

**INDUSTRIAL RELATIONS  
RESEARCH ASSOCIATION SERIES**

**Proceedings of the Twenty-Third  
Annual Winter Meeting**

**DECEMBER 28-29, 1970  
DETROIT**

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**EDITED BY GERALD G. SOMERS**

## THE INDUSTRIAL RELATIONS RESEARCH ASSOCIATION

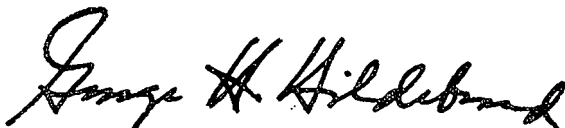
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President 1971

## PREFACE

The Association's Twenty-Third Annual Winter Meeting emphasized employment and manpower problems, but it also included discussions of labor law, organizational research and income maintenance proposals.

President Douglass V. Brown addressed the meeting on the topic, "Legalism and Industrial Relations in the United States." A related session was concerned with "Legal Remedies under the NLRA."

The session on "Personnel and Organizational Research" emphasized empirical studies of selected employers in Michigan, including the Ford Motor Company, General Motors Corporation and the Dow Chemical Company. Unfortunately, a number of the participants in this session were unable to provide written copies of their remarks for inclusion in these *Proceedings*. However, a listing of the participants and their affiliations is indicated in a footnote in the section devoted to that session.

Discussions devoted to manpower and labor market problems included sessions on the "Problems of Migrant Workers," "Negro Employment in the South," "Youth Unemployment and Minimum Wages" and "Manpower Problems in Health Services." There was also a joint session on "The Labor Market," held in conjunction with the Econometric Society. In addition, one of the sessions which provided an opportunity for younger people in the field to submit competitive papers was devoted to topics in "Manpower Planning."

A second session devoted to invited competitive papers included presentations on transfer payments, manpower flexibility, international collective bargaining, and work related tension. The final session concerned "Union Adaptation to Changes in the Labor Force," and included papers by union representatives and discussions by academic personnel.

We are grateful to Douglass V. Brown and the Detroit local arrangements committee for an interesting and enjoyable program and to those participants who cooperated in preparing written versions of their oral presentations for inclusion in these *Proceedings*.

Gerald G. Somers  
*Editor*

Madison, Wisconsin  
February 1971

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**I**

# **PRESIDENTIAL ADDRESS**

**Douglass V. Brown**

**Massachusetts Institute of Technology**

# LEGALISM AND INDUSTRIAL RELATIONS IN THE UNITED STATES

DOUGLASS V. BROWN  
*Massachusetts Institute of Technology*

Put very baldly, it is the thesis of this paper that industrial relations in this country are suffering from a severe case of legalism, and that there are few, if any, signs that the patient is about to recover from the disease.

Since the word "legalism" is not self-explanatory, it may be well to start with a definition. In a book published in 1964, entitled simply *Legalism*, Judith N. Shklar defined the term as "the ethical attitude that holds moral conduct to be a matter of rule following, and moral relationships to consist of duties and rights determined by rules." The important words to be stressed in this definition are *rule* and *rules*, carrying with them the connotation of rigidity.

I would add to Shklar's definition: "a propensity for parties to resort to outside tribunals, public and private, for the settlement of disputes between them." If the two points are combined, there emerges a picture of legalism as an extensive resort to tribunals where issues are decided by the application of rules. By way of contrast are processes by which the parties themselves resolve the issues on the basis of "compromise," "accommodation," "seeking a viable solution," "flexible policies," and the like.

I am sure that the definition is not completely free of fuzziness, but I believe it is close enough to serve our present purposes.

## I

A few figures on the extent of resort to public tribunals will illustrate the orders of magnitude and the trends. It should be noted that the statistics refer only to "NLRB-type" cases. Excluded accordingly are cases involving damage suits, orders to arbitrate or enforcement of arbitration awards, Landrum-Griffin, unemployment compensation, workmen's compensation, minimum wages, etc.

In Fiscal 1966, the total number of cases received by the NLRB amounted to 28,993. In Fiscal 1967, the number was 30,425; in 1968, 30,705; in 1969, 31,302; and in 1970, 33,583. In the third

quarter of Calendar 1970, the Board received 9,498 cases. This figure represents an increase of 17 percent above the number for the corresponding quarter of 1969.

In October of this year, Mr. John H. Fanning indicated that the load of the Board might "possibly reach 50,000 new cases every year by the 1980's." If the rate of increase represented by the change from Fiscal 1969 to Fiscal 1970 persists, the figure of 50,000 will be reached by 1976. If the 17 percent increase from the July quarter of 1969 to the July quarter of 1970 were to prevail, the annual case load of 50,000 would become a reality in 1972.

Over the last five years, the intake of unfair labor cases has similarly increased, both in absolute numbers and as a proportion of total cases. In 1966, there were 15,933 unfair labor practice cases; in 1967, 17,040; in 1968, 17,816; in 1969, 18,651; and in 1970, 21,040. Unfair labor practice cases constituted 55 percent of total cases in 1966. In 1970, they accounted for more than 62 percent of all cases.

One of the more controversial sections of the National Labor Relations Act has been section 8(a)(5). It is interesting, and perhaps instructive, therefore, to observe what has happened to numbers of cases involving this section of the Act. In Fiscal 1958, such cases constituted 17 percent of all charges filed against employers. For both Fiscal 1967 and Fiscal 1968, the corresponding figure was 34 percent.

If you will bear with me for one more moment, I should like to offer a few other statistics—and I promise that I shall then be through with the numbers game. In his 1968 statement to the Senate Judiciary Subcommittee on Separation of Powers, the General Counsel of the NLRB offered additional data which are relevant in the present context. In Fiscal 1963, 54.3 percent of all of the Board's decisions went on to the Circuit Courts of Appeals. By Fiscal 1967, this figure had risen to 60 percent. Or again: in Fiscal 1966, all of the Federal boards and commissions accounted for 1254 actions initiated in Circuit Courts. Five hundred and eighty-seven of these, or 47 percent of the total, came from the NLRB.

It is possible, I suppose, to interpret the statistics in a variety of ways. But to me, as measured along my dimension of resort to outside tribunals, they suggest a very high level of legalism.

More importantly, perhaps, and perhaps more frighteningly, they suggest a rapidly increasing resort to legalism.

Quantitative measurement along the other dimension of my definition—settlement of disputes on the basis of rules—is, of course, much more difficult, if not impossible. Here one must rely largely upon impressions. My impression is that, much more often than not, the Board and the courts arrive at their decisions on the basis of rules.

This last comment should not be interpreted as a criticism of either the Board or the courts. "Working to the rule" has invaluable advantages. For one thing, it injects a measure of predictability. For another, it provides a built-in defense mechanism: who can successfully challenge a decision on the grounds of inequity if it can be shown that the decision relies upon the same rules that were applied in other decisions? Those of us who were under attack in World War II days will appreciate the importance of these bulwarks to vulnerability.

\* \* \* \*

If we turn from public tribunals to private tribunals—the grievance and arbitration process—we can, I think, find many indications of similar trends. Here the evidence is more spotty, and generalization more difficult. But the total number of arbitration cases seems at least to be holding its own, and the number is large. On the basis of my own experience, and the reported experience of other arbitrators with whom I have talked, the process has tended to grow more legalistic over the years.

No longer can the arbitrator pace himself by relaxing while matters unimportant to the case, but perhaps very important to the participants, are being discussed. He must remain alert to rule on objections. On occasion he is forced by the formal submission to decide issues which he has reason to believe are not the real issues separating the parties. Contract clauses have tended to become more and more detailed with a concomitant shrinking of the elbow room available both to the parties and to the arbitrator. And the lawyers are almost ubiquitous. (It would be unfair, however, to suggest that their presence invariably injects additional elements of legalism into the proceedings.)

The grievance machinery and arbitration have traditionally been touted as informal, cheap, prompt, and tailor-made ways of resolving



issues. One must at least wonder whether these alleged virtues are being eroded. And one must at least raise the question of the extent to which the processes are really resolving issues, as contrasted with deciding cases.

Slichter, Healy, and Livernash refer to a grievance signed by a foundry laborer and phrased in part as follows: "including, but not limited to, violations of Articles IX, XIV, and XX of the Agreement and including disregard for practice heretofore established as an integral part of relationship rights and obligations." It may have been incidents like this one that led Bob Livernash to query "whether, in a traditional negotiation process far removed from the individual employee, the grievance procedures may have become so formal and precedent-laden as not to be a sufficient outlet for employee complaints."

It is probably still true that the grievance and arbitration process is less legalistic than resort to boards and courts. To the extent that this is the case, the Supreme Court's decisions in the *Trilogy* may have had some braking effect on the march toward legalism.

\* \* \* \*

The feeling that industrial relations in the United States exhibit a high degree of legalism is strengthened by a comparative look at the situation in other industrialized countries, notably Scandinavia and Great Britain. In these other countries, one is impressed by the relative lack of boards and dearth of commissions. One is struck by the relatively small amounts of statutory law, particularly in Sweden, by the infrequency of resort to courts on industrial relations matters, and by the scanty use of arbitration.

John Dunlop underlined some of the contrasts in his Presidential Address in 1960. "In Denmark the September Agreement, made between the central confederations of employers and unions, following the great lockout of 1899, shaped fundamentally the patterns of industrial relations to follow. . . . In Sweden the 1906 'December Compromise' between the confederation levels of employers and unions recognized the full freedom of employers to hire and fire organized and unorganized workers and in exchange recognized the full freedom of workers to organize and provided for redress in case of discipline for exercising this right. In Great Britain the gradual development of its industrial relations system is well characterized by Allan Flanders: 'Collective bargaining is for us essen-

tially a voluntary process. . . . the process itself is not normally enforced or regulated by law.'"

Recent developments in Great Britain compel the addition of a footnote at this point. The present government is committed to the introduction of legislation in the area of industrial relations. All of the indications are that the legislative proposals will borrow very heavily from the American model.

\* \* \* \*

To summarize up to this point: it is my feeling that there is a high degree of legalism in industrial relations in this country, and that on the whole we seem to be becoming more, rather than less, legalistic.

## II

There will undoubtedly be many of you who will disagree with my diagnosis. But there may be some of you who will agree and will find the developments heartening. Accordingly the question must be raised: is legalism in industrial relations "good" or "bad"?

I know of no way to dispose of this question by rigorous proofs. I can only state my own position. In my view, legalism in industrial relations is "bad."

A legalistic process will produce decisions on issues, but there is no assurance that it will resolve problems. Indeed, as suggested earlier, there is no assurance that the issues which are decided bear a one-to-one relationship to the problems to be resolved. The legalistic route can be, and frequently is, a lengthy one. In the words of the old cliché: justice delayed is justice denied. Furthermore, the legalistic route invites "game-playing," the use of charges and counter-charges as tactical maneuvers.

Similar comments may apply to legalism in other substantive areas. But they take on particular importance for industrial relations. In contrast to the relationship of the parties in many other areas, the relationship in industrial relations tends to be a continuing one. In a continuing relationship, unless there is an "acceptable" solution, nothing is really "settled." Legalistic decisions do not necessarily produce acceptable solutions.

## III

If, *arguendo*, my thesis with respect to the extent of legalism is accepted, we may ask why we got where we are. Undoubtedly, there is no simple explanation.

It would be very convenient if we could rest the explanation on the existence of attorneys, the administrative agencies, or the courts, or some combination of these. But to do so would, in my judgment, be superficial, unfair, and probably plain wrong. As I see it, we have moved in the direction of legalism because the parties themselves want it that way. All of us, I am sure, have seen differences in the behavior of attorneys in the absence of and in the presence of their clients.

It has been said that Americans are a litigious people, and there may be merit in this comment. I am told that there are three to four times as many lawyers per capita in the United States as in Great Britain. It has also been said that Americans suffer from a "there ought to be a law" complex, and all of us have had occasion to observe reactions of this sort.

Given a law and an agency to administer it, there is a tendency for resort to the agency to increase, for a variety of reasons. The existence of another forum tempts the parties to try it out, for it provides another chance that they may get what they want. Resort, or threat of resort, to the forum opens the door to tactical sorties; actions can always be withdrawn as a component of the ultimate settlement. The existence of a forum may provide an excuse for the parties to avoid the trials and tribulations of attempting to work out their own solutions. (Experience during World War II is more than illuminating in this connection.) There is an understandable tendency for any agency, like any organization, to extend its reach.

All that I have said so far may have touched upon matters that have contributed to the trends. But I have not, so far, alluded to what I believe to be the basic factor.

That factor is the one so sharply stressed by Dunlop in his 1960 Presidential Address: the lack of consensus in industrial relations in the United States. "The theme of these remarks is that our national industrial relations system suffers from excessive legislation, litigation, formal awards and public pronouncements: that the principal carriers of this disease are politicians, and that the imperative need is to alter drastically our methods of policy formation to place much greater reliance upon the development of consensus."

We are fond of saying that the basic policy of the United States is a reliance upon collective bargaining, but many of us do not

really believe this. We say that we want employees to have free choice of representatives, but many of us, in both management and labor, and perhaps in academic circles as well, do not really believe that. It is fashionable, in talking of both organized and unorganized situations, to say that at the plant level the emphasis should be on problem solving, on participation, on human dignity, and the like. But many of us are too busy to pursue these goals. And some of us may view problem solving only as producing *our* solution.

It is undoubtedly significant in this context that in the United States, in contrast to other industrialized countries, there is no overall employers' federation. Once more, the explanation seems to lie largely in a lack of consensus. In his Presidential Address, Dunlop also pointed out that there is no consensus even within the labor movement.

At the risk of gross exaggeration, let me try to be succinct in my assessment. All too frequently we do not want to work out solutions; we want to impose them. Imposition invites laws; laws invite litigation; and litigation invites legalism.

#### IV

What, if anything, can be done to improve a situation that, to me at least, is less than satisfactory?

If Dunlop's analysis is accepted, the obvious first step is to attempt to produce a consensus. Certainly efforts to bring about such a consensus should not be abandoned. But I am not optimistic about the results. Perhaps it is simply a matter of my limited imagination, but I find myself unable to visualize the contours of the common meeting ground. Too much of American management still finds the realities of collective bargaining repugnant. The unions obviously will not accept a return to the 1920's. And the newer breed of employee may make things more complicated for both employers and unions.

Short of attaining consensus, are there steps that can be taken?

One small, but perhaps not insignificant step, might be the repeal of Sections 8(a)(5) and 8(b)(3) of the NLRA. In raising this suggestion, I am not unaware that there might be a price to pay. We might see an increase in the number and severity of work stoppages, but an outcome of this sort is not a foregone conclusion. Some of the weaker unions might be disadvantaged, but the degree

to which this would occur is difficult to estimate. Given sophisticated parties, questions can be raised concerning the actual impact of these sections today.

On the positive side, removal of these two sections should reduce the volume of litigation. Taken by itself, this change would not make substantial alterations in the state of affairs. But, symbolically and perhaps in actuality, it would signify a reversal of direction. It might, just *might*, shake things up and induce a fresh look at the overall situation.

If the suggestion that these two sections of the Act be repealed seems too drastic, consideration might at least be given to two changes in the manner of their application. The proposal has been made that these sections be applied only to new bargaining situations, and not to negotiations occurring after the first contract. There is some evidence to indicate that parties, having survived their first encounter, usually manage to work things out by themselves.

Another proposal, made at least as long ago as 1950 by Cox and Dunlop, deserves the most serious consideration, on its own merits as well as in the present context. As phrased by them the proposal was: "During the term of a collective bargaining agreement an offer to follow the contract grievance procedure satisfies any duty to bargain collectively with respect to a matter to which the contract grievance procedure may apply." In the light of the subsequent decisions in the *Trilogy*, it may be presumed that the definition of "a matter to which the contract grievance procedure may apply" has been broadened since 1950.

Some years ago, John L. Lewis made a more far-reaching proposal. Essentially, his proposal would restore the public policy framework of industrial relations to the post-Norris-LaGuardia Act, pre-Wagner and pre-Taft-Hartley status. His proposal had no takers, perhaps even by Mr. Lewis himself. It is worth asking, however, whether the proposal is utterly fantastic.

Obviously, nobody can be dogmatic about the parameters of the world that would evolve if Mr. Lewis's proposal were to be adopted. One can easily conjure up a world of employer espionage and ruthless discharge of union sympathizers, and of the indiscriminate flexing of muscles by unions which are far stronger than they were in 1932. One can easily envision industrial warfare on an unprecedented scale. But, even under what might be termed the most

devastating assumptions, one might hope for a shock effect that would force an approach to consensus. In other countries, crisis situations have produced beneficial results.

Another possibility, if the Lewis proposal were adopted today, is that the world of industrial relations would not be too dissimilar to what we now see. In raising this possibility, I am not suggesting that Wagner and Taft-Hartley had no impact—although it might be appropriate to speculate on the question of whether the impact has been over-estimated; many other things have happened in the last 35 years. In many quarters of this country, new mores have developed, and it is not entirely unreasonable to expect that their momentum would carry them on. Indeed, deprived of legislative props, it is conceivable that they would develop even stronger roots, and perhaps spread to other sectors as well.

I am neither bold enough nor confident enough to advocate that the Lewis proposal be adopted. I am prepared, however, to argue that it not be dismissed out of hand, politically infeasible though it may seem at the moment.

## V

It is high time to conclude. The sources of my worries and the directions in which I would like to see us move should be abundantly clear by now. There remains only the slight matter of prognosis.

I wish that I could say that I saw the light at the end of the tunnel. I wish that I could even assert that we are headed in the right direction to see the light at the end of the tunnel.

Candor, however, compels me to confess that I am pessimistic. If I have to predict, my prediction must be that, for the immediate future, we are more likely to move further toward increasing legalism rather than away from it. If this indeed proves to be the case, I have only one horrendous straw to grasp: things may get so bad that the parties and the government will have to adopt a different approach.

## **II**

# **PROBLEMS OF MIGRANT WORKERS**

**Gerald G. Somers, Chairman  
University of Wisconsin**

# MIGRATORY LABOR: A REVIEW OF LABOR MARKET PROBLEMS

MARK ERENBURG

*Sangamon State University*

This paper is a first attempt to pull together a description of the labor market behavior of migratory farm workers in the United States, the structure of this market, and the socioeconomic problems which have resulted and will result from this unique set of relationships. It is designed as a primer on the labor economics of migratory labor, and hopefully, will serve as a starting point for serious consideration of migratory labor as a significant manpower problem. Of necessity, however, much of what follows is an impressionistic interpretation of the migrant labor market. There simply do not exist data on which to base a thorough and objective analysis of this market.

The migrant farm labor force is commonly defined as those workers who cross county lines overnight to perform farm wage work with the expectation of eventually returning home.<sup>1</sup> The group is of diverse socioeconomic composition with Mexican-Americans comprising its largest subgroup.<sup>2</sup> Migration is induced by peak harvest demands for unskilled workers which cannot be met in local markets. The sources for temporary agricultural labor and migration patterns developed historically with the introduction of specialized fruit and vegetable crops and the denial of alternative employment to certain workers because of employer reaction to their backgrounds, languages, and cultures; because of their low skill levels and educational attainment; and because of the temporary entrance of foreign farm workers willing to accept employment in

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<sup>1</sup> U.S. Department of Agriculture, Economic Research Service, *The Hired Farm Working Force of 1969*, Agricultural Economic Report No. 180 (Washington: U.S. Government Printing Office, 1970). Appendix A. Day-haul workers—those trucked daily from central points to perform farm wage work and returned each night—are usually considered part of this group also.

<sup>2</sup> See U.S. Department of Agriculture, Economic Research Service, *Domestic Migratory Farmworkers*. Agricultural Economic Report No. 121 (Washington: U.S. Government Printing Office, 1967), and *Hired Farm Working Force of 1969. op. cit.*



low skill jobs at wage rates lower than even domestic farm workers can accept.<sup>3</sup>

Farm workers migrate throughout the United States in three major patterns or streams: the Mid-continent stream that moves North and West from Texas in the spring and covers most of the North Central and Mountain States before the season ends in December; the Atlantic Coast stream which begins in Florida and other Southeastern States in the spring and ends in the winter after workers have traveled as far as New York, New Jersey, and into New England; and the Pacific Coast stream where migration is year-around in California and up into the Pacific Northwest. In 1969, 257,000 migrant workers were employed somewhere in these streams, earning an average of \$891 for 78 days of migrant work and \$841 for 51 days of nonfarm work. Only 43 percent of the migrant labor force engaged in this nonfarm work.<sup>4</sup>

The rapid introduction of labor-saving agricultural techniques has compounded the labor market problems of migrants. Since 1965, the migrant farm labor force has been declining, but the demand for agricultural labor has been declining faster and will continue to decline at a rapid rate in the future.<sup>5</sup> The result of these two trends is a growing redundancy in the supply of migrant labor leading to increased competition for jobs and a relative decrease in income and employment. Between 1965 and 1969, the average annual earnings for workers performing migrant work rose \$89,

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<sup>3</sup> See E. L. Koos, *They Follow the Sun* (Jacksonville: Florida State Board of Health, 1957), William H. Metzler and Frederic O. Sargent, *Migratory Farmworkers in the Midcontinent Stream* (Washington: U.S. Government Printing Office, 1960). *Domestic Migratory Farmworkers*, *op. cit.*, U.S. Senate, Committee on Labor and Public Welfare, Subcommittee on Migratory Labor, *Migrant and Seasonal Farmworker Powerlessness*, Part 7, *Migrant Manpower*, Hearings before the Subcommittee on Migratory Labor, 91st Cong., 1st and 2nd sess., April 14-15, 1970, Testimony p. 84 and U.S. Department of Labor Exhibit, p. 10, and President's Commission on Migratory Labor, *Migratory Labor in American Agriculture* (Washington: U.S. Government Printing Office, 1951).

<sup>4</sup> *Hired Farm Working Force of 1969*, *op. cit.*, Table 7.

<sup>5</sup> See U.S. Department of Agriculture, Economic Research Service, *The Hired Farm Working Force of 1965*, Agricultural Economic Report No. 98 (Washington: U.S. Government Printing Office, 1967). By 1980, farm employment is estimated to decline 36% from the 1965 level. See U.S. Department of Agriculture, Hearing before the Subcommittee of the Committee on Appropriations, U.S. Senate on H.R. 10509, Part 4, *Farm Labor in a Changing Agriculture*, 90th Cong., 1st sess., 1967, p. 54.

while earnings of these workers at nonfarm jobs increased by \$281.<sup>6</sup> In the same time period, the proportion of migrants performing these higher paying nonfarm jobs actually declined even though nonfarm earnings increased about 20 percent compared with an 11 percent increase in remuneration for migrant work.<sup>7</sup>

While the long-run deterioration of the income and employment position of migrants is attributable to inefficiency in the transfer of labor from the farm to the nonfarm sector of the economy, inefficiency in the migrant labor market itself prevents workers from achieving maximum short-run earnings. The remainder of this paper will briefly explore the reasons for low migrant earnings within a labor market context. The analysis must be used to formulate migrant manpower programs since no such comprehensive programs now exist, and the "migrant problem" is getting worse.<sup>8</sup>

Before proceeding to a labor market analysis, it is necessary to explain why the "migrant problem" is really more serious than the data indicate and why a migrant labor market analysis must be mostly impressionistic. There exist no comprehensive hard data on migrants. The U.S. Department of Agriculture data cited above carries with it a standard error (at the 95 percent confidence level) of over 20 percent of the estimate.<sup>9</sup> The Department, in fact, says that their data do not "... permit adequate detailed analysis of subgroups among small segments of the farm wage force such as ... migrants."<sup>10</sup> The U.S. Department of Labor relies on this data about migrants and generates some of their own which are not nationwide in scope, and are based to a large extent on "informed judgments" of local Farm Labor Service employees likely to be

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Total man-hours on vegetables are estimated to decline 27% between 1964-1968 and 1975, while man-hours in the harvesting of vegetables (where migrants are usually employed) will decline about 40%. See *Migrant Manpower*, *op. cit.*, and J. N. Uhl, "The Industrialization Process," in C. F. Cargill and G. E. Rossmiller, eds., *Fruit and Vegetable Harvest Mechanization: Manpower Implications* (E. Lansing: Michigan State University Rural Manpower Center, 1969), pp. 88-90.

<sup>6</sup> *Hired Farm Working Force of 1965*, *op. cit.*, and *Hired Farm Working Force of 1969*, *op. cit.*

<sup>7</sup> *Ibid.*, Table 7, and U.S. Department of Labor, *Manpower Report of the President* (Washington: U.S. Government Printing Office, 1970), p. 270.

<sup>8</sup> *Migrant Manpower*, *op. cit.*, Testimony, p. 84 and USDA Exhibit, p. 10.

<sup>9</sup> *Hired Farm Working Force of 1969*, *op. cit.*, Appendix B.

<sup>10</sup> U.S. Department of Agriculture, *Major Statistical Series of the U.S. Department of Agriculture*, Agricultural Handbook No. 365 (Washington: U.S. Government Printing Office, 1969), p. 14.

employer oriented, and on data volunteered by users of migrants.<sup>11</sup> More alarming, no government agency has projected migrant labor supply, demand, types and location of possible employment, nor earnings for future years.<sup>12</sup> The real "migrant problem" is identifying the "migrant problem." Obviously, the discussion which follows must be impressionistic.

#### THE LABOR MARKET FOR MIGRANTS

The wages of migrant workers are low in comparison to prevailing rates in the nonfarm market. Labor market theory provides for a narrowing of this differential and an improvement in individual earnings through movement to the nonfarm labor market until differences in worker ability, costs of mobility, and differences in working conditions are just compensated for by the difference in wages. The structure of the migrant farm labor market, however, prevents the desire to compete for higher wages from affecting worker behavior. Thus, over time, economic efficiency in agriculture together with migrant wages could be improved if the migrant labor force became more responsive to extant wage differentials. To accomplish such a change requires, first, the identification and examination of factors presently barring worker response to labor market wage signals.

#### *Occupational and Geographic Mobility.*

A number of factors can be cited which impede migrant movement out of agriculture which accounts for the slow rise in migrant wages. First, migrants work in rural areas. Their knowledge of jobs in industrial areas is questionable. If their major source of job information is friends and relatives as is true for industrial workers and if the friends and relatives of migrants are also migrants, access to information about nonfarm jobs is even more doubtful.

Second, industrial jobs are likely to be located in areas other than where migrants permanently reside. A change in jobs would require permanent geographic relocation with attendant social, psychological and economic costs. For migrant workers, many of whom are members of racial minorities with culture values at variance

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<sup>11</sup> *Migrant Manpower*, op. cit., USDL Exhibit, p. 2.

<sup>12</sup> *Ibid.*, USDA Exhibit, p. 15.

with those of industrial workers in urban areas, social and psychological costs including discrimination as barriers to geographic mobility are significant.<sup>13</sup> The low income position of migrant workers does not easily provide the financial reserves or credit necessary for geographic mobility and adjustment to a new locale. Even with a guarantee of a job at wages substantially above those for migrant work, migrants cannot easily finance a move to take advantage of the opportunity.

Third, many of the nonagricultural jobs available to migrants require skills well above those possessed by the workers.<sup>14</sup> Migrants are barred from acquiring skills requisite for nonfarm employment by the same factors which bar them from the jobs themselves: a general lack of information about training programs, a lack of credit and financial reserves, location of training programs, and sociopsychological barriers to taking training. There is also a dearth of government-sponsored training programs designed specifically for the unique problems of migrants.<sup>15</sup>

In addition to the redundant supply of domestic migrant workers caused by such barriers to occupational and geographic mobility, the influx of foreign workers—especially from Mexico—produces even more competition among workers for existing farm jobs and further reduces upward wage pressures. With a standard of living less than that of domestic workers, foreign nationals not only can take farm jobs at low wages, they can displace domestic workers who are then forced into migrant farm work for income.<sup>16</sup>

### *Information Dissemination.*

Just as lack of information about jobs is a barrier to migrant movement to higher paying nonfarm jobs, lack of information about migrant farm jobs acts as an impediment to wage competition within the migrant farm labor market. While redundant migrant labor supply provides undesirable competition among migrants for decreasing employment opportunities, at a given point in time competition among migrants for jobs is desirable and should not be

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<sup>13</sup> See U.S. Senate, Committee on Labor and Public Welfare, Subcommittee on Migratory Labor, *1969 Report: The Migrant Farm Labor Problem in the United States*, 90th Cong., 2nd sess., 1969, pp. 12–18.

<sup>14</sup> *Domestic Migratory Farmworkers*, *op. cit.*

<sup>15</sup> *Migrant Manpower*, *op. cit.*, Testimony, p. 84 and USDA Exhibit, p. 10.

<sup>16</sup> *Migrant Manpower*, *op. cit.*, USDL Exhibit, p. 10.

hindered by lack of information. With a given number of jobs in a migrant season, worker movement to the most desirable jobs is likely to have an uplifting effect on the wages and conditions prevailing at the less desirable jobs. If crops must be cultivated, harvested, and processed, employers will be willing to compete for workers through wage and employment condition manipulations. Even though the number of workers exceeds the number of jobs in a given year, diverse timing, travel time, and location of jobs will create this competitive pressure in specific locales if information about jobs is widely available.

Migrants have no major channel for information where they may learn about jobs prior to the beginning of the migrant season, nor do they have a major channel where information about various jobs and conditions of employment at a particular place and time during the season is available. While there is some communication directly between workers and migrant users, most information is passed by word of mouth through labor market intermediaries: representatives of the U.S. Employment Service; labor recruiters hired by migrant users and paid a fixed sum out of worker earnings or a flat fee per worker recruited; and independent crew leaders contracting with migrant users and receiving remuneration related to worker earnings, number of workers supplied, or both.

Since 1954, the U.S. Department of Labor has formally participated in information dissemination in the migrant labor market through its Annual Worker Plan. Prior to an agricultural season, labor requests from users together with employment information are gathered in areas of labor demand by representatives of the various State Employment Security agencies. These requests are forwarded to areas of labor supply where they are available to workers. Farm Labor Service personnel attempt to disseminate this information, usually through other labor market intermediaries, to workers in such a way that worker income and employment will be maximized while allocating labor to meet diverse timing and locational needs. In areas of labor demand, Farm Labor Service personnel attempt to provide information about local job opportunities as well as current information about jobs and conditions in areas of labor demand along a particular migrant stream.

The Annual Worker Plan fails to work in the best interests of workers while benefiting individual users at particular locations.

Aside from reaching a limited number of migrants, the plan has several significant shortcomings.<sup>17</sup> In their attempt to allocate migrant labor among various users in a variety of labor demand areas, Farm Labor Service personnel do not disseminate information about employment alternatives. Workers are usually provided with information about a job or series of jobs, but not information about a number of jobs at a given place or a number of alternative series of jobs along the migrant stream. The Farm Labor Service could not insure an allocation of migrant labor to meet many and diverse needs if complete information were provided so that workers could make the final choice about employment. Workers, coincidentally, are not motivated to seek full information because of their pressing need for employment of any kind.

There are also more personal reasons why the information dissemination activities of the Farm Labor Service are poor. Only recently has this agency started to consider that information dissemination to minority group workers might best be accomplished through outreach activities of personnel with ethnic backgrounds similar to those of the workers they serve.<sup>18</sup> Because the Farm Labor Service personnel in labor demand areas are usually local residents, they might not find it in the best interests of local users of migrants to disseminate complete local information. Similarly, they might not be willing to actively transmit information about jobs in other areas of labor demand until local farm needs have been met, even though it would be in the best interests of workers to do so.

Obviously, private labor recruiters and crew leaders who stand to personally benefit, do not always act in the best interests of migrant workers. While it is possible to speculate on the amount of patently false information disseminated by these intermediaries for personal gain, it is necessary here only to indicate that information dissemination by recruiters and contracts made by crew leaders hold little relation to worker interests. The more workers recruited, the higher remuneration for these intermediaries. Since their pay is often augmented by a fixed amount taken from each worker's earnings, the motivation to recruit large numbers of workers without regard to wages offered is enhanced.

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<sup>17</sup> *Migrant Manpower*, *op. cit.*, USDL Exhibit, p. 26.

<sup>18</sup> *Ibid.*, Testimony, p. 51.

*Other Mobility Barriers.*

In addition to the lack of labor market information which inhibits worker mobility and wage competition within the migrant labor market, worker financial condition also acts to the detriment of individual workers while benefiting migrant users. To be able to finance a trip around the migrant circuit involving food, shelter, and transportation over significant distances, workers must incur certain debts. Labor recruiters, crew leaders, and migrant users are the only willing sources of credit for workers. Lending money, and providing transportation, food, and shelter to migrants is an easy way to guarantee that workers will be in a particular place at a particular time. Indebtedness traps many migrants in the stream. They cannot take the best jobs during a season because they are already committed to specific users or become so encumbered quickly.

There are other impediments to worker movement and information dissemination within the migrant stream besides indebtedness. Where transportation is provided by a crew leader, recruiter or migrant user, workers cannot change jobs easily. Many migrant users either withhold a part of the wage payment or offer a bonus if workers remain until a designated time at or near the end of the season. Workers find it difficult, if not financially impossible to change jobs frequently even if they thought such changes would be in their best interests.

*Institutional Factors in Wage Determination.*

The number of farms in the United States has been steadily decreasing over the last thirty years while the average acreage per farm has been increasing. Farm employment is becoming concentrated on a smaller number of larger farms.<sup>19</sup> The development of corporate farming has been followed by a reduction in wage competition, detrimental to migrant interests. Large farming interests dominate local labor markets and set wages. Larger corporate interests may also be able to set wages along a migrant stream directly or in conjunction with other large migrant users. Workers have little choice of employment outside of these enterprises and must

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<sup>19</sup> See *Farm Labor in a Changing Agriculture*, op. cit., pp. 1-14 and *The Migrant Farm Labor Problem in the United States*, op. cit., p. 56.

accept prevailing wage rates or nothing. Additionally, companies which process agricultural produce may act to reduce wage competition by dictating the prices they are willing to pay for produce to a large number of farmers in an area (especially if workers are paid on a piece rate basis) since it is from these monies that workers are likely to be paid. Wage rates in a monopsonistic labor market where the number of users demanding migrant services is small and competition between them minimal are obviously not in the best interests of workers.

#### SUMMARY

Whatever the particular circumstances of employment, the steady growth in the size of agricultural and agricultural-related enterprises has acted to reduce upward competitive pressures on wages in the migrant labor market. Coupled with the other structural problems in this market—lack of information, barriers to mobility, intermediaries, foreign workers—these considerations of user size prevent optimal use of migrant labor resources in both the agricultural and nonagricultural sectors of the economy and contribute to the continued low income position of migratory farm labor in the United States.



# EMPIRICAL STUDIES BEARING ON THE MARKET FOR MIGRATORY FARM LABOR: CURRENT STATUS AND REQUIREMENTS

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This paper is based on the premise that an understanding of the structure of the market for migratory farm labor would contribute to choosing the best policies for ameliorating their condition. Short of studies dealing specifically with the market for migrant workers, I have resorted to a second best choice by discussing those relating to hired farm labor in general. We would err quite egregiously, however, if we fail to admit the possibilities that some specific findings might not hold for migratory workers; for this reason, the paper emphasizes the general thrust of the empirical results rather than their specifics.

## I. THE STRUCTURE OF THE MARKET FOR HIRED FARM WORKERS

Demand and supply functions have been estimated from observations over time, across regions and from a combination of the two. The following sections draw on these studies. Supply is discussed first, followed by demand, migration, and some recommendations for future research.

### *The Supply of Hired Farm Labor*

In one study, Schuh<sup>1</sup> used real farm wage rate, real nonfarm income adjusted for unemployment, a lagged independent variable, and the size of the civilian labor force to estimate the short and

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\* These views are strictly the author's and may not reflect those of either institution. My thanks to Mrs. P. TenPas for presenting the paper in Detroit in my absence. Helpful comments were received from William Motes and John Subat.

<sup>1</sup> G. Edward Schuh, "An Econometric Investigation of the Market for Hired Labor in Agriculture," *Journal of Farm Economics*, May 1962, Vol. 44, pp. 307-321.

long-run demand and supply for hired farm labor for the period 1929-1957. The general impression gotten from his study is that the short-run supply of hired farm labor is elastic only with respect to such labor market forces as the discouraged and additional worker effects which determine fluctuations in the size of the civilian labor force. But, in the long-run, supply is very responsive to changes in nonfarm wages as well as to those forces such as population growth which cause the civilian labor force to grow.

While agreeing that both in the long and short runs supply tends to be inelastic with respect to farm wages, Heady, Tweeten and Johnson<sup>2</sup> found that for roughly the same 1929-1957 period nonfarm wages had less attraction than that estimated by Schuh.<sup>3</sup> Further, they found that the farm labor supply curve had shifted upwards in the post-war period. But in a later investigation of the labor market structure (this time for the period 1929-61) Schuh again found supply to be elastic with respect to nonfarm wages.<sup>4</sup> The implication is that the supply curve has shifted upwards partly as a result of wage development in the nonfarm sector.

These studies buttress a common view that one promising way to increase the wages of farm labor is to maintain relatively higher wages and lower unemployment in the nonfarm sector thereby inducing outmigration from farming. Also suggested, is the need for a large growth in entry-level nonfarm jobs for rural youths to offset the long-run trend that as the civilian labor force grows, the farm labor supply grows more than proportionately.

Drawing from the findings of Tyrczniewicz and Schuh<sup>5</sup> that farm workers tend to look beyond their regional environment for

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<sup>2</sup> See Chapter 8, in Earl O. Heady and Luther G. Tweeten, *Resources Demand and Structure of the Agricultural Industry*. (Ames, Iowa; Iowa State University Press, 1963), pp. 194-230. In one equation they found farm labor supply to be elastic with respect to its own price.

