the IRRA representative or liaison to the Council of Professional Associations on Federal Statistics (COPAFS) as has been IRRA tradition. Hutchison's request for approval of 1997-98 COPAFS dues was approved.

Report of the Internet Committee. In the Absence of Chair John Lawler, Hutchison reported on the on-line discussion group and the IRRA website. Hutchison reported that John Godard, IR librarian at Cornell, was responsible for the IRRA homepage. During the month of November, the website had received 600 "hits" which translates into 6,000 visits per year. It was the second most popular site on the NYSSILR system. Hutchison said the list server now has 600 subscribers and that the site has hosted everything from job openings, to text recommendations, to discussions of the origin of Labor Day. Hutchison said new members can join the association

via the website and that an index of recent IRRA publications has been posted.

Report of the NAFTA Committee. Hutchison reported that Anil Verma had resigned as Chair of the NAFTA Committee appointed during the presidency of Walt Gershenfeld. She said the committee had completed two annual reports that were published in the IRRA Proceedings. The Board discussed continuation of the committee and suggested that Verma be asked to recommend a new chair. Kochan said it was important for the IRRA to promote dialogue on various issues but not necessarily limit itself to one issue. Serumgard said that trade legislation will be a big issue in Washington, and NAFTA will be a part of that discussion. It was suggested that the IRRA needs to develop continuity in the discussion of issues from year to year. Zimmerman suggested that the NAFTA topic be posted on the list server via the report or a point-counterpoint format to see if it generates interest.

Report of the Administrator and Secretary-Treasurer. Hutchison reported on the income and expenses during the 50th anniversary year and distributed an updated report that separated anniversary expenses from the general expenses of the 1997 budget year. She said the issues of declining membership and increasing association income would be addressed through future meetings of the Strategic Planning Committee.

New Business. Since there is no spring meeting scheduled for 1998, the Board will determine the time and place for the next Executive Board meeting at the Strategic Planning Committee to be held January 5.

Wheeler moved for adjournment at 11:00 p.m. The motion was seconded and approved.

IRRA GENERAL MEMBERSHIP MEETING January 5, 1998

Chicago Hilton and Towers Hotel

President Francine Blau called the meeting to order at 5:52 p.m. and gave a report on the 50th year of the Association. Blau said 1997 was a milestone year for the organization and that the anniversary provided an opportunity to review the past as well as look to the future. She thanked Robert Julian, Tom Kochan, and Dick and Tia Denenberg for their work on the 50th anniversary video and to those who contributed to the production. Blau reported that the Executive Board initiated a strategic planning process in

August and is continuing to meet and take action on a number of important issues.

President Blau announced that Sheldon Friedman, AFL-CIO Economist, is the Executive Board's unanimous choice as nominee for President-elect of the association in 1999.

Report of the Editorial Committee. Editor Paula Voos reported that the 50th anniversary research volume, Government Regulation of the Employment Relationship, edited by Bruce Kaufman, was recently mailed to members and that the 1998 research volume, Disability in the Workplace: Prevention, Compensation and Cure, edited by Terry Thomason, John F. Burton, Jr., and Douglas Hyatt, was on schedule. Voos announced that the topic of the 1999 volume will be employment dispute resolution and the 2000 volume topic will be nonstandard work. She asked that ideas for future volumes be sent to her and that a call for proposals will appear in future Newsletters and on the IRRA website.

Report of the Program Committee. President-elect Don O'Brien reported that the Program Committee met earlier to select sessions for the 51st annual meeting to be held in New York City, January 3-5, 1999.

Report of the National Chapter Advisory Committee (NCAC). Chair Janet Conti reported on the first annual Chapter Awards presented at the presidential luncheon and the chapter representatives meeting in Chicago. Committee members continue to serve as liaisons and consultants to the approximately 50 chapters that meet on a regular basis. Conti announced Executive Board approval of three affiliation requests for chapters in Boise, ID, Anchorage, AK, and in California. Inquiries have been received for new chapters in six other locations. Conti reported that the recently revised Chapter Handbook will be sent to chapter presidents annually. She acknowledged and thanked NCAC members Robert Simmelkjaer, Joan Ilivicky, Edward Pereles, and Colletta Moser whose terms are expiring.

Report of the Finance and Membership Committee. Chair Greg Woodhead reported that the committee continues to address the problem of declining membership and conveyed the committee's recommendations to (1) continue the half-price introductory membership offer for 1998, (2) increase the amount of a "contributing" membership from \$100 to \$150, and (3) provisionally increase the regular membership level to \$75 based on changes and recommendations from the Strategic Planning Committee. He noted that the membership approved a change in the bylaws last year which no longer ties dues increases to increases in the cost of living.

Report of the Administrator. President Blau thanked Administrator Hutchison for her assistance during the past year. Hutchison thanked the Industrial Relations Research Institute and its Director, Paula Voos, for

hosting the national office at the University of Wisconsin-Madison for the past 47 years. She also thanked David Zimmerman for his twenty years of service as Secretary-Treasurer and acknowledged the contributions of the association's earlier editors, Gerry Somers and Barbara Dennis. She reviewed the many accomplishments of the association during its anniversary year and especially thanked Tom Kochan and Susan Cass Wright of MIT for their work on the anniversary magazine, Perspectives on Work. Hutchison thanked the members who individually contributed more than \$18,000 to the anniversary fund, as well as Ernie Savoie and the Ford Motor Company for their financial support. She reported on the expansion of the association's on-line services and acknowledged the role of Gordon Law, John Godard, and the Cornell University library in support of the IRRA homepage. She also thanked Mike Belzer, Michigan State University, who maintains the list server, which currently has more than 650 subscribers. Hutchison reminded members that in addition to the association's regular publications, a new membership directory would be published in 1998. She further reported that no spring meeting will be held during 1998 but that a committee has been formed to study the future of IRRA spring meetings. John Burton, Jr., serves as chair. She announced the next annual meeting, January 3-5, 1999, in New York City.

President Blau turned the meeting over to incoming President Don O'Brien who presented a plaque to Blau for her service as president. O'Brien commented on the significance of the decline in membership for the future of the association and urged national members to recommit themselves to the mission of the organization. He urged national members to attend chapter meetings and to articulate the value of national membership to chapter members. He stressed the need for personal contact in sustaining the association's membership.

The meeting adjourned at 6:15 p.m.

AUDITED FINANCIAL STATEMENTS December 31, 1997

We have audited the accompanying statements of financial position of Industrial Relations Research Association (a nonprofit organization), as of December 31, 1997 and 1996, and the related statements of activities, functional expenses and cash flows for the year then ended. These financial statements are the responsibility of the Organization'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 Industrial Relations Research Association as of December 31, 1997 and 1996, and the changes in its net assets and its cash flows for the years then ended in conformity with generally accepted accounting principles..

Stotlar & Stotlar, S.C.

March 10, 1998

INDUSTRIAL RELATIONS RESEARCH ASSOCIATION Madison, Wisconsin

Statement of Financial Position December 31,

ASS	1997 SETS	1996
Current assets:	\$220,202	\$100.200
Short-term investments	\$239,293 58,189	\$190,300 55,290
Accounts receivable, net	14,499	5,783
Accrued interest, receivable	501	477
Prepaid expenses	4,845	15,757
Inventory	33,300	27,219
Total current assets	250 627	204.926
Total current assets	350,627	294,826
Long-term investments		79,404
Property and equipment	36,007	36,007
Less: Accumulated depreciation	(30,734)	(27,679)
Total Assets	\$355,900	\$382,558
LIABILITIES A	ND NET ASSETS	
Current liabilities:		
Accounts payable	\$ 75,178	\$ 74,754
Accrued liabilities	869	127
Dues collected in advance	84,998	95,860
Subscriptions collected in advance	15,023	16,013
Deferred income	15,000	43,755
Total current liabilities	191,068	230,509
Net Assets		
Unrestricted	114,191	70,408
Temporarily restricted	, -	33,274
Permanently restricted	50,641	48,367
Total net assets	164,832	152,049
Total Liabilities and Net Assets	\$355,900	\$382,558