<sup>3</sup> Both studies adjusted nonfarm income for the probability of employment. Unlike Schuh, however, Heady and his colleagues assumed that when unemployment in the nonfarm sector reaches 20 percent, outmigration from farming would be zero.

<sup>4</sup> E. Edward Schuh, "Interrelations Between the Farm Labor Force and Changes in the Total Economy," in *Rural Poverty in the United States: A Report by the President's National Advisory Commission on Rural Poverty* (Washington, D.C. 1968) pp. 170-184.

<sup>5</sup> Edward W. Tyrczniewicz and G. Edward Schuh, "Regional Supply of Hired Labor to Agriculture," *Journal of Farm Economics*, Vol. 48, Aug. 1966, pp. 537-556.

job opportunities, we may conclude that nonfarm opportunities do not have to be regionally oriented in order to bring about a transfer of labor from the farm to nonfarm sector—although a regional orientation in places of heavy farm labor supply might offer significant advantages. This is so because regionally, supply responds with dissimilar speed to changes in labor market conditions.<sup>6</sup>

### *The Demand for Hired Farm Labor*

Schuh estimated the long and short-run demand for hired farm labor and found that they were not very responsive to changes in agricultural wage rate, real farm prices, or technology.<sup>7</sup> Using a wider selection of techniques, Heady, Johnson and Tweeten in their study noted earlier arrived at a conclusion similar to Schuh.<sup>8</sup> A central aspect of their findings is that demand did increase but not sizably as the prices farmers received for their products rose; although some question may be raised about the reliability of this conclusion, given the limited time period upon which it is based. Heady and his co-workers also obtained elasticity estimates which implied that the two best routes for increasing the demand for hired labor was a consolidation of farms into larger units (implying the necessity to complement and substitute hired labor for family labor), and a reduction in the price of complementary inputs; but not of machines.

Regional analyses of the demand for labor add to the above findings by showing that demand functions while inelastic, are quite dissimilar. They also point to the observation that regionally, the demand for hired farm labor increases less than proportionately to the increase in the parity ratio. This, of course, suggests that improvements in the "welfare" of farmers cannot be expected to lead to sharp rises in the demand for farm labor.<sup>9</sup> One regional study discovered that there was no clear evidence that improvements in

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<sup>6</sup> Varying regional supply elasticities and coefficients of adjustment have been found by Tyrchniewicz and Schuh, *Ibid.* and Heady, et al., *op. cit.* As to be expected, it appears that the region with the most abundant supply of farm labor (the South) is the slowest to adjust to labor market changes.

<sup>7</sup> Schuh, "An Econometric Investigation in . . . Agriculture," *op. cit.*

<sup>8</sup> The independent variables in their models were similar to those used by Schuh, *Ibid.*, but included an index for farm machinery, a measure of number of farms and assumed that nonfarm wages would not be attractive at a 20 percent or greater rate of nonfarm unemployment.

<sup>9</sup> Heady, et al., *op. cit.*, p. 218.

technology affected the demand for labor directly through the labor market. Instead, the evidence suggests that its effects occur indirectly through the product market. It follows from this finding that the stronger of the two effects of technological advance might be to decrease the demand for labor through lower product prices rather than to increase it by way of higher productivity.<sup>10</sup>

In toto, demand studies seem to say that the demand for hired farm labor is wage inelastic although less so in the long-run; there is likely to be only a minimal wage increase resulting from improvements in parity ratios; the consolidation of farms accompanied by a reduction in the price of complementary (as opposed to substitute) inputs to farmers are capable of lending to higher demand for farm labor; and that technological improvements are likely to reduce the demand for labor through lower product prices. The demand function can then be described as inelastic and falling. One important implication of this is that wages imposed above the equilibrium level could be advantageous in the short run but bring about a very sharp decline in employment in the long run unless supply is drastically reduced.

The overriding impression gotten from a comparison of the estimates of demand and supply elasticities is that demand is less responsive than supply to changes in labor market conditions. It therefore follows that the *sine qua non* for improving the lot of farm workers over the long run is to reduce supply perhaps even at an accelerating rate to offset the falling demand curve. In an earlier paper,<sup>11</sup> I discussed alternative ideas for reducing supply; here I wish to concentrate on migration in its generic sense.

### *Migration*

Outmigration as a route to alternative employment, is clearly central to the reduction of farm labor supply. What have empirical studies shown? There appears to be some empirical evidence to support Lowry's hypothesis that outmigration is primarily a youth movement, and that immigration to an area is related to employment

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<sup>10</sup> G. Edward Schuh and John R. Leeds, "A Regional Analysis of the Demand for Hired Agricultural Labor," *Papers and Proceedings of the Regional Science Association*, Vol. 11, 1963, pp. 295-308.

<sup>11</sup> Herrington J. Bryce, "Alternative Policies for Increasing the Earnings of Migratory Farm Workers," *Public Policy*, Spring 1970, pp. 413-428 or *The Review of Black Political Economy*, Autumn 1970, pp. 68-82.

opportunities.<sup>12</sup> Not only did the findings of Gallaway<sup>13</sup> Hathaway and Perkins<sup>14</sup> support this view, but they pointed to a sizable "reverse" flow back into agriculture of older workers, who like blacks, are most impeded by artificial and market barriers.

Education is one important aid to outmigration. As a matter of fact, Gisser has shown that the effects of education in stimulating outmigration exceed its effects in raising productivity.<sup>15</sup> The holding of multiple jobs in the farm and nonfarm sector also appears to be an aid to outmigration from farming. In a sense, it seems that many do not leave agriculture in one step but in two; first by holding jobs in both sectors and second by moving completely into nonfarm employment. Distance and immigration to large cities also play an important role; for Hathaway and Perkins found that those who moved farthest away from their farm community into large cities were least likely to return.<sup>16</sup> And, finally, it should be pointed out that after some time (maybe five years or so) those rural to urban migrants who persevere the hardships of the first years do almost as well in the labor market as urban non-migrants—holding age, race, sex and education constant. This view was first expressed by Johnson<sup>17</sup> in 1953 and is corroborated if not more sharply illustrated by Wertheimer<sup>18</sup> in a recent study. The key observation for our purposes, however, comes from Hathaway and Perkins from their work cited previously and states that

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<sup>12</sup> See Ira S. Lowry, *Migration and Metropolitan Growth: Two Analytic Models* (Los Angeles: University of California, 1966) and David F. Bramhall and Herrington J. Bryce, "Interstate Migration of Labor-Force Population," *Industrial and Labor Relations Review*, Vol. 22, July 1969, pp. 576-583. The perception of more amenities, job and educational opportunities, personal contact and the expectation of less discrimination also play an important part in rural-urban migration. See *The Causes of Rural to Urban Migration Among the Poor* (Cambridge, Massachusetts; Abt Associates, Inc., 1970.)

<sup>13</sup> Lowell E. Gallaway, "Mobility of Hired Agricultural Labor: 1957-1960," *Journal of Farm Economics*, Vol. 49, February 1967, pp. 32-51.

<sup>14</sup> Dale E. Hathaway and Brian E. Perkins, "Occupational Mobility and Migration from Agriculture," in *Rural Poverty in the United States; A Report by the President's National Advisory Commission on Rural Poverty*, (Washington, D.C., May 1968), pp. 185-237.

<sup>15</sup> Micha Gisser, "Schooling and the Farm Problem," *Econometrica*, Vol. 33, July 1965, pp. 582-592. See also T. D. Wallace and D. M. Hoover, "Income Effects of Innovation: The Case of Labor in Agriculture," *Journal of Farm Economics*, Vol. 48, May 1966, pp. 325-336.

<sup>16</sup> Hathaway and Perkins, *op. cit.*, p. 191.

<sup>17</sup> D. Gale Johnson, "Comparability of Labor Capacities of Farm and Non-farm Labor," *American Economic Review*, June 1953, pp. 296-313.

<sup>18</sup> Richard F. Wertheimer, II, *The Monetary Rewards of Migration Within the United States* (Washington, D.C., The Urban Institute, 1970).

blacks are least likely to be successful in those early years; and, consequently, might well return to the farm labor supply—the migrant stream.

## II. RECOMMENDATIONS FOR FUTURE RESEARCH

Hopefully, this paper has given a gestalt of the farm labor market as implied by empirical studies. There is little question that certain policies should be implemented immediately to reverse the pejorative migrant situation.<sup>19</sup> It is my opinion that the fundamental relations upon which policy might be based are understood. Yet there remain certain topics which recommend themselves for further research.

1. An evaluation of alternatives for reducing farm labor supply such as the evaluation of the *bracero* program done by Wise:<sup>20</sup> As stated earlier, the conclusion to be deduced from labor market studies is that the *sine qua non* for improving migrant earnings and employment is a reduction in their supply. What are the relative economic and noneconomic costs and benefits of alternative policies for reducing supply? What mechanisms can be utilized to efficiently transfer migrants to the nonfarm sector? What mechanisms can be utilized to facilitate their adjustment to a nonfarm way of life? What is the optimal rate of decline of the migrant labor force? How can the intergenerational mobility of migrant children be affected to steer many more of them out of the migrant stream?<sup>21</sup> What are the implications of enforcing a child labor law which—raises the minimum age to, say, 16?

2. The recommending of nonmetropolitan alternatives for those surely to be displaced by further changes in the farm sector:<sup>22</sup>

<sup>19</sup> See Bryce, *op. cit.*, for a discussion of a wide range of possible policies.

<sup>20</sup> Donald E. Wise, "*Bracero Labor and the California Farm Economy: A Micro Study of Three Crops, 1952 Through 1967*." (An unpublished dissertation, Claremont Graduate School, Claremont, California, 1960).

<sup>21</sup> It has been shown that the probability of a child of a black farm wage-worker entering farming is disproportionately high. See Otis Dudley Duncan and James D. Cowhig, "Social Backgrounds and Occupational Commitment of Male Wagerworkers in Agriculture," *Agricultural Economic Research*, Vol. 18, October 1966, pp. 129-135. Methods for increasing intergenerational mobility are suggested by S. M. Miller and Herrington J. Bryce, "The Promotion of Social Mobility" *Transactions, Sixth World Congress of Sociology, IV*, International Sociological Association, 1970, Louvain, Belgium, Itrinerie, Nauwelaerts.

<sup>22</sup> For example, the USDA has shown some concern for the future status of the tobacco region. See, *Potential Mechanization in the Flue-Cured Tobacco Industry With Emphasis on Human Resources*, USDA, ERS, AER 169.

Technological advancement will continue to displace farm workers many of whom might prefer to avoid the economic and psychic costs of moving into the already congested metropolitan areas. Moreover, while pointing to long-run success, migration studies cited earlier do also point to short-run failures which induce a reverse flow especially of older workers and of blacks in particular. What is the marginal wage rate which will provide not only an adequate level of living (the poverty differential) but make it worthwhile to remain in rural areas? Would rural nonfarm employment of black farm workers be so severely hindered by discrimination that they would be forced to migrate to cities? Would subsidies to firms be the best approach to handling this situation?<sup>23</sup>

3. The evaluation of the effects of state and federal minimum wage laws on migrant wages and employment: The federal minimum wage for farm workers came into being in the mid sixties. Since then about ten states have set their own levels. To what extent might a state minimum wage law increase *both* employment and earnings?<sup>24</sup> Given the terms of coverage, and present practices in setting the minimum wage, is the minimum more apocryphal than helpful? What is the level at which a minimum wage, taking other factors into account, become a threshold in stimulating massive mechanization which would not otherwise have taken place? To what extent would it cause a substitution of other kinds of labor (i.e. family and day-haul city unemployed) for migrant workers? How many farmers would different increments in the minimum wage cause to shutdown and eventually to leave farming? How many migrant employment opportunities would disappear? What would be the distributional effect between those who would be displaced and those who would enjoy higher wages? In short, how justifiable are some of the fears or arguments against extending and increasing the minimum wage?

4. The consideration of ways to reduce migrant underemployment and to provide them with unemployment insurance: At least one study has provided evidence that the irregularity of migrant

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<sup>23</sup> In a very exciting paper, "Bonuses, Quotas, and the Employment of Blacks," (mimeographed) Durand Bell of Medgar Evers College, N.Y., has argued the case against such subsidies.

<sup>24</sup> I harbor a strong suspicion that the local farm labor market is noncompetitive and that the outcomes expected under a perfectly competitive condition would not apply. See Bryce, *op. cit.*, pp. 420-425, especially footnote 20.

employment is a major reason for their relatively low total earnings.<sup>25</sup> Moreover, it is during the slack periods of harvest that migrants are most vulnerable to exploitation. They are not covered by unemployment insurance and are paid only when they work even if the decision not to work while on farms is not theirs. What measures might be undertaken to reduce migrant underemployment? What are the mechanisms and implications of extending underemployment insurance to migrants? This latter question is being given considerable interest by The Department of Labor.

5. Finally, is it feasible to allocate some of the dividends (if any) from the proposed reduction in farm subsidy to the creation of a better environment and future for migrants? Or, is it feasible to allocate a greater share of the entire farm subsidy toward the improvement of the lot of migrants?

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<sup>25</sup> Herrington J. Bryce, *Earnings of Migratory Farm Workers in Wayne County, New York: 1968*, Monograph Number 1, (Geneseo, New York: New York State Center Migrant Studies, 1969).



## DISCUSSION

### BOREN CHERTKOV

*Counsel, U.S. Senate Subcommittee on Migratory Labor*

The presentations this morning again confirm the grim realities of the migrant and seasonal farmworker's life in this nation. It is significant that an organization of the stature of IRRA has devoted a Discussion Section to this topic. Hopefully it will stimulate and encourage those who are so vitally concerned with labor relations generally to give a higher priority to the agriculture labor problem.

If anything is indicative of the plight of the farmworker it is that to this date we cannot come close to even defining the scope of that plight. From the discussions this morning it is clear that we are left only to impressionistic interpretations of farmworker manpower and economic problems. We do not have the necessary, refined data on which to base a thorough and objective analysis of the problem.

Perhaps the best summary of our predicament was made by Senator Walter F. Mondale, Chairman of the U.S. Senate Subcommittee on Migratory Labor, after many days of hearing directly from experts, when he concluded that "migrants don't count, and they aren't even counted."

Our inability to define the scope and nature of the problem is inextricably tied to farmworkers' economic and political powerlessness. The Migratory Labor Subcommittee during the 91st Congress chose to study powerlessness itself, rather than explore and dramatize the conditions of poverty, exploitation, malnutrition, sickness, disease, poor housing, hunger, illiteracy, etc.

Entitled "Powerlessness," the hearings were designed to explore the extent to which migrant and seasonal farmworkers are powerless to influence decisions that affect their lives in both their home base communities and the so-called user states. The degree to which, and the ways in which, farmworkers are deprived of political power, deprived of economic power, deprived of cultural identity or pride, deprived of rights and privileges that most Americans take for granted were to be examined at length.

Beginning in early 1969, the Subcommittee initiated its hearings by having farmworkers themselves—Mexican-Americans, Blacks, and

Indians—tell their own story. They see their problems and they live with their problems every day, and clearly the real story of the migrant, why he migrates, and his plight, is best told by those who are, or have been, migrant workers.

Following the detailing by farmworkers of their own living and working conditions, and the impact of exclusion from, or at best only partial inclusion under, most social and worker benefit programs ever enacted into federal, state or local law, the Subcommittee heard from noted psychiatrists and sociologists. They described the very special psychological and sociological problems encountered by migrant families—problems that are attributable to constant mobility. The uprooted nature of their day to day lives destroys children of farmworkers in a way that no other impoverished persons in our society, including those in Appalachia, the South, or the ghettos of Northern cities are affected. The immense physical, social, and cultural stresses and strains on the family unit were documented.

The Subcommittee then shifted its focus to areas where there may be some hope for relieving the plight of the farmworker, and more specifically, through community and union organization. The efforts of the Cesar Chavez led United Farmworkers Organizing Committee, and their deep commitment to the non-violent tactic as the only route to meaningful change, were studied, particularly with regard to the international boycott of table grapes, and the impact on that boycott of the substantial increases in grape purchases by the Department of Defense. Other organization efforts throughout the country were documented, and a case study was made during which all principal parties to a blueberry strike in North Carolina were called to testify.

The hearings on efforts to organize were followed by a study of rural legal service program efforts in California, Texas, and Colorado, to remove the barriers to the farmworkers' entrance into the mainstream of American life by representing and advocating farmworker interests in our judicial system, before administrative agencies and legislatures. Additionally, the Civil Rights Commission documented discrimination in the administration of justice, particularly that faced by Mexican-Americans in the Southwest.

The Subcommittee then turned its attention to two specific subject areas of major concern to farmworkers. Three days of

hearings were held on the effects of pesticides on farmworkers. Testimony that over 800 persons a year are killed, and over 80,000 a year injured through the unscrupulous use of pesticides pointed out the great need to enact government programs that will provide meaningful occupational safety and health protection to farmers and farmworkers. And, the border commuter labor situation, which finds thousands of desperately poor farmworkers pouring into this country every morning from Mexico to compete with United States residents, was studied, particularly insofar as it relates to the substantial unemployment and under-employment in border areas that perhaps have the lowest living and working conditions in the Nation.

In late July, 1970, the Subcommittee entered a new phase of its investigations by attempting to determine just who is responsible for the plight of the migrant. Following testimony on the absolutely tragic health and living conditions of farmworkers, particularly in Florida and Texas, from a noted team of physicians, the Subcommittee received documented testimony on the vast void in the government programs, the lack of program outreach, and the utter failure to move farmworkers into the mainstream of American life. And, from experts studying the trend towards agribusiness, it was learned that some very large conglomerates and corporations in fact have at least some responsibility, for they directly employ farmworkers who are living and working in some of the worst conditions known for any citizens in this Nation.

At least one indication of farmworker political and economic powerlessness is that no major legislation having a substantial impact on the living and working conditions of migrant and seasonal farmworkers was enacted into law during the 91st Congress.

A number of bills having at least some relation to the health and welfare of farmworkers were considered, and hearings were held on several major proposals. Minor improvements in health, occupational health and safety, disaster relief, OEO, housing, and education programs, together with increased appropriations were accomplished. However, extension of the unemployment insurance program to farmworkers received widespread support, passed the Senate, but was dropped in Conference. The Manpower Bill vetoed by the President contained substantial benefits for farmworkers, including mechanisms for an on-going study of farmworker economic and manpower problems.

Other legislative proposals having a very direct bearing on migrant and seasonal farmworkers in the areas of collective bargaining, social security, welfare, workmen's compensation, crew leader registration, control of the border commuter problem, minimum wage and child labor were not seriously considered during the 91st Congress.

Progress in overcoming the plight of the farmworker depends on a number of factors. Union and community organization as a vehicle to obtain a fair share of political and economic power has to date offered the best hope. Including farmworkers under basic social and worker benefit legislation, or expecting administrative agencies to more sympathetically address the farmworker problem are unlikely in the near future, but under any circumstances significant change will not come without necessary facts and statistics on the precise nature and scope of the manpower and economic problems of farmworkers.

# **III**

## **NEGRO EMPLOYMENT IN THE SOUTH**

**F. Ray Marshall, Chairman  
University of Texas**

# NEGRO EMPLOYMENT IN THE FEDERAL GOVERNMENT<sup>1</sup>

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Approximately 40 percent of total employment in the U.S. is to be found in the nonprofit-making sector, a significant component of which is found within the Federal civilian service. In civilian capacities alone, the Federal Government employs well over 4 percent of the nonagricultural work force of the South. Although the 4 percent figure represents a significant slice of the employment pie, the quantitative dimensions are less significant, perhaps, than the qualitative ones. Federal jobs are more secure and stable than most found in the private sector, many Federal jobs are policy-making positions which influence employment policy in other sectors, and the leverage which disadvantaged groups can exert on the Federal sector for equal treatment in employment opportunities is probably greater than on any other area.

By virtue of both its quantitative and qualitative importance in the employment picture in the South, a study of Federal service employment practices with regard to the black minority is essential to an understanding of minority employment patterns and opportunities in that region.

In 1967, there were well over 700,000 Federal employees in the South, an increase of over 100,000 from 1963. Of the total in 1967, nearly 100,000 were Negro, an increase of about 25,000 over the 1963 figure. Although black employment increased more rapidly than total Federal employment, blacks were, in 1967, still represented to a much smaller extent than their proportion of the work force. If in 1967 blacks had been employed in the Federal service to the extent of their representation in the work force, they would have held an *additional* 65,000 jobs, primarily in white-collar capacities. This condition contrasts drastically with the situation in the non-South, where, if blacks had been employed in the Federal service

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<sup>1</sup>This study was financed under a contract with the U.S. Department of Labor, Manpower Administration, Office of Research and Evaluation, as a part of the Negro Employment in the South Project being conducted at The University of Kentucky and The University of Texas. That office assumes no responsibility for the conclusions reached.

proportionate to their representation in the work force, they would have held approximately 65,000 *fewer* jobs in 1967.

The 65,000 figure stands out as an indication that there have been limitations on the opportunities afforded blacks for employment in the Federal sector in the South. As a result, this paper has a fourfold objective:

- (1) To describe the pattern of Negro employment in the Federal Government in thirteen Southern states and twenty-four southern metropolitan areas and to compare the pattern with that in non-Southern states and SMSA's;<sup>2</sup>
- (2) To report some results of regression and correlation analysis designed to provide an account of the determinants of Negro employment patterns;
- (3) To examine the various programs designed to change the structure of Negro employment; and
- (4) To offer some suggestions which will facilitate improvement of Negro employment opportunities in the Federal service.

#### PROFILE OF NEGRO EMPLOYMENT

Whereas the distribution of total employment among pay systems and within pay systems<sup>3</sup> is nearly the same in the South and the non-South, Negro Federal service employment in the South is much more concentrated in Wage Board (WB) or blue-collar occupations and in the lowest paying categories of all pay systems than it is in the non-South. For example, the proportion of black employees employed in the South in 1967 in WB was more than double that in the non-South. In the South in 1967, the proportion of blacks in the lowest paying category of the General Schedule (GS) and WB was approximately double the proportion for all employees and significantly higher than in the non-South.

Two measures of black participation in Federal service employment are used: the penetration rate, simply the proportion of black to total employees, and an "index of grade position (IGP)." The

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<sup>2</sup> The states under consideration are those of the Confederacy plus Kentucky and Oklahoma. The SMSA's are: Atlanta, Birmingham, Charleston, Columbia, Dallas, Fort Worth, Greensboro, Houston, Huntsville, Jackson, Jacksonville, Little Rock, Louisville, Macon, Memphis, Miami, Mobile, Montgomery, Nashville, New Orleans, Newport News, Norfolk-Portsmouth, Raleigh, and San Antonio.

<sup>3</sup> Three major statutory pay systems are under consideration: the General Schedule (GS), Wage Board (WB), and the Postal Field Service (PFS).

latter is calculated for a group (Negroes or Anglos) by multiplying the average income of all employees for each of the congeries of grades (a category) or earnings brackets used to tabulate minority employment data by the proportion of a group in each category and summing over all categories.<sup>4</sup> The index is a dollar value which indicates the extent to which the group as a whole is dispersed through the occupational structure of the pay system.

An individual dollar value, however, is of little value. The ratio of one group to another, which indicates what proportion one group earns relative to another group if each were paid at a rate equal to the average of the total of the groups, is necessary for contrast and comparison. In this paper, the ratio of the IGP for blacks (N) and that for an "All Other" group (A) is used for descriptive purposes. Table I lists penetration rates, and Table II lists IGP ratios for state and SMSA aggregations for 1963 and 1967.

Table I is self-explanatory, but Table II deserves additional comment. It should be noted that the IGP ratios increase significantly in both the South and the non-South from GS to WB to PFS. Whereas the average ratio in GS is around .72, the lowest in PFS is .95. Obviously, the relative ability of Negroes to move up in a pay system is largely dependent upon the system. Further, it should be noted that the non-South exhibited a pattern of improvement in IGP ratios whereas the South demonstrated a pattern of deterioration. Thus, the region of employment is a critical variable in determining both penetration and the relative ability of blacks to advance along occupational ladders within the Federal service.

#### REGRESSION RESULTS

A large number of regressions, using both the penetration rate and the IGP ratio as dependent variables, have been run in an attempt to isolate the determinants of the black employment patterns in the Federal service in the South. Separate regressions have been run for the non-South in an effort to compare and contrast the two regions. Only the results which serve to point out regional differences in the pattern of determinants will be summarized here.

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<sup>4</sup> The salary weights differ for pay systems and for 1963 and 1967. However, given the pay system and the year, a standard salary weight is used for all states and SMSA's. One must assume that, within each grade or pay category, the racial biases for pay purposes are equal throughout the country.



TABLE I  
Penetration Rates in Major Pay Systems: 1963 and 1967

Regional Aggregations	1963			1967		
	Pay System			Pay System		
	GS	WB	PFS	GS	WB	PFS
States:						
Non-South	10.9	17.7	16.4	12.4	19.3	20.1
South	4.9	22.3	12.0	6.5	23.3	14.5
SMSA's:						
Non-South	16.2	28.8	28.6	18.1	33.7	33.0
Non-South Without D.C.	15.3	23.0	27.2	17.5	27.1	31.4
South	4.1	24.9	24.9	6.1	27.1	29.8

TABLE II  
Indexes of Grade Position in Major Pay Systems: 1963 and 1967

Regional Aggregations	1963			1967		
	Pay System			Pay System		
	GS N/A	WB N/A	PFS N/A	GS N/A	WB N/A	PFS N/A
States:						
Non-South	.729	.855	.966	.716	.868	.969
South	.741	.821	.961	.727	.811	.960
SMSA's:						
Non-South	.693	.799	.959	.717	.829	.970
Non-South Without D.C.	.716	.834	.963	.741	.857	.970
South	.701	.840	.945	.691	.817	.951

It has been found that between 1963 and 1967, housing segregation exerted a strong negative influence on the black penetration rate in all pay systems in Southern SMSA's. For GS positions in Southern SMSA's, the regression results suggest the existence of relatively distinct hiring queues formed along racial lines. Neither of the above conclusions holds for non-Southern SMSA's. For Southern SMSA's and states, hiring of black personnel during the period was concentrated in the lowest paying categories of all pay systems to a much larger degree than in the non-South. Finally, the structure of employment in states and SMSA's by agency is significant in explaining the pattern of black employment in the Federal service in the South.

### THE ORGANIZATION OF EEO

If the structure of black employment in the Federal service in the South is to be changed, significant alterations in the format of the Federal Government's in-house equal employment opportunity (EEO) programs are required. The present format is discussed in this section under four headings: (1) Structure, Evaluation, and Control; (2) Affirmative Action Plans; (3) Complaint Procedure; and (4) Minority Data.

#### *Structure, Evaluation, and Control.*

The responsibility for EEO program design and implementation currently rests with the Civil Service Commission (CSC), as it has since 1965.<sup>5</sup> The authority for the operation of the program derives from President Nixon's Executive Order 11478.

Robert Hampton, Chairman of the CSC, has argued that the Commission's EEO program has been successful due to its authority over personnel practices, its EEO directives, and its inspections of agency EEO efforts.<sup>6</sup> The theme of this paper, however, is that there is vast room for improvement, much of which can come from within the CSC. There is good reason for the wide divergence of opinion.

Although the CSC has the authority to direct agency personnel practices, there is some indication that the authority has not been exercised to an extent necessary and possible. The CSC has not to date exercised its authority to either seize the appointing authority of or carry out sanctions against personnel administrators or installation heads. The directions issued by the CSC to agencies on personnel operations are oftentimes a source of confusion and cause for inaction rather than action.<sup>7</sup> A vast difference exists between

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<sup>5</sup>For a thorough history of the Federal Government's EEO program see Samuel Krislov, *The Negro in Federal Employment* (Minneapolis: University of Minnesota Press, 1967) and Herbert Garfinkel and Michael D. Cahn, "Racial-Religious Designations, Preferential Hiring, and Fair Employment Practices Commissions," *Labor Law Journal* (June 1969), pages 357-372.

<sup>6</sup>U.S. Senate, Committee on Labor and Public Welfare, Subcommittee on Labor, Hearings on S. 2453, Equal Employment Opportunities Enforcement Act, 91st Congress, First Session (August 11, 12; September 10, 16, 1969), page 128.

<sup>7</sup>Report of the Ad Hoc Congressional Hearings on Discrimination in Federal Employment and Federal Contractor Employment, *Congressional Record* (September 1970), page H8770.

the formal requirements of the CSC and the requirements it actually places on Federal agencies. In a document designed to "transmit instructions and guidelines for reviewing, evaluating, and reporting agency equal employment opportunity programs," the CSC requests that agencies and installations ask:

Are selection criteria valid and applied equally to all persons? Are there variations in the use and nonuse of selection panels, and if so, are there valid reasons for the variation?<sup>8</sup>

At the time of the distribution of the above statement, the CSC itself had not gone beyond investigating the feasibility of testing the validity of the criteria for employment selection. The large divergence between the rhetoric of action and the requirements of action surely contributes to the opinion that the CSC is **not** seriously concerned with EEO.

Through its regional offices, the CSC conducts inspections of agency EEO efforts. The inspection reports, however, are not in the public domain. Apparently there is a fear of "airing the dirty wash" of an agency or installation and thereby exposing an individual or Federal employer to public retribution. The desire to maintain the surreptitious nature of the EEO programs has been an overriding concern of the CSC.

Although the CSC has been very active in EEO program design, it has been unsuccessful in program implementation and control. The reason for the lack of success is a failure to communicate with the field a strong commitment to EEO. Moreover, the barriers to communication with Federal agencies located in the South loom larger than elsewhere in the country.

#### *Affirmative Action Plans.*

Chairman Hampton has also argued that affirmative action, "the moving out by agency heads and their managers to take the steps necessary to make equal employment opportunity a reality in every aspect of personnel operations," is the heart of the EEO program.<sup>9</sup> "Every aspect of personnel operations" obviously means every act from the original contact of prospective employees to

<sup>8</sup> U.S. Civil Service Commission, *Federal Personnel Manual System (FPM) Supplement Installment No. 272-73* (mimeographed, December 19, 1967), page 4-6-9.

<sup>9</sup> U.S. Senate, *op. cit.*, page 132.

employment and advancement. How has the CSC performed in these areas?

It has been found that in the Southern SMSA's, housing segregation had become by the end of the 1960's a strong negative influence on black penetration into all of the three major pay systems. Apparently lack of communication and transportation and educational deficiencies, all of which are reflected in the extent of residential segregation, are growing obstacles to the employment of blacks in the Federal service. The affirmative action program of the CSC has not worked in Southern SMSA's. It has not given enough attention to guiding and prodding agencies to reach out into the community.

That penetration of blacks into the Federal service which did occur between 1963 and 1967 in the South was heavily concentrated in the lowest paying categories, as is witnessed by the declining IGP ratios. Although some of the explanation for such a phenomenon resides in supply conditions, the demand side is due careful scrutiny. The CSC has designed trainee programs in WB and PFS which permit extensive low-level placement, but entrance tests for advanced white-collar positions continue to demonstrate extensive racial differences in pass rates,<sup>10</sup> and persistence in the use of the "three-man-eligible" rule permits discrimination which is untouched by CSC rules.

The regression results indicate that relatively distinct hiring queues exist for GS positions in SMSA's, which suggests that *either* blacks are being overlooked even if they qualify *or* they occupy the lower echelons of the eligible list. If blacks are being overlooked, positive action is required to assure them equal opportunity in selection from the list of the "most eligible." If blacks occupy the lower echelons of the eligible list, positive action is required to test the relationship between the method of establishing the registers and job performance. Most likely, both interpretations have some

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<sup>10</sup> A survey conducted in 1967 of 191 colleges and universities showed that 71.7 percent of those taking the Federal Service Entrance Examination (FSEE) received passing scores. However, only 29.6 percent of the students from predominantly black colleges passed the examination. In this regard, see U.S. Civil Service Commission, Bureau of Recruiting and Examining, Office of College Relations and Recruitment Manpower Sources Division, *Review of Government-Wide College Relations and Recruitment Activities* (February 1968), Enclosure C. Currently some changes in the FSEE, of an undisclosed nature, are being planned for September 1971.

merit, and the CSC has failed to take the positive action necessary.

Finally, there is solid evidence that upgrading of blacks in the Federal service is progressing much more slowly than penetration is. Penetration is simply easier to accomplish and is often taken as evidence of a solid commitment to EEO. Despite verbal commitments by the CSC to upgrading efforts, it cannot demonstrate by use of data regarding relative promotion times or the racial balance of training efforts the effects of its labors. The heart of the CSC's EEO program, its affirmative action program, is beating very slowly indeed.

#### *Complaint Procedure.*

The CSC's procedure for processing complaints of individual acts of alleged discrimination is totally inadequate. The agency head in whose unit the complaint arises has almost despotic control over the complaint procedure; he may accept, reject, or modify the decision recommended by the appeals examiner. The aggrieved party's only recourse is the CSC's Board of Appeals and Review, where the individual complainant finds satisfaction in only 4 percent of the cases.<sup>11</sup>

#### *Minority Data.*

The data collection activities of the CSC are few, and the distribution to the public of those which are collected has a long lag. A biennial census of minority employees is taken which compiles the absolute number and penetration rates of minority employees in states, SMSA's, and agencies.<sup>12</sup> The lag in reporting the results of the census is one year. No data are collected on relative turnover or promotion times. No data are collected on the racial composition of occupational groupings or on educational attainment by race. The system of data collection is the capstone of a clandestine operation designed to keep everyone from knowing what everyone suspects.

#### RECOMMENDATIONS FOR RENOVATION

Five essential elements of a successful EEO program are: (1) Program Development, (2) Affirmative Action, (3) Inspections, (4)

<sup>11</sup> U.S. Senate, *op. cit.*, page 40.

<sup>12</sup> U.S. Civil Service Commission, *Study of Minority Group Employment in the Federal Government, 1967* (1967).

Complaint Procedure, and (5) Data Collection. Each of the above elements will be considered briefly.

*Program Development and Affirmative Action.*

The term "program development" in the present context has two connotations: (1) design of programs to eliminate existing barriers to EEO which have been woven into the current administrative structure and (2) design of programs to provide special treatment for the disadvantaged. The latter set of programs are affirmative action programs and should be designed to remove, in the case of current employees, the effects of past discrimination in placement and upgrading and, in the case of prospective employees, the effects of community patterns of housing, education, transportation, and attitudes.

The former type of program development should include the redesign of tests and test administration to eliminate cultural biases. It should include a redesign of the entire hiring process, including the three-man-eligible rule. The CSC is directing and should continue to direct these efforts; it has the expertise in the area of personnel administration and knows how to manipulate rules and procedures. One can only hope for a little greater speed in organizing and implementing the programs. For example, even though a tremendous difference in the black versus Anglo pass rate on the FSEE was first noticed in 1967, no changes are planned prior to September 1971.<sup>13</sup>

Affirmative action programs are of necessity agency-oriented programs. Individual agencies and installations, or groups of agencies in a single labor market area, must be responsible for community outreach or identifying individual employees who have the ability and desire to change career ladders. The Post Office Department has been especially active in the affirmative action area, and other agencies could learn some valuable lessons. The CSC also has a role to play, however, in that it should permit agencies to establish specific goals with respect to minority employment. Affirmative action plans are somewhat meaningless unless a specific goal or goals, against which progress can be measured, are established.

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<sup>13</sup> Letter from Evelyn Harrison, Deputy Director, Bureau of Policies and Standards, U.S. Civil Service Commission (October 13, 1970).

*Inspections.*

The program development and affirmative action aspects of the EEO program, however, will not and cannot be successful without a renovated investigation procedure. It is strongly recommended that the responsibility for the inspection of EEO programs be removed from the CSC. It is imperative that an agency independent of CSC control, and preferably with Presidential blessing, be given responsibility for supplementing CSC inspections and publication of inspection results. The inspections should include every phase of personnel operations, including the development and implementation of affirmative action plans. Given the results of this study, the allocation of inspection efforts should be concentrated in Southern states and SMSA's.

*Complaint Procedure.*

The current procedure for processing complaints of individual acts of discrimination is hopelessly inadequate. A revised procedure would include: (1) employee selection of equal employment opportunity counselors to aid in informal resolution of complaints and processing of formal complaints; (2) professionalization of the position of appeals examiner with a large measure of independence; (3) placement of the responsibility for appeal of the appeals examiner's decision on the shoulders of the agency head in whose agency the complaint arises; and (4) establishment of a "supreme court" independent of the CSC to render final decisions on an appeal by an agency head.

*Data Collection.*

There is currently not enough data collected on the characteristics of Federal employees by race to conduct a thorough analysis, and there is a long lag between the collection and the publication of those data which are gathered. Both limitations could easily be removed by an administrative decision.

Examples of additional data which should be collected by race are: (1) personnel characteristics such as education, age, and sex; (2) promotion times; (3) occupational characteristics; (4) grade and occupation of new hirees; and (5) in-house training. All of the above data are necessary to conduct a thorough investigation of Federal service employment and to evaluate the results of EEO programs.

## CONCLUSION

The CSC has been quite active in terms of program design but has not functioned well in terms of program implementation, evaluation, and control. There is sufficient evidence to conclude that at least some of the responsibility for EEO in the Federal Government should be removed from the CSC. Furthermore, regional variations in any EEO program efforts are justified to overcome traditional barriers to black employment in the South.



# BLACK EMPLOYMENT IN ATLANTA<sup>1</sup>

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## INTRODUCTION

This paper is based on a larger study which seeks to analyze black employment in a number of Southern cities (Atlanta, Birmingham, Houston, Louisville, Memphis, Miami, and New Orleans) and special areas (agriculture, construction, and state and local government). The city studies are based on the assumption that comparative studies make it possible to account for intercity consistencies and inconsistencies in black employment patterns. The city studies are based on detailed analyses of the available statistical data, particularly those provided by the reports employers are required to make by the Civil Rights Act of 1964. However, since statistics on racial employment patterns frequently conceal as much as they reveal, we have conducted detailed interviews in each of the cities in order to deepen our understanding of the patterns and to learn as much as we can about the environments within which local labor markets operate. We have also drawn on the general literature dealing with racial employment patterns.

The main dependent variables used for our statistical analyses are penetration rates, which show the extent to which blacks have entered various industries and occupations, and indexes of occupational position, which show the extent to which they have moved into various occupational levels. The index of occupational position is constructed by summing 1966 U.S. median occupational earnings for males and females weighted by the proportion of a group's employment in each occupation. The relative occupational position by sex of males ( $R_m$ ) and females ( $R_f$ ) is measured by the ratios of the indexes of occupational position. The indexes of occupational position for black males and black females ( $B_m$  and  $B_f$ ) and for

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<sup>1</sup> This paper is based on research supported by the Manpower Administration of the U.S. Department of Labor and the Equal Employment Opportunity Commission. However, the writers alone are responsible for the views expressed as well as for any errors of fact or analysis.

TABLE 1  
Indexes of Occupational Position by Race and Sex,  
Selected Metropolitan Areas: 1966

SMSA	Male						Female					
	Total Male EEOC Employ- ment	B <sub>m</sub> (\$)	W <sub>m</sub> (\$)	B <sub>m</sub> /W <sub>m</sub>	Rank	Percent Black Male EEOC Employ- ment	Total Female EEOC Employ- ment	B <sub>f</sub> (\$)	W <sub>f</sub> (\$)	B <sub>f</sub> /W <sub>f</sub>	Rank	Percent Black Female EEOC Employ- ment
Atlanta	145,011	4678	6686	69.97	5	16.5	76,010	2622	3284	79.84	4	12.7
Dallas	135,252	4647	6856	67.78	8	10.6	62,423	2472	3300	74.91	9	9.0
Houston	189,867	4723	6860	68.85	7	12.2	53,068	2601	3343	77.82	8	8.0
Louisville	93,450	4759	6249	76.15	1	8.5	32,987	2727	3187	85.58	2	7.8
Memphis	63,990	4672	6571	71.10	3	29.1	27,684	2529	3230	78.28	7	17.2
Miami	71,096	4766	6755	70.55	4	11.9	36,348	2580	3163	81.57	3	9.5
Nashville	53,183	4837	6466	74.80	2	13.4	28,601	2839	3241	87.58	1	12.0
New Orleans	105,995	4629	6831	67.76	9	21.1	39,475	2689	3409	78.88	5	17.2
Richmond	59,186	4705	6830	68.89	6	18.6	31,968	2686	3428	78.35	6	14.4

Source: Employer Reports from U.S. Equal Employment Opportunity Commission. Calculations for the Negro Employment in the South Project by Arvil Van Adams.

whites ( $W_m$  and  $W_f$ ) approximate the money value of each group's occupational distribution. Although there are some exceptions, the larger the index's absolute value, the more likely the group is to be concentrated in white-collar employment. In terms of occupational position, Atlanta ranked eleventh of twenty-five Southern cities<sup>2</sup> and fifth for Southern metropolitan areas of over 50,000 total male EEOC employment. Table 1 presents these indexes for Atlanta and other Southern metropolitan areas of over 50,000 male EEOC employment. Tables 2 and 3 summarize black employment in state, local, and Federal government jobs.

In Atlanta's fifteen largest industries, white-collar jobs were overwhelmingly "white," and lower paying blue-collar jobs, in most instances, were largely "black." Although there was a slight improvement in the occupational position of black females (in clerical,

TABLE 2  
Blacks as a Percentage of State and Local Government Employment,  
Atlanta SMSA: 1967

	State	County	City
Total Employees	5.60	19.01	41.73
Officials and Managers	3.73	4.23	0.00
Professional and Technical	3.88	26.26	5.50
Office and Clerical	3.88	2.22	3.32
Craftsmen and Operatives	9.86	4.42	16.69
Laborers	7.89	36.54	87.01
Service Workers	50.00	93.33	41.56

Source: U.S. Civil Rights Commission.

TABLE 3  
Blacks as a Percentage of Federal Government Employment: 1965 and 1967

	1965	1967
Total All Pay Plans	15.2	22.7
General Schedule	4.4	8.1
Wage Board	37.8	45.0
Postal Field Service	28.7	49.7
Other	13.3	8.4

Source: U.S. Civil Service Commission.

<sup>2</sup> Arvil Van Adams, "Black-White Occupational Differentials in Southern Metropolitan Employment," a paper prepared for the Negro Employment in the South Project. In addition to the cities listed in Table 1, included were: Beaumont-Port Arthur, Birmingham, Charlotte, Chattanooga, Fort Lauderdale-Hollywood, Fort Worth, Jacksonville, Knoxville, Mobile, Norfolk-Portsmouth, Oklahoma City, Orlando, San Antonio, Shreveport, Tampa-Saint Petersburg, and Tulsa.

professional, and technical jobs) between 1950 and 1960, they still occupied very low occupational positions in 1966. There was no discernible improvement in black male occupational positions between 1950 and 1966. Yet, black males generally were evenly distributed among occupations than were black females, even though they were still holders of the traditional "colored jobs," i.e., in the services and as laborers. As indicated in table 1, the black male IOP was higher absolutely than the black female IOP, but the black female index was higher related to white females than the black male IOP was in relation to the white male IOP. For blacks as a whole, employment representation was lowest in the insurance industry and highest in the food and kindred products industry.

Employment opportunities for blacks were generally better in the public than in the private sector. The black penetration rates generally were better in city, county, and Federal governments than in Atlanta's top fifteen industries. Of the governmental units, the black penetration rate was lowest in state government. Here most blacks were in white-collar positions, as they were in county government. Yet, as a percentage of total employment, blacks had better opportunities in the Federal Government, followed by the City of Atlanta.

Of those blacks employed by the Federal Government, almost half were in the Atlanta Post Office. Yet, on both the PFS and GS levels, there was little to generate much enthusiasm; blacks were underrepresented in the PFS-9 and higher occupations and were heavily concentrated in the lower paying jobs—GS-1 through GS-4 and PFS-1 through PFS-4.

No blacks headed any departments in Atlanta's city government in 1968, nor did they appear to be assistants to department heads. Most black city employees were in the lower paying blue-collar positions—laborers and services. In all governmental units, blacks seem to have been most heavily employed either in traditional dirty, menial, or otherwise undesirable jobs or in jobs which serve black clients. In categories other than these, black employment rarely exceeded tokenism.

#### DETERMINANTS OF THE PATTERNS

Although Atlanta's black employment patterns are relatively clear, the determinants of these patterns are not as clear, especially

if we look for detailed and specific causal factors. In a general sense, of course, we know that institutional discrimination is a root cause of the black's disadvantage, but it is necessary to look more specifically at the ways in which discrimination manifests itself in the labor market. The remainder of this paper therefore deals with the importance for black employment of race relations, education, industry characteristics, firm behavior and location, and manpower programs.

### *The General Pattern of Race Relations.*

One of the most significant factors influencing black employment patterns is the power of the black community and the extent to which the black community uses its power in an organized effort to improve black employment opportunities. The power and unity of the black community are important because whites are not likely to change institutionalized race patterns without pressures from blacks. Although these factors obviously are difficult to measure, Atlanta seems to have a stronger black community, in terms of political and economic strength, than any other city we have studied. Blacks constitute about one-fourth of the 1.3 million people in the Atlanta SMSA and about 47 percent of the more than a half million who live inside the city limits. The city's black population grew during the 1960's as whites moved to the suburbs and blacks from rural areas moved into Atlanta. Furthermore, the Taeubers reported in 1965 that residential segregation was increasing in Atlanta while decreasing slightly for other Southern cities.<sup>3</sup>

Atlanta's black business community also is reported to be one of the wealthiest and best established of any city in the United States. Indeed, there are reportedly at least thirteen black millionaires in the city, and a third of Atlanta's businesses are blacked owned. However, these businesses cater mainly to the black community, are relatively small, and provide employment for only a small proportion of the city's black workers.

### *Education.*

In our regression studies of the impact of relative education on black male and female occupational positions, we have consistently

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<sup>3</sup> Karl E. Taeuber and Alma F. Taeuber, *Negroes in Cities: Residential Segregation and Neighborhood Change* (Chicago: Aldine Publishing Company, 1965).

found that education accounts for much of the variance in relative occupational position. The explanatory power of schooling is not surprising, though, because education captures many other forms of discrimination. Indeed, educational differences probably are good indicators of institutional discrimination. Our results are weakened, however, by data problems which make it difficult to equate years of schooling and educational attainment. We have, moreover, found marked differences in the proportion of black male and female variance in occupational position accounted for by education. In a model of twenty-five Southern cities, for example, 70 percent of the black male variance was accounted for by education (with no adjustment for quality), as compared with only about half for females.

Because of its importance in explaining occupational position, it is encouraging to note that the racial education gap is narrowing in the South, but there are other causes for concern. For one thing, the migration patterns apparently are causing a widening of the education gap within Southern SMSA's as better educated whites move in and better educated blacks move out. Moreover, black immigrants, who apparently come mainly from rural areas, tend to have lower levels of education than those who are leaving. Clearly, the racial education gap will continue to widen unless Southern cities are able to hold their better educated blacks. A more serious cause of concern, however, is the gap in educational attainment between whites and blacks within school systems. As compared with whites, in 1966, black males and females in Atlanta were more than twice as likely as whites to have eight years or fewer of education, were nearly equal to whites in the nine- to twelve-year range, but were greatly underrepresented in the more-than-twelve-year range.

The fragmentary evidence for Atlanta confirms other findings that blacks have lower performance on achievement tests by grade than whites do. Information collected from the Atlanta public schools reveals the following with respect to median reading scores by grade in the fall of 1966:

Grade	Black	Integrated	White
Fourth	2.7	3.3	3.7
Eighth	3.8	6.3	9.6

The reading gap between black and white schools obviously widened between the fourth and the eighth grades. In 1968, moreover, 92

percent of elementary and 78 percent of high school students in Atlanta attended segregated schools. In general, black schools were characterized by larger classes, less equipment and fewer books, and higher pupil-teacher ratios.

### *Industry Characteristics.*

We tested the statistical significance of various industry characteristics for occupational positions and penetration rates. We were particularly interested in the influence of firm size, skill requirements, rate of growth in employment, transportation, firm employment policies, and firm location. We have consistently found firm size to have no influence on either of these variables.

However, the skill requirements of industry were significant at the 1 percent level in Atlanta for penetration rates but not for occupational position. That is to say, firms which had high ratios of unskilled to skilled work forces were more likely to hire blacks, but they were less likely to upgrade them. Our regression model for twenty-five Southern cities also found that occupational skill requirements were very important in explaining black male occupational positions. However, that model also found that occupational skill requirements were not significant in explaining the relative occupational position for black females. Although elementary and high school education levels were important determinants of black male occupational positions relative to whites, these education variables were not significant for black female occupational positions. However, for black females, education of twelve years and over produced the best statistical fit. These results imply that except for education beyond high school, education levels are not very important predictors of black or white female occupational positions.

In other cities and for the whole South, we have found blacks to be a higher proportion of employment in slow-growth industries and a lower proportion of expanding industries. However, Atlanta does not fit this pattern because in 1966, blacks were 15 percent of slow-growth industries and 16 percent of the rapid-growth industries. On the other hand, as revealed by the EEOC statistics, total employment in the slow-growth industries was 85,018 and only 56,473 in the fast-growth industries, so more blacks were employed in slow-growth industries even though they constituted a higher proportion of those growing more rapidly. Apparently, therefore, the rate of growth in employment is not a significant deter-

minant of black employment in Atlanta. When we analyze the changes between 1966 and 1969, we hope to have some evidence on the extent to which black employment is changing in slow- and fast-growth industries.

The importance of transportation in black employment patterns varies with the size of places, income levels of the occupations being compared, and geographic size of labor markets. The geographic concentrations of blacks relative to jobs are clearly important, especially with regard to low-wage jobs. If the jobs are low wage which are located some distance from black residential areas, it does not pay blacks to incur the time and monetary expenses of transportation. In our twenty-five-city regression model, there appears to be no relation between the geographic size of the labor market and black male occupational positions, but market size is a significant negative factor in black female occupational positions, reflecting the concentration of black females in low-wage jobs. In Atlanta, transportation is a serious impediment to black employment opportunities because of the distance between black residential areas and expanding job opportunities on the outer ring of the city.

#### *Firm Behavior and Location.*

There was a positive statistical relationship at the 5 percent level of significance between penetration rate and Southern-based firms and between relative occupational position and Northern-based firms. However, the significance of the variables may not be due to differences in the behavior of Northern-based and Southern-based firms toward blacks but to their internal structures. Southern-based firms are more likely to be labor intensive, and it would seem to follow that relative occupational position for blacks would be statistically significant for Northern-based firms.

Black penetration rates and relative occupational positions in white-collar jobs were found to be significantly related to the firm's recruitment, selection, and promotion practices. Analysis of these factors, as they relate to the forty-eight firms surveyed, revealed that the majority of the firms used recruitment channels that screened out black Atlantans; only a third of the firms indicated that they used recruitment channels which could be classified as broad enough to reach both black and white workers. Even in these firms, black spokesmen raised doubts about the broadness of recruitment channels



since many civil rights organizations—the channel reportedly used primarily by these firms—reported very little contact with the firms. Most of the firms failed to use the predominantly black Atlanta University Center as a recruitment channel, while black newspapers were not used at all. On the whole, the firms relied on overwhelmingly formal rather than informal methods of recruitment. There was little evidence to show that the majority of the firms took any significant steps to alter their selection procedures for blacks. Over 90 percent of the firms were against “positive discrimination” as a selection technique.

An infinitesimal number of blacks were promoted above the sales and clerical occupational levels in the firms surveyed, and many blacks above those levels dealt exclusively with the black community.

### UNIONS

Except in the skilled trades, where discriminatory exclusion of blacks has only recently begun changing, unions do not seem to have been significant determinants of black employment in Atlanta. Some unions, particularly the federations, have worked to eliminate segregation. Some industrial unions, such as the automobile and steel workers, have cooperated with employers in changing segregated seniority lines under pressures from civil rights forces but have encountered local resistance to change. Although unions did not cause the segregated seniority rosters, they formalized them and made them more difficult to change unless blacks had considerable political power within the union.

### MANPOWER PROGRAMS

Because of inadequate data, it is difficult to assess the importance of manpower programs in changing black employment patterns. Most of the programs operating in Atlanta have had overwhelming proportions of black enrollees. However, most of the programs, with the exception of Job Opportunities in the Business Sector (JOBS), had predominantly black female enrollees, few of whom were able to find permanent employment after completing the programs. For example, the New Careers program had 198 enrollees by November 1969; 169 of these were females, only 71 of whom were subsequently employed.

The main programs for black males were JOBS and the Labor

Education Advancement Project (LEAP) to get blacks into construction apprenticeship programs. During 1968 and 1969, JOBS had 9,566 placements, 59 percent of whom retained their jobs six months or longer. The LEAP program in Atlanta has been less successful in comparison to the apprenticeship outreach programs in other cities, apparently because the program's administrators have not been devoted exclusively to this program and have failed to provide adequate follow-up to the applicants referred to joint apprenticeship programs. The Atlanta LEAP program has a retention rate of only 27 percent, far below that of cities such as Jacksonville (55 percent), Miami (73 percent), and New Orleans (81 percent).

#### CONCLUSIONS

We have inadequate data for an evaluation of the impact of manpower programs on black employment patterns. However, the data available to us suggest that these have often been largely welfare rather than training programs, have had heavy concentrations of females except for the JOBS program, and have not been very effectively administered and coordinated.

However, we feel that manpower programs geared to the specific realities of the local labor market could have a significant impact on black employment patterns by providing better labor market information, training opportunities, and job placement. Our analysis makes it clear that different kinds of measures are needed to improve employment opportunities for black males and females. Clearly, though, because of the continuation of overt and institutional discrimination, enforcement of antidiscrimination measures must be strengthened in order to have a really significant impact on black employment. In particular, measures must be taken to give unions and employers strong incentives to recruit and train blacks in nontraditional jobs. The Atlanta experience also suggests a need for drastic reforms in the educational system. Finally, even though Atlanta is a relatively "progressive" city by Southern—and perhaps Northern—standards, the measures necessary for significant improvements in employment will require much better organization and stronger pressures from the black community itself.

# NEGRO AGRICULTURAL EMPLOYMENT AND SURPLUS LABOR IN THE ECONOMY OF THE SOUTH

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The economy of the antebellum South\*, based on labor intensive agriculture rooted in slavery, generated economic, political, social, and moral problems that persist to the present. The Negro's legal status was changed by the Civil War, but his inferior position was quickly embedded in laws and customs developed during Reconstruction. The break from southern agriculture proved to be slow and tortuous. Manual skills learned on the plantation were not readily transferable to nonagricultural pursuits, and more sophisticated skills were simply not present. The segregated and desperately inadequate school system in the rural South did little to improve the situation, and Negroes continued to penetrate the nonagricultural labor force only in the most menial occupations. And perhaps more fundamentally, new generations of urban Americans, North and South, were conditioned to ascribe only second-class citizenship to the black man as a natural outgrowth of his former bondage and subsequent lowly station in the post-Reconstruction era. As a result, 55 percent of employed Negro males were in agriculture, almost entirely in the South, well past the turn of the century.

The twentieth century brought dramatic changes in American agriculture. The farm labor force declined 29 percent between 1910 and 1940, from 11.5 million to 8.2 million, then more rapidly to 5.1 million by 1960.<sup>1</sup> Labor displacement in the South paralleled the national trend until World War II. Then it accelerated, with the agricultural labor force falling, by 1969, to one-third of what it had been in 1950.<sup>2</sup> Blacks were strongly involved in these move-

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\*Our South is composed of the 11 states of the Confederacy plus Kentucky, Oklahoma, and West Virginia.

<sup>1</sup>Dale L. Hiestand, *Economic Growth and Employment Opportunities for Minorities* (New York: Columbia University Press, 1964), pp. 7-9. Basic data are from the U.S., Department of Commerce, Bureau of the Census, *Censuses of Population* (Washington, D.C.: Government Printing Office).

<sup>2</sup>Mechanization of cotton accounted for much of the acceleration. The proportion of cotton harvested by hand fell from 92 percent in 1950 to 11 percent in 1966.

ments. At the opening of the century about 90 percent of the American black population lived in the South and more than 80 percent of this population lived in rural regions. Six decades later the South contained something like 60 percent of all blacks of whom 43 percent were inhabiting its rural areas.<sup>3</sup> More than a half million blacks currently in the nonagricultural labor force were at one time farm workers in the South. Yet agriculture remains to southern Negroes the most sizeable source of employment. In 1969 agriculture absorbed more black labor than any four manufacturing industries in the region, aggregated at the 2-digit SIC (Standard Industrial Code) level, while black farm ownership actually increased between 1950 and 1969.

The reduction of the farm labor force and the continuing importance of farming to southern Negroes suggest that Negro employment in southern agriculture should be studied in a larger setting. Specifically, the study should consider the changing role of agriculture within the regional economy; the position of the Negro within agriculture; the capacity of the secondary and tertiary sectors to absorb displaced agricultural labor and the flexibility of such labor in meeting manpower needs outside the primary sector; and finally the adequacy and the plasticity of the institutional framework to facilitate the transition from farm employment to employment in urban markets—both in industry and services.

Our analysis has proceeded on the basis of a number of observed trends and derived propositions. Namely,

1. Labor requirements in agriculture have declined drastically over the last two decades. That is to say, agricultural technology and productivity have led to correspondingly rapid reductions in labor utilization. This has made for large scale displacement of labor away from agriculture.<sup>4</sup> Between 1950 and 1969 the southern agricultural labor force declined by 2,600,000 workers.

2. Negro labor has been displaced at a rate faster than that of its white counterpart. Such factors as smaller farm size, fewer

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<sup>3</sup>M. Hayes, "A Century of Change in the U.S. Economy 1860-1960," *Monthly Labor Review* (December 1962), pp. 1356-65. Also, David Kaun, "Negro Migration and Unemployment," *Human Resources* (Spring 1970).

<sup>4</sup>Surplus labor is that part of the labor force which could be removed without a decrease in total farm output—given the level of technology applied. Operationally, labor becomes surplus and is pushed out of agriculture when its marginal product falls below the family subsistence level.

financial resources, limited access to credit, coupled with less adaptability to changing technology induced a greater outflow of Negro labor.

3. In as much as the marginal product of displaced labor was near zero, such displacement can be taken as an index of surplus labor in southern agriculture. Much of this agricultural labor surplus became surplus for the whole regional economy to the extent that<sup>5</sup>:

(a) demand for labor throughout the region did not expand sufficiently to absorb increments in labor force associated with population growth plus "immigrant" labor;

(b) by and large agricultural labor surplus has been a "non-competing group." Its limited vocational and educational skill-base was lower than that of labor for which there has been a rising demand from the industrial sector.

4. As a consequence of educational-skill differences and regional racial attitudes, nonwhites from the surplus agricultural labor pool were disadvantaged in seeking employment in the nonagricultural sectors of the regional economy, leaving blacks disproportionately represented in the pool of "idle" labor. The dynamics of this pool operated in the direction of pushing away from the region and into the industrialized and urban areas of the country the upper layer of Negro labor.

5. Negro migration must have gained momentum largely because of the rising pressure of the pool of displaced labor. Here there has been in operation a siphonic effect. Displaced farm labor pushing away urban Negro labor and finding a place for itself in the lower layers of the labor market in the South and then spilling over to the country.

In the fifties some 1.5 million black people migrated away from the South. Net white out-migration was relatively heavy up to 1955; then in-migration was greater than out-migration. On balance there has been net out-migration (including blacks and whites), but not sufficient to drain off the surplus.

6. Projecting a rising trend in agricultural technology and assuming the net reproduction rate for the rural South remains relatively

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<sup>5</sup> Operationally, unskilled labor becomes surplus at a level analogous to that defined for farm labor.

high, the southern economy will continue to bear a burden of considerable surplus of low-skill labor. This may suggest that employment and migration patterns for blacks will not be significantly altered during the current decade, though the amount of net migration will undoubtedly decline.

### *Agricultural Labor Displacement Since 1950*

Farm technology and productivity continued to improve throughout the decades of 1950's and 1960's. The U.S. Department of Agriculture (U.S.D.A.) standard estimates of labor requirements—units of labor required to produce a given amount of output—show a consistent decline in the face of increasing agricultural output.<sup>6</sup> Inevitably, the size of the agricultural labor force—farm operators, family workers, hired workers—followed the downward trend of labor requirements. (See Tables 1 and 2.) Furthermore, there was an increase in the amount of off-the-farm work performed by farm labor.<sup>7</sup> For many marginal farm families the break from dependence on agriculture came in stages: part-time non-farm work in rural areas; abandonment of farming as the primary source of income; physical movement from the farm. Thus, the counts in Table 2 show a greater number of people engaged in farming than the volume of performed work in labor units (man-years). This might be taken as a presumptive evidence of rising underemployment in agriculture. Conversion of the counts to full-time equivalents suggests underemployment more strongly. The number of family workers shrank from 3,339,000 in 1951 to 1,351,000 in 1969, i.e., by 59.5 percent, but the decline was 71.4 percent in terms of full-time equivalents.<sup>8</sup>

### *Negro Farming*

During the period under consideration, the financial viability of Negro farming has shrunk still further. Operators of small farms have not fared well. And Negroes are concentrated on small farms.

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<sup>6</sup>U.S., Department of Agriculture, *Changes in Farm Production and Efficiency*, Statistical Bulletin No. 233 (Washington, D.C.: Government Printing Office, 1969). Labor requirements are calculated on the basis of given technology and do not allow for varying factor proportions. The notion is technological rather than economic.

<sup>7</sup>U.S., Department of Agriculture, *Census of Agriculture* for the respective years of 1954, 1959, and 1964 (Washington, D.C.: Government Printing Office).

<sup>8</sup>Constraints of space prevent inclusion of these data and conversion calculations.

TABLE 1  
Labor Requirements in Southern Agriculture  
1951-1968

Year	Man-hours (Millions)	Index
1951	6,976	100.0
1952	6,562	94.1
1953	6,286	90.1
1954	5,773	82.8
1955	5,561	79.7
1956	5,110	73.3
1957	4,460	63.9
1958	4,244	60.8
1959	4,253	61.0
1960	4,034	57.8
1961	3,904	56.0
1962	3,704	53.1
1963	3,609	51.7
1964	3,360	48.2
1965	3,148	45.1
1966	2,933	42.0
1967	2,909	41.7
1968	2,778	39.8

Source: U.S., Department of Agriculture, *Changes in Farm Production and Efficiency*, Statistical Bulletin No. 233 (Washington, D.C.: Government Printing Office, 1969).

The 1959 *Census of Agriculture* shows that the farm size of Negro full owners was 62 acres or about 38 percent of the farm size of white operators; the size of farms owned partly by Negroes was 83 acres or 18 percent of the corresponding white figure; finally, for Negro tenants the size of farm was 35 acres or 18 percent of the white tenant farm size.<sup>9</sup>

Or, the average value of land and buildings on farms operated by Negroes was less than one-fourth of the value of land and buildings on the white farms, i.e., \$6,152 against \$25,502.<sup>10</sup> U.S.D.A. and Farmers Home Administration loan data reveal much the same adverse position for Negroes, with over 80 percent of loans going to operators of Class V and VI farms—farms having less than \$6,000 net worth—as opposed to 30 percent for whites, and nearly three-fourths the dollar amount of Negro loans for those classes went for current expenses instead of capital expenditures. For whites

<sup>9</sup> U.S., Department of Agriculture, *1959 Census of Agriculture*, Volume II, Chapter X, Table 7 (Washington, D.C.: Government Printing Office).

<sup>10</sup> James D. Cowhig and Calvin L. Beale, "Socioeconomic Differences Between White and Nonwhite Farm Populations of the South," *Southwestern Social Science Quarterly* (September 1964).

TABLE 2  
Agricultural Work Force in the South  
1950-1969  
(Thousands)

Year	Family workers*	Index	Hired workers	Index	Total farm labor	Index	Decline from previous year	Cumula- tive decline
1950	3,507	.....	1,043	.....	4,550	.....	.....	.....
1951	3,340	100.0	989	100.0	4,329	100.0	221	221
1952	3,124	93.5	945	95.6	4,069	94.0	260	481
1953	2,967	88.8	934	94.4	3,901	90.1	168	649
1954	2,848	85.3	942	95.2	3,790	87.5	111	760
1955	2,730	81.7	944	95.4	3,674	84.9	116	876
1956	2,475	74.1	904	91.4	3,379	78.1	295	1,171
1957	2,364	70.8	898	90.8	3,262	75.4	117	1,288
1958	2,261	67.7	921	93.1	3,182	73.5	80	1,368
1959	2,207	66.1	939	94.9	3,146	72.7	36	1,404
1960	2,091	62.6	903	91.3	2,994	69.2	152	1,556
1961	2,014	60.3	931	94.1	2,945	68.0	49	1,605
1962	1,933	57.9	892	90.2	2,825	65.3	120	1,725
1963	1,892	56.6	879	88.9	2,771	64.0	54	1,779
1964	1,778	53.2	784	79.3	2,562	59.2	209	1,988
1965	1,610	48.2	721	72.9	2,331	53.8	231	2,219
1966	1,499	44.9	635	64.2	2,134	49.3	197	2,416
1967	1,451	43.4	580	58.6	2,031	46.9	103	2,519
1968	1,400	41.9	551	55.7	1,951	45.1	80	2,599
1969	1,350	40.4	513	51.9	1,863	43.0	88	2,687

\* Includes operators and unpaid family workers.

Source: U.S., Department of Agriculture, *Farm Employment*, Statistical Bulletin No. 334 (Washington, D.C.: Government Printing Office, August, 1963); U.S., Department of Agriculture, *Number of Farms: 1910-1959*, Statistical Bulletin No. 316 (Washington, D.C.: Government Printing Office, June, 1962); U.S., Department of Agriculture *Farm Labor*, U.S.D.A. Crop Reporting Board, 1963 to present (Washington, D.C.: Government Printing Office). Operator and family worker data from *Number of Farms* were combined with hired worker data from *Farm Employment* and *Farm Labor* to arrive at the totals.

nearly two-thirds went for capital.<sup>11</sup> Finally, the U.S. Commission on Civil Rights presents strong evidence that the agricultural programs of the Federal government have operated unequally for Negro and white farmers in the South. The Farmers Home Administration, the Soil Conservation Service, and the Agricultural Stabilization and Conservation Service all have had, at the state and local

<sup>11</sup> U.S., Commission on Civil Rights, *Equal Opportunity in Farm Programs* (Washington, D.C.: Government Printing Office, 1965), p. 69 ff.



TABLE 3  
Population, Labor Force, and Nonagricultural Employment in the South  
1950-1967  
(Thousands)

Year	Population	Labor Force	Total nonagricultural employment
1950	43,399	15,718	9,809.8
1951	43,661	15,996	10,529.5
1952	44,129	16,167	10,892.3
1953	44,168	16,181	11,063.6
1954	44,464	16,289	10,894.3
1955	45,410	16,636	11,343.6
1956	46,323	16,970	11,853.1
1957	47,323	17,336	12,096.8
1958	48,144	17,637	12,025.7
1959	49,031	17,962	12,450.1
1960	50,166	18,438	12,657.1
1961	51,044	18,761	12,716.3
1962	51,908	19,079	13,157.5
1963	52,788	19,402	13,595.1
1964	53,593	19,698	14,121.9
1965	54,411	19,999	14,934.8
1966	54,873	20,169	15,781.0
1967	55,582	20,430	16,384.2

Source: Population data came from the U.S., Department of Commerce, Bureau of the Census, *Current Population Surveys* (Washington, D.C.: Government Printing Office.) All population figures are for July 1 of their respective years, the 1960 figure having been updated from April 1. Labor force data in 1950 came from the *Statistical Abstract of the United States, 1950* (Washington, D.C.: Government Printing Office); in the sixties from the statistical summary in the *Manpower Report of the President* (Washington, D.C.: Government Printing Office, 1968). Non-agricultural employment data came from U.S., Department of Labor, Bureau of Labor Statistics, *Employment and Earnings Statistics for States and Areas 1939-67*, Bulletin No. 1370-5 (Washington, D.C.: Government Printing Office, August, 1968).

level, a segregated structure with strong pro-white orientation.<sup>12</sup>

U.S.D.A. estimated in 1962 that "only a handful of southern Negro farmers operate economically viable farms—1.3 percent compared to 13.7 percent of the white farmers . . . If 'marginally' viable farms are counted, 8.9 percent of the Negro farms and 26.2 percent of the white farms in the South could be considered adequate or potentially adequate."<sup>13</sup> Not surprisingly, the number of black

<sup>12</sup> *Ibid.* As one striking example, the report states that of 3,600 Farmers Home Administration state and county committeemen under Federal appointment in 1962 none were Negroes, and in late 1964 there were but 125, 100 of whom served as alternates.

<sup>13</sup> *Ibid.*, p. 9.

family agricultural workers declined from 767,000 in 1950 to 349,000 in 1960 and 158,000 in 1969, a far greater decline in proportion to that of white employment.

*Population, Labor Force, Nonagricultural Employment, and Migration*

The population of the 14 southern states region increased from 43,399,000 in 1950 to 55,582,000 in 1967. The labor force expanded from 15,718,000 to 20,430,000, an increase of 4,712,000 workers. During the same period, nonagricultural employment grew from 9,810,000 to 16,384,000, i.e., by 6,574,000 jobs. The rate of employment growth was then more rapid than the rate of population and labor growth in the secondary and tertiary sectors. But the southern agricultural labor force declined by 2,600,000, thus expanding potential labor availability for employment in industry and services by 140,000 workers annually.

These counts and comparisons present a simple arithmetic difference between potentially available labor—aggregated to cover differences in labor skills, origin, and quality—and actual use of labor throughout the regional economy. Indeed this is an inelegant measure, though it may be the best measure available. At any rate it is adequate to suggest that a pool of surplus labor must have developed in the region.

The difference D in Table 4 is composed of individuals who increased the sum  $(A + B)$  without increasing C, or decreased C without affecting  $(A + B)$ , or both.<sup>14</sup> Those in the first group would be basically of three types: post-1950 entrants to the labor force in

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<sup>14</sup> It might be worth pausing at this point to inquire into the extent to which the difference between labor available and labor required measures surplus labor by looking at the counting process.

First, it should be noted that members of the regional farm labor force in 1950 but who migrated, died, or retired before 1967 reduced A, increased B, and thus have been netted out of D.

Second, workers who entered the agricultural labor force after 1950 and later shifted into nonagricultural employment in the region would be counted under A and C and would not affect the size of B.

Third, the number of farmers who entered the labor force after 1950, then shifted to nonagricultural employment and finally left the region do not affect A, B, C, or D. These individuals were not members of the labor force either in 1950 or 1967. D fails to capture this case and thus it understates the pressures generated by agricultural displacement. This is somewhat similar to the first case. D would have been greater if these individuals had not responded to the pressures of dwindling employment opportunities by leaving the region, thus not adding further to the pool of regional unemployment and underemployment.

TABLE 4

A: Increment in labor force, 1950 to 1967	4,712,000
B: Decline in farm labor force, 1950 to 1967	2,600,000
A + B: Sum	7,312,000
C: Rise in nonagricultural employment, 1950 to 1967	6,574,000
D: (A + B) - C	738,000

the nonagricultural sectors who were not employed in 1967; entrants to the labor force in agriculture who were displaced, remained in the labor force, but were unable to find employment in the nonagricultural sectors; members of the 1950 agricultural labor force who left agriculture, remained in the labor force, but were not employed in the nonagricultural sectors in 1967. Those affecting C but not A or B would be members of the nonagricultural labor force in both 1950 and 1967 who had, for a variety of reasons including loss of jobs to those leaving agriculture, employment in 1950 but not in 1967.

If the foregoing approach is correct in the main, then the difference, D, is made up of surplus labor backed up in the region. This is true because it is net of retirement, deaths, and migration. Since metropolitan labor markets in the South are not particularly loose, the pile-up must be concentrated in the smaller urban centers and in rural non-farm areas. As such, it poses a problem for future displaced agricultural labor in terms of its ability to find nonagricultural employment within the region.

Finally, no strong case should be made for the statistical accuracy or analytical elegance of D, which Table 4 shows as 738,000. Inevitably, there are discrepancies in the timing of the counts and imprecisions in labor force statistics. The variation might well be one or two hundred thousand either way. It is asserted, however, that this does not affect the essential conclusion that labor displacement from agriculture has led to the massive out-migration, given the limited labor absorptivity of the regional economy.

One other aspect of the problem should be mentioned. Southerners, black and white, urban and rural, have less education than their occupational counterparts in the rest of the country. And rural Southerners of both races have been exposed to shorter education (in terms of years of schooling) than their urban counterparts.<sup>15</sup>

<sup>15</sup> Constraints of space required deletion of tables giving racial breakdowns of much of the data in this paper. The original version of the paper can be obtained by writing the authors at the University of Kentucky.

This created a considerable gap between the levels of education and vocational skills of the displaced agricultural labor and the manpower requirements of the growing regional industry. Migration was inevitable: in-migration of skilled labor needed by the new growth industries; on balance, net out-migration to counter the shortage in the number and kind of nonagricultural jobs needed to drain off the agricultural surplus. A regional economic development macro-study which would investigate the impact of the low-skill-adaptability labor upon the growth and the competitiveness of southern industrial development would perhaps be a useful exercise. In particular, it would be important if it were to measure the social and economic cost of the expanded labor surplus, of the massive migratory movements, and of the social disequilibrium generated by such labor and population movements away from rural into urban areas.

## DISCUSSION

BERNARD E. ANDERSON

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My discussion will deal with the papers presented by Professors Hefner and Ritienoure. Each paper is both enlightening and disturbing: enlightening in the sense that they document the prevailing employment policies and practices in major Southern communities almost a decade after the federal government undertook accelerated efforts to guarantee equal employment opportunities; disturbing in the sense that they reveal how little progress has been made both in private industry and the federal government itself to improve the occupational and income position of black workers.

Mr. Hefner emphasizes the fact that in Atlanta, black workers have not gained proportionately from the rapid industrial growth of which Atlanta is so proud. The gap between black and white workers is especially marked in the white collar and professional jobs, despite the presence in Atlanta of five predominantly black colleges whose graduates are eagerly recruited by major business firms throughout the nation. Although much evidence is presented to support the view that black workers in Atlanta continue to be highly disadvantaged relative to whites in labor market competition, some of the statistical measures offered by Hefner require more explanation than is contained in the author's paper.

For example, the indexes of occupational position show a higher relative position for black females than black males in each of the 25 SMSAs shown in Table 1. Yet, other evidence in the paper suggests that black males occupied better positions than did black females. These divergent observations require further explanation in order to be made internally consistent. The ratios of relative occupational position probably reveal discrimination against women generally, suggesting that black women fare better than black men in an environment in which occupational opportunity is restricted for female workers. The higher occupational position of black relative to white women in comparison to men also is consistent with the evidence showing education to be a more important factor explaining the variance within the occupational position of black male compared with black female workers. In any event, a deeper

analysis of occupational position is required if the index ratios are to be most meaningful for descriptive and explanatory purposes.