INDUSTRIAL RELATIONS RESEARCH ASSOCIATION Madison, Wisconsin

STATEMENT OF ACTIVITIES Year Ended December 31,

Total Eliado		
	1997	1996
UNRESTRICTED NET ASSETS	1,,,,	1,,,0
Revenue, gains and other support		
Membership dues	\$ 150,942	\$ 152,450
Subscriptions	18,774	17,673
Chapter fees and assistance fund	10,418	8,544
Book sales, net	21,320	13,097
Newsletter advertising	3,456	1,523
Mailing list rental	7,018	3,665
Royalties	1,536	530 26,650
Meeting registrations Investment return	29,777 8,018	4,975
ASSA refund	7,609	10,189
Grant income	21,000	4,000
Contributions	21,000	75
Perspectives	6,836	,3
Miscellaneous	552	231
Anniversary Fund	18,872	231
,		 -
Total revenues, gains and other support	<u>\$ 306,128</u>	<u>\$ 243,602</u>
Evenences and lasses		
Expenses and losses Program services		
General	\$ 108,203	107,054
Meetings	46,401	36,299
Publications	100,076	69,585
Supporting services	100,070	07,565
Management and general	32,761	25,144
Membership development	8,178	6,785
wiemoeromp de veropment		0,700
Total expenses and losses	295,619	244,867
Increase (Decrease)		
in unrestricted net assets	\$ 10,509	\$ (1,265)
in unrestricted net assets	Ψ 10,502	ψ (1,203)
TEMPORARILY REST	RICTED NET ASSETS	S
	1997	1996
Y	¢.	¢ 1269
Investment return Net assets released from donor restrictions	\$ (22.274)	\$ 1,268
Net assets released from donor restrictions	(33,274)	
Increase (decrease) in Temporarily		
Restricted Net Assets	(33,274)	1,268
restricted 1 tot 1 issets	(55,211)	1,200
DEDMANIENTE V. DEG	DICTED NET AGGET	C .
PERMANENTLY REST	RICTED NET ASSET	2
Education fund	\$ 845	\$
Investment return	1,429	2,431
myosimone rotarn		
Increase in Permanently Restricted net assets	2,274	2,431
Total ingrange in not assets	12 702	2.424
Total increase in net assets	12,783	2,434
Net assets at beginning of year	\$152,049	\$ 149,615
Not assets at and of year	\$164.922	\$ 152,040
Net assets at end of year	<u>\$164,832</u>	<u>\$ 152,049</u>

INDUSTRIAL RELATIONS RESEARCH ASSOCIATION

STATEMENT OF FUNCTIONAL EXPENSES Year Ended December 31, 1997

	Program Services							Supporting Services			
	General	Annual Meeting	Spring Meeting	Winter Proceedings	Spring Proceedings	Research Volume	Directory & Newsletter	Magazine & Video	Management & General	Membership Development	Totals
Compensation & Related Expenses Compensation Payroll taxes & fringes Contract services Depreciation Taxes Insurance—liability Insurance—other Donations Bank charges Promotion Equipment lease Postage and freight UPS books Accounting/Auditing Printing, production Postage Other publication costs Meals Travel Other meeting expenses Education National travel National Hospitality National Executive Board National Copying Supplies	s: \$ 82,297 22,605	\$ 1,142 1,042 3,925 996 655 996 5,788 2,250 367	\$ 2,044 1,458 13,801 1,624 8,700 794 332 471 16	\$ 16,018 3,762 1,215	\$ 495 1,089 105	\$ 22,660 4,038 1,262		\$ 355 912 \$ 32,024 1,765 1,727	\$ 2,000 3,055 759 1,669 584 525 1,716 2,373 4,600 3,715	\$5,652	\$ 82,297 22,605 2,355 3,055 759 1,669 584 525 1,716 6,564 2,373 4,600 617 3,715 81,877 16,982 2,620 9,355 2,620 9,355 1,790 6,120 6,120 6,120 2,721 383
Computer & label Office supplies Fund raising Student awards	981 844								3,789 695		981 3,789 695 844
Telephone Chapter expenses Dues Duplicating Other committee expenses Miscellaneous	859								2,066 699 2,566 1,482	2,526	2,066 2,526 699 2,566 859 1,482
	\$108,203	\$17,161	\$29,240	\$20,995	\$1,689	\$27,960	\$12,649	\$36,783	\$32,761	\$8,178	\$295,619