Mr. Ritenoure's study provides some insight into the problem of implementing equal employment policy in the federal service when the task is one of transforming a bureaucracy once committed to segregation, but now required to achieve racial integration. In order to understand this problem clearly, it is necessary to examine in depth, the correlates of racial discrimination in government employment.

More specifically, it is necessary to show how the utilization patterns of black workers vary according to (1) job content of the federal agency, (2) age and mission of the agency, (3) agency congressional and community constituency, and (4) agency organization and administrative structure. These factors, together with those mentioned by the author, are significant elements for understanding why some federal agencies are hospitable to Negro employment, while others are almost hostile. The underutilization of black workers in the federal service in the South is legion as well as legend, and the complex range of variables related to the occupational pattern must be investigated in some detail. The Ritenoure paper attempts to grapple with some of these issues, but a deeper level of analysis is required. Such analysis would be facilitated by the author's recommendation that the Civil Service Commission revamp its EEO data collection system to include more information on racial differences in recruiting, promotions, on the job training, and other aspects of the employment process.

In approaching the problem, it may also be useful to distinguish clearly between discrimination which prevents black workers from getting into the federal service, and discrimination which prevents them from advancing into the intermediate occupational levels and the supergrade positions. Policies and affirmative action programs designed to eliminate discrimination are likely to differ at each level, and by separating the problems, much more might be learned about the most effective Civil Service EEO program package for the federal government.

## DISCUSSION

ORLEY ASHENFELTER

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These three papers have as a common denominator a discussion of the modern South as a location of the employment problems of black Americans. In that something on the order of one-half of all black Americans still reside in the South, it is remarkable that so little of the flood of descriptive literature on black employment problems that has appeared in recent years is devoted to the South as a problem area. This is undoubtedly a result partially of the curious absence of interest in these problems on the part of most academics in the South, and partially of the relative (to the North) political and social impotence of blacks in the South. We are all indebted, therefore, to Ray Marshall and his co-workers at the University of Texas and elsewhere for the important stimulus to research in this area that they have provided. Unfortunately, these three papers suffer from the same general malaise as most of the work in this field: the lack of a general conceptual framework within which to develop and test an integrated set of hypotheses. In the absence of such a framework there is a danger that our research will be neither sharply focused nor explicitly useful for the development of public policy. Let me elaborate.

Researchers in the field of black employment problems agree on a number of general points. First, there is wide agreement that the employment statistics paint a universally dreary picture of the wage and occupational position of black workers. Second, every study of which I am aware suggests that a substantial portion of the gap between the wages (or occupational position) of black and white workers cannot be accounted for by any difference in market productivity factors such as the quantity or quality of schooling. This implies that a significant portion of the gap between the wages (or occupational positions) of black and white workers must be due to current labor market discrimination. Third, there is substantial agreement that the *relative* wage (or occupational) position of black male workers has not changed much since the 1940's. Hence, there is apparently no tendency for the observed labor market discrimination to be ameliorated merely by the passage of time,

even in a relatively prosperous economy. Finally, there is some, but admittedly less, agreement that "enforced" fair employment laws improve the relative economic position of black workers, with estimated benefit-cost ratios ranging as high as 30 to 1. At the same time, however, it is recognized that the extent of discrimination, however measured, does differ from place to place, and from firm to firm. Yet there is little satisfying evidence as to why these differences exist and continue to exist. Until we are able to come to grips with this latter problem and develop the necessary evidence within a convincing conceptual framework, the former findings will remain only a shadow as against the research problems still remaining, and our ability to contribute to discussions of public policy will remain suspect. Thus, in Rittenoure's paper I detect a curious lack of connection between the analysis of data in the first half of the paper and the discussion of public policy in the second half. While in Marshall and Hefner's paper there seems likewise to be a lack of connection between the presentation of data on the relatively disadvantaged position of black workers in Atlanta and the analysis of the causes of that position.

I am sure that we all look forward to the next installments of Marshall and his co-workers' efforts. As valuable as this work may be as it stands, I for one hope that as the project advances it will turn its focus more toward the construction and testing of a consistent set of hypotheses and away from a mere recitation of numbers followed by an entirely independent set of policy prescriptions.



# **IV**

## **THE LABOR MARKET**

Session Held Jointly with the Econometric Society

**Howard Rosen, Chairman**

**Manpower Administration, USDL**

# SHORT-RUN BEHAVIOR OF THE LABOR FORCE IN RESPONSE TO THE FLUCTUATIONS IN AGGREGATE DEMAND

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## INTRODUCTION

Many empirical studies on the short-run behavior of the labor force are concerned with the "additional worker" and "discouraged worker" hypotheses. Although the precise definition of these hypotheses is not clearly stated in most of literature, the two competing hypotheses are essentially concerned with individual choice of labor force status and the magnitude of the resulting aggregate flows of individuals into and out of the labor force.

Cross-section and time-series analyses show the dominance of the discouraged worker effect over the additional worker effect, while the studies on the basis of gross change data extracted from Census Survey samples reveal that the effects are essentially offsetting. We propose to investigate what the cross-section and time-series parameters really measure and to search for an alternative model that yields information not provided by the existing empirical studies.

Most of the cross-section and time-series studies investigated relationships between stocks or status of individuals at one point in time such as the labor force participation rate and the unemployment rate. However, there are many important flows in the labor market—new hires, recalls, quits, layoff, and retirements, in addition to the flows into and out of the labor force. Hence, we emphasize interactions between the stocks and the corresponding flows within the labor force, so that a sensible inference about the flows into and out of the labor force may be made from the available information.

### *Labor Force Behavior as a Stochastic Process*

Any individual is classified as in or out of the labor force at any given point in time. Hence some useful way of relating in-

dividual dichotomous status description to the aggregate flows must be established to make an unambiguous statement on the behavior of individuals. We shall describe the behavior of individuals in terms of probability of changing labor force status. Then the estimate of such probability from the aggregate data can be interpreted as propensity to change labor force status over a well-defined time horizon. We shall simplify the description of the stock-flows relationships by using the Markov process.

Define

$$\begin{aligned} y_{1,s,t} &= 1 \text{ if individual } s \text{ is employed during time } t; \\ &= 0 \text{ otherwise;} \\ y_{2,s,t} &= 1 \text{ if individual } s \text{ is unemployed during time } t; \\ &= 0 \text{ otherwise;} \\ y_{3,s,t} &= 1 \text{ if individual } s \text{ is not in the labor force during time } t; \\ &= 0 \text{ otherwise.} \end{aligned}$$

Denote

$$\begin{aligned} E(y_{1,s,t}) &= x_{1,s,t} \quad (i = 1, 2, 3); \\ E(y_{1,s,t} \mid y_{j,s,t} = 1) &= p_{ij,s,t} \quad (i, j = 1, 2, 3). \end{aligned}$$

Then the following relation holds:

$$\begin{pmatrix} x_{1,s,t} \\ x_{2,s,t} \\ x_{3,s,t} \end{pmatrix} = \begin{pmatrix} p_{11,s,t} & p_{12,s,t} & p_{13,s,t} \\ p_{21,s,t} & p_{22,s,t} & p_{23,s,t} \\ p_{31,s,t} & p_{32,s,t} & p_{33,s,t} \end{pmatrix} \begin{pmatrix} x_{1,s,t-1} \\ x_{2,s,t-1} \\ x_{3,s,t-1} \end{pmatrix} \quad (1)$$

where  $0 \leq p_{ij,s,t} \leq 1$  ( $i, j = 1, 2, 3$ );  $\sum_i p_{ij,s,t} = 1$  ( $j = 1, 2, 3$ ).

Equations(1) can be written as  $x_{s,t} = P_{s,t} x_{s,t-1}$  where  $x_{s,t} = (x_{1,s,t}, x_{2,s,t}, x_{3,s,t})$ ;  $P_{s,t}$  is a  $3 \times 3$  matrix with the elements  $p_{ij,s,t}$ . The system (1) can describe the aggregate behavior of individuals by simply reinterpreting  $x_{1,t}$ ,  $x_{2,t}$ , and  $x_{3,t}$  as the proportions of the employed, unemployed, and the adults outside the labor force in the working population, provided  $p_{ij,st} = p_{ij,t}$  for all  $s$ ;  $y_{i,s,t}$  is distributed independently of  $y_{i,s',t}$  for all  $i$  and  $s \neq s'$ .

### *Labor Force Participation and Unemployment Rates*

Let us assume that the system(1) is in stochastic equilibrium:  
 $x = Px$ .

Then the equilibrium level of  $x_t$  can be obtained from the system of linear homogeneous equations  $(P - I)x = 0$  where  $x$  is the equi-

librium level of  $x_t$ , and  $I$  is the identity matrix. The equilibrium level of the labor force participation rate ( $w$ ) and the unemployment rate ( $u$ ) are by definition

$$\begin{aligned} w &= x_1 + x_2; \\ u &= x_2/(x_1 + x_2). \end{aligned} \quad (2)$$

The probabilities  $p_{12}$  and  $p_{21}$  may be jointly determined by interactions between decisions by firms and workers, while the probabilities  $p_{31}$ ,  $p_{32}$ ,  $p_{13}$  and  $p_{23}$  reflect mainly the decisions by workers. The short-run changes in the labor market conditions are demand-induced rather than supply-induced. The probabilities  $p_{12}$  and  $p_{21}$  should be viewed as the crucial factors determining the equilibrium levels of the labor force participation rate and the unemployment rate. From the solution for  $x$  and (2), it can be shown that

$$\begin{aligned} \partial w / \partial u &< 0 \text{ if } p_{32} > p_{31}; \\ &> 0 \text{ if } p_{32} < p_{31}; \\ &= 0 \text{ if } p_{32} = p_{31}; \end{aligned} \quad (3)$$

$$\begin{aligned} \partial u / \partial p_{12} &< 0; \\ \partial u / \partial p_{21} &> 0. \end{aligned} \quad (4)$$

Combining (3) and (4), we obtain

$$\begin{aligned} \partial w / \partial p_{12} &> 0 \text{ if } p_{32} > p_{31}; \\ &= 0 \text{ if } p_{32} = p_{31}; \\ &< 0 \text{ if } p_{32} < p_{31}; \\ \partial w / \partial p_{21} &< 0 \text{ if } p_{32} > p_{31}; \\ &= 0 \text{ if } p_{32} = p_{31}; \\ &> 0 \text{ if } p_{32} < p_{31}. \end{aligned} \quad (5)$$

First, it can be seen from (4) and (5) that changes in  $p_{12}$  and/or  $p_{21}$  alone affect the equilibrium levels of the labor force participation rate and the unemployment rate. If  $p_{12}$  and  $p_{21}$  change in the same direction, there will be offsetting effects on changes in the labor force participation rate and the unemployment rate. If  $p_{12}$  and  $p_{21}$  move in the opposite directions, they amplify the above changes.

Second, the directions of changes in the labor force participation rate and unemployment rate for given changes in  $p_{12}$  and/or  $p_{21}$  are determined by the relative magnitude of  $p_{32}$  and  $p_{31}$ , if  $p_{32} \neq p_{31}$ ; that is, if the probability of retiring from employment differs from the probability of withdrawing from the state of unemployment. We

see a typical case where the flows within the labor force and the flows into and out of the labor force interact and determine the equilibrium levels of the stocks.

Third, if  $p_{31}$  equals  $p_{32}$ , then  $p_{12}$  and/or  $p_{21}$  affect the unemployment rate, but do not render any effect on the labor force participation rate. The latter is completely determined by  $p_{31}(p_{13} + p_{23})^{-1}$ .

From the solution for  $x$  and (2), it can also be shown that

$$\frac{1-w}{w} = c_0 + c_1 u \quad (6)$$

where  $c_0 = p_{31}(p_{13} + p_{23})^{-1}$ , and  $c_1 = (p_{32} - p_{31})(p_{13} + p_{23})^{-1}$ . The short-run fluctuations in the labor force participation rate and the unemployment rate can be generated with  $c_0$  and  $c_1$  constant. The negative correlation  $r(w, u)$  observed in some empirical studies does not necessarily support the discouraged worker hypothesis. Propensities to leave and enter the labor force (measured in terms of the probabilities  $p_{31}$ ,  $p_{32}$ ,  $p_{13}$ , and  $p_{23}$ ) can be constant, possibly except for the time trend.

On the basis of the analysis described above, we conclude that the dynamics of the labor market can not be well understood by just relating stocks or status of individuals at one point in time such as the labor force participation rate and the unemployment rate.

### *Testing hypothesis*

An attempt was made to formulate a model which may give an additional insight to the dynamics of the labor force behavior. We postulate that all the transition probabilities may change over time; that changes in the labor market conditions are demand-induced in the short-run (hence the probabilities  $p_{12}$  and  $p_{21}$  may affect, but are not affected by other probabilities).

The probability  $p_{12,t}$  may be viewed as consisting of two elements, namely, the probability of matching a job and a worker, and the conditional probability of a worker accepting the job given matching:

$$p_{12,t} = \text{prob}(\text{Match})\text{prob}(\text{Acceptance} \mid \text{Match}).$$

We shall make the following assumptions:

1)  $\text{Prob}(\text{Acceptance} \mid \text{Match}) = \text{prob}(w_a \leq w_o)$ , where  $w_a$  and  $w_o$  are the asking wage by a worker and the offering wage by a firm respectively:

$$2) w_{a,t} = A w_{a,t-T_2} (W_t / W_{t-T_1}) e^{-D_1 T_1};$$

$$w_{0,t} = B w_{0,t-T_2} (W_t/W_{t-T_2}) e^{D_2 T_2};$$

where  $W_t$  is the general wage level in the market;  $T_1$  and  $T_2$  are duration of unemployment and duration of vacancy respectively;  $A$ ,  $B$ ,  $D_1$ , and  $D_2$  are constant;

3) The probability distributions of  $T_1$  and  $T_2$  at a given point in time  $t$  can be approximated by

$$f(T_1) = a(t)e^{-a(t)T_1};$$

$$f(T_2) = b(t)e^{-b(t)T_2};$$

where we assume  $f(T_1, T_2) = f(T_1)f(T_2)$ .

Then it can be shown that

$$\text{Prob}(\text{Acceptance} \mid \text{Match}) \cong 1 - \frac{a(t)b(t)}{2D_1D_2} k_1^2 \quad (7)$$

where  $k_1 = \log(A/B)$ .

The probability of a worker accepting a job given match depends upon three factors; the market conditions measured in terms of  $a(t)$  and  $b(t)$ ; the initial positions of the search effort by a worker and a firm measured in terms of  $k_1$ ; the speed of the learning processes by a worker and a firm measured in terms of  $D_1$  and  $D_2$ .

We assume

$$\text{Prob}(\text{Match}) = k_2 V_t \quad (8)$$

where  $V_t$  is the stock of job vacancies;  $k_2$  is constant.

From (7) and (8), we hypothesize that

$$p_{12,t} = k_2 V_t \left(1 - \frac{a(t)b(t)}{2D_1D_2} k_1^2\right). \quad (9)$$

The possible dependence of the probabilities reflecting the worker's decision upon  $p_{12,t}$  is not well understood at this stage, but seems to be best approached from the view of decision-making under uncertainty. Suppose that a worker is facing the decision of whether or not to enter the labor force. One of the determinants in his decision may be his expected total earnings for some time horizon, say,  $n$  periods. Suppose that he has some notion  $\tilde{P}$  of the transition matrix  $P$  governing his future labor force status, and a reward matrix  $R$  associated with it, and that he will take  $\tilde{P}$  and  $R$  as given for the next  $n$  periods. Then his expected total earnings can be expressed as follows:

$$v_j(n) = \sum_i \tilde{p}_{ij}(r_{ij} + v_i(n-1)) \quad (10)$$

where  $v_j(n)$  is the expected total earnings in the next  $n$  transitions if he is in state  $j$  at time  $t$ , and  $r_{ij}$  is a reward associated with transition from  $j$  to  $i$ . Given  $\tilde{P}$ ,  $R$ , and  $v(0)$ , he can predict his expected total earnings for  $n$  periods. Except  $p_{12,t}$  and possibly  $p_{21,t}$ , he may have a fairly good information on  $P$ , since other elements of  $\tilde{P}$  reflect mainly his future decisions in the labor market. Hence if he updates his expected total earnings whenever new information becomes available at each period, we might expect that the short-run variations in his expected total earnings are mainly due to the variations in  $p_{12,t}$  and possibly  $p_{21,t}$ . Therefore, if the income variable is a major determinant in his decision-making to enter the labor force, the probabilities  $p_{13,t}$  and  $p_{23,t}$  should, in principle, be affected by the variations in  $p_{12,t}$  and possibly  $p_{21,t}$ .

The same argument will hold for his decision to leave the labor force, and hence the probabilities  $p_{31,t}$  and  $p_{32,t}$  should be affected by the variations in  $p_{12,t}$  and  $p_{21,t}$ . We hypothesize that the probabilities  $p_{21,t}$ ,  $p_{13,t}$ ,  $p_{23,t}$ ,  $p_{31,t}$ , and  $p_{32,t}$  are function of the probability  $p_{12,t}$ .

### *Preliminary empirical investigation*

Using monthly data on  $x_1, x_2, x_3$ , the number of job vacancies pending, and duration of unemployment, we investigated the following reduced form relationships:

- 1)  $p_{ij}$  as a linear function of job vacancies  $z_1$ ;
- 2)  $p_{ij}$  as a linear function of job vacancies  $z_1$  and duration of unemployment  $z_2$ . These hypotheses were tested for males and females separately.

A positive response of  $p_{21}$  and  $p_{31}$  to the level of  $z_1$ , given the level of  $z_2$ , was observed both for males and females. The positive response of  $p_{13}$  and  $p_{23}$  combined, to the level of  $z_1$ , was also observed both for males and females. The response of  $p_{12}$  to the level of  $z_1$  is positive for males, but negative for females. Partly as a result of the variations in the off-diagonal elements of the transition matrix  $P$ , the responses of the diagonal elements  $p_{11}$ ,  $p_{22}$ , and  $p_{33}$  to the level of  $z_1$  are all negative. Their responses to the level of  $z_2$  are also negative, except for  $p_{33}$  for females. When the labor market is tight, the movement of the workers between employment, unemployment, and non-labor force will be accelerated.

# A JOB SEARCH-TURNOVER ANALYSIS OF THE BLACK-WHITE UNEMPLOYMENT RATIO

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## I. INTRODUCTION

When aggregate demand for labor falls, its adverse impact is shared unevenly between demographic, industrial and occupational groups in the labor force. Blacks, teenagers and unskilled workers suffer the most since they are most likely to be unemployed and often are least able to afford temporary stoppages in their incomes. The social cost of any given level of aggregate unemployment, exclusive of economic cost, is higher than if the unemployment were shared more evenly throughout the labor force.

The persistence of a 2:1 black-white unemployment ratio has been particularly disturbing. Despite society's increasing concern for the economic needs of blacks and the many programs that this concern has spawned, blacks have not appreciably gained in their relative ability to find and retain jobs during the past two decades.

The purpose of this paper is to analyze the labor market mechanisms that generate the observed black-white unemployment ratio in order to better determine and assess appropriate means of altering the pattern.

Simple regressions of black unemployment on white unemployment or of the ratio on measures of aggregate demand illustrate the problem, but do not provide sufficient insight into its nature. White unemployment does not cause black unemployment even though there is a close relation between them. Rather, both unemployment rates are a result of labor market relationships and aggregate economic activity.

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Previous studies<sup>1</sup> have estimated empirical relationships between black and white unemployment rates and their relationship to the level of economic activity. Others<sup>2</sup> have sought to explain these relationships in terms of discrimination, hiring queues, wage rate rigidities, and skill composition. However, none of these studies have focused on the underlying gross flows into and out of unemployment that generate and maintain the two to one unemployment ratio.

Since unemployment rates change relatively little from one period to the next, one would expect that the average number of unemployed workers of a particular type would be approximately equal to their flow into unemployment multiplied by their average duration of unemployment. Blacks may have higher unemployment rates either because they take more time in finding jobs or because they are more likely to quit, be laid off or be fired.

Cursory examination of job tenure and unemployment duration data suggests that the problem stems more from differences in turnover than in unemployment duration. Blacks appear to find jobs as quickly as whites, once unemployed, but they enter unemployment twice as often. Our econometric analysis substantiates this observation and indicates that this pattern is virtually independent of the level of aggregate demand.

The next Section develops a job search–turnover model of the labor market. Section III reports estimates of the parameters of the relationships of the model determining the gross flows into and out of unemployment for black and white males. The parameter estimates are then used to determine the relationship between black and white male unemployment rates. Section IV considers how that relationship may be affected by changes in job search and turnover behavior and by movements in aggregate demand, and draws policy implications.

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<sup>1</sup> See Paul Ryscavage, "Impact of Higher Unemployment on Major Labor Force Groups," *Monthly Labor Review* (March 1970), pp. 21–25, and Lester Thurow, "The Changing Structure of Unemployment," *Review of Economics and Statistics* (May 1965), pp. 137–149.

<sup>2</sup> See, for example, Gary Becker, *The Economics of Discrimination* (Chicago, 1957), Harry Gilman, "Economic Discrimination and Unemployment," *American Economic Review* (December 1965), pp. 1077–1096, and Lester Thurow, *Poverty and Discrimination* (Washington: Brookings Institution, 1969).

## II. THE MODEL

This paper applies a job search–turnover model<sup>3</sup> of the labor market to explain the stability of the black-white unemployment ratio and to clarify the role of aggregate and structural policy instruments in altering it.

For groups of labor market participants with similar demographic or skill characteristics the probabilities of each member being hired from or entering unemployment can be estimated by the observed proportion of the group making the indicated transition.

Behavioral relationships are specified to explain the flows into and out of unemployment for each group. The size of each group's labor force is assumed constant, so that changes in unemployment are mirrored by changes in employment. If data were available on the flow out of unemployment of people who leave the labor force, this assumption could be relaxed.

The flow out of unemployment is equal to the number of new hires and recalls occurring during a period. This is explained by the number of potential job matches during the preceding month—the number of unemployed times the number of job vacancies available—and the efficiency of the matching process. Let  $H_i$  be the number of persons from the  $i^{\text{th}}$  group hired during the period,  $L_i$  be the size of its labor force,  $U_i$  its unemployment level, and  $V$  the number of jobs available.

All job vacancies are assumed to be available to members of each group, although with different probabilities. Hires, unemployment and vacancies are each divided by the size of the group's labor force in the time series analysis to avoid spurious behavioral relationships really attributable to growth. Thus the hire rate for the  $i^{\text{th}}$  group is expressed as a function of the preceding month's unemployment rate, the vacancy rate and the efficiency of search:

$$(1) \quad \frac{H_i}{L_i} = h_i \left( \frac{U_i}{L_i} \right)^{u_i} \left( \frac{V}{L_i} \right)^{v_i} - 1 \quad ,$$

<sup>3</sup> For a more complete description of the assumptions of this model see Charles C. Holt, "How Can the Phillips Curve Be Moved to Reduce Both Inflation and Unemployment?" *The Microeconomic Foundations for Employment and Inflation Theory*, Edmond Phelps, Editor, (W. W. Norton, 1970), and Charles C. Holt, C. Duncan MacRae, Stuart O. Schweitzer, and Ralph E. Smith, *The Unemployment-Inflation Dilemma: A Manpower Solution*, (Washington: Urban Institute, 1971).

where  $u_i$  and  $v_i$  are elasticity parameters reflecting diminishing returns (expected to be between zero and unity), and  $h_i$  is a parameter reflecting the efficiency of search. Random fluctuations are suppressed.

Since the flow of new hires divided by the stock of unemployed workers gives the probability per period of an unemployed worker being hired, the hire rate of (1) can be easily divided by the unemployment rate to obtain an expression for the hire probability. The probability of a vacancy being filled can easily be obtained in the same way.

The flow into unemployment arises from quits, layoffs and other separations. This flow, expressed as a proportion of the group labor force,  $S_i/L_i$ , may respond to fluctuations in labor market tightness with small elasticity  $s_i$ . Tightness is measured by the ratio of job vacancies to unemployment. Separations do not change much over the cycle because fluctuations in quits are largely offset by those in layoffs. The separation rate is given by the relation:

$$(2) \quad S_i/L_i = K_i (V/U_i)^{s_i}_{-1}$$

where  $K_i$  reflects the probability per period of becoming unemployed and  $s_i$  indicates the sensitivity to vacancies. Random fluctuations are suppressed.

Since unemployment is not affected by the job-change turnover flow that leaves one job for another without going through unemployment, the turnover rates of this analysis do not include that component.

In stochastic equilibrium, with unemployment constant for each group, the hire flow from unemployment equals the separation flow into unemployment:<sup>4</sup>

$$(3) \quad H_i = S_i.$$

Because the flows through unemployment usually are large relative to its change from one period to the next, deviations from this equilibrium condition usually are not great.

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<sup>4</sup>These flows will not be *exactly* equal even in equilibrium if the labor force groups are growing. See C. Duncan MacRae and Stuart O. Schweitzer, "Help-Wanted Advertising, Aggregate Unemployment, and Structural Change," in Industrial Relations Research Association, *Proceedings of the Twenty-Third Annual Winter Meeting*, December 1970.

Combining (1), (2) and (3) yields the equilibrium between unemployment and vacancies:

$$(4) \quad \frac{U_1}{L_1} = \left( \frac{K_1}{h_1} \right) \frac{1}{u_1 + s_1} \left( \frac{V}{L_1} \right)^{\frac{s_1 - v_1}{u_1 + s_1}} \equiv C_1 \left( \frac{V}{L_1} \right)^{c_1}$$

where  $C_1$  and  $c_1$  are compound parameters defined by the equation.  $C_1$  is determined by the job search efficiency, probability of becoming unemployed, separation and hire elasticities, and  $c_1$  is determined by the separation and hire elasticities.

In the next section equations (1) and (2) are estimated for nonwhite and white males by single equation regression analyses, and the parameters are used to derive the equilibrium relationships (4) and the following ratio between group unemployment rates:

$$(5) \quad \left( \frac{U_i/L_i}{U_j/L_j} \right) = \left( \frac{C_i}{C_j} \frac{L_j^{c_j}}{L_i^{c_i}} \right) V^{(c_i - c_j)}$$

### III. EMPIRICAL ANALYSIS

Our model relates gross flows between a group's unemployment and employment stocks and the unemployment experienced by, and job openings available to, that group. Given the rapid flows through the market one should use monthly or, at most, quarterly time series to capture the behavioral relationships. Data adequate to estimate these relationships are not available, but there are some proximate series sufficient for exploratory analysis.

The available monthly series that is closest to a job vacancy series is that of the job openings pending at the end of the month at the United States Employment Service offices. This series provides an indication of the direction of changes in the vacancy level, although there is no benchmark to provide an absolute level of total vacancies.

Unemployment levels and rates for nonwhite and white males are available from tabulations of the monthly Current Population Survey. This source also indicates the number of persons who have been unemployed less than five weeks, which we use as a measure of the monthly flow into unemployment. It includes new entrants and reentrants into the labor force who are still seeking jobs as well as separations from employment. Hence what shall be called separations overstates the true flow by the size of the flow

into unemployment of people not formerly participating in the labor force.

Similarly, in lieu of demographic data on the flow from unemployment to employment, we approximate the hire flow from the difference between the gross flow into unemployment and the net recorded change in unemployment during the period. If there has been no net change in the stock of unemployed from one month to the next, then the outflow must have equalled the inflow. If there has been a decline in unemployment, then the flow out of unemployment must have exceeded the inflow by the amount of the net change. We shall treat this as the "hire flow," although we must recognize that it includes unemployed persons who left the labor force as well.

Using monthly data for 1955 through August 1970, not seasonally adjusted,<sup>5</sup> the flow of separations, as a proportion of the labor force, was estimated for nonwhite males and white males. Ordinary least square regression analysis, with the logarithmic version of Eq. (1) and (2) yielded the following parameter estimates (t statistics in parentheses):

$$\begin{aligned}
 (6) \quad & \ln \left( \frac{\text{Black Separations}}{\text{Black Labor Force}} \right) = -3.431 - .185 \\
 & \qquad \qquad \qquad (155.) \quad (-6.4) \\
 & \ln \left( \frac{\text{Vacancies}}{\text{Black Unempl.}} \right)_{-1} \qquad \qquad R^2 = .18, D-W = 1.39 \\
 (7) \quad & \ln \left( \frac{\text{White Separations}}{\text{White Labor Force}} \right) = -4.484 - .231 \\
 & \qquad \qquad \qquad (92.8) \quad (-9.4) \\
 & \ln \left( \frac{\text{Vacancies}}{\text{White Unempl.}} \right)_{-1} \qquad \qquad R^2 = .32, D-W = 1.30 \\
 (8) \quad & \ln \left( \frac{\text{Black Hires}}{\text{Black L. F.}} \right) = -8.088 + 1.38 \\
 & \qquad \qquad \qquad (-20.4) \quad (13.4) \\
 & \ln \left( \frac{\text{Black Unempl.}}{\text{Black L. F.}} \right)_{-1} + 1.08 \ln \left( \frac{\text{Vacancies}}{\text{Bl. L. F.}} \right)_{-1} \\
 & \qquad \qquad \qquad (9.2) \qquad \qquad \qquad R^2 = .52, D-W = 1.49 \\
 (9) \quad & \ln \left( \frac{\text{White Hires}}{\text{White L. F.}} \right) = -5.222 + 1.16 \\
 & \qquad \qquad \qquad (-90.3) \quad (18.1) \\
 & \ln \left( \frac{\text{White Unempl.}}{\text{White L. F.}} \right)_{-1} + 0.67 \ln \left( \frac{\text{Vacancies}}{\text{Wh. L. F.}} \right)_{-1} \\
 & \qquad \qquad \qquad (10.0) \qquad \qquad \qquad R^2 = .70, D-W = 0.84
 \end{aligned}$$

<sup>5</sup> Even though our theoretical structure should be capable of explaining seasonal fluctuations in hire and separation flows, there may be some residual seasonal components that we have not explained. Later work will test for such seasonal components.

All parameters are significant at the .01 level.<sup>6</sup> Chow tests, comparing the sums of squared residuals from regressions using pooled black and white observations with those on the individual regressions, indicate that the parameters of both the separations and the hire relationships are significantly different (at the .05 level) between blacks and whites.

Black and white separation rates in (6) and (7) are affected by the tightness of the labor market to similar degrees. As the vacancy-unemployment ratio increases, the separation rates are reduced, suggesting a slight dominance of the involuntary separation reaction over the quit reaction for both groups. More important is the large and significant differences between the black and white separation parameter K, the former being almost three times the latter in the multiplicative form of the relationship. Substituting

$$(10) \left( \frac{\text{Black Separations}}{\text{Black Labor Force}} \right) = .033 \left( \frac{\text{Vacancies}}{\text{Black Unempl.}} \right)^{-1.19}_{-1}$$

$$(11) \left( \frac{\text{White Separation}}{\text{White Labor Force}} \right) = .012 \left( \frac{\text{Vacancies}}{\text{White Unempl.}} \right)^{-2.23}_{-1}$$

the mean levels of vacancies and unemployment in our sample period the predictions made by these relations of the black separation rate is twice that of whites, 3.6 percent per month compared with 1.8 percent.

Transforming the hire relations of (8) and (9) into their multiplicative forms we have:

$$(12) \frac{\text{Black Hires}}{\text{Black L. F.}} = .00031 \left( \frac{\text{Black Unempl.}}{\text{Black L. F.}} \right)^{1.38}_{-1} \left( \frac{\text{Vacancies}}{\text{Black L. F.}} \right)^{1.08}_{-1}$$

$$(13) \frac{\text{White Hires}}{\text{White L. F.}} = .0054 \left( \frac{\text{White Unempl.}}{\text{White L. F.}} \right)^{1.16}_{-1} \left( \frac{\text{Vacancies}}{\text{White L. F.}} \right)^{0.67}_{-1}$$

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<sup>6</sup> The extremely high t statistics on the constant of proportionality terms are due to differences in scale between the dependent and independent variables. The dependent variables were considerably smaller and therefore the logs of the constants of proportionality were much different from zero. Also, note that the Durbin-Watson statistics indicate serial correlation.

In equations (8) and (9) the unemployment and vacancy rates are each expressed in percentage terms.

The flow out of unemployment for both blacks and whites is positively related to their unemployment and to the number of job vacancies available. The flow of blacks out of unemployment, however, is considerably more sensitive to the level of vacancies.

The probabilities of leaving unemployment, once unemployed, can be obtained from (12) and (13). The probability of being hired  $PH_i$  equals the hire rate divided by the unemployment rate:

$$(14) \quad \text{Black } PH = .00031 \left( \frac{\text{Black Unempl.}}{\text{Black L. F.}} \right)^{.38}_{-1} \left( \frac{\text{Vacancies}}{\text{Black L. F.}} \right)^{1.08}_{-1}$$

$$(15) \quad \text{White } PH = .0054 \left( \frac{\text{White Unempl.}}{\text{White L. F.}} \right)^{.16}_{-1} \left( \frac{\text{Vacancies}}{\text{White L. F.}} \right)^{.67}_{-1}$$

Although these expressions look very different, for the average unemployment and vacancy levels prevailing during the sample period the probability of leaving unemployment, once unemployed, is similar for blacks and whites—about .436 and .483 per month respectively. However, a one percent increase in job openings tends to increase the hire probability of an unemployed black by about one percent, compared with only two-thirds of a percent for whites. This is only partly offset by the greater sensitivity of the black hire probability to the unemployment variable, which moves inversely to vacancies. The direct relations between unemployment and the hire probability for both groups may reflect a discouraged worker effect, as some unemployed leave unemployment by leaving the labor force as well. Our data do not permit the isolation of this flow.

The equilibrium relation between unemployment and vacancies for each group may be obtained by substituting the parameter estimates from (10) through (13) into (4):

$$(16) \quad \frac{\text{Black Unemployment}}{\text{Black Labor Force}} = 50.1 \left( \frac{\text{Vacancies}}{\text{Black Labor Force}} \right)^{-1.06}$$

$$(17) \quad \frac{\text{White Unemployment}}{\text{White Labor Force}} = 2.2 \left( \frac{\text{Vacancies}}{\text{White Labor Force}} \right)^{-.96}$$

For both groups there are close to reciprocal relationships between unemployment and job vacancies.<sup>7</sup> However, the difference between their elasticities is only .10.

Substituting the parameter estimates from (16) and (17) and the black and white labor force figures for the average levels during the sample period into equation (5) we obtain an estimate of the ratio of unemployment rates for black and white males. The estimated ratio of 2.31 which is obtained from our estimates of the separation and hire relations is reasonably close to the directly calculated average ratio of 2.26.

#### IV. BLACK UNEMPLOYMENT, WHITE UNEMPLOYMENT AND AGGREGATE DEMAND

From our theory and exploratory regression analyses of approximate data on hire and separation flows, the following labor market patterns emerge:

1. The probability of leaving unemployment, once unemployed, is similar for black and white males, but the former is somewhat more responsive to changes in aggregate demand.
2. Neither the turnover rate of black males nor of white males responds markedly to changes in labor market tightness. Both groups' turnover rates decline by about one-fifth of a percent in response to one percent increases in their respective vacancy-unemployment ratios.
3. The black male unemployment rate is more than twice that of white males not because of any significant differences in speed of placements (hire probabilities per period of time for black males are within ten percent of the white male rate), but rather because the black separation rate is roughly double that of the white rate.
4. As a consequence of the over two-to-one unemployment ratio for males, any decreases in aggregate demand will cause the

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<sup>7</sup>To test the stability of our behavioral relationships over time we split the observations into two sub-periods, with the latter beginning at January, 1961. Neither the black nor the white separation relationships shifted between these periods; the white hire relation did significantly (at the .05 level) shift and the black hire relation shift was close to being significant. However, the comparisons between the two groups' responsiveness to aggregate demand are similar for the two sub-periods as well. In the earlier period, the difference between their elasticities with respect to vacancies is  $-.32$  and in the later period it is  $-.04$ .



black male unemployment rate to increase by an amount double the increase in the white male unemployment rate.

5. Although changes in aggregate demand and hence vacancies can markedly change both black and white male unemployment rates, vacancy changes will have little effect on the ratio of black to white male unemployment rates.

### POLICY IMPLICATIONS

Two goals of government economic policies are to achieve a greater degree of equality between the races in carrying the unemployment burden and to reduce the level of black unemployment. The latter can be achieved with monetary and fiscal instruments by increasing aggregate demand, creating more job opportunities. But, within reasonable limits, this is not likely to noticeably alter the unemployment ratio.

To achieve a large reduction in the unemployment ratio will require policies that can change the structural parameters themselves. Specifically, the problem stems from the much larger turnover flow characterizing the black labor force. Once unemployed, blacks and whites have about equal probabilities of finding jobs. They take about the same length of time to get them. But the jobs that blacks get, for one reason or another, last for much shorter periods, so that they are back in the labor market about twice as often. This appears to be due to both a higher rate of job loss (layoffs and dismissals) and of voluntary leaving (quits).<sup>8</sup>

The high turnover rates of blacks relative to whites might be explained by one or all of the following conditions: (1) The jobs in which blacks are placed are relatively low paid and unattractive in terms of job satisfaction, so black quits are higher, (2) Black workers are relatively unproductive because of lack of experience, education or motivation, so employers become dissatisfied and black layoffs are higher, (3) The jobs occupied by blacks are inherently of shorter duration even though productivity and job satisfaction

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<sup>8</sup> Since 1967, the Current Population Survey has recorded the reason given for being unemployed: lost last job through layoff, lost last job through a dismissal, voluntarily left last job, and entrant or reentrant into labor force. Cross-tabulations from these observations indicate that the composition of the unemployment by reason is similar between black males and white males. See Kathryn Hoyle, "Job Losers, Leavers, and Entrants," *Monthly Labor Review*, XCII (April 1969), pp. 24-29.

are adequate while the jobs last, (4) There is a poorer performance in the search and placement process of matching the capabilities of black workers to job requirements and of matching job inducements to the preferences of black workers, and (5) Blacks have lower union seniority. Racial discrimination, of course, may contribute to all of these conditions.

The *speed* of the placement process for blacks relative to whites seems to be the one area where there needs to be relatively little concern about a racial differential.<sup>9</sup> It is the tenure determining *quality* of the employment relationship for blacks that is critical. This depends in part on the *quality* of the placement process, but probably even more on the day to day working relationship itself as viewed by both worker and employer.

The success of manpower placement and training programs should not be measured simply in terms of placement rates, but rather by the increase in the duration of job tenure experienced by the trainees or clients as a result of the programs. Blacks already can find jobs almost as quickly as whites, but either they cannot keep them or the jobs are not considered worth holding on to by the workers. Piore's "secondary labor market" description is consistent with these findings.<sup>10</sup>

Training programs that are aimed at preparing blacks for jobs that are characterized by high turnover rates may contribute little to reducing black unemployment.

Placement services, if they are effectively to contribute toward the reduction of the black-white unemployment ratio, will need to stress quality of placement more than speed.

More research is urgently needed to obtain a better understanding of the causes and cures of relatively high black turnover rates.

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<sup>9</sup> This conclusion must be qualified in terms of the limitations of the data discussed above which do not allow an adequate distinction to be drawn between a job placement and a withdrawal from the labor force. Even though both reduce the stock of unemployed workers searching for work, they have drastically different implications otherwise. Unfortunately the CPS gross flow data is not disaggregated by race.

If black males are more likely to become discouraged than whites and stop searching, then one must treat skeptically the estimate that speeds of placement are very similar.

<sup>10</sup> Michael Piore, "On-The-Job Training of Disadvantaged Workers," in *Public-Private Manpower Policies*, Industrial Relations Research Association Series, 1969, pp. 101-132.

# HELP-WANTED ADVERTISING, AGGREGATE UNEMPLOYMENT, AND STRUCTURAL CHANGE

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The question as to whether unemployment of the late fifties and early sixties had been exacerbated by a worsening of structural imbalance in the job market has been one of the more controversial issues facing economists. Today the question takes on a new importance, in addition to its historical interest, because the roles of structural imbalance and labor market frictions are seen as crucial in any effort to improve the trade-off between inflation and unemployment.<sup>1</sup>

A direct test of the structural transformation hypothesis can be obtained by comparing job vacancies and unemployment over time.<sup>2</sup> The presence of both vacant jobs and unemployed workers is evidence of imbalance and frictions in the labor market. If the relationship between vacancies and unemployment has shifted over time, then there is evidence of structural change in the market.

There is an inverse empirical relation between vacancies and unemployment, which has been observed in the United States using help-wanted advertising as an index of job vacancies.<sup>3</sup> Previous empirical analysis of the relation, however, has consisted principally of regressing vacancies on unemployment.<sup>4</sup> But unemployment does

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<sup>1</sup> Charles C. Holt, C. Duncan MacRae, Stuart O. Schweitzer, and Ralph E. Smith, *The Unemployment-Inflation Dilemma: A Manpower Solution* (Washington: Urban Institute, 1971).

<sup>2</sup> U.S. Congress, Joint Economic Committee, Subcommittee on Economic Statistics, *Higher Unemployment Rates, 1957-60: Structural Transformation or Inadequate Demand*, 87th Congress, 1st Session (Washington: U.S. Government Printing Office, 1961); and Robert M. Solow, *The Nature and Sources of Unemployment in the United States* (Stockholm: Almqvist & Wilsell, 1964).

<sup>3</sup> Constance White, *Help-Wanted Index* (New York: National Industrial Conference Board, 1970).

<sup>4</sup> Malcolm S. Cohen and Robert M. Solow, "The Behavior of Help-Wanted Advertising," *Review of Economics and Statistics*, Vol. 49 (February 1967), pp. 108-110; Susan W. Burch and Ruth A. Fabricant, "A Further Comment on

not cause vacancies nor do vacancies cause unemployment; both are mutually determined in the process of job search and labor turnover.

The purpose of this paper is to specify, estimate, and test an econometric model which explains the relationship between help-wanted advertising and aggregate unemployment over time in terms of job search and labor turnover behavior. We begin by specifying a model of job vacancies and unemployed workers. The parameters of the model are estimated and an equilibrium relation between help-wanted advertising and aggregate unemployment is derived for the period 1951-1969. We conclude by testing whether a structural transformation has occurred during this period.

#### MODEL

In this section we develop a model of vacancies and unemployment using the theory of job search and labor turnover.<sup>5</sup> The model contains four endogenous variables: the level of vacancies,  $V$ , the level of unemployment,  $U$ , the level of employment,  $E$ , and the change in employment,  $\Delta E$ . The two exogenous variables are the job stock,  $J$ , and the labor force,  $L$ . The four endogenous variables are determined by three identities and one difference equation, respectively.

There is a direct definitional relation between vacancies and unemployment. The level of vacancies is the difference between the job stock and the level of employment,

$$1) V = -E + J.$$

Similarly, the level of unemployment is the difference between the labor force and the level of employment,

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he Behavior of Help-Wanted Advertising," *Review of Economics and Statistics*, Vol. 10 (May 1968), pp. 278-281; Domodar Gujarati, "Cyclical Behavior of Help-Wanted Index and the Unemployment Rate," *Review of Economics and Statistics*, Vol. 51 (November 1969), pp. 482-484; and Malcolm S. Cohen and Robert M. Solow, "The Behavior of Help-Wanted Advertising: A Reply," *Review of Economics and Statistics*, Vol. 52 (November 1970), pp. 442-443.

<sup>5</sup> Richard G. Lipsey, "The Relation between Unemployment and the Rate of Money Wage Rates in the United Kingdom, 1862-1957: A Further Analysis," *Economica*, Vol. 27 (February 1960), pp. 1-31; Charles C. Holt and Martin H. David, "The Concept of Job Vacancies in a Dynamic Theory of the Labor Market," in *The Measurement and Interpretation of Job Vacancies*, National Bureau of Economic Research (New York: Columbia University Press, 1966), pp. 73-110; and Edmund S. Phelps, "Money Wage Dynamics and Labor Market Equilibrium," *Journal of Political Economy*, Vol. 76 (July-August 1968), pp. 678-711.

$$2) U = -E + L.$$

Thus for a given job stock and labor force, as employment increases vacancies and unemployment decrease and vice versa.

The prevailing level of employment is the sum of the change in employment and the previous level of employment,

$$3) E = \Delta E + E_{-1}.$$

The change in employment is the difference between the flow of accessions and the flow of separations. Accessions consist of new hires and other accessions. Separations are made up of quits, layoffs, and other separations.

Neither firms nor households control employment directly. Employers create jobs and try to recruit employees. Similarly, workers participate in the labor force and try to find jobs. The flow of new hires into employment, therefore, is the result of matching job vacancies with unemployed workers. The greater the level of vacancies, the larger is the flow. Similarly, the greater the level of unemployment, the larger is the flow. This would suggest that the flow of new hires is proportional to the product of unemployment and vacancies,  $UV$ .<sup>6</sup> However, assuming constant returns to scale<sup>7</sup> and symmetry in the search process, the flow is equal to  $\beta(UV)^{1/2}$ , where the parameter  $\beta$  describes the efficiency of search.<sup>8</sup>

The flows of quits and layoffs tend to move in opposite directions. The greater the level of vacancies and the lower the level of unemployment, the larger are quits and the smaller are layoffs and vice versa. Thus as a first approximation the turnover rate  $\gamma$  is a constant so that the flow of quits and layoffs is equal to  $\gamma E$ .<sup>9</sup>

The change in employment is, therefore, determined by the process of job search and labor turnover:

$$4) \Delta E = \beta(U_{-1}V_{-1})^{1/2} - \gamma E_{-1},$$

where other accessions are grouped with new hires and other separations are grouped with quits and layoffs.

In equilibrium there is an inverse relation between the vacancy rate,  $V/E$ , and the unemployment rate,  $U/E$ . This can be seen by rewriting (4) as

$$5) \Delta E/E_{-1} = \beta(U_{-1}/E_{-1})^{1/2} (V_{-1}/E_{-1})^{1/2} - \gamma.$$

<sup>6</sup> Lipsey, *op. cit.*, p. 15; and Holt and David, *op. cit.*, p. 96.

<sup>7</sup> Phelps, *op. cit.*, p. 689.

<sup>8</sup> Holt and David, *op. cit.*, p. 99; and Phelps, *op. cit.*, p. 691.

<sup>9</sup> Lipsey, *op. cit.*, p. 15.

In static equilibrium both job stock and labor force are constant and the flow of accessions is equal to the flow of separations so that  $\Delta E/E_{-1} = 0$ . The equilibrium relation, therefore, is,

$$6) (U/E)(V/E) = (\gamma/\beta)^2.$$

The job stock and labor force, however, are not constant over time so that, in general, the labor market is always out of equilibrium. Seasonal, cyclical, and secular variations in the demand and supply of labor are continually causing the vacancy and unemployment rates to deviate from the equilibrium relation. Therefore, attempts to fit (6) directly to observed rates are doomed to failure. The equilibrium relation must be obtained indirectly by estimating the parameters in (5) using the available data on employment, unemployment, and job vacancies.

#### ESTIMATION

In this section we describe the data used and report the estimates of the search efficiency and turnover parameters,  $\beta$  and  $\gamma$ . Then an equilibrium relation between the help-wanted rate,  $HW/EA$ , and the aggregate unemployment rate,  $UA/EA$ , is derived, where  $HW$  is the help-wanted index,  $EA$  is the level of aggregate employment, and  $UA$  is the level of aggregate unemployment.

Seasonally unadjusted quarterly data on employment, unemployment, and job vacancies from 1951 through 1969 were used in this study. Employment and unemployment measured in thousands were obtained from the Current Population Survey as published in the *Monthly Labor Review*. The National Industrial Conference Board index of help-wanted advertising was used as a proxy for vacancies.<sup>10</sup>

*A priori* the model should explain most of the seasonal as well as the nonseasonal variations in employment, unemployment, and vacancies. Therefore, seasonally adjusted data was not used, although previous empirical studies have used it. Nevertheless, the model was supplemented with seasonal dummies to test for a seasonal residual and to eliminate it if it occurred.

The stochastic specification of (5) with seasonal dummies is

$$7) \Delta EA/EA_{-1} = \beta(UA_{-1}/EA_{-1})^{1/2} (HW_{-1}/EA_{-1})^{1/2} - \gamma \\ + \sigma_I + \sigma_{II} + \sigma_{III} + \sigma_{IV} + \epsilon_t$$

<sup>10</sup> White, *op. cit.* A seasonally unadjusted help-wanted index is not available. Therefore, we constructed one using the published indices for 52 cities, the unpublished seasonal adjustment factors, and the published city weights.

where the  $\sigma_i$  are quarterly dummies which are constrained to sum to zero and  $\epsilon$  is a random error term with mean zero and constant variance.

The parameters of (7) were estimated using ordinary least squares with data from 1951 II through 1969 IV. The result is

$$\begin{aligned} 8) \Delta EA/EA_{-1} &= 3.277(UA_{-1}/EA_{-1})^{1/2}(HW_{-1}/EA_{-1})^{1/2} - 0.027 \\ &\quad (2.586)^* \quad \quad \quad (-2.257)^* \\ &\quad - 0.023 + 0.024 + 0.012 - 0.013, \\ &\quad \quad \quad F(3,70) = 74.244^{**} \\ \bar{R}^2 &= .852, S.E. = .009, D.W. = 2.195, \end{aligned}$$

where the t-statistics are in parentheses, the F-statistic is for the seasonal dummies,\* and \*\* denote significance at the five percent and one percent levels, respectively,  $\bar{R}^2$  is the coefficient of determination adjusted for degrees of freedom, S.E. is the standard error of estimate, and D.W. is the Durbin-Watson statistic.

The seasonal dummies play an important role in the explanation of  $\Delta EA/EA_{-1}$ , but so does the theory of job search and labor turnover. Both the search efficiency and turnover rate have the proper sign and are statistically significant at the five percent level. Moreover, only 15 percent of the variation in the quarterly percent change in aggregate employment is left unexplained.

Substituting the estimates for  $\beta$  and  $\gamma$  from (8) into (6) we derived the static equilibrium relation between the help-wanted rate and the unemployment rate:

$$9) (UA/EA) (HW/EA) = 6.839 \cdot 10^{-5},$$

which is shown as the solid curve in Figure 1.

A confidence interval for the ratio  $\gamma/\beta$  was then calculated using the estimate of the variance-covariance matrix of estimated coefficients,  $\beta$  and  $\gamma$ .<sup>11</sup> The corresponding confidence band of help-wanted and unemployment rates is enclosed in Figure 1 by dashed curves.

The model not only implies a static equilibrium relation between the help-wanted rate and the unemployment rate but also explains the observed deviations from this relation in terms of disequilibrium

<sup>11</sup> Wayne A. Fuller, "Estimating the Reliability of Quantities Derived From Empirical Production Functions," *Journal of Farm Economics*, Vol. 44 (February 1962), pp. 82-99.

job search and labor turnover behavior. In particular, the growth in job stock, labor force, and, hence, employment that occurred during this period explains, through (8), why on the average the observed points lie above the locus defined in (9). If the observed deviations cannot be explained in terms of disequilibrium behavior, then we infer that a shift has occurred in the equilibrium relation, caused by a structural change in the search efficiency or labor turnover parameters.

#### TRANSFORMATION

In this section we consider the evidence of a structural change in the labor market in terms of the relationship between help-wanted advertising and aggregate unemployment. We begin by determining whether a shift has occurred in the structural parameters,  $\beta$  and  $\gamma$ . Evidence of a shift in the derived equilibrium relation is then examined.

The question of whether a structural transformation occurred in 1955–57 continues to generate debate. We have, therefore, divided the period 1951 II–1969 IV into two subperiods, 1951 II–1956 IV and 1957 I–1969 IV, and obtained separate estimates of the parameters in (7) for each sub-period.

The estimates for 1951 II–1956 IV are

$$\begin{aligned}
 10) \quad \Delta EA/EA_{-1} &= 5.468(UA_{-1}/EA_{-1})^{1/2}(HW_{-1}/EA_{-1})^{1/2} - 0.043 \\
 &\quad (1.997) \qquad \qquad \qquad (-1.858) \\
 &\quad - 0.021 + 0.017 + 0.012 - 0.008, \\
 &\quad F(3,18) = 13.490^{**} \\
 \overline{R}^2 &= .865, S.E. = .007, D.W. = 1.183.
 \end{aligned}$$

The search efficiency and turnover parameters continue to have the proper sign. But neither one alone is statistically significant. Nevertheless, there is high covariance between the estimates of the parameters so that as a pair they are significantly different from zero with a statistic of  $F(2,18) = 4.048^*$ .

The estimates for 1957 I–1969 IV are

$$\begin{aligned}
 11) \quad \Delta EA/EA_{-1} &= 9.193(UA_{-1}/EA_{-1})^{1/2}(HW_{-1}/EA_{-1})^{1/2} - 0.086 \\
 &\quad (3.617)^{**} \qquad \qquad \qquad (-3.448)^{**} \\
 &\quad - 0.017 + 0.021 + 0.001 - 0.005, \\
 &\quad F(3,47) = 30.655^{**} \\
 \overline{R}^2 &= 0.877, S.E. = 0.008, D.W. = 2.602.
 \end{aligned}$$





In this case both parameters have the proper sign and are statistically significant at the one percent level.

A Chow test<sup>12</sup> for equality between the set of five coefficients in (10) and (11) was then performed. The result was that the null hypothesis was rejected at the one percent level. This means that there has been a shift in the parameters of (7).

A shift may have occurred, however, in the seasonal dummies and not in the search efficiency and turnover parameters, which determine the equilibrium relation between the help-wanted and unemployment rates. A test was, therefore, performed for equality between the subset of coefficients,<sup>13</sup>  $\beta$  and  $\gamma$ , in (10) and (11). The result was that the null hypothesis was rejected at the five percent level, which means that there has been a shift in  $\beta$  and  $\gamma$ .

Even though the search efficiency and turnover parameters have changed, and it seems from (10) and (11) that both have increased, it is possible that the equilibrium relation between help-wanted and unemployment rates, which is a function of the ratio  $\gamma/\beta$ , has not changed. The relations for the two sub-periods are shown in Figure 2. The confidence band for 1957-69 is described by long dashes. The upper edge of the band for 1951-56 is depicted by short dashes. The lower edge is not meaningfully defined because the confidence interval for  $\beta$  includes zero.

The estimated equilibrium relations are significantly different since the confidence bands for the two sub-periods do not overlap. In fact the band for 1957-69 is relatively narrow. But we cannot tell whether the relations are statistically different because a test for equality between *ratios* of coefficients in two regressions is not available. Thus there is evidence of an upward shift in the equilibrium relation from 1951 II-1956 IV to 1957 I-1969 IV, but it is not conclusive.

There is similar evidence of an upward shift for slightly different periods from 1951 II-1957 IV to 1958 I-1969 IV, which supports the conclusion of Burch and Fabricant,<sup>14</sup> who regressed the help-wanted index on the rate of growth of nonfarm payroll employment and the inverse of the unemployment rate. There is

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<sup>12</sup> Gregory C. Chow, "Tests of Equality Between Sets of Coefficients in Two Linear Regressions," *Econometrica*, Vol. 28 (July 1960), pp. 591-605.

<sup>13</sup> *ibid.*, p. 599.

<sup>14</sup> Burch and Fabricant, *op. cit.*

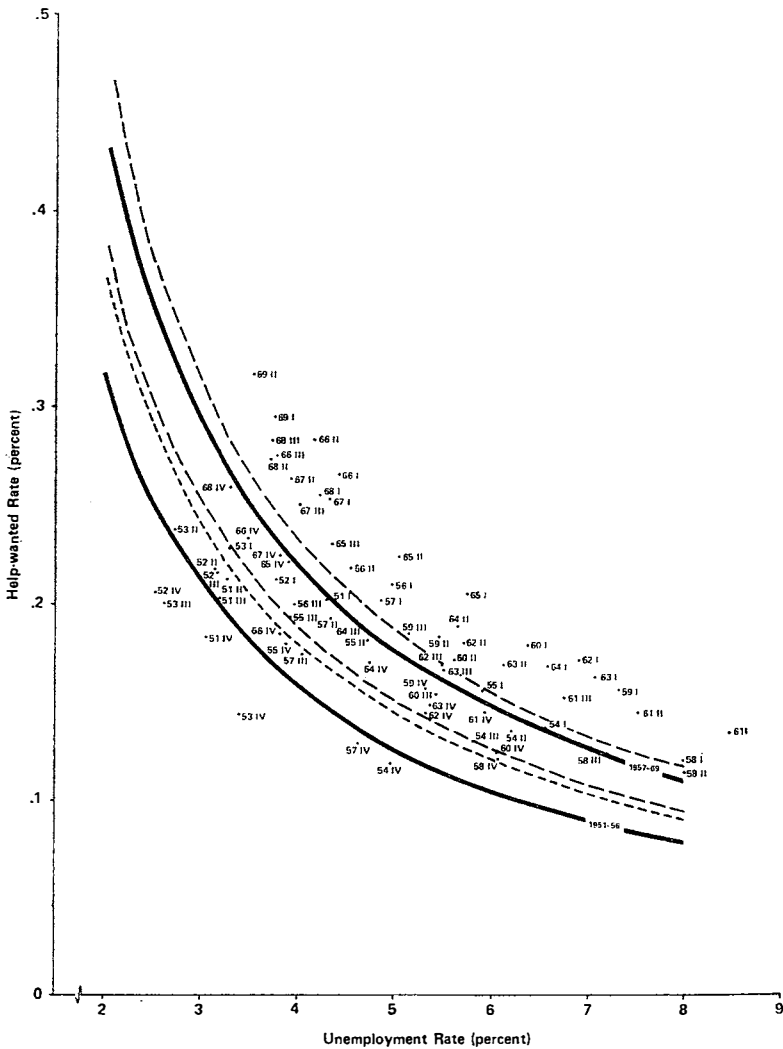


Figure 2: Relations Between Help-Wanted Advertising and Aggregate Unemployment: 1951-56 and 1957-69.

no evidence, however, of a shift in the search efficiency or turnover parameters and, hence, in the equilibrium relation between 1951 II—1961 II and 1961 III—1969 IV or between 1951 II—1964 IV and 1965 I—1969 IV. This result is in agreement with the findings of Cohen and Solow,<sup>15</sup> who used a model in which the change in the help-wanted rate is a function of the unemployment rate and the new hires rate in manufacturing. But it conflicts with the findings of Gujarati,<sup>16</sup> who fitted the relation between the help-wanted index and the unemployment rate directly and, hence, confused shifts in the equilibrium relation with disequilibrium deviations from the relation.

### CONCLUSIONS

We have specified, estimated, and tested a model which describes the relationship between help-wanted advertising and aggregate unemployment in terms of job search and labor turnover behavior. The model not only implies an inverse equilibrium relation between vacancies and unemployment but also explains the disequilibrium adjustment process by which employment, unemployment, and vacancies respond to changes in the job stock and labor force. Moreover, using this model we have been able to test the structural transformation hypothesis.

We find evidence that an upward structural shift in the relation between the help-wanted rate and the unemployment rate occurred in the late 1950's. But the evidence is not fully conclusive since a statistical test for a shift in a derived relation is not available. We find no evidence that labor market frictions and imbalance worsened in the early or middle 1960's. Nevertheless, it is clear that increased attention should be devoted to improving labor market structure, which is a crucial determinant of the trade-off between inflation and unemployment.

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<sup>15</sup> Cohen and Solow, *op. cit.*

<sup>16</sup> Gujarati, *op. cit.*

## DISCUSSION

LEONARD A. RAPPING

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I would like to begin by making some rather general comments about all three papers and then turn to a brief discussion of the two papers by Otsuki and Smith-Holt. In part, the three papers represent an attempt to understand the way in which job search interacting with movements of aggregate demand, as indexed by job vacancies, determine unemployment rates, labor force participation rates and the change in employment. A key assumption in at least two of the papers is that the probability of a successful job contact occurring between an unemployed worker and a vacancy is proportional (or roughly so) to the product of unemployment and vacancies. Aside from the obvious question as to whether vacancies are sensibly treated as "exogenous" to the labor market process, an assumption in each paper, there is the problem of whether this appealing but very mechanistic job search assumption can yield much understanding of labor market dynamics. It tells very little about job search itself, and certainly gives us no handle on how to improve job search efficiency. Moreover, no reference is made to the segmentation of labor markets nor the relationship between job search and the structure of actual and expected wage rates. In short, while the view that job search is a key to understanding the dynamics of the labor market, a view which I endorse, is common to all three papers, the practical application of the job search approach in each of these papers is too mechanical to be very fruitful in studying detailed labor market issues of the type examined in these papers. Of course, this is not to deny the obvious qualitative insights that the search view has given us into aggregative issues such as the inflation-unemployment relationship.

My comments on Otsuki's paper will be brief although his paper is long, perhaps a bit too long for a meeting like this. He provides us with some interesting insights into the interpretation of the relationship between unemployment rates and participation rates, using a Markov model with fixed transition probabilities. Subsequently, the transition probabilities are assumed to vary with vacancy rates and the duration of unemployment and a large number of regres-

sion results are presented. Unfortunately, no summary is provided and I cannot tell from his results just what additional findings he has on the "discouraged worker" and "additional worker" hypotheses, something we were promised at the beginning of his paper. I think his approach is interesting and I certainly would look forward to seeing a summary of his empirical findings, one which might make it easier to see what he does in fact have to say about the participation-unemployment relationship.

Let me turn now to the Smith-Holt paper. It is a well-known fact that over the entire "business cycle" the black-white unemployment differential remains positive and large. In periods of peak business activity this differential is about 2:1. For example, in January, 1968, a month when aggregate unemployment was 4.0 percent (unadjusted) the white male rate was 3.2 percent compared to a non-white (mostly blacks) male rate of 6.5 percent. It is also known that the aggregate differential expands somewhat during a downturn, but this expansion is mostly attributed to the disproportionately large number of black unskilled workers.<sup>1</sup> Smith and Holt address themselves to the question of why this differential is persistently large. In particular, is it because blacks find it more difficult than whites to find employment, once unemployed, or do they become unemployed more frequently? It is a major weakness of their paper that they do not suggest to us some a priori reasons why blacks may be at a job search disadvantage vis-a-vis whites, or why they might be disemployed more often than whites, skill and on-the-job experience held constant. Two potential explanations for nonwhite search disadvantage readily come to mind. Housing segregation places nonwhites on average further from plant locations than whites, hence reducing the probability of a job contact. Or, most job availability information seems to travel thru informal information channels and because the proportion of whites in most local labor markets and in most occupations is higher than that of nonwhites, the probability of an unemployed white learning of a job vacancy will exceed that of a nonwhite.

Their main explanation for the persistent black-white unemployment rate differential is that the flow of blacks into the pool of

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<sup>1</sup> See, H. J. Gilman, "The White/Non-White Unemployment Differential," *Human Resources in the Urban Economy*, Resources for the Future, Inc. (1963), pp. 75-113.

unemployed exceeds the white flow. But that both groups, once unemployed, have about equal chances of finding employment. I do not choose to quibble with their statistical procedures. They have the usual problems—serial correlation, errors in variables etc.—and I have no particular reason to doubt this empirical finding. But I must confess to a certain uneasiness about its implications. According to Smith and Holt, the average disemployment rate (turnover rate) is about twice as high for blacks than whites, but this finding is based on a regression equation in which all skill, age, experience, etc. groups are combined. Only sex is controlled for statistically. This higher turnover rate results in a higher aggregate unemployment rate for blacks than whites, but we know that blacks are disproportionately concentrated in the unskilled occupations. To the extent that black quits, layoffs, or firings are higher than that of whites simply because they are unskilled in disproportionately large numbers, their findings do not imply that blacks have a higher propensity to quit or that they are more likely to be fired simply because they are black. This is not to deny that blacks suffer from market and pre-market racial discrimination, indeed that is why they are disproportionately represented in unskilled occupations. But, it is to question the implication that blacks behave differently than whites, and are more prone to leave unsatisfactory or dead-end employment than whites. Perhaps they are, and I would not be surprised to learn that differential behavior is elicited from blacks because of unequal opportunities, but the Smith-Holt paper provides little evidence on this score. More suggestive in this regard are the findings in an earlier study by Harry Gilman.<sup>2</sup> He reports that averaged over the period 1953–61, about one-half of the absolute nonwhite-white unemployment rate differential is “explained” by the occupational *skill* distribution of the two groups. There remains an unexplained differential, one not attributed to skill. Perhaps this remaining differential partly reflects a less permanent job attachment of blacks than whites, an impermanence which might be a rather understandable response to labor market discrimination.

Once data are stratified by skill or occupational groupings, a finding that black turnover rates exceed white turnover rates while

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<sup>2</sup> H. J. Gilman, “Economic Discrimination and Unemployment,” *Amer. Econ. Rev.* (December 1965), pp. 1075–96.

the probability of an unemployed worker finding a job is the same for blacks and whites would unfortunately be inconsistent with two well-known facts concerning the racial unemployment differential by "skill" groups. These are: 1) There is always a positive differential; and 2) The differential gets *smaller* in recessions. If turn-over rates were higher for blacks than whites, given skill, this would imply an expanding differential during downturns, something we do not observe. On the other hand, if unemployed whites were more efficient at job search than unemployed blacks, then this fact could account for a persistent positive differential as well declining differential during downturns. The reason is that as job vacancies decline the search advantage of whites becomes less and less of an advantage.<sup>3</sup> It is for this reason that I am somewhat hesitant to generalize the Smith-Holt findings as reflecting anything other than the skill composition of the two racial groups.

Of course, the policy prescriptions suggested by Smith and Holt are applicable and relevant regardless of the reasons for the high black turnover rate—improve their skills and emphasize permanent employment, jobs alone are not enough. But, like many others these days, I am not very sanguine that a real improvement for black *males* is politically possible. After all, the tastes, attitudes and prejudice that result in market discrimination are not suddenly attenuated when whites participate in the political arena. Quite the contrary, they may have a more virulent manifestation. Certainly if one examines the white/nonwhite male income differential thru 1967, as O. Ashenfelter did in a recent paper, there is little reason for optimism.<sup>4</sup> I do not mean this note of pessimism as a criticism of the liberals who supported the manpower legislation of the 1960's. While I would judge these programs to have been unsuccessful, one must recognize that the conservatives offer us no solution other than forbearance and the radicals, while convincing on many points, have not yet convinced me, at least, that racial discrimination is either uniquely or inexorably a product of the institution of private property.

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<sup>3</sup> For a complete discussion of this issue see D. Gaver and L. Rapping, "A Stochastic Process Model of the United States Labor Market," Carnegie-Mellon Working Paper, 1966.

<sup>4</sup> See, O. Ashenfelter, "Changes in Labor Market Discrimination Over Time," *Journal of Human Resources*, (Fall 1970).



## DISCUSSION

ERNST W. STROMSDORFER

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The three papers presented here represent useful additions to the literature on the short-run supply of labor. However, as is perhaps inevitable, each of the papers has certain shortcomings and, in one respect, as is indicated below, they all share a common problem.

First, the paper by Drs. Smith and Holt assumes that the size of the labor force of a given group is constant as the level of aggregate demand and unemployment changes. Of course, cross-sectional studies of the short-run behavior of the labor force have shown that there is an interaction between changes in unemployment and changes in the size of the labor force. For instance, Jacob Mincer reports the finding that there is a strong net negative relationship between the labor force and unemployment for all major population groups for the 1940, 1950 and 1960 census periods. For the labor force as a whole it appears that a one percent increase in the total unemployment rate leads to about  $\frac{2}{3}$  of a percentage point decrease in the labor force. However, of more relevance to the Smith-Holt assumption is the finding reported by Mincer for time series data of no significant effect of unemployment on the labor force participation rate of prime age males—black and white combined.<sup>1</sup> This finding is supported by the more recent work of Bowen and Finegan.<sup>2</sup> However, Peter S. Barth has estimated contrary results for prime age males.<sup>3</sup> The real problem is, though, that the behavior of male blacks and whites may differ with respect to these aggregate findings. Occupational and other socio-demographic factors differ widely between the two groups and it is not at all likely that the behavior of black males will show the same pattern as that which has been found for white males. The major studies to date concentrate on sex and age breakdowns and not on sex and

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<sup>1</sup> Jacob Mincer, "Labor Force Participation and Unemployment: A Review of Recent Literature," in Robert A. Gordon and Margaret S. Gordon, editors, *Prosperity and Unemployment*, (New York: John Wiley and Sons, 1966), p. 78.

<sup>2</sup> William G. Bowen and T. Aldrich Finegan, *The Economics of Labor Force Participation*, (Princeton, New Jersey: Princeton University Press, 1969), p. 479 ff.

<sup>3</sup> Peter S. Barth, "Unemployment and Labor Force Participation," *The Southern Economic Journal*, Volume XXXIV, (January 1968), p. 377.

race breakdowns, especially for males. Thus, the Smith-Holt assumption is still open to some challenge. The same assumption is made in the paper by MacRae and Schweitzer, but since they are dealing with the total labor force, the criticism is not as serious, or, at least, the evidence is mixed with respect to the sensitivity of the labor force to unemployment for time series data.

Second, equations one and two in the Smith-Holt paper are specified with the assumption that random fluctuations are suppressed. In effect, the authors argue that the independent variables explain all the variation in the dependent variable and no other variables are required in the specification. Yet, clearly, numerous critical socio-economic variables such as income of the husband for working wives will influence, say, the quit rate of the working wife group. Of course, to the extent that the sample observations are broken down by sex and race, the authors do recognize the importance of other socio-economic variables in the model.

My final points deal with the conclusions and policy recommendations of the Smith-Holt paper. The authors wish to analyze the "mechanisms which generate the observed black-white unemployment ratio" in order to find means to alter this pattern. This implies that one must find the causes of the differences between the two ratios. The authors do not fully succeed in this, mainly because the model is not complex enough to encompass the major institutional factors which cause the higher separation rate for blacks. But to make policy recommendations you must arrive at the fundamental reasons for the black-white differences. We know, for instance, that the black and white separation rates are affected similarly by the tightness of the labor market and, for instance, that the black separation rate is over twice that of whites. But, we still don't know the underlying reasons for this. Surely, part of the reason has to do with both current racial discrimination and the results of historical discrimination, but the authors' discussion on job matching and placement only considers this issue tangentially. Perhaps it is a point too obvious to belabor, but the seriousness of this social problem requires that it be stressed even when to do so is to do the obvious.

Finally, the evaluations of retraining programs do not indicate that, relative to a worker's previous condition, the jobs for which workers are retrained increase their probability of turnover. The

studies generally show that retraining does not increase a worker's wage rate relative to that of conventional control groups, but that his earnings after training are greater. This, of course, suggests that employment stability has increased and so turnover has decreased.

My comment on the paper by Dr. Otsuki is brief and concerns the general assumption on which his model is based. Since it is a stochastic model, the model is able to predict short-run labor force behavior, given knowledge about a person's prior labor force status. However, this study still leaves unanswered the basic question as to what are the original determinants for being either in or out of the labor force or employed or unemployed, given that one is in the labor force. Labor force behavior is highly institutionalized and purposive. It is this characteristic which allows us to apply econometric tools to its analysis in the first place. Thus, for instance, it is not quite correct to say that "The search processes of a worker seeking a job and of a firm seeking a worker are highly random." In fact, institutional studies of labor market behavior have shown consistent and highly institutionalized, if informal, methods of job search.

Thus, an improvement of this already excellent study would require an econometric analysis of the underlying institutional factors which determine one's initial as well as changing labor force status. In short, the factors which determine the probabilities which are generated in the model need to be analyzed.

Drs. MacRae and Schweitzer's effort to further clarify the structural unemployment-deficient demand controversy is very useful. But perhaps it is an effort that may be seriously crippled from the outset. The reason is that there is no theoretical way to identify a structurally versus a deficient demand unemployed person. Also, the two types of unemployment interact in as yet unspecified ways. No statistical test has yet been able to sort out this interaction. Even if the test had been successful in showing an increase in structural unemployment, the effective reason for this increase could be due to chronic deficient demand. The result, as tended to occur in the Congressional debates over the issue, is that the wrong mix of policies to correct the problem may be advocated.



**V**

**YOUTH UNEMPLOYMENT  
AND MINIMUM WAGES**

**Michael H. Moskow, Chairman  
Council of Economic Advisers**

# YOUTH UNEMPLOYMENT AND MINIMUM WAGES: AN OVERVIEW

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## BACKGROUND

### *Youth Unemployment.*

In 1969 the unemployment rate for 16 to 19 year olds was 12.2 percent, compared to 5.7 percent for the 20-24 year olds and only 2.2 percent for those 25 years of age and older. (See table 1).<sup>1</sup> Within the teenage group,<sup>2</sup> the unemployment rate for Negroes<sup>3</sup> was 24.0 percent, compared to 10.7 percent for whites, and rose to a staggering 27.7 percent for Negro females.

As high as youth unemployment rates were in 1969, these were the lowest since 1957. Only in the immediate post-World War II years and during the Korean War years did the unemployment rate for teenagers fall below 10 percent.

The flow of teenagers into and out of the labor force as they "test jobs" in an effort to find out about the world of work, and the still intermittent attachment to the labor force of the many teenagers who are enrolled in school inevitably contributes to high unemployment rates. Further, spells of unemployment are typically short for teenagers. In the late 1960s, about 55 percent of the teenagers were unemployed less than 5 weeks, compared with 40 to 45 percent for those over age 24.

In the late 1940s and in the 1950s the teenage unemployment rate ran about 2.5 to 3.5 times the rate for adults over age 24. Beginning in 1963, however, the teenage unemployment rate rose sharply relative to that for adults, averaging about 5.5 to 1 in the last two years of the decade.

### *Other Developments.*

A number of changes in the past 20 years may have contributed to the high rates of youth unemployment. There have been some

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<sup>1</sup> This article draws heavily on materials presented in BLS Bulletin 1657, *Youth Unemployment and Minimum Wages* (Washington: GPO, 1970).

<sup>2</sup> Unless otherwise noted, the terms "teenagers" and "youth" refer to the 16-19 year old group.

<sup>3</sup> Data for Negroes include other races.

dramatic changes in the teenage population since World War II. Higher birth rates in the 1940s were reflected in a 22-percent increase in the population of teenagers in the late 1950s, compared to 3 percent in the first half of the decade, and another 27 percent in the first half of the 1960s. Only in recent years have the high birth rates of the 1940s ceased to dramatically affect the teenage population growth; in the last half of the 1960s, teenage population grew but 12 percent.

Despite the rapid growth in teenage population and civilian labor force the economy has absorbed an imposing number of teenagers. Employment of teenagers increased about 44 percent, compared to an overall growth in employment of 30 percent. The rapid growth in demand for teenagers was not adequate, however, to absorb the available supply.

There was a striking change in the number of teenagers employed in agriculture—an absolute decline from 734,000 in 1948 to 394,000 in 1968. This major shift in the industrial composition of employment meant that a much smaller proportion of teenagers were able to use the easy entrance to employment on the family farm. Increasingly, teenagers had to compete for jobs in an urban labor market, trying to find jobs especially in retail trade (34 percent of all employed teenagers outside agriculture in 1968), services (22 percent), and manufacturing (18 percent).

Another imposing change has been the increase in the proportion of teenagers enrolled in school. In 1947 about 46 percent of the teenagers were enrolled; by 1968 the percentage was 71. Increased school enrollment has contributed to a decline in the labor force participation rate of teenagers, but at the same time over half the teenagers active in the labor force are enrolled in school. Potentially, the fact of school enrollment compounds problems of job placement. A "suitable" job is now more apt to be a part-time job, outside school hours, and close to home or school.

Another factor given special note is the military draft, in continuous existence since June 1948. In the post-war period, military personnel under age 20 have equalled from 10 to 25 percent of the male population 18 to 19 years of age. The uncertainty about whether or not they will be drafted has contributed to the reluctance of employers to hire 18 and 19 year old males.

## FEDERAL MINIMUM WAGE

*Historical Developments.*

The passage of the Fair Labor Standards Act (FLSA) in 1938 established a minimum wage of 25 cents scheduled, in the original Act, to rise to 40 cents in 1945. Congress raised the minimum to 75 cents in 1950, to \$1 in 1956, to \$1.25 in 1963, and to \$1.60 in 1968.

Although the absolute level of the Federal minimum quadrupled from 40 cents to \$1.60, increases in money wages have roughly paralleled increases in the legal minimum. At the time of congressional action, the minimum has averaged slightly more than 50 percent of average hourly earnings in the private nonfarm economy. (See table 1.) It should be noted that Congress acted more frequently in the 1960s than before. Hence, the minimum wage to average hourly earnings ratio did not reach the low levels of 1949 (31 percent) or 1955 (43 percent).

The most important development in Federal minimum wage legislation was the expansion in coverage of the law. After passage in 1938 there was no significant change in the proportion of non-supervisory workers covered by the law until 1961. The 1961 amendments increased the proportion of workers covered from about 60 percent to 67 percent, and the 1966 amendments increased the proportion to over 80 percent. The important sectors brought under coverage of the law were retail trade and services, two sectors especially important to teenage employment.

An approximation of the effects of expansion in coverage can be made by computing the minimum wages as a percentage of average hourly earnings in each major industry division and weight by the proportion of employment covered and industry teenage employment. (See table 2, column 5.) The data imply an almost doubling of minimum wage impact on teenagers from 1956 to 1968.

*Relationship to Youth Unemployment.*

Conventional analysis suggests that a wage set above equilibrium will reduce the level of employment or at least retard the rate of growth in employment in a competitive industry. The leap from conventional analysis to the belief that minimum wages have affected teenage unemployment requires the assumptions that the minimum wage causes unemployment to increase in the economy, that it



TABLE 1  
Proportion of Earnings and of Nonsupervisory Workers  
Covered by the Federal Minimum Wage, 1947-1969<sup>1</sup>

Year	Basic minimum wage as a percent of <sup>2</sup>		Minimum wages as a percent of average hourly earnings weighted by industry total employment and proportion covered <sup>3</sup> private nonfarm	Minimum wages as a percent of average hourly earnings weighted by industry teenage employment and proportion covered <sup>4</sup> private nonfarm	Percent of non-supervisory workers in private nonfarm economy covered by FLSA
	Average hourly earnings private nonfarm	Total compensation per man-hour private nonfarm			
1947	35.4	31.3	20.3	(5)	62.5
1948	32.7	28.7	19.1	(5)	62.9
1949	31.4	27.9	18.0	(5)	61.9
1950 <sup>a</sup>	56.2	49.6	32.3	(5)	62.3
1951	51.7	45.5	30.1	(5)	62.5
1952	49.3	43.1	28.4	(5)	62.4
1953	46.6	40.8	26.9	(5)	62.7
1954	45.5	39.5	25.8	18.2	61.5
1955	43.4	38.1	24.8	17.6	61.3
1956 <sup>a</sup>	53.2	46.0	30.7	21.0	60.9
1957	52.9	43.4	29.8	20.2	60.8
1958	51.3	41.9	28.3	18.4	59.7
1959	49.5	40.1	27.3	18.1	59.7
1960	47.8	38.5	26.2	17.8	59.2
1961 <sup>a</sup>	49.1	40.9	28.3	21.0	62.1
1962	51.8	43.1	32.8	27.7	67.8
1963 <sup>a</sup>	51.9	42.9	32.5	27.1	67.4
1964	53.0	43.3	33.4	27.7	67.0
1965	51.0	41.8	32.5	27.1	67.1
1966	48.8	39.5	31.5	26.7	67.0
1967 <sup>a</sup>	53.8	41.5	39.2	36.9	80.4
1968 <sup>a</sup>	55.6	44.0	42.6	40.1	81.6
1969	52.6	41.8	41.2	(5)	81.4

<sup>1</sup> In years when the minimum wage changed, the rate used in the calculations was weighted by the number of months it was in effect. For example in 1968, \$1.40 was in effect 1 month and \$1.60 for 11 months, a weighted average rate of \$1.58.

<sup>2</sup> The basic minimum refers to the single rate provided under law prior to 1961 and, since 1961, to the rate applicable to previously covered workers.

<sup>3</sup> Calculated, as follows:

$$\sum_i \left[ \frac{E_i}{E_t} \left[ \left( \frac{MP_i}{AHE_i} \cdot CB_i \right) + \left( \frac{MN_i}{AHE_i} \cdot CN_i \right) \right] \right]$$

where:

E = payroll employment.

AHE = average hourly earnings.

MP = basic minimum wage.

MN = minimum wage for newly covered workers.

CB = proportion of nonsupervisory employees covered by the basic minimum.

CN = proportion of nonsupervisory employees covered by the rate applicable to newly covered workers.

i = major industry division (wholesale and retail trade treated as separate divisions).

t = total private nonfarm economy.

<sup>4</sup> Calculations are the same as in footnote 3 except that employment data refer to the 14-19 age group only. Employment data are not strictly comparable to that for all workers since it comes from household rather than payroll records and because government employment not classified as public administration is included in the other divisions; private households were excluded.

<sup>a</sup> Not available.

<sup>b</sup> Denotes years when basic minimum wage was changed. There were also changes for newly covered workers in 1964, 1965, and 1969.

especially causes inferior workers to be disemployed, and that teenagers are inferior to other workers. Intuitively, these assumptions are not bizarre.

Studies published in 1966 by Burns and by Friedman and Brozen strongly argued a causal relationship between minimum wages and teenage unemployment did exist.<sup>4</sup> The controversy stimulated a considerable number of studies, though providing far from a unanimous conclusion.

From the viewpoint of economic policy, any relationship between minimum wages and youth unemployment is very important. If in fact it exists, a significant social problem could be remedied or ameliorated through legislative action. At the direction of the Secretary of Labor, the Bureau of Labor Statistics, in conjunction with other parts of the Department of Labor and with university personnel, undertook a study of the problem.<sup>5</sup>

#### THE DEPARTMENT OF LABOR STUDY

##### *Econometric Analyses.*

The econometric studies undertaken to analyze experience in the United States used several approaches. The major thrust involved an examination of quarterly data for 1954 through 1968 for different age-sex-color groups within the teenage population. The dependent variables used were the unemployment *ratio* (unemployment divided by the civilian noninstitutional population) and the employment *ratio*.

The analysis controlled for the ratio of teenage males in the Armed Forces to population (except in the regressions for females), the ratio of teenage agricultural employment to population, the adult unemployment rate, the ratio of teenage to adult population, the school enrollment rate, and the minimum wage variable outlined in column 5 of table 2. Dummy variables were also used for the years 1965 to 1968 to measure the effects of Federal manpower programs and changes in the labor force questionnaire introduced in 1967.

In only 7 of the 16 equations did the regression indicate the expected inverse relationship between teenage employment and the

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<sup>4</sup> Arthur F. Burns, *The Management of Prosperity* (New York: Columbia U. P., 1966). Yale Brozen and Milton Friedman, *The Minimum Wage Rate* (Washington: The Free Society Association, 1966).

<sup>5</sup> More detail can be found in BLS Bulletin 1657.

minimum wage or the expected direct relationship between teenage unemployment and the minimum wage. Further, only in the two regressions involving white males and that for white females 16 to 17 years old and the employment ratio was the regression coefficient both "right" and also have a T-ratio of two or more.

Further studies using annual data for 1948 through 1968 for all teenagers, but a more limited set of independent variables, came to similar conclusions. While there is a significant relationship between minimum wages and youth unemployment where other variables are excluded, a look at the whole set of variables casts doubt upon the importance of minimum wages as an explanatory variable.

Additional work on multiple equation models and lagged equation models might be useful, though all may be confronted with the intractable problems of multicollinearity in the independent variable set.

### *The Longitudinal Study.*

The results of the time series analysis made it especially fortuitous that a "before and after" analysis could be made of the experience of an identical group of young males. The National Longitudinal Studies directed by Herbert Parnes at The Ohio State University<sup>6</sup> made possible tracing a sample of about 5,000 males 14 to 24 years of age from October-November 1966 to October-November 1967. Between those dates, the 1966 amendments went into effect, providing for broader coverage of FLSA, a minimum wage of \$1.40 for workers previously covered by the law, and a minimum of \$1 for newly covered workers.

The group was divided among those earning \$1.40 or more in 1966—and who could not have been directly affected by the FLSA changes—those earning \$1 to \$1.39, and those earning less than \$1. If minimum wages had an adverse effect, we would expect that the low-wage teenagers would have greater increases (or smaller decreases) in unemployment or in the amount of time spent out of the labor force than high-wage teenagers.

Among teenagers included in the sample, actual experience did not always correspond to expectations. The average number of

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<sup>6</sup> This study was carried out under contract with the Manpower Administration, U.S. Department of Labor.

weeks teenagers were unemployed declined *more* among the low-wage groups than high wage. Similarly, of those teenagers employed in the 1966 survey week, 5.3 percent of those who were earning less than \$1 were unemployed a year later compared to 6.5 percent of those who were earning \$1 to \$1.39 and 6.4 percent of those who were earning \$1.40 or more. On the other hand, the average number of weeks spent out of the labor force fell less (as theory would suggest) among the low wage than among the high-wage teenagers, and, similarly, a greater proportion of the low wage than of high-wage teenagers who were employed in 1966 were out of the labor force a year later.

Examination of data for various subgroups, such as those with limited education or no formal occupational training or employed in trade or services or different color-age groups, produced a similar mixed bag of results. While there was evidence to suggest that Negro males 15–17 years of age enrolled in school with limited labor market information and young students regardless of color employed as service workers had experienced adverse effects, there was no general pattern of adverse effects in the available data.

### *The Employers' View.*

A survey was conducted by the Bureau of Labor Statistics in ten metropolitan areas. Employers reported the minimum age or educational requirement for beginning jobs (if any), whether the requirements had been increased since 1966 and why, and the factors affecting their decision to hire teenagers. The survey indicated that most establishments had no minimum age or educational requirements for beginning jobs. Further, few employers had raised age or education qualifications between 1966 and 1969—in no instance as many as 8 percent. Among the small minority who had raised hiring requirements, increased cost of training and hiring was the most commonly cited reason. Minimum wage changes were the second most common reason.

Among the factors affecting employers' decisions to hire teenagers, the most frequently cited by employers were hazardous work order restrictions (for those under 18), the military draft (for those 18 and 19), and undependability and lack of training. In nine of the ten metropolitan areas a majority of the employers did not consider the minimum wage important in affecting their decisions. In the

average area, 16 percent of the employers thought the minimum wage very important in the case of teenagers under age 18, and 12 percent in the case of teenagers ages 18 and 19. Similarly, 63 percent thought the minimum wage not important in the case of younger teenagers and 69 percent in the case of those ages 18 and 19. Employers in smaller metropolitan areas were more inclined to regard the minimum wage as being important.

As a companion approach to evaluating employers' views, the U.S. Training and Employment Service conducted a survey of experience in local public employment offices in 23 areas. Among Employment Service Offices responding to the survey, the reasons rated as most important among difficulties in placing teenagers were (1) in the case of 16 and 17 year olds, legal restrictions on working conditions, employers believe teenagers unreliable, and employer hiring specifications with respect to age exclude teenagers; and (2) in the case of 18 and 19 year olds, the military draft, high labor turnover among teenagers, employer belief that teenagers are unreliable, and unwillingness of teenagers to accept wages offered.

The level of the minimum wage was not rated as an important reason for Employment Service difficulty in placing teenagers. However, 43 percent of the offices believed a lower minimum would spur the employment of 16 and 17 year olds, and 25 percent of the offices thought it would stimulate the employment of 18 and 19 year olds.

Some additional insight into the attitudes of employers towards teenagers was gained through a special survey of the full-time student and the learner certification programs under FLSA. Under these programs, employers certified by the Wage and Hour Division have the legal authority to hire youth at 85 percent of the minimum wage. Among these employers, however, few fully utilized their authority. In fact, 55 percent of the employers used less than half their authorized man-hours under the full-time student program and 79 percent under the learner program.

Aside from being already fully staffed or citing technical problems with the certification programs, the reasons most commonly cited by employers for not hiring youth at the subminimum rates were (1) in the case of the full-time student program, students were unwilling to work at subminimum rates or students were unsatisfactory workers and (2) in the learner program, experienced

workers were available or learners were not willing to work at special rates.

### *Wage Expectations*

Judging by employer response and local Employment Service Office experience, plus many informal comments, it is "common knowledge" that teenagers have "unrealistic" wage expectations. This issue is of special concern to us since it raises two questions: (1) are teenage wage expectations so high that they contribute to youth unemployment rates and (2) are the expectations affected by the legal minimum wage?

Relevant materials are available from the National Longitudinal Survey (NLS), mentioned above, the Urban Employment Surveys (UES), and special questions and tabulations available from the October 1969 Current Population Survey (CPS). According to the 1967 National Longitudinal Survey, the mean wage expected by unemployed teenage males in a given age-color grouping was less than their employed cohorts actually earned. However, the proportion of unemployed teenage males willing to work for less than \$1.40 (then the basic minimum wage) was less than the proportion actually receiving less than the minimum.

The UES reports covered poverty areas of six large cities. As in the case of the NLS, the UES indicated that the median wage expected by unemployed teenage boys and girls was less than that received by the employed. Also similar to the NLS, the UES surveys indicate smaller proportions of unemployed than employed teenagers willing to work for less than the Federal minimum wage (especially true of males in Chicago and New York poverty areas).

A sampler of the results provided by the October 1969 CPS is given in table 2.<sup>7</sup> At the time of the survey, the minimum wage was \$1.60, for persons covered by FLSA prior to 1966 and \$1.30 for persons recently brought under coverage of the law. A few relationships hold true consistently. First, in every comparison, the proportion of unemployed teenagers expecting more than the legal minimum of \$1.30 or \$1.60 is less than the proportion of employed teenagers getting that amount. Second,

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<sup>7</sup> A more comprehensive report on Teenagers and Earnings by Vera Perrella is forthcoming. This study was financed by the Manpower Administration of the U.S. Department of Labor.

the expectations of teenagers not currently in the labor market were somewhat less "realistic" than the unemployed, but still not bad compared to the employed. Third, there was a disproportionate number of unemployed teenagers who expected to receive slightly above the basic minimum (\$1.60 to \$1.74 group) compared to employed teenagers; this was even more true among the teenagers out-of-the-labor-force.

The available evidence does not strongly support the argument that the wage expectations of unemployed teenagers are unrealistic. Two points should, however, be noted. First, it could be argued that unemployed teenagers are inferior and their wage expectations *should* be significantly less than those who are employed. No definitive answer can be given to this, though it should be remembered that unemployed teenagers are a fluid rather than permanent pool of individuals. Second, the concentration of unemployed and

TABLE 2  
Hourly Rate of Pay for Those Employed and Rate of Pay  
Required to Induce Youth to Accept Employment or  
Enter the Labor Force, October 1969  
(Percent Distribution)

Group and labor force status	Less than \$1.30	\$1.30- 1.59	\$1.60 and more	\$2.00 and more	\$1.60 1.74
All persons, 16-19 years old					
Employed	16.8	16.5	66.7	29.4	22.0
Unemployed	19.5	24.2	56.3	12.2	29.4
Not in labor force	19.6	24.2	56.3	12.8	33.4
In school, 16-19 years old					
Employed	22.8	22.9	54.3	16.1	24.7
Unemployed	22.9	29.0	48.1	6.1	31.3
Not in labor force	20.2	25.9	53.9	11.3	32.6
Negroes, 16-19 years old					
Employed	17.1	16.9	66.0	27.8	24.1
Unemployed	13.8	28.3	57.9	11.9	27.0
Not in labor force	19.3	20.4	60.3	13.4	34.3
All persons, 16-17 years old					
Employed	28.3	22.9	48.8	12.4	25.1
Unemployed	27.4	30.1	42.5	3.0	27.4
Not in labor force	25.2	27.1	47.8	6.7	33.3
All persons, 18-19 years old					
Employed	9.0	12.1	78.8	40.8	19.8
Unemployed	11.6	18.5	69.8	20.9	31.3
Not in labor force	9.7	18.9	71.4	23.5	33.7

Source: Bureau of Labor Statistics

not-in-labor-force teenagers expecting wages at or slightly above the basic minimum *suggests* the possibility that the legal minimum may have affected expectations.

#### CONCLUSIONS

Youth unemployment remains a very real problem in the United States. Available studies do not provide adequate evidence that the Federal minimum wage has played an instrumental role in creating the problem in the past. It is, of course, impossible to establish a negative conclusion. Certainly there are hints of adverse effects in the evidence, and certainly the *possibility* that there have been significant adverse effects upon the unemployment of teenagers remains.

Additional research can and should be done. Certainly I no more than others in the research business would want to sound the death bell. I would, however, argue that enough has now been done that simple models which play with only the adult unemployment rate and the minimum wage as independent variables should be relegated to the graveyard. Certainly we are now at the point where we should require substantive new empirical evidence and much higher levels of analytic sophistication.

In retrospect, I would judge that the project sponsored by the Department of Labor was focused on the somewhat narrow, but more manageable problem, of the relationship between youth unemployment and minimum wages. The broader questions remain. What are the causes of high youth unemployment rates? What can be done about it? Future minimum wage policy may be relevant in answering the last question.



# TEENAGE UNEMPLOYMENT EFFECTS OF FEDERAL MINIMUM WAGES

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The purpose of this paper is to examine the impact of federal minimum wages on various categories of teenage workers. Orthodox economic theory implies that the unemployment effect of a minimum wage will depend on the elasticities of supply and demand, the extent to which the minimum wage is above the market clearing wage, and the ability of displaced workers to find employment elsewhere. On all counts teenage labor, particularly non-white teenagers, are more likely to be affected by minimum wage laws than other labor-force groups.

We have used multiple regression techniques to measure the unemployment effects of changes in the real minimum wage. Two models were used:

$$(1) \log U_i = \alpha_1 + \delta_1 \log U_c + \beta_1 \log X_c + \epsilon_1$$

$$(2) \log U_i = \alpha_2 + \delta_2 \log U_c + \beta_2 \log X_w + \epsilon_2$$

where  $U_i$  is the unemployment rate in the  $i$ th teenage labor force group;  $U_c$  is the civilian unemployment rate, included to take account of fluctuations in aggregate demand;  $X_c$  is the real minimum wage (the nominal minimum wage deflated by the Consumer Price Index); and  $X_w$  is the minimum wage deflated by the Wholesale Price Index. The coefficients  $\beta_1$  and  $\beta_2$  can be interpreted as the elasticities of unemployment with respect to changes in the real minimum wage for models 1 and 2 respectively.

The two models were estimated for each of seven classifications (listed in Table 1) using monthly BLS data on unemployment and prices. An inspection of the Durbin-Watson statistics revealed serious auto-correlation in the residuals. One adjustment using partial first differences<sup>1</sup> raises all of the Durbin-Watson statistics to acceptable levels.

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<sup>1</sup> Henri Theil and A. L. Nagar, "Testing the Independence of Regression Disturbances," *Journal of the American Statistical Association*, (December, 1961).

TABLE 1  
Variables and Symbols

Variables	Symbols
Unemployment Rates	
All civilian workers .....	$U_c$
All teens, age 14-19 .....	$U_1$
All white teens, age 14-19 .....	$U_2$
All non-white teens, age 14-19 .....	$U_3$
White male teens, age 14-19 .....	$U_4$
White female teens, age 14-19 .....	$U_5$
Non-white male teens, age 14-19 .....	$U_6$
Non-white female teens, age 14-19 .....	$U_7$

#### THE EXTENT OF UNEMPLOYMENT EFFECTS

For the period January, 1954—December, 1965, Table 2 lists the unemployment elasticities estimated for the two models. The most striking feature of these elasticities is their sign; they are all positive. This implies that increases in teenage unemployment in every category are associated with increases in the federal real minimum wage. As judged by conventional statistical tests (standard errors of regression coefficients, t-values,  $R^2$ , and Durbin-Watson statistics) the results are quite powerful.<sup>2</sup> Model 1 yields a slightly higher measure of the unemployment elasticity for non-white teenagers than Model 2. Model 2, however, yields slightly higher estimates of the unemployment elasticity for white teenagers than Model 1.

Intuitively for each model the size of the elasticities for all categories of teenage unemployment are consistent with each other. For example, in both models the unemployment elasticity for Non-White Teens is greater than that for All Teens while that for White Teens is less. This implies that changes in the federal minimum wage affect Non-White Teens more than White Teens which is what we would expect. In fact the impact on Non-White Teens is more than twice that on White Teens. Also the unemployment elasticity for White Teens is between that for Male White Teens

<sup>2</sup> Due to space limitations, test statistics, complete regression results (adjusted and unadjusted), and derivation of reduced forms were excluded. These are contained in a working paper, which is available from the authors on request.

and Female White Teens, which is to be expected. For both models the unemployment elasticities for Female White Teens are greater than the unemployment elasticities for Male White Teens. For Model 2 the unemployment elasticity for Non-White Teens is between the unemployment elasticities for Male Non-White Teens and Female Non-White Teens, which is to be expected. The unemployment elasticities for Female Non-White Teens are higher than for Male Non-White Teens using both models.

To gain an appreciation for the extent of the unemployment effect of changes in the real federal minimum wage we calculated the mean unemployment elasticity for each classification of teenage labor using the elasticities for the 2 models listed in Table 2. The means are also listed in Table 2. Using these means, it is interesting to compare the unemployment elasticities for the different classifications of teenage labor. In all cases the unemployment elasticity for male teenagers is lower than for females of the same race and the unemployment elasticity for Whites is lower than for Non-Whites of the same sex. This is consistent with plausible expectations as to the differential impact of minimum wages.

With respect now to the expected quantitative impact of a change in the minimum wage, consider the unemployment elasticity for All Teens, which is .409. This number means that for an increase in the Federal real minimum wage of 10% we would expect an increase in the unemployment rate for All Teens of 4.09% of the prevailing rate. In December, 1965, the unemployment rate for All Teens was 12.9, so if the minimum wage were raised 10% in this month we would expect the unemployment rate to increase initially by .53, due to this increase in the minimum wage. The new unemployment rate would then be 13.43 which is listed in Table 2. This calculation assumes that there is no change in the price level. Increases in the price level tend to erode the unemployment effect of changes in the minimum wage.

Based on the mean unemployment elasticities in Table 2, we have estimated the unemployment effects of increases in the federal real minimum wage as of December, 1965, for each Teenage Labor Force Classification. We have considered changes in the minimum wage of 1%, 10% and 100%. Since our elasticities apply only at the margin, the unemployment rates estimated on the basis of a 100% increase in the minimum wage are highly tentative. They

Table 2  
Unemployment Elasticity Coefficients with Respect to Changes in Real Minimum Wages, January, 1954—December, 1965

Teenage Labor Force Classification	Unemployment Elasticity Coefficients			Predicted Unemployment Rates Under Hypo- thetical Increase in Minimum Wage as of December, 1965			
	Model 1	Model 2	Mean	0%	1%	10%	100%
1. All Teens	.3607	.4574	.409	12.9	12.95	13.43	18.2
2. White Teens	.3012	.3789	.340	11.1	11.14	11.48	14.9
3. Non-White Teens	1.0253	1.0003	1.013	27.6	27.88	30.40	55.6
4. Male White Teens	.2629	.2801	.272	10.9	10.93	11.20	13.9
5. Female White Teens	.5240	.6054	.565	11.6	11.67	12.26	18.2
6. Male Non-White Teens	1.0505	.9682	1.009	23.1	23.33	25.43	46.4
7. Female Non-White Teens	1.1729	1.1066	1.140	34.5	34.89	38.43	73.8

are included only for the purpose of giving a general impression of the magnitudes involved.

Table 2 indicates that a 10% increase in the federal real minimum wage as of December, 1965, would raise the unemployment rate of All Teens from 12.90 to 13.43 or by .53. The unemployment rate of All Non-White Teens would increase by 2.80 while the unemployment rate for All White Teens would increase by only .38. Females would be affected more than males. The unemployment rate for Female White Teens would increase by .66 while the unemployment rate for Male White Teens would increase by .30. The unemployment rate for Female Non-White Teens would increase by 3.93 while the unemployment rate for Non-White Males would increase by 2.33. Table 2 shows similarly the unemployment effects we would expect from increasing the federal minimum wage by 1% or 100%.

### *The Lag Structure of Unemployment Effects*

In this section we investigate the unemployment elasticities under different assumptions concerning the lag of the effect. Separate estimates for models 1 and 2 are derived with real minimum wages lagged 0 months, 8 months, 16 months and 24 months. The unemployment elasticities for each classification of teenage labor, for each assumption on lags and for Models 1 and 2 are listed in Table 3. In Table 3, both models yield changes in the elasticities in the same direction as the lag increases, except for the change in lag from 0 to 8 months for Female White Teens; in this case for model 1 the unemployment elasticity increases while for model 2 it decreases slightly.

The unemployment elasticities for All Teens, White Teens, Male White Teens, and Male Non-White Teens increase as the lag is extended from 0 months to 8 months. The unemployment elasticity for Female Non-White Teens falls as the lag increases from 0 months to 8 months. The unemployment elasticities for All Teens, White Teens, Male White Teens, Female White Teens, and Female Non-White Teens increase as the lag is extended from 8 months to 16 months. The unemployment elasticities for Non-White Teens and Male Non-White Teens decrease as the lag is extended from 8 months to 16 months. The unemployment elasticities for Non-White Teens and Male Non-White Teens decrease as the

TABLE 3  
Unemployment Elasticity Coefficients with Respect to Changes in Real Minimum Wages, January, 1954--December, 1965

Teenage Labor Force Classification	Model 1 lag				Model 2 lag			
	0 mos.	8 mos.	16 mos.	24 mos.	0 mos.	8 mos.	16 mos.	24 mos.
1. All Teens	.3607	.4613	.4683	.4436	.4574	.5040	.5284	.5265
2. White Teens	.3012	.3707	.5072	.5150	.3789	.4685	.5203	.4786
3. Non-White Teens	1.0253	.9040	.5882	.7909	1.0003	.9186	.6913	.7853
4. Male White Teens	.2629	.3977	.4576	.3814	.2801	.3690	.4135	.3718
5. Female White Teens	.5240	.5428	.5860	.3395	.6054	.6037	.6566	.5280
6. Male Non-White Teens	1.0505	1.2640	.8741	.8128	.9682	1.1230	.8191	.7438
7. Female Non-White Teens	1.1729	.6738	.9156	1.1376	1.1066	.7793	1.0487	1.1296

lag is extended from 8 months to 16 months. The unemployment elasticities for All Teens, White Teens, Male White Teens and Female White Teens decrease as the lag is extended from 16 months to 24 months. The unemployment elasticity for Male Non-White Teens decreases as the lag is extended from 16 to 24 months. On the other hand the unemployment elasticities for Non-White Teens and Female Non-White Teens increases as the lag is extended from 16 to 24 months.

To determine more clearly the trends in the unemployment elasticities, as the length of the lag is increased the mean unemployment elasticities for each lag assumption are computed from Models 1 and 2, expressed in terms of a percentage of the 0 month lag value and plotted in Figure 1.

From Figure 1, we can see that the unemployment elasticities for All Teens, White Teens, Male White Teens, Female White Teens, and Male Non-White Teens have maximums. For All Teens, White Teens, Male White Teens and Female White Teens the peak comes after a 16 month lag. The decline in the unemployment elasticities after a 16 month lag is then gradual. It is however most abrupt for Female White Teens; less abrupt for Male White Teens and very gradual for All Teens. The unemployment elasticity for Male Non-White Teens reaches a maximum after an 8 month lag and then declines abruptly at first, then gradually.

The unemployment elasticity for Non-White Teens declines as the lag is lengthened to 16 months after which it rises again. The unemployment elasticity for Female Non-White Teens decreases rapidly as the lag is increased to 8 months. With further increases in the lag, the unemployment elasticity for Female Non-White Teens rises steadily. The remarkable feature of Figure 1 is that even after 2 years the unemployment effect of a change in the federal minimum wage is quite substantial for all classes and in some cases is greater than the immediate effect.

In terms of the immediate effect (as measured by the unemployment elasticity with a 0 month lag), after 2 years the unemployment effect of a change in the federal real minimum wage is 119% for All Teens, 163% for White Teens, 78% for Non-White Teens, 139% for Male White Teens, 77% for Female White Teens, 77% for Male Non-White Teens, 98% for Female Non-White Teens.

The general tendency for the elasticities of All Teens, White Teens, Male White Teens, and Female White Teens to rise as the lag is increased from 0 to 16 months indicates the delayed response pattern of employers in adjusting their factor proportions to a change in relative factor prices—specifically the quantity of teenage

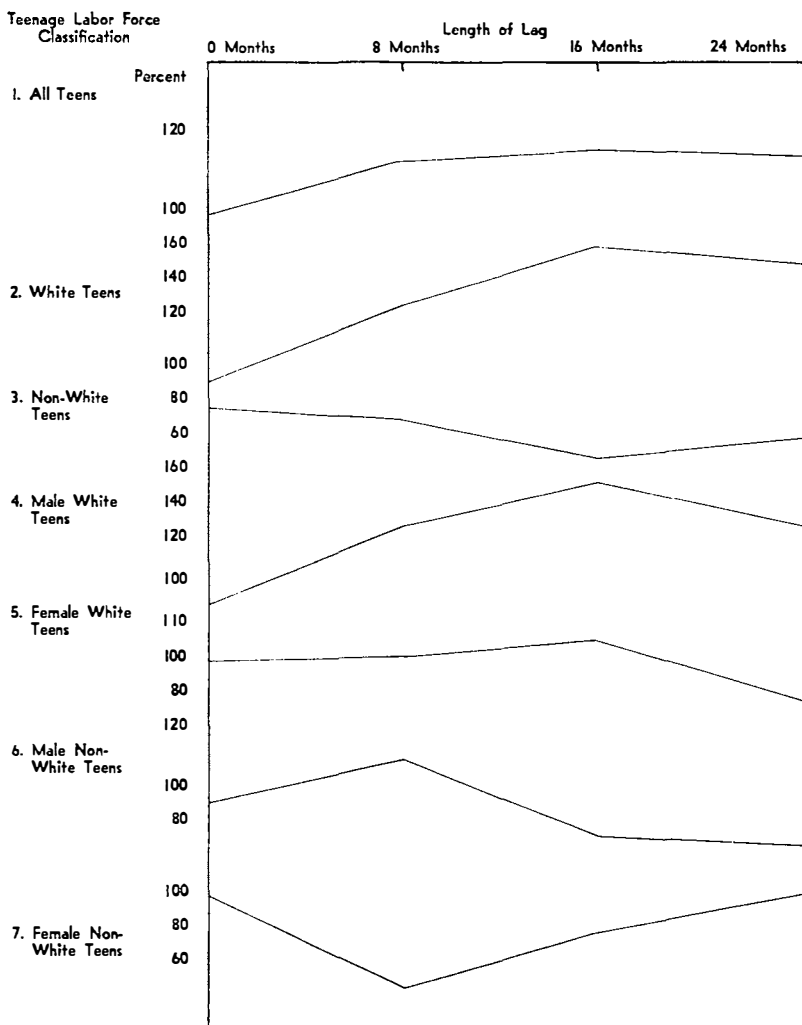


Figure 1. Lagged Mean Unemployment Elasticity Coefficients as a Percent of Unlagged Mean Unemployment Elasticity Coefficients.



labor hired. Most of the adjustment for these groups takes place within 16 months. The employees of Male Non-Whites appear to adjust more rapidly. Most of this adjustment takes place within 8 months.

Since we have taken account of price changes by using real minimum wages, the decreases in the elasticities after 16 months for All Teens, White Teens, Male White Teens, and Female White Teens and after 8 months for Male Non-White Teens reflect productivity increases. However, the rate of decline in the elasticities after 16 months indicates that significant unemployment effects still persist for a considerable time after 24 months. Extrapolating the rate of decline in the elasticities between 16 and 24 month lags would suggest that productivity increases would eliminate the unemployment effects of a minimum wage increase, but only after a considerable period of time. On the basis of these computations, from the time of a minimum wage change it would take 341 months to eliminate the unemployment effect of a change in the minimum wage for All Teens, 241 months for White Teens, 77 months for Male White Teens, 43 months for Female White Teens, 112 months for Male Non-White Teens. Because the elasticities for Non-White Teens and Female Non-White Teens do not decrease when the lag is lengthened from 16–24 months, we cannot extrapolate for these groups. For these groups, the times involved might be even larger than those mentioned. These periods assume a zero rate of inflation. A high rate of inflation could reduce these periods substantially.

### *The Unemployment Effects Through Time*

In this section, we investigate the unemployment elasticities over different time periods. The time periods chosen are (1) January, 1954–September, 1961, (2) January, 1954–September, 1963, and (3) January, 1954–December, 1965. The summarized results are listed in Table 4. In Table 4, except for the unemployment elasticity of Non-White Teens for Model 2 and Male Non-White Teens for Models 1 and 2, the unemployment elasticities rise steadily from periods (1) to (3). For Non-White Teens using Model 2 the unemployment elasticity is highest in period (2) then falls off slightly. Also for Male Non-White Teens the unemployment elasticity as estimated by Models 1 and 2 is highest in period (2) then falls off slightly.

In the interest of simplifying our results, we have calculated the means of the elasticities for the Models classified by period and the type of teenage labor, expressed them as percentages of their period (1) values and plotted them in Figure 2. From Figure 2 we can see that except for the unemployment elasticity of Male Non-White Teens the unemployment elasticities rise steadily from periods (1) to (3).

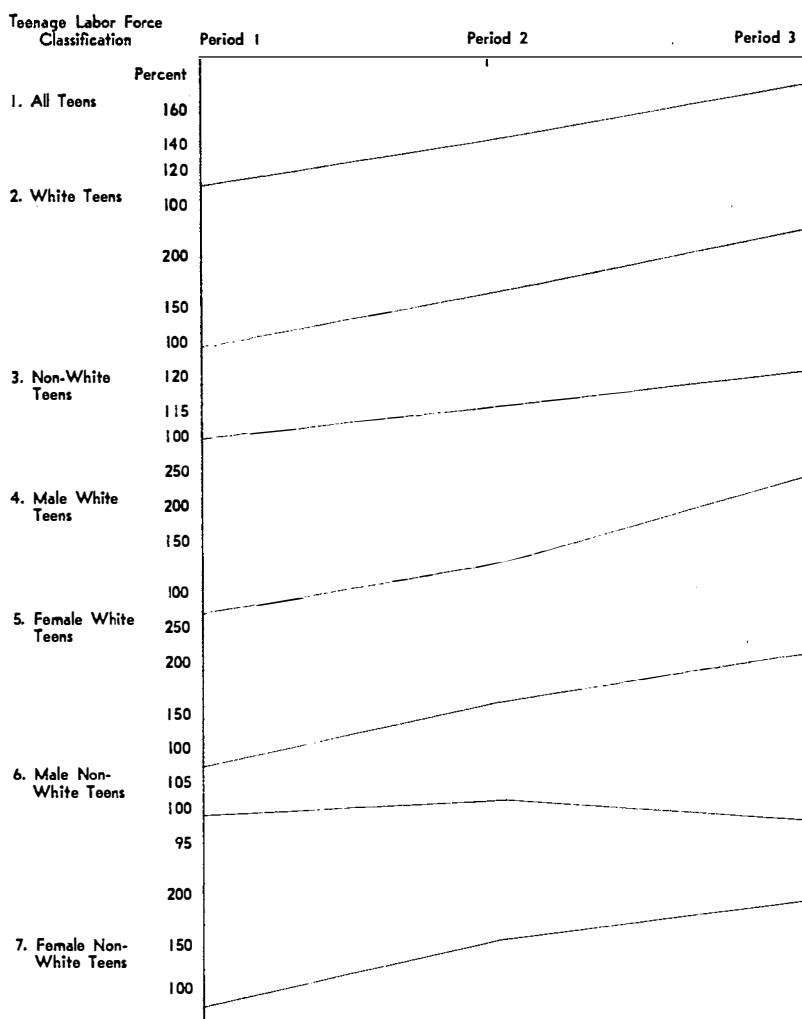


Figure 2. Mean Unemployment Elasticity Coefficients Expressed as Percentages of Period (1) Levels.

TABLE 4  
Unemployment Elasticity Coefficients with Respect to Changes  
in Real Minimum Wages

Teenage Labor Force Classification	Model 1			Model 2		
	(1)	(2)	(3)	(1)	(2)	(3)
	Jan '54- Sept '61	Jan '54- Sept '63	Jan '54- Dec '65	Jan '54- Sept '61	Jan '54- Sept '63	Jan '54- Dec '65
1. All Teens	.222	.305	.361	.272	.358	.457
2. White Teens	.141	.218	.301	.179	.259	.379
3. Non-White Teens	.805	.983	1.025	.891	1.007	1.000
4. Male White Teens	.110	.158	.263	.127	.179	.280
5. Female White Teens	.231	.400	.524	.302	.457	.605
6. Male Non-White Teens	.971	1.056	1.051	1.079	1.032	.968
7. Female Non-White	.586	.959	1.173	.598	.969	1.107

#### CONCLUSION

We feel that the results of our study are unambiguous. Increases in the federal minimum wage cause unemployment among teenagers; the effects tend to persist for considerable periods of time and seem to be strengthening as coverage is increased and as enforcement becomes more rigorous. To the extent that a minimum wage creates unemployment among minority group teenagers, it inevitably will exacerbate the social unrest in Urban Ghettos. With the preceding discussion in mind, the authors suggest that serious consideration be given to reducing, or removing, the federal minimum wage for teenagers.

## MINIMUM WAGES AND YOUTH EMPLOYMENT

DANIEL H. KRUGER  
*Michigan State University*

In 1969 there were 853,000 teenagers 16-19 years of age unemployed.<sup>1</sup> U.S. Department of Labor data show the following rates of teenage unemployment for 1969.<sup>2</sup>

Age	Male	Female	White		Negro and other races	
			Male	Female	Male	Female
16 and 17	13.8	15.5	12.5	13.8	24.7	31.2
18 and 19	9.4	11.8	7.9	10.0	19.0	25.7

As recently as November 1970, teenage unemployment was 17.5 percent while the overall unemployment rate was 5.8 percent. In the decade of the 1960's, there were years in which the annual unemployment rate of teenagers was higher than in 1969, e.g., 1962, 1963, 1964, and 1965. Nonetheless, the current high rate of teenage unemployment has stimulated discussion as to its causes. The U.S. Department of Labor has been perhaps the prime stimulator of public discussion of teenage unemployment, especially the impact of the minimum wages—both federal and state, on teenage employment and unemployment. This interest is to be expected in view of the increasing responsibilities for manpower development and utilization which the Congress has assigned to the Department of Labor through legislation since 1962. Teenagers represent an important segment of the labor force.

Teenagers in 1969 accounted for 6,971,000 out of a civilian labor force of 80.7 million, or 8.6 percent. In 1947 there were 4,223,00 out of a civilian labor force of 59.4 million or 7.1 percent. Between 1947 and 1969, teenagers in the civilian labor force increased 61.3 percent whereas the total labor force increased by 35.6 percent.

<sup>1</sup> United States Department of Labor, *Manpower Report of the President*, Transmitted to the Congress, March 1970.

<sup>2</sup> *Ibid.*

Earlier the teenage unemployment rate in 1969 was cited. Another way to examine this unemployment rate is to compare it with the unemployment rate for adults, i.e., those 25 years and older. The gap between youth and adult unemployment rates has been widening. In 1960, the youth unemployment rate was 3.3 times the adult unemployment rate; in 1964 it was 4.3 times higher. In 1969 it was 5.5 times higher than the adult rate.

When the data are differentiated by sex and color, the dimensions of the youth unemployment problem are sharpened significantly. For example, the unemployment rate of young males in 1969 was 6.4 times higher than the rate for adult males. Young females in 1969 had an unemployment rate 4.4 times higher than female adults. Young black and other minority males had a rate 6.9 times higher than adult black and other minority males. The young female minority had a rate 5.6 times higher than the adult female minority.

In analyzing employment and unemployment of teenagers, it is necessary to examine the nature of the youth labor market. There are three distinct youth labor markets, each with its own characteristics. One is for those youth seeking full time year round employment. It could be called the "permanent" market. The second type of youth labor market is for those youth seeking temporary jobs. This is the transient market in which youth are in and out of employment for varying lengths of time.

In the "permanent" youth labor market youth are looking for jobs which have some degree of permanency. Job applicants look for work more or less in line with some kind of vocational objective. There are selectivity factors operating in this market. Applicants undoubtedly give some consideration to type of work, social status of job, pay, hours, fringe benefits and promotional prospects. They may take a job in this market on a temporary basis, but because of a variety of circumstances, the job may become "permanent." For example, the individual once acquiring seniority may be reluctant to leave the permanent market, especially if alternative employment opportunities are not as attractive.

The transient youth labor market attracts students and other young workers with a loose attachment to the labor market. They may have other goals, but are in need of a job which can produce income to finance a specific objective, e.g., buy clothes, a car, finance a trip or their education. Undoubtedly some work in order to have spending money. There are also selectivity factors operating

in this kind of market, but they are quite different in nature from those operating in the "permanent" youth labor market. Flexibility of hours is a consideration, especially if the young worker is also a student or a young mother with small children. Ease of access to the job is another consideration, especially if the individual does not have access to a car or public transportation is either not available or is not convenient. Transient young workers are probably less concerned with the social status of a given job because they know that the particular job which they may get is only temporary. They, therefore, are willing to take low status jobs. They probably do not examine closely the fringe benefits offered by the prospective employer. The pay, while important for the obtainment of their primary goals or objectives, is perhaps not as important as it is for individuals in the permanent youth labor market.

There is another aspect to the transient youth labor market which affects both employment and unemployment. Those 16 and 17 years old are living at home and are probably under parental control or influence. In urban areas, parents may not want their children to take jobs in the downtown area, especially if the jobs involve being out after dark. Thus, the specific geographical labor market in which they seek employment may be restricted in terms of available job opportunities. Their parents may want or permit their children to work, but only in an area nearby to their home. This type of young worker, therefore, looks for work in an area with limited possibilities. In looking for a job, however, he is counted in the labor force and, thus, is unemployed.

There is another type of youth labor market which is neither "permanent" nor transient. In this labor market the young workers seek a "regular part time or full time job" while going to school. The job is needed either to pay tuition and buy books or to contribute to the family income. The individual is not interested in a "temporary" job, i.e., in and out for short periods of time. This intermediate labor market could be described as a "mini-permanent" labor market. He needs a job for a specific time period, i.e., until he finishes school, either high school or college. It is this time factor which distinguishes this type of labor market from the other two types.

The existence of at least three types of youth labor markets underscore that youth unemployment has many faces. The black male or female in the urban center would appear to have a more

serious unemployment problem than a white male or female youth living in a suburban community. Both are seeking employment, and both are unemployed. The degree of need for a job of the two groups, however, may not be the same. The black youth may need a job to contribute to family income to buy food and shelter. The white youth may need a job to finance his education or a car. The connotation of unemployment for the two groups is not the same. Unemployment is a "bad sounding" word which normally signifies deprivation, loss of regular income and hardship. This mental picture does not apply to all youth unemployment.

The existence of the three types of youth labor markets and the many faces of youth unemployment suggest that there are many variables affecting youth employment and unemployment. Some of these variables include in addition to age: sex, race, family income, marital status, general level of economic activity, i.e., whether high or low rates of unemployment, location of individual, whether he lives in an urban or rural area and has access to other alternatives.

The access to other alternatives requires additional comment. Youth enrolled in the Job Corps and Neighborhood Youth Corps are counted as being employed and not as unemployed. In the absence of such programs, the question could be raised as to the labor force status of these youth: would they be unemployed? Thus the Federal Manpower programs provide an alternative to unemployment. Another factor possibly affecting youth unemployment is the area in which he resides. For example, it has been hypothesized that the school dropout rate in the upper peninsula of Michigan is lower than in an urban area because of the lack or scarcity of possible employment opportunities. The exposure to possible alternative opportunities may result in youth leaving school to try their luck, whereas in an area with limited alternatives youth may stay in school. This condition can affect youth unemployment.

The teenage labor force is highly elastic to increases in teenage employment. In the 1960's, as many teenagers found jobs, this stimulated even more teenagers to enter the labor market. They felt that they could find employment. As more entered, their unemployment rate increased.

In addition to these variables previously cited, some of which are independent and some dependent, which affect youth unemployment and employment, there is possible effect of the minimum wage. The technical problem is to isolate this effect. Various studies have

been conducted in an effort to estimate the effect of minimum wages on youth employment and unemployment. The U.S. Department of Labor in its study, *Youth Unemployment and Minimum Wages*, points out: "The most important—and at the same time discouraging—conclusion to emerge from available analysis is that they do not permit confident conclusions about the effect of minimum wage laws upon the employment experience of teenagers."<sup>3</sup> The measures used to quantify the effect are not statistically significant at conventional levels. It just may be impossible to quantify the effect in a single equation regression.

An effort was made to refine the model of minimum wages and youth unemployment in the U.S. Department of Labor study cited above, which is the most comprehensive study to date. Using a single equation regression analysis we were not able to obtain more conclusive results.

Isolating the effect of the minimum wage on teenage unemployment represents a very small fish in a very large net. The minimum wage is but one of many independent and dependent variables. With more detailed labor market data on teenagers and a better understanding of the relationships between the variables, there may be a better possibility of isolating the effect of the minimum wage. If a full information model of the youth labor markets with all the variables specified and run simultaneously could be developed, it could demonstrate that quantitative and econometrical techniques could be used to solve such a social issue conclusively. At the moment, however, this seems highly unlikely in view of the present status of labor market data on youth. Although the evidence is not confidently conclusive, this is not to say that minimum wage laws have no effect on youth employment and unemployment. They probably do have some effect, exactly how much of an effect is speculative. The U.S. Department of Labor study, however, notes that, "the most important factor explaining changes in teenage employment and unemployment has been general business conditions as measured by the adult unemployment rate."<sup>4</sup>

Wage costs are important, and employers do analyze these costs. Employers do hire youth at the going minimum wage. The charac-

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<sup>3</sup> United States Department of Labor, *Youth Unemployment and Minimum Wages*, Bulletin 1657 (Bureau of Labor Statistics), 1970.

<sup>4</sup> *Ibid.*, p. 45.



teristics of those who are hired are not known. It would seem that employers hire youth on a selective basis. For example, employers would probably hire a young married worker over a single youth because experience has shown that young married workers have less turnover than do single young workers. Grooming is undoubtedly another consideration of employers, especially at the present time when apparently large numbers of young people are wearing beards, beads and blue jeans. Employers may not be willing, for whatever reason, to hire such young workers, even at the minimum wage, especially in view of the wide discrepancy in dress mores between the young and adult workers.

If an employer needs additional workers, he hires them even at the going minimum wage. Whether he would hire more than he actually needs because of a lower wage is not known. Additional workers represent additional costs over and above the basic wage rate. For example, additional workers means additional costs for workmen's compensation, unemployment insurance and social security employer contributions plus employee benefits normally provided by the employer. Of particular significance is the cost of insurance, especially hospitalization and medical. All these items add to the basic wage rate paid by the employer. It is becoming increasingly expensive to add additional workers. This is one reason why employers work their labor forces overtime; it appears to be less expensive than hiring new workers.

Employers use the argument that young workers are inexperienced and may not be worth the going minimum wage. The minimum wage laws provide flexibility for special circumstances. There are special provisions for inexperienced workers, learners and students who, by reason of their inexperience, might not be able to get work if the employer had to pay the minimum rate. Under these laws employers can hire such workers below the basic minimum subject to such limitations as to number or proportion of covered employees, occupation and period of training. Thus, there is in fact a two tier minimum. The surprising fact, as indicated by the U.S. Department of Labor study is that only 42 percent of the 36 million man hours authorized at 85 percent of the statutory minimum wage under the Federal Fair Labor Standards Act were used during the period May 1, 1968 to April 30, 1969.<sup>5</sup> Establishments in only 11 enter-

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<sup>5</sup> *Ibid.*, p. 107.

prises accounted for half of the 15 million man hours used to employ full time students at subminimum rates.<sup>6</sup> These data suggest that employers are not taking full advantage of the subminimum wage rates as provided by law to hire young workers.

To encourage employers to employ more full time students the certification procedures of this Act are being simplified. Under present procedures, before employing full time students at subminimum rates, an employer must submit an application which, among other things, establishes his base year experience, and thereafter be issued a certificate authorizing the special wage rates. The new proposal would permit an employer to employ full time students at not less than 85 percent of the minimum wage for a total number of hours up to 5 percent of the total hours for all his employees in any calendar or fiscal month, without having to make application.<sup>7</sup> Under this proposal, any such employer could employ at least one full time student at subminimum rates.<sup>8</sup>

In summary, it is extremely difficult to isolate the impact of the minimum wage on youth employment. The minimum wage is but one of many variables, both independent and dependent, which affect youth employment and unemployment. Moreover, there are at least three distinct types of youth labor markets, each with its own characteristics, which complicates the analysis. Then there are the young workers themselves with different characteristics, goals and motivation, all of which affect youth unemployment.

The three types of youth labor market and the many faces of youth unemployment underscore the need for a series of solutions designed to alleviate the problems of youth unemployment. Both the public and private sectors must be involved in these solutions.

A brief listing of the solutions would include the following.

- Improved school vocational programs would provide youth workers with skills to compete realistically in the labor market
- More effective educational programs in schools would tend to minimize school dropouts

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<sup>6</sup> *Ibid.*, p. 107.

<sup>7</sup> *Black News Digest*, U.S. Department of Labor, Dated Week of November 16, 1970, "Simplified Procedures Prepared by Labor Department for Employment of Full-time Students."

<sup>8</sup> *Ibid.*

- Improved counseling and guidance in the junior and senior high schools would enable young workers to make realistic vocational choices
- Federal manpower programs should be expanded to provide more training slots
- The MDTA training programs should be made a viable alternative to the regular school program
- The regulations of MDTA should be changed to permit school dropouts to participate as soon as they drop out of school. Current regulations state that a school dropout has to wait one year before he can participate in these programs.
- There is need for better labor market information on youth, especially in the “permanent” labor market. Perhaps the 16 and 17 year old youth could be excluded in the calculation of the unemployment rates. This would give a clearer picture of the dimensions of youth unemployment
- There is need for more employer involvement in work study programs which would enable students to make the transition from school to work
- Employers should be encouraged to make more use of the Fair Labor Standards Act certification which permits payment of a subminimum rate for full time students
- There is need for a change in the nation’s monetary and fiscal policies which will stimulate growth and employment

Lastly, the United States must address itself more conscientiously to the problems of youth employment and unemployment. We can learn from the experience of other western countries in dealing with the employment problems of youth.<sup>9</sup>

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<sup>9</sup> See for example: United States Department of Labor, *Transition From School to Work in Selected Countries*, (Bureau of Labor Statistics), August 1969.

## DISCUSSION

ARNOLD M. KATZ

*University of Pittsburgh*

If the papers today are any representative sample—and I believe they are—we seem hopelessly split on the minimum wage question. Consider this sampling of views: Gavett and Kruger on one hand believe that minimum wages have not “played an instrumental role” or “they are a very small fish in a very large net.” Adie and Chapin on the other hand argue that minimum wage laws have had “far-reaching effects on the labor force and social problems.” Since, in the brief time allotted to a discussant, one can hardly hope to make peace in such a divided household I shall focus on one or two of what I see as the principal issues. Given that there is such disagreement over what have been the employment and unemployment effects of minimum wages for teenagers, should one choose amongst the conflicting estimates? On this question, I wish to take exception to what I see as the implicit position of the Gavett and Kruger papers. Secondly, how does our inability to estimate these employment and unemployment effects reliably really bear on the policy implications of the minimum wage question? On this point, I think that we may have overexaggerated the importance of our uncertainties.

First, as regards the statistical issues. I interpret the Gavett-Kruger position to be that we have done so poorly in measuring the effects of minimum wages because this factor is only one of a multitude of factors working simultaneously and that to do the job better we will need more sophisticated analytical approaches. Gavett, for example, reviews the careful study of Hy Kaitz showing how minimum wage variables which were significant in simple models seem to lose most of their explanatory power when additional variables are added. Kruger on the other hand speaks hopefully of the possibilities of a full information model. While it may seem strange to take exception to these observations, I think that it is important to note that analytic sophistication is not necessarily equivalent to adding variables. Also that there are many circumstances (and the minimum wage question may be one of these) when a good set of reduced form equations with a few exogeneous variables will

do. It can very well turn out that full information about all of the parameters of the underlying economic structure of the labor market is just not worth the costs.

From my point of view, what might help most to clear up the current confusion would be for all researchers to accept the discipline of specifying the models from which their predictive equations are derived. As I see it, this is a good deal harder the further one strays from traditional labor market models. As I read the results of recent research, the predictive equations which show that minimum wages have significant employment and unemployment effects can usually be related back to accepted economic structures. The predictive equations which find doubtful employment and unemployment effects seem to me much more eclectic and unclear why one particular empirical specification has been chosen over another.

This really brings us to the Adie and Chapin paper which Gavett criticizes implicitly when he remarks "enough has now been done that simple models with only the adult unemployment rate and the minimum wage as independent variables should be relegated to the graveyard." I cannot agree with this. I think the Adie-Chapin paper makes some useful contributions to our knowledge of the lags in minimum wage effects and adds to our meager store of knowledge about their effects for nonwhite youth. But most important, while the approach is simple—probably too simple—it has been well-organized and craftsmanlike. An interested researcher can pick up easily right where they have left off adding a complication at a time to determine just how much more complex a picture of the labor market is really needed, because they have been so clear about their underlying assumptions.

It is probably clear that I have a penchant for order—maybe of a narrow-minded kind—which explains why I cannot tally up the conflicting results in an unweighted fashion. It seems to me that where the minimum wage hypothesis has been tested on its own terms, it has found a remarkable degree of support in the available evidence. I do not think that any of us can really reserve judgment in these matters for to do so is tantamount to accepting the hypothesis that minimum wages do not matter, and I do not believe the evidence appropriately weighted really points that way.

And now to the policy question. Here I have been interested in Tom Gavett's observations on the restrictive focus of the B.L.S.

study. I am not sure that one needs a more complete diagnosis of the teenage unemployment problem to make up one's mind what ought to be done—at least in basic principle—about the minimum wage for teenagers. Policy has always and will probably continue always to be made on the basis of imperfect information. What is critical are the costs and benefits of a particular policy. The B.L.S. report devoted the bulk of its resources towards emphasizing the disagreements over the costs of leaving the minimum wage laws as is, without giving equal time to the equally wide disagreements over the benefits. While we may have our differences over how much *good* it will do, we need to give more thought to the possible *harm* from modifying the minimum wage laws as they apply to teenagers. This seems to me a comparatively minor policy change whose costs would be well worth the risks. The real harm, of course, would be to stop at this, ignoring other measures that could be taken to reduce teenage unemployment. But I suspect that very few of us would really want to settle for that.

## DISCUSSION

ROBERT M. FEARN  
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It is obviously impossible to give each of these papers the detailed attention it deserves in the 10 minutes allotted to each discussant. Instead of commenting on each paper in turn, therefore, I will organize my remarks around several aspects of the teenage unemployment inquiry which are faced, more or less successfully, by all researchers in this area of investigation. Although the results of other studies will be introduced wherever appropriate, particular attention will be given to the three papers before us this afternoon.

The specific aspects or issues that I will touch upon are the following:

1. The somewhat unique nature of the teenage labor market.
2. The unemployment ratio as a dependent variable in contrast to the unemployment rate.
3. The effects of minimum wage levels in contrast to the effects of increases in minimum wages.
4. Money and real wages, and finally.
5. A few assorted comments on changes in coverage and lags in responses.

First, let me commend Professor Kruger for the attention he gives to the unique features of the teenage labor market. As pointed out by Kruger and by Kalachek and others,<sup>1</sup> the teenage (and the entire youth) labor market is one in which school status, family structure, family income, and the like imply very different sets of employment desires among various subgroups of the population. The distinctions between the in-school and the out-of-school group appear to me to be particularly important. Moreover, the responsiveness of teenage labor force participation to employment opportunities noted by Kruger requires that we investigate all the dimensions of teenage labor force behavior when we seek to identify the impact of minimum wages and that we interpret our regression results with an awareness of the flexibility of the labor force margin

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<sup>1</sup> Edward Kalachek, "Determinants of Teenage Employment," *Journal of Human Resources* IV, No. 1 (winter, 1969), pp. 1-21; Jacob Mincer, "Labor Force Participation and Unemployment: A Review of Recent Evidence," *Prosperity and Unemployment* by R. A. and M. S. Gordon, eds. (New York: John Wiley & Sons, 1966), pp. 73-126.

for this age group.<sup>2</sup> In my view, neither the Gavett nor the Chapin-Adie paper gives sufficient attention to the differing response pattern among the various educational and other subgroups in the teenage population. Part of this neglect, I'm sure, results from inadequate or insufficient data—particularly on school enrollment patterns. The Ohio State longitudinal study cited by Gavett is a step in the right direction—although a more rigorously specified model is needed for such work.

If—following Kruger's lead—one emphasizes the sensitivity of labor force participation to employment, one is led to a particular interpretation of the unemployment ratio—the dependent variable emphasized by Tom Gavett and by BLS Bulletin No. 1657.<sup>3</sup> Note that the unemployment ratio includes all minimum wage induced shifts in labor force participation in its denominator—thereby masking some of the effects of minimum wages on teenage behavior. By contrast, the unemployment rate picks up both the increase in the number unemployed and the reduction in the size of the labor force—if any—occasioned by changes in minimum wages. Therefore, I don't find it at all surprising that Chapin and Adie, Moore, Easley and Fearn, Brozen, Burns, and Scully find larger and more significant effects using unemployment rates that does the BLS study, which uses unemployment ratios.<sup>4</sup> By looking at the labor force participation equations in Bulletin 1657—not reported by Gavett in his paper today, one can reconcile the results of the two approaches. These BLS results show the labor force ratio among white males and females to be negatively and often significantly related to the minimum wage variable. The negative response is much less pronounced among nonwhite males—many of whose family circumstances and school status, I would argue, would make them less likely to opt out of the labor force when faced by wage-induced limitations in employment opportunities. This differential

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<sup>2</sup> It was just such an awareness of labor force flexibility that led W. G. Bowen and T. A. Finegan to their interesting reconciliation of their results and mine on the elasticity of teenage labor force participation with respect to wages. That reconciliation implied a sizeable discouraged worker effect induced by downward rigid wage levels above the equilibrium level. See W. G. Bowen and T. A. Finegan, *The Economics of Labor Force Participation* (Princeton: Princeton University Press, 1969), pp. 438-440.

<sup>3</sup> Bureau of Labor Statistics, *Youth Unemployment and Minimum Wages*, U.S. Department of Labor Bulletin 1957, Government Printing Office, Washington, D.C., 1970.

<sup>4</sup> See Bulletin 1657 for a brief description of each of the published and unpublished studies.



pattern of adjustment is just what I would expect and what I believe the BLS study and most of the other studies suggest.

Let me discuss now the influence of an existing effective minimum in contrast to the influence of a changing minimum wage. Some studies—including the BLS study and Professor Hugh Folk's study<sup>5</sup>—have traced part of the growth in teenage unemployment to the rapid growth of the teenage population. Economic theory suggests, however, that increases in the availability of particular inputs will lower the relative price of those inputs, not create unemployment—unless, of course, the market price or wage is downward rigid. Sequential increases in minimum wages will only exacerbate the situation unless such increases are obsoleted by rising prices and/or increasing productivity. Thus, economic theory suggests that the coefficients on relative population growth variables may also be related to existing wage minimums.<sup>6</sup> This interpretation contrasts sharply with the usual one. The excess supply formulation used by Chapin and Adie captures both the influence of existing minimums and of increases in minimums. As such, it is a particularly useful approach despite the fact that it does not permit direct estimations of the elasticities of demand and supply.

Chapin and Adie also deserve commendation for conducting their analysis in real terms. In principle, it is real wages which are relevant both to prospective employers and employees. Moreover, the Chapin-Adie approach takes account of the erosion of effects due to rising price levels by building the price level into the wage variable.

Chapin and Adie, however, seem not to be explicitly concerned with the changing coverage of the various minima. This lack of concern is in sharp contrast to the Gavett-BLS and Kruger approaches. Indeed, it is difficult to tell just how the real minimum wage was specified by Chapin and Adie for the period from September 1961 to the present during which several minimums were in effect for different industrial sectors. As suggested by the Easley-Fearn study and by my remarks above, extension of coverage to retail trade and other service sectors in 1961 may have sharply affected white, in-school teenagers in contrast to much smaller

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<sup>5</sup> Hugh Folk, "The Problem of Youth Unemployment" in *The Transition from School to Work* (Princeton: Princeton University Press, 1968), pp. 76-107.

<sup>6</sup> With a deep bow to Melvin Reder, I hasten to add that downward wage rigidity is not related solely to statutory minimums.

effects among blacks and/or teenage school dropouts. Detailed examination of the coverage dimension so prominent in Kruger's paper and in the BLS study would provide addition depth to Chapin's and Adie's work—particularly for section III.

With respect to lagged adjustments, suffice it to say that Chapin's and Adie's experimentation was a useful addition to our knowledge. Their conclusions concerning the lasting effects of real minimums over time appear to be roughly consistent with Moore's results and with the "piling up" of the coefficients on the minimum wage dummies in the Easley-Fearn study.<sup>7</sup> Full reconciliation is difficult since Moore and Easley-Fearn used money-wage related variables.

Let me conclude by noting that I find considerable similarity in the results of most of the recent studies—including those of Chapin and Adie and of the BLS—when their regression results are interpreted in the light of economic theory and with a view toward the unique characteristics of the teenage labor market. Moreover, nothing in the BLS or the Chapin-Adie study, interpreted in this way, contradicts the elasticities of substitution of younger for older persons found by Kalachek and by Kusters and Welch.<sup>8</sup> Thus, as I see it, the evidence from regression analysis to date lends considerable empirical support to our theoretical presumptions concerning the existence and the direction of effects among teenagers. Although these effects are more complex than originally presumed by many researchers—involving a flexible labor force margin and differential responses among various population subgroups—and although we don't have all the magnitudes and lags fully measured, the directions of the differential effects seem clear. I hope that the desire for further study expressed by Gavett and Kruger—a desire which I share—will not become an excuse for further delay in formulating an appropriate legislative remedy.<sup>9</sup>

Thank you.

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<sup>7</sup> Thomas G. Moore, "The Effect of Minimum Wages on Employment," Unpublished paper, Council of Economic Advisors, Washington, D.C., 1969; James E. Easley and Robert M. Fearn, "Minimum Wages and Unemployment of Teenagers," Unpublished paper, North Carolina State University, 1969.

<sup>8</sup> Edward Kalachek, *op. cit.*; Marvin Kusters and Finis Welch, "The Distributional Incidence of Cyclical Fluctuations and the Minimum Wage," Unpublished paper, Council of Economic Advisors and National Bureau of Economic Research, 1970.

<sup>9</sup> The timing of legislative action and some interesting ancillary questions concerning the dual role of young people at school and at work are carefully considered by Juanita M. Kreps, "Youth Unemployment and Minimum Wages: Some Further Questions," *Nebraska Journal of Economics and Business*, Forthcoming.

## DISCUSSION

FINIS WELCH

NBER

I will confine most of my remarks to the Chapin-Adie paper. I agree with Kruger that analyses of teenage employment data should make some kind of adjustment for school attendance or at least the amount of time spent on-the-job since part-time work is important. Unfortunately, the schooling data are hard to match with the unemployment data so Kruger's comments might better be directed toward the employment statistics of BLS. Gavett, in my opinion, has provided a pretty good overview of the problem. His observation that youth *employment* has increased relative to total employment during a period of rising youth unemployment rates is important. I think it is incumbent on any analyst of the effects of minimum wages on youth to consider the employment as well as the unemployment phenomenon. I disagree that conventional theory is unclear about the effects of minimum wages, but only in terms of the semantics. Certainly as "theory" has conventionally applied to minimum wage analysis, the predictions are unclear. A theoretical analysis of the implications of minimum wages that includes the effects of uneven coverage and the "state of the economy" is of first-order importance. It is not that theory has failed, but that in many cases it has not even been applied.

One of Gavett's main purposes is to condemn most of the existing minimum wage literature. In this regard, I find his discussion very cavalier. Certainly, the literature is not homogeneous and it just possible that some of it is worth saving.

In regard to the two studies Gavett describes, I am not surprised that both fail to give consistent results because in my opinion they are each poorly conceived. The labor department analysis is astonishingly atheoretical and the longitudinal survey cannot hold constant the two most critical elements of the "other things equal" bundle, i.e., the person's age and the level of economic activity.

The Chapin-Adie paper is a pretty good first approximation to an analysis of minimum wages, but it is only a first approximation. On the plus side, the model is simple and straightforward and can serve as the basis for an extended analysis. I will list a few of the

revisions I would prefer to see. First, the theoretical model is much too simple. For example, if taken literally, it implies that *all* workers earn the same wage, are perfect substitutes for each other, and in the absence of intervention would earn less than the minimum. The empirical model, on the other hand, uses the aggregate unemployment rate "to correct for the level of economic activity." Aside from the fact that the teenage rate is part of the aggregate, there is also the problem that the minimum wage will itself affect the unemployment rate for persons other than teenagers. The effects are direct, since some of these workers would, in the absence of intervention, presumably earn less than the minimum and they are indirect because minimum wages increases the cost of unskilled labor or those who would otherwise earn less than the minimum and therefore "shift" demand functions for related inputs including laborers who would otherwise earn more than the minimum. On both theoretical and empirical grounds, the failure to analyze the effects of uneven and incomplete coverage of minimum wage legislation is serious. Also, one wonders why there is no trend adjustment or some other provision for the rising teenage share of the total labor force. I close by adding two comments on the estimation procedure. First, while data are provided for the individual months, I personally think that Chapin-Adie seriously overcount observations and degrees of freedom by counting each month's observations as independent. This is especially true in the unemployment data Chapin-Adie use since observations are seasonally adjusted, i.e., "smoothed." As a fairly crude rule of thumb, t-ratios are homogeneous of degree one-half in the number of observations so that by using only, say, quarterly observations each t-ratio would fall by a multiple of 1.73. Thus the results touted as being "significant" are problematic. Next, the estimation of the distributed lag structure is unbelievably naive. The technique is perfectly analogous to estimating a multiple regression by regressing the dependent variable, sequentially in simple regression form, on each of the independent variables.

# **VI**

## **MANPOWER PROBLEMS IN HEALTH SERVICES**

**Charles A. Myers, Chairman**

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# PROFESSIONALISM AND THE POWER OF MANAGEMENT IN HEALTH SERVICES\*

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What is going to make allied health manpower a way to solve some of the problems of the health industry? What will keep it from becoming another item on the industry's long list of confusing headaches? The phenomenal growth of allied health manpower in this century illustrates what a significant part the non-physician worker plays in the system. In 1900, physicians were outnumbered 2:1 by other workers in the industry. Today they are outnumbered 10:1, but this fantastic growth does not mean allied health workers are making optimal contributions to better medical care. Far from it - they are not producing the results they should be in terms of patient satisfaction, worker satisfaction, or physician satisfaction. Nor are they scoring points in that column marked efficiency.

This paper examines one of the reasons non-physician workers are not well used in the health industry. An analysis of decision making about jobs in the health industry reveals a fundamental conflict between managers, administrators, and people whose primary concerns are economy and efficiency on the one hand and on the other, clinicians and professionals. In the health care industry the significant decisions about labor and its use have not been based on productivity, economy, efficiency or consumer satisfaction. Clinicians and professionals, not administrators, have determined priorities and assigned tasks. The primacy of the physician's role is built into the decision making apparatus of individual institutions, local, state, and Federal health care programs, and most importantly in the political climate in which all of these operate. Until somebody without a vested interest in the status quo intervenes in this traditional system, even larger numbers of new allied health workers will continue to be used unimaginatively.

To investigate decision making about jobs, I chose to examine the hospital segment of the industry. The nation's 8,000 hospitals

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are the industry's biggest employer with nearly two thirds of the work force and more than half of the professional and technical workers. Hospitals are the training base for most health workers, the first contact newcomers have with professional custom. The practical portion of most allied health training is obtained in the hospital setting. In a series of discussions with health care employees, hospital administrators, department heads, and students of hospital operations I attempted to discover who controls the use of allied health manpower. Of particular interest was the role of "custom" or "professional wisdom" or "clinical judgment" versus administrative initiative.

To begin with one might speculate that different financial constraints imposed by differences in hospital ownership would affect labor practices, but careful studies are lacking. For example, in New York City, where one union represents the employees of the municipal hospitals and another represents voluntary hospital employees, the results of collective bargaining are quite similar. Aside from a plethora of civil service regulations, government hospital employment differs little from the private sector. The law exempting Federal hospitals from state licensure acts, theoretically permitting these institutions wide latitude in the use of manpower, has not been used by Veterans' hospitals to move away from conventional standards of staffing and practice. Nor is there evidence that proprietary (for profit) hospitals have established any novel labor systems.

When the organization and structure of hospitals are dissected one discovers that the key elements of the labor system in each institution operate at the department level. The powers of professional, clinician, and administrator are tested in the departments - medicine, surgery, pediatrics, obstetrics, pathology, radiology, nursing, dietetics, and so on. Each department has its own customs: patterns of work that have evolved over many years, often without conscious guidance, but buttressed by an industry-wide preoccupation with professionalism. The labor system of a hospital is at the level of these operating departments.

The example of an inservice training program at a chemistry laboratory at one large hospital in the East demonstrates how most of the important factors in hospital labor systems operate at departmental levels. In this laboratory, the daily volume of tests con-

ducted fluctuates widely. A part of the work force of technicians is therefore unneeded on low-volume days. On those days, these technicians are used to teach newly hired workers. The training process rotates the new technician from one task to another until she has learned the whole range of operations in the laboratory. A large portion of the working time in the laboratory - about 35 percent - is spent on training during which two workers produce the usual output of one. That is, two people are used to produce a test result that ordinarily requires only one technician. The cost is apparently small, because most of the training time is available in slack - the volume of tests does not require the full labor force. Inexpensive on-the-job training allows the laboratory to tolerate high labor turnover rates - about 6 percent per month. Hiring a work force with high turnover means that young, inexperienced technicians are employed at the low starting wage. Inexpensive labor makes the initially generous staffing more palatable. The system works well for the laboratory (although its director did not perceive it as a system). Without planning, without conscious management, laboratories and other departments in hospitals across the country have developed similarly gerry-built, but working systems.

Custom is thus clearly a strong force in hospital labor systems. The customs develop accidentally, as in the chemistry laboratory example, or through the everpresent obedience the health industry pays to professionalism. Central to professionalism is the designation of boundaries to the professional's role and the concept that he has mastered and practices with pride the skills within those bounds. He also rejects outside supervision and counters with self-policing. Professional "guidelines" define hospital labor systems. For example, many X-ray departments, laboratories, and social service departments require that their employees be fully certified by the appropriate professional organizations. On several occasions, department heads stated that this was for their own convenience, and they did it to make screening of applicants simpler. Other directors said that their certified technicians would not tolerate uncertified personnel doing the same job. Rarely did a department head bother to hire uncertified technicians unless the certified ones were in very short supply. Except where the labor market makes it impractical, hiring standards follow professional rules.



The specific roles and tasks of allied health workers are also set by professional custom. Hospital administrators can not easily shift these roles or alter these tasks once the professional is hired. Promotions, too, are often determined not by the needs of the hospital but by the customs of the professions. Members of the profession acquire departmental administrative jobs, although the demands of management positions may bear no relation to professional training. Supervision does not cross professional lines: in large departments of radiology, technicians work under a chief technician, not the radiologist. Even in teamwork situations, each member reports to his professional superior. With the exception of the surgical team that operates under the direction of the surgeon, group activities focused on a single goal or single patient typically have members of the team looking to members of their own profession for supervision. The early years of the OEO health team in neighborhood health centers were marked by long and often acrimonious efforts to change these habits and persuade professionals to share responsibilities. As a result, staff conferences often sounded more like T-group sessions.

It is worth noting that the growth of trade unions in the hospital industry, particularly industrial unions, represents a challenge to professionalism partly because collective bargaining is conducted between the hospital administration and the unions, often by-passing certain traditional professional prerogatives. In addition, union members' desire for promotion is not compatible with the rigidity of the multiple entry points of the professional structure. Unions face the problem of finding ways for more of their members to be promoted to jobs that are accessible only via professional education. Collective bargaining, where it has occurred, has increased the prestige and power of hospital administrators. A coherent, overall picture of wage and benefit packages and their effects can be seen clearly only by a central administration with adequate management information. (Where to find such information is another question: a review of hospital management literature has uncovered only rudimentary attempts at task analysis and investigation of jobs.)

Historically, the habits and attitudes of the industry are derived from physicians. The clinician is the ultimate source of priorities in medical care programs. Whenever a physician is close at hand, he becomes the decision maker for administrative questions. In

many departments, the physician is clearly in charge of all manpower decisions. When the physician is not directly involved in making decisions or setting policy, other professionals follow practices already sanctioned by other physicians.

How does the physician decide about tasks, jobs and manpower? His decision-making armamentarium is based on clinical judgment, that mixture of custom and science employed by doctors to deal with single situations faced by individual patients. It is no substitute for an understanding of how workers combine to produce services, but it is omnipresent. Clinical judgment is applied repeatedly to decisions about non-physician manpower. In hospital after hospital, doctors have called for coronary intensive care units and each hospital has set criteria for their staffing. Differences in staffing reflect widely different judgments, yet each appears to be undertaken with the conviction that it is correct, not part of an experiment. Clinical standards are not universal; exceptions are made for physicians who prescribe differently.

What is left to the administrator when professionalism, physician omnipotence, and the internal departmental structure of his own hospital have had their say about manpower? Not much. Hospital administrators willing to challenge doctors must negotiate for even the most obvious managerial improvements in hospital activities. The hospital administration rarely intervenes, for example, in the functioning of the surgical suite. Operating rooms are workshops for practicing surgeons. Yet scheduling and staffing of the operating rooms is a major constraint on how the other parts of the hospital are used because it controls the flow of surgical patients. It took one bright hospital administrator months to understand the customs of his hospital's operating room and the tacit agreements between the nursing staff and the surgeons. Although he proved conclusively how inefficient the old system was, he encountered great resistance to his efforts to set up a new scheduling system. Without a willingness on the part of the medical staff to accept the advice of administrators, the administration cannot effectively intervene in departmental affairs.

The impotence of the hospital administrator is illustrated further by reviewing some experiments with unit managers. Several large hospitals have assigned administrative personnel to patient care units—wards, or floors, or clinics. The unit managers were to take

on the administrative tasks of keeping records, getting supplies, maintaining the plant, to relieve the nurse of these burdensome chores. Conventional wisdom contended that these were "non-nursing" tasks to be shed in favor of patient care duties. But the nurse who had advanced to head nurse on the unit considered administration her job. She therefore used her experience and clinical knowledge to pull rank on the unit manager. She manipulated her established traditional relationship with physicians to interpose herself between physician and administrator in the chain of command. The nurse remained in control of the unit. Successes with unit-manager programs can usually be measured only against very modest mechanical administrative goals.

Where direct aggrandizement by administrators has not been notably successful, the personnel office has sometimes provided a way to outflank the physicians and the professionals. Pressure from community and public has placed new emphasis on the role of the hospital personnel department. Hospital community relations efforts are enhanced by training programs. Big city voluntary hospitals, forced to explain themselves to the community, recruit actively, offering an "entry point for health careers," and advertising available on-the-job training. The hospital presents itself as improving the community's pool of skills and consequently its earning power. This image, a politically savvy updating of the hospital's customary role as employer of last resort, tends to excuse low wages and make high turnover tolerable to its clinicians.

Administrators also play a new role through their personnel departments as arbitrators or mediators in intramural jurisdictional disputes between departments and between professions. These conflicts are usually decided by physicians, but if patient care is not involved, the personnel director may step in to settle the matter. (One personnel director got started in this role by deciding who should wear what color uniform.)

In summary, the labor system of general hospitals or the power to direct manpower is divided three ways. To the professionals belong most of the prerogatives for day-to-day organization of work. Physicians have a veto by virtue of clinical judgment on almost all work affecting patients. And the administration is left with a small and weak, but growing, role.

This somewhat grim, pessimistic picture of manpower management in the health industry should serve as a warning that we must not be seduced by the current fascination with new jobs and new professions. Without other significant alterations in the organization of health care, these new jobs will be mere continuations of the old customs of the industry—a way to shift the use of manpower without confronting the primacy of the professionals or even questioning the value of professionalism in the delivery of medical care.

# A NEW APPROACH TO THE LEGAL REGULATION OF HEALTH PERSONNEL

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Great strides have been made in recent years in increasing the scientific knowledge and technologic abilities which underlie medical practice. Diseases against which the medical profession was powerless a few years ago are now susceptible to effective treatment, both curative and preventive. Simultaneously with this increase in the capabilities of the system to render in-depth care has come an increase in the demands on the system to extend these benefits to segments of the society which have traditionally been relatively isolated from medical care. Health care is now recognized by many as a "right" of all the people rather than as a privilege available to those with financial resources sufficient to bear the costs. An effective response to these new potentials and demands will require a significant increase in the contingent of personnel engaged in health services. In many cases, new breeds of workers will be required. Newly developed procedures and mechanical devices will require unique sets of skills, and new organizational patterns designed to promote efficiency will require personnel to assume new roles. With the necessary development of new types of health occupations will come questions as to the best means of insuring the legality of their performance.

Traditionally the manpower component of the health care system has been regulated by a comprehensive licensure scheme. Licensure was developed in recognition of the fact that the consumer of health services seldom possesses the knowledge necessary to allow him to make an effective evaluation of the product he receives. Physicians were the first recipients of licenses, which were required for practice beginning in the late 1800's.<sup>1</sup> With the development of new types of personnel, the need to assure their competence was answered by granting licenses delineating qualifications and scope of practice limitations for the various occupational groups. To date, there are approximately 25 health professions and occupations licensed in one

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<sup>1</sup> Richard Shryock, *Medical Licensing in America, 1650-1965* (Baltimore: The Johns Hopkins Press, 1967), pp. 43-76.

or more of the states.<sup>2</sup> Certain almost definitional characteristics of licensure are now, however, causing this system of regulation to pose significant problems for the efficient and effective delivery of health care.

A major problem exists, for example, in keeping licensure laws in tune with changing abilities and technological developments. In many cases, the scope of practice provisions of these laws, which specify the duties which may be assumed by licensees, are framed in such explicit terms that expansion of functions can come only by resorting to the slow and uncertain processes of legislative change or by ignoring the law and hoping that a "custom and usage" protection will eventually arise for the new activity. Rigid definitions of this type may discourage the optimal use of personnel by delaying the impact of new technological devices which realistically bring previously complex tasks within the capability range of ancillary personnel. They may also inhibit experiments to determine whether alternate uses of manpower might yield greater efficiency in the system. If the scope of practice provision is cast in less definite terms in an effort to preclude such effects, the uncertainty as to the boundaries of permissible activity creates legal risks which often lead to unnecessary conservatism in actual practice.<sup>3</sup>

Another charge against licensure is that it impedes occupational mobility. The prerequisites for licensure generally include the completion of a specified type of formal educational program. In some cases, personnel who have gained valuable experience on-the-job and who are in practical fact capable of performing within the practice scope of a licensed group find that they cannot be licensed without the specified educational credentials. Many of these are unable to make the financial sacrifices of tuition payments and lost wages which would be necessary if they were to return to seek these credentials. They are forced, therefore, either to ignore the licensure laws and to perform perhaps illegally, or to restrict their activities in an unrealistic and undoubtedly frustrating way. This problem exists not only for those with no license who gained

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<sup>2</sup> Maryland Pennell and Paula Stewart, *State Licensing of Health Occupations* (Washington: HEW, 1967), p. 2.

<sup>3</sup> Edward Forgetson, Ruth Roemer, Roger Newman, John Cook, "Licensure of Other Medical Personnel," in *II Report of the National Advisory Commission on Health Manpower* (Washington: Government Printing Office, 1967), pp. 407, 423-24.

experience on-the-job but also for those licensed by one group who over time wish to expand their range of functions into areas which have been staked out as the province of another licensed group. Some have speculated that in the near future, given the various jurisdictional prerogatives which have been and are being carved out, it may be necessary for health personnel to have three or four licenses in order that they might perform effectively in what should realistically be one profession.<sup>4</sup>

Licensure also creates problems from the standpoint of the administrator in the health system. Licensed groups apparently tend to view themselves as bargaining units, on the order of unions, with vested interests to be protected, often at the expense of efficient utilization of personnel.<sup>5</sup> In addition, by restricting the supply of personnel available to perform services in the system, salaries may be driven to unreasonably high levels with resultant increases in the overall costs of medical care.

Licensure is justified primarily as a means of insuring the quality of personnel in the health care system. If it were clearly effective in performing this function, it would perhaps be reasonable to overlook the above-mentioned problems. In fact, however, many observers question the efficacy of licensure as a quality control device. Most licenses are issued upon examination immediately after completion of the professional or occupational training. Very few laws require periodic relicensure, reevaluation, or continuing education. It is perhaps unrealistic to think that one-time licensure, at career inception, provides much of a check on quality in an industry in which such rapid strides in knowledge and technology are being made that today's knowledge and skills many well be obsolete tomorrow. Because the training programs for most types of health manpower are subject to accreditation standards, there is quality control right up to the time of graduation. Yet this is precisely the point at which licensure also operates. This could perhaps be characterized as "over-kill" in the early stages of the health career,

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<sup>4</sup> Betty Anderson, "Licensure of Paramedical Personnel." Address before 65th annual meeting of the Federation of State Medical Boards of the United States (February 7, 1969), p. 4; Henry Shine, "Licensing or Certifying Allied Health Occupations and the Role of Professional and Vocational Standards," *Report of the Allied Health Conference*, California (July 1968), p. 91.

<sup>5</sup> John Lloyd, "The Future of Licensure of Health Professions and Occupations in the State of New Jersey." (Mimeograph, August 14, 1969), p. 10.

which rapidly drops off and will not be revived unless the licensee demonstrates such visible and egregious negligence that the authorities step in to revoke his license. In such a situation, however, it is likely that the employer would have dismissed or curtailed the activities of the offender in any event, out of fear for his own future liability if nothing else, and prospective employers are likely to be equally wary.

In view of the widespread dissatisfaction with licensure and the impediments it often presents to the full development of the licensed profession itself, it seems reasonable to ask why newly emerging groups seem intent on entering the system in this way. The fact is that the very existence of a licensure scheme presents certain legal problems for unlicensed people which cannot be ignored. From the standpoint of the criminal law, there are two types of licensure laws—permissive and mandatory. If the license of a group is only permissive, others not licensed may perform within the practice scope but simply cannot hold themselves out as being licensed or use a certain title or designation which might indicate that they are licensed. On the other hand, if the licensure law of any particular group or category is mandatory, it is a criminal offense for any unlicensed person to perform acts which are in the province of the licensed group. Emerging groups, therefore, must consider whether their anticipated activities will throw them into conflict with a mandatory licensure law. It was probably under this impetus that some new groups have sought licensure despite its other disadvantages.

Licensure laws may also play a role in civil cases. If the activities of a given type of health worker are restricted to those prescribed in the scope of practice of his licensure law, that person will be presumed competent should a patient who suffers some type of harm institute an action and thereby raise this issue.<sup>6</sup> An unlicensed health worker or one who acts beyond the scope of his license does not have the benefit of such a presumption but rather must face the often difficult task of proving his competence. A Washington court in one case even indulged an inference *against* a licensed practical nurse who acted beyond the scope of her license in administering an injection.<sup>7</sup> The court apparently took the view

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<sup>6</sup> Anderson, *Op. cit.*, p. 6.

<sup>7</sup> Barber v. Reinking, 68 Wash. 2d 122, 411 P. 2d 861 (1966).



that the legislature had, through the licensure scheme, established the boundaries of permissible activity and that deviations from this scheme are presumptively negligent. Although most courts have been unwilling to take this extreme position, some observers are concerned that the approach may be extended in the future. In any event, the fact remains that at present adhering to licensure specifications carries certain protections which may be regarded as quite important in this age of increased consciousness of litigation dangers.

Because of the dangers of liability created by the very existence of a licensure system, it is easy to understand why many of the emerging groups have, out of caution if nothing else, opted for licensure themselves. The fact which should be noted, however, is that all that really seems necessary for protection against the types of liability which are based not on actual negligence but merely on contravention of a licensure scheme is *some* type of legal recognition. In determining the most desirable form such recognition should take, the two foremost objectives should be insuring the quality of care and promoting the efficiency which is necessary if the health system is to meet its current challenges.

It may be instructive to consider briefly the experience of one new group of health workers, physician's assistants, in their attempt to resolve the problem of establishing a sound legal basis for their activity. These assistants are being trained at Duke University and an increasing number of other institutions around the country to perform many of the more routine functions which have traditionally been performed by the physician himself. The theory behind the development of these assistants is that no single procedure which the physician performs every day is so complex that someone with less education than a physician could not be trained to perform it. The key difference between the physician and his assistant might be termed "medical judgment"—in other words, the P.A. can *perform* the task, but in most instances it will be for the physician to determine whether the procedure should be performed at all in a particular case. The hope is that by having help of this type, the physician will be able to increase the quantity output of his practice, in terms of the number of patients treated, and the quality of care rendered, because of the increased time available for professional development.

As graduates of the P.A. programs began joining physicians in practice, concern was expressed regarding the legal status of both the P.A. and his employing physician. Because the assistant would be performing tasks traditionally within the physician's province, some feared that he might be regarded as practicing medicine without a license, with the employing physician being an aider and abettor to this criminal offense. Others were concerned that use of such personnel, not formally recognized in the legal framework of the health system, might increase the risk of malpractice claims. With the help of doctors, nurses, hospital administrators, educators, lawyers, and a grant from HEW,<sup>8</sup> the Duke Department of Community Health Sciences initiated a project to formulate a legislative proposal which would remove those dangers of liability which do not rest on findings of actual negligence. After considering numerous possibilities, including of course licensure, the project participants determined that the most feasible approach would be to enact a statute making it clear that physicians are permitted to delegate tasks as long as they assume responsibility, and they felt that this could best be cast as an exception to the medical practice act for the performance of the delegatee. Medical practice acts generally define the practice of medicine as diagnosis, prescription, and treatment, and then proscribe these activities for persons not licensed by the state as physicians. The acts also contain, however, a list of exceptions from this prohibition for certain non-physician personnel who can legally perform selected acts arguably within the definition of medical practice. Commonly included exceptions are for dentists, pharmacists, and midwives within their area of competence, and for domestic remedies administered by family members in the home. Most medical practice acts generally contain from 10 to 15 exceptions of this type. It was suggested that an additional exception be added for any act performed at the direction and under the supervision of a licensed physician by an assistant who has received the approval of the Board of Medical Examiners and who acts within general guidelines formulated by that Board. From the standpoint of efficiency, it is important to note that no scope of practice is defined for the assistant. Under such a proposal the physician would be free to exercise discretion in the use of his P.A., in accordance with the needs of his practice

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<sup>8</sup> This project was conducted under Contract No. HSM 110-69-242.

and the qualifications of his particular assistant. If the physician can devote time to the further training of his P.A., he can expand the assistant's range of functions over time as his needs change and as he gains confidence in the assistant's abilities. This flexibility would certainly be more difficult, if not impossible, if regulation centered on a defined scope of practice, phrased in conservative terms deemed appropriate for the average assistant, working for an average physician, and presupposing a particular state of technology.

The most important consideration, of course, is maintaining and hopefully upgrading the quality of care rendered the patient. The participants in the Duke project were of the opinion that this approach also provides a more realistic check on quality. They felt that the physician, working daily with the assistant, would be in a better position to evaluate the competence of an assistant than are more remote licensing boards. Physician evaluation has the additional advantage of providing a *continuing* check on competence, in contrast to the one-time licensure evaluation. The physician should recognize that he has very strong reasons for monitoring competence in this way. Aside from concern for his patients' welfare, he should take caution from the fact that the physician, by assuming the responsibility for directing and supervising an assistant, assumes legal liability, under the old master-servant doctrine, for the acts of his assistant. If the assistant is negligent in performing a task or the physician authorizes him to perform a task beyond his competence, the physician's financial resources will be subject to the claims of the injured patient.

Despite the strong incentives to care on the part of the physician, the participants in the Duke project felt that the organized medical profession should also be given some role in regulation in order that instances of abuse could be checked. It was for this reason that they included a provision for an initial evaluation of the assistant's background (both education and experience) by the Board of Medical Examiners and provided that the Board should establish certain general guidelines for the performance of the assistant. The guidelines would not specify the tasks permissible for an assistant but rather would relate to such matters as proper identification of the P.A. to avoid misleading patients. It seemed logical to place such responsibility with the Board of Medical Examiners, as they

would in any event be the body concerned with disciplining the physician should this become necessary because of his disregarding patients' welfare in his use of assistants.

The original intent of the Duke project was to develop a "model" legislative proposal which would provide a feasible means of legalizing and regulating physician's assistants in all states. Although the described approach will probably be a reasonable solution for the majority of states, it became apparent that certain conditions in some states militate against the desirability of the scheme. For example, in states having a particularly high incidence of malpractice litigation, physicians may prefer sacrificing flexibility for more definite assurance that particular functions are sanctioned for the assistant. In such a situation, a more traditional licensure law with a definitely defined scope of practice may be preferred. Similarly, in states where the Board of Medical Examiners does not have the confidence of the physician community or where their orientation has been unnecessarily conservative, physicians may not want the Board to be given an active role in the regulation of assistants. Communications with persons around the country, however, indicate that a flexible, physician-centered approach such as that described above will find general approval as an alternative to licensure for physician's assistants.

A question remains, of course, as to whether this approach is adaptable to other emerging health professionals. It would appear that for those new occupations functioning under the supervision of a responsible professional rather than independently, this means of establishing a legal base would be feasible. It would permit the flexible development of a job set in terms of the differing needs of various settings and in terms of changing abilities as the personnel profit from their experience in the system. Quality checks would come from close working relationships and a knowledge that the law holds the supervisor answerable. Such a scheme may make new demands on professional personnel as they assume the greater supervisory responsibility that comes with increased delegation. Their educational and training programs should devote some time to preparation for this responsibility.

The project participants did not consider this approach the ultimate answer to health manpower regulation. Many of them, as well as many authorities around the country, feel that a full-scale

revamping of the regulatory scheme, which would encompass traditional as well as new health personnel groups, is in order. It must be recognized, however, that the system now shelters many vested interests, the defense of which will not be easily overcome. It is unfortunately probable, therefore, that we must await a worsening of the health manpower crisis before any major restructuring will be politically feasible. In the meantime, it would appear to be most advantageous to preserve as much flexibility as possible, and it is to this end that the above approach is advocated.

# THE CHANGING JOB STRUCTURE OF HEALTH MANPOWER

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This paper is concerned with the changing composition of health manpower. It reports on a larger study which is intended to encourage further research into the manner in which technological and market factors affect the health care job structure and the composition of health care personnel among health jobs.<sup>1</sup> The study demonstrates the necessity of a more analytical view of the changing health care job patterns. Many of the changes that have occurred concerning the job content of individual health care jobs, and the changes in employment associated with each health care job can be interrelated in a systematic fashion.

Most studies concerned with health manpower "shortages" or "needs" have focused upon individual health care occupations.<sup>2</sup> As such, they have tended to assume implicitly that health services are produced using fixed health manpower coefficients. By focusing exclusively upon the supply of physicians, dentists, and nurses, these studies have adopted a narrow framework of observation which precludes the analysis of a number of important economic problems. These studies ignore such factors as the impact of changes in the composition of health services upon the utilization of health manpower; and the fact that many types of health services are produced using joint inputs. Changes over time in technology and relative labor supplies will certainly influence the ways in which highly trained health manpower are utilized. Furthermore, the relation between the increase in demand for health manpower and changes in the productivity of highly trained health manpower was not seriously studied.

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<sup>1</sup> Jeffrey H. Weiss, *The Changing Job Structure of Health Manpower*, (American Hospital Association Monograph Series, In Press).

<sup>2</sup> See, for example: Elton Rayach, "The Supply of Physicians' Services," *Industrial and Labor Relations Review*, Vol. 17 (January 1964), pp. 221-238. U.S. Department of Health, Education, and Welfare, *Physicians for a Growing America—Report of the Surgeon General's Consultant Group on Medical Education*, (Washington, D.C.; U.S. Government Printing Office, October 1959).

## A JOB CLASSIFICATION SCHEME FOR HEALTH MANPOWER

An analytical framework was devised to analyze the impact of the technological and market factors upon the job structure of health manpower. This job classification scheme draws upon the work of James Scoville on the job content of the U.S. economy.<sup>3</sup>

The first stage in formulating the new job classification scheme for health manpower was to determine which jobs should be considered part of the health care job family. The health care job family is designed to encompass jobs whose primary technical focus or function is oriented towards the provision of health services. In order to sharpen this basis for determining which jobs are health jobs, the following criteria were used: The job should be sufficiently specialized toward the provision of health services so that the range of persons who can perform the job is limited to those persons whose principal training has been oriented toward the provision of health services. In addition, persons performing the job cannot transfer to another job that is not oriented toward the provision of health services without a great deal of retraining or non-use of already acquired skills. These criteria are meant to encompass persons who are fundamentally "attached" to the jobs that provide health services.

There are two dimensions to my job classification scheme for health manpower. The first dimension emphasizes the level of job content. The term "job content" is utilized to describe the many facets of the job as measured by the principles of job evaluation. Relative income data and the minimum education and training requirements of health jobs are employed as surrogate measures of the relative levels of job content. Each health job was determined to have one of three levels of job content; high level, middle level, or low level. The other dimension of the job classification scheme puts the primary emphasis on the technical focus or function of the job. To reflect the varied technical foci or functions of the health care jobs they were grouped into nine health care job families. Examples of the health care job families include: patient care-medical; patient care-nursing; technical and laboratory focus; and environmental focus.

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<sup>3</sup>James G. Scoville, *The Job Content of the U.S. Economy, 1940-1970*, (New York: McGraw-Hill, 1969).

### AN AGGREGATE VIEW OF CHANGES IN THE JOB STRUCTURE OF HEALTH MANPOWER, 1940-1960

The health care job classification scheme was employed to investigate the changes that have occurred in the job structure of health manpower from 1940 to 1960. It was found that the size of the percentage increases in employment by level of job content was inversely related to the level of job content. These findings for all job families aggregated are shown in table 1. When the changes in employment by level of job content within each of the nine health care job families were analyzed, the above relationship was re-affirmed. The substitution of jobs with a low level of job content for jobs with a middle level and a high level of job content, and jobs with a middle level of job content for those with a high level of job content, was quite pervasive throughout the health care job family. However, the rapid growth in the health care job family is reflected in the fact that during the periods 1940-1950 and 1950-1960, there was an increase in the number of persons employed at each of the three levels of job content within each health care job family.

The inverse relationship between the size of the percentage increase in employment by level of job content and the level of job content was maintained when changes in the employment of health manpower were examined on a regional basis and by sex.

A very important facet of the job structure of health manpower is the difference in employment patterns between males and females. In 1960, only one out of every three jobs was held by men; whereas men held two out of every three jobs in the economy as a whole. Further, there is a great difference between the proportions of health care jobs with high and low levels of job content held by females. In 1960, less than one out of every eighteen health care jobs with a high level of job content was held by females. The percentage of jobs with a high level of job content held by women actually decreased from 1950 to 1960. In contrast, there has been an increase in the proportion of health care jobs with low or middle levels of job content which are held by females. The major gains in employment on jobs with middle or low levels of job content were accounted for by women. In 1960, about 86% of the middle level and 83% of the low level health care jobs were held by women. Consequently, almost two-thirds of the males employed in health



care jobs were working at jobs with a high level of job content, as contrasted with only two percent of the females employed at health care jobs.

Since the various studies of health manpower shortages and needs have tended to arrive at policy conclusions by assuming implicitly that health services are produced with fixed health manpower coefficients, an exercise was undertaken to investigate some of the implications of this assumption using my health care job classification scheme. Given the assumption of fixed health manpower coefficients from 1950 to 1960, how many health care personnel would have been required in 1960 at the various health jobs to maintain the 1960 output of health services? Using various assumptions,<sup>4</sup> it was found that if the 1950 production function for health services had been utilized to produce the 1960 output of health services, the nation would have needed an additional 46,000 physicians, 16,000 dentists, and about 100,000 high-level jobs in total. Instead, 117,000 persons were employed at jobs with a low level of job content. Thus, given the constraint of fixed manpower coefficients in the production function for health services, it is most unlikely that the actual level of output of health services in 1960 would have been achieved. In view of the relatively inelastic supply of the persons needed to fill jobs with high and middle levels of job content, a smaller supply of health services would have been available in 1960; and these services would have been provided at a higher unit cost.

#### THE CHANGING JOB STRUCTURE OF THE PATIENT CARE-DENTAL JOB FAMILY

To analyze the impact of market factors and technological changes upon the job structure of health manpower, it is necessary to discuss in greater detail the changes that have taken place within the different "boxes" of the job matrix for health manpower. Here, the changes that have occurred in the structure of the patient care-dental job family are analyzed briefly.

During the period from 1950 to 1960, the employment of dentists increased by 26%, while the employment of middle level and low

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<sup>4</sup> A crucial assumption was that the production function for health services is linear within the range involved here; so that a percentage change in output would be matched by an equivalent percentage change in the number of persons employed at all health care jobs. See, Weiss, *op. cit.*, pp. 110-111.

TABLE 1

Changes in Employment of Health Manpower by Level of Job Content, 1940-60

Job Content	1940	1950	1960	Percent Change 1940-50	Percent Change 1950-60	Percent Change 1940-60
High Level	341,078	396,046	495,791	16.1	25.2	45.4
Middle Level	460,666	570,664	845,510	23.9	48.2	83.5
Low Level	215,965	383,539	694,272	77.6	81.0	221.5
Total Employment Health	1,017,709	1,350,249	2,035,573	32.9	50.8	100.0

Source: Weiss, *op. cit.*, p. 98.

level dental personnel increased by 59% and 97%, respectively. To meet the increase in the demand for dental services, dentists have responded by substituting auxiliary personnel for themselves in the production function for dental services. While improvements in dental equipment have substantially increased the productivity of dentists, there is strong evidence to support the view that the substitution of manpower with lower and middle levels of job content for dentists is the most important factor in accounting for the increased productivity of dentists during the 1950's.

Using a surrogate measure of the output of dental services, the average output of a dentist employing one dental auxiliary is 80% greater than the output of a dentist who does not employ any auxiliary personnel.<sup>5</sup> Further, the addition of a second dental auxiliary appears to increase the output of the average dentist more than the addition of the first, and the addition of a third dental auxiliary increases output more than the addition of the second.<sup>6</sup> In view of these findings, it is certainly not surprising that from 1950 to 1961, the output of dental services per dentist in private practice increased at an estimated average rate of 3.2% per year, or faster than the rate of increase in productivity generally in the economy.

The substitution of dental hygienists, dental assistants, and dental technicians for dentists has resulted in an increase in the level of job content of the dentist's job. The typical dentist now spends more time at the chair and has been relieved of many of

<sup>5</sup> For a further discussion see, *Ibid.*, pp. 122-154.

<sup>6</sup> However, the apparent increasing economies of scale may be also partially due to the use of more and better dental equipment by dentists using additional auxiliaries.

his routine tasks. Also, dentists now have greater managerial and coordinating responsibilities since they are using an increasing number of auxiliary personnel to perform specialized tasks. Similarly, since the dentist has transferred many of his functions to auxiliary dental personnel, the level of job content of auxiliary personnel has risen. These increases in the level of job content of the jobs encompassed within the patient care-dental job family, as opposed to relative increases in the number of persons who work at jobs with a low and middle level of job content, may indicate that the "average" level of job content of the patient care-dental job family has not declined over time.

Since the average dentist today employs perhaps  $1\frac{1}{2}$  full-time dental auxiliaries, but many dentists successfully employ three or four auxiliaries, it is clear that there is a significant potential for further increases in the productivity of dentists through the process of substituting auxiliary dental personnel for dentists. As the demand for dental services continues to increase, since dental assistants and secretaries can be trained on-the-job, and since an increasing number of dental hygienists, technicians, and assistants are being trained in our expanding community colleges, it can be anticipated that very substantial changes in the job structure of the patient care-dental job family will continue to occur in the future.

#### SOME IMPLICATIONS

While this study was not undertaken to develop policy indications, but rather to demonstrate the necessity for a more analytical view of the changing health care job structure, it is clear that if past changes in the job structure of health manpower continue, health care jobs will provide a major source of new job opportunities during this decade. About 10% of the total increase in employment in the U.S. economy during the past decade occurred in the health care job family. More significantly, nearly one half of these new jobs were jobs with a low level of job content. Most of these jobs with a low level of job content were located in the patient care-nursing job family. Since a high school diploma is generally not a prerequisite for entry into many of these health care jobs, they will continue to provide a major source of employment opportunities for persons with relatively low levels of educational attainment.

Another finding is that the present occupational data on health

manpower, and the associated data on compensation, vocational and on-the-job training requirements, and other socioeconomic characteristics of this segment of the labor force, are inadequate for the purpose of health manpower planning. For instance, since a large proportion of all health care jobs are filled by women, nonexistent data on attrition rates for many health care jobs are as important in health manpower planning as projections of the number of new employment opportunities associated with each health care job. Also, since there are evidently a number of alternative ways of producing a given quantity of health services, any program designed to augment the supply of specific types of health care personnel should take into account the costs and benefits associated with the training of health care personnel which are substitutes for one another. Thus, data are needed on the costs of various on-the-job training programs and vocational programs. Moreover, there is even a lack of information on the distribution of health care jobs among different types of health care institutions and other places of employment. These kinds of data are required to link projections of the changes in the demand for a specific health care service to the health care job structure.

## DISCUSSION

MYRON L. JOSEPH

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Dr. Robbins' frustration at the relative impotence of hospital administrators rings a familiar note to anyone who has been involved in the hectic world of industrial relations. Constrained by labor agreements, custom, and union power, employers are severely limited in their ability to redefine jobs or to change the structure of labor input to the production process. Jurisdictional boundaries are enforced, and frequently certification of qualification for participation in the available work is effectively controlled by those already in the selected group. The enormous obstacles facing attempts to make substantial changes in the utilization of medical manpower should be easily understood by those who have observed how little effect the elimination of legal closed shops has had on labor practices in construction and other previously closed shop industries. Construction employers have little incentive to attempt major changes in the system. Their interests are best served by cooperation with their labor unions, leaving the consumers to wonder at the rate of increase of costs, and the inflexibility of production methods. Similarly, as Dr. Robbins has demonstrated, hospital administrators are bound to the medical professions, and they have had little incentive and less power to restructure the medical production function. The power of clinicians and professionals has been virtually unsailable since they are the definers and protectors of medical service quality standards. Even in the absence of competitive pressures, realistic measures of the output of health services, and associated productivity estimates, could serve as the basis for effectuating change. The acceptance of professional guidelines and customs reported by Dr. Robbins may prevail because with few exceptions hospitals have not developed measures that could be used to determine how well alternative policies would meet the needs of the institutions or satisfy other criteria. In the absence of a framework that could be used to evaluate performance, the clinicians and professionals have no alternative to making judgments based on their experience and training.

However, I doubt that the best alternative would be a transfer of power to hospital managers, even if that were feasible. In the

absence of an information system that would permit rational central control, it would seem that the best strategy would be to work toward acceptance and internalization of the institution's critical goals. At least at the professional level, hospitals operate at a level of participative management that is often advocated in personnel literature. If group goals are inconsistent with those of the organization, participative decision making can frustrate the accomplishment of organization objectives. But if that is not the case, hospitals would be better advised to make more effective use in the decision processes of their participating professionals, than to try to create more hierarchal organizations. There are important links between the institutional goals of efficiency and productivity, and the interests of professional staffs. It would be worthwhile to explore the possibilities of identifying and strengthening the ties between organizational and individual goals. This may be the most profitable path for innovative and imaginative hospital administration. As Dr. Robbins points out, external pressures from union health plans, insurance companies, and community opinion, are making the professionals more aware of the importance of efficiency and productivity. They are increasingly open to research and experimentation in manpower utilization but we must have better systems of measurement and evaluation to test and gain acceptance for new approaches to the delivery of health services. It should be noted that institutional goals may be tainted by the needs and aspirations of administrators, and may, therefore, fall short of desirable social objectives. A better use of health manpower might be achieved, not simply by shifting authority to administrators, but through improving the ability of all concerned to understand the implications of their actions in terms of their personal, organizational and social goals.

The framework utilized in the papers is refreshing in the manpower area, which has too frequently used a concept of "shortage" that gives an artificial significance to projected or planned demand, and consequently concentrates on the problem of adjusting supply to meet requirements. In the analysis of manpower problems in health services the production function has not been assumed constant, and experimenters have not restricted themselves to any given set of occupational definitions. The demonstrated profitability to self-employed professionals of adding allied health workers to their staffs, indicates that the utilization of the new occupations will

spread. I have more faith in the importance of wages and the market than does Dr. Robbins, and the evidence suggests that even in the small production units of the practitioner, substantial improvements in efficiency can be made. If their profitability is recognized, there is no reason that paraprofessionals could not be trained to provide the general assistance needed in small units. A word of caution is in order. The acceptance of the newly defined intermediate occupations by the medical professions may be an alternative to a substantial increase in the capacity of medical schools, and might lessen the pressure for a reexamination of the educational requirements for the practice of medicine. But there will be new demands for system reform, since the new occupational groups are likely to press for some procedures through which they can reach professional levels. Whatever the response to their demands, they will force a critical examination of the requirements for admission to professional status, and consideration of alternative qualification paths.

Changes in the health system will require extensive experimentation and research, activities that cannot be undertaken without the cooperation of the medical establishment. Their liability problems constitute an imposing conservative force, particularly in a period when lower income groups are learning to insist on their legal rights. I do not believe we can simply trust to the market, counting on doctors to protect their interests by careful supervision of assistants, and on patients to protect their interests by avoiding doctors who give assistants too much freedom. The medical consumer is not an effective judge of health services, and for many the choice is limited. The consumer needs some protection, and the doctor some guidelines and support, if the change is to insure the quality of care and promote efficiency, the two objectives underlined by Professor Ballinger as necessary "if the health system is to meet its current challenges." I agree completely with her analysis of licensure as a system that tends to restrict supply artificially, without providing effective protection for the quality of services. The proposal developed by the Duke project appears to provide the necessary flexibility to permit the effective use of assistants supervised by physicians, while enforcing a standard for education and experience, and establishing minimum guidelines to protect the consumer. I take issue only with the reluctance to support the proposal as a "model"

legislative proposal. The arguments presented in the earlier part of Professor Ballenger's paper against licensure are not vitiated by malpractice litigation, particularly since a legally defined scope of practice would probably increase other malpractice suits. The fact that some physicians might prefer a traditional licensure law for assistants, does not make the Duke group's legislative proposal less persuasive.



## DISCUSSION

WILLIAM M. VAUGHN III

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Mrs. Ballenger, who is a lawyer, begins her paper by noting that as a result of changing technology in the health field and new demands to extend medical care to all segments of the population, new types of health occupations need to be developed. The problem that is at the heart of this paper is the best means to insure the legality of these new occupations' performances.

It struck me as curious at first that legality of performance was emphasized almost as much as performance itself. The reason for this, of course, is the method by which the health care system has historically been regulated in the United States, namely, a comprehensive system of licensure. The pros and cons of such a system are discussed in the paper and have been discussed elsewhere and hence need not be discussed here.<sup>1</sup>

With this licensure background well in mind, Ballenger proposes a method by which emerging occupations in the health field might establish a sound legal basis for their activity. It seems to me that if one accepts the background on which this proposal is based as being necessary or too hard to change by other means, then the proposal has merits. It is flexible, and will make it easier to adapt to changes in the medical field. But I wish this paper had presented some evidence that physicians or medical doctors in general would indeed delegate tasks (or have already done so) to assistants and/or assume liability for their tasks. A statement from the American Medical Association of their approval of the plan would have been encouraging for certainly even a casual knowledge of the literature in this area suggests that the medical profession has not been the most innovative or responsive to change. Hence a voluntary plan may not be enough to insure that the changes that are needed will be implemented and implemented in the immediate future—especially where the probability of malpractice litigation is the highest.

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<sup>1</sup> See, for instance, Milton Friedman, *Capitalism and Freedom*, (Chicago: University of Chicago Press, 1962), Chapter IX. And Reuben Kessel, *The A.M.A. and the Supply of Physicians*, (Unpublished paper, University of Chicago, December 3, 1970), pp. 12-16.

However, it is the background that brought forth this proposal and which the proposal does not seem to attack directly that most troubles me. (In fact, if improvements within this system are made, the improvements may allow the background to last longer.) Ballenger does recognize that this proposal is not the ultimate cure-all, but feels that a further worsening of the health crisis must come before any major restructuring will take place. Let me urge some more consideration of restructuring now.

Such restructuring might take the form of a more comprehensive study of the effects of licensure with an eye to improving some known defects in the present system (for example, instituting periodic reexaminations) and possibly considering abolishing licensure for many groups in the health services. Furthermore, it seems to me, that many of the legal problems in the area might be solved by other measures—such as steps taken to reduce the interstate variation in malpractice judgments by trying to institute more uniform standards or some form of insurance plan—possibly subsidized—for those professions that seem to have the highest incidence of malpractice cases (not necessarily judgments).

Finally it may be that the fundamental problem still is too few high level personnel in certain areas of the health services (Weiss's paper, discussed below, suggests that high level personnel has not grown quickly in this area), and that many of the problems that have developed are symptoms of this problem. If this is the case, then we should be more concerned (and we are) with steps to increase the number of high level personnel rather than hope the high level personnel will delegate some or all of their tasks to assistants.<sup>2</sup>

The above are not original suggestions. Furthermore, I'm not sure how feasible these solutions are or how quickly they could be implemented. Ballenger's proposal probably has both of these desirable characteristics. It may represent the best short-run method to alleviate the present problem while still devoting resources to solve the long-run problems. Hence it is well worth consideration, and progress reports on the implementation of the plan will be most welcome.

Weiss's and Ballenger's papers complement each other in several dimensions. Ballenger documents a shortage in at least one sub-job

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<sup>2</sup> See, Kessel, *op cit.*, for further evidence for this argument.

family—presumably patient care medical in Weiss's classification scheme. Furthermore, Ballenger's paper emphasizes why substitution may be hard in some of the health fields, namely for legal and institutional reasons, and why many occupations in the health manpower field may not be fully free to respond to technological and market forces—a point that should modify some of the statements made in the Weiss paper.

The Weiss paper, however, demonstrates that in the whole health manpower field the occupational structure has changed considerably during the last twenty years, presumably somewhat through the emergence of new occupational groups. Furthermore, the Weiss example of the dentists' experience in delegating duties and the returns to such delegations