INDUSTRIAL RELATIONS RESEARCH ASSOCIATION

STATEMENT OF FUNCTIONAL EXPENSES Year Ended December 31, 1996

	Program Services						Supporting Services					
	General	Ann Mee		Spring Meeting	Winter Proceedings	Spring Proceedings	Research Volume	Newsletter	Directory	Management & General	Membership Development	Totals
Compensation & Related Expense Compensation Payroll taxes & fringes Contract services Depreciation State tax Insurance—liability Insurance—other	\$ 76,391 21,710									\$ 1,625 3,526 1,669 575		\$ 76,391 21,710 1,625 3,526 1,669 575
Vehicles Bank charges Promotion Equipment lease Postage and freight										1,096 465 3,679	\$6,222	1,096 6,222 465 3,679
UPS books Accounting/Auditing Printing Postage Other publication costs Inventory obsolescence Meals Travel Other meeting expenses Profit reimbursement National travel National travel National Executive Board National Copying Supplies	372	6,1 1,2 1,2 0	90	\$ 2,014 664 8,142 740 5,019 763 1,241 401 184 85	\$19,975 3,963 1,451 804	\$4,365 999 86 108	\$15,195 4,160 1,261	\$ 5,185 3,859 1,600	\$6,574	3,278		372 3.278 54,214 14,472 4,398 912 14,309 2,030 6,236 763 1,850 3,161 3,396 143
Computer & label Office supplies Member awards	3,052 500									4,555	563	3,052 4,555 563 500
Student awards Telephone Chapter expenses Dues Duplicating Other committee expenses Miscellaneous	2,715									1,548 810 2,076		1,548 2,715 810 2,076 2,314 242
	\$107,054	\$17,0)46	\$19,253	\$26,193	\$5,558	\$20,616	\$10,644	\$6,574	\$25,144	\$6,785	\$244,867

STATEMENT OF CASH FLOWS Year Ended December 31,

	1997	1996
Cash flows from operating activities Change in net assets Adjustments to reconcile change in net assets to net cash from operating activities:	\$ 12,783	\$ 2,434
Depreciation	3,055	3,526
Increase or (decrease) in operating assets:		
Accounts receivable	(8,716)	2,664
Accrued interest receivable	(24)	(477)
Prepaid expenses	10,912	1,389
Inventory	(6,081)	(2,967)
Increase or (decrease) in operating liabilities:		
Accounts payable	424	33,399
Accrued liabilities	742	13
Dues collected in advance	(10,862)	(1,011)
Subscriptions collected in advance	(990)	4,910
Deferred income	(28,755)	21,755
Unrelated business tax payable	. , ,	(229)
Net cash provided from operating activities	\$ (27,512)	\$ 65,406
Net increase (decrease) in cash and short term investments	(27,512)	65,406
Cash and short term investments: Beginning of year	324,994	259,588
End of year	<u>\$297,482</u>	<u>\$324,994</u>

INDUSTRIAL RELATIONS RESEARCH ASSOCIATION Madison, Wisconsin

NOTES TO FINANCIAL STATEMENTS

Note 1—Summary of Significant Accounting Policies

Nature of 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 and newsletter advertising is unrelated business income, and is taxable as such.

Basis of Accounting

The financial statements of the Association have been prepared utilizing the accrual basis of accounting.

Financial statement presentation

The Association adopted Statement of Financial Accounting Standards (SFAS) No. 117, "Financial Statements of Not-for-Profit Organizations." Under SFAS No. 117, the Association is required to report information regarding its financial position and activities according to three classes of net assets: unrestricted, temporarily restricted, and permanently restricted. In addition, the Association is required to present a statement of cash flows.

Contributions

The Association also adopted SFAS No. 116, "Accounting for Contributions Received and Contributions Made," whereby contributions received are recorded as unrestricted, temporarily restricted, or permanently restricted support depending on the existence and/or nature of any donor restrictions. Restricted net assets are reclassified to unrestricted net assets upon satisfaction of the time or purpose restrictions.

Investments

Long Term Investments include balances held during 1996 in the Kemper Money Market account. Investments are stated at fair market value.

Inventory

The Association's inventory of directories, research volumes, proceedings, Perspective magazines, and prior period 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 1998 and 1997 calendar years are reflected as deferred income on the statement of financial position.

Functional Allocation of Expenses

The costs of providing the various programs and other activities have been summarized on a functional basis in the statement of activities. Accordingly, certain costs have been allocated among the programs and supporting services benefited.

Estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results could differ from those estimates.

Income Taxes

Industrial Relations Research Association is exempt from federal income taxes under section 501(c)(3) of the Internal Revenue Code and therefore has made no provision for federal income taxes in the accompanying financial statements. In addition Industrial Relations Research Association has been determined by the Internal Revenue Service not to be a "private foundation" within the meaning of Section 509(a) of the Internal Revenue Code. There was unrelated business income for 1997 and 1996.

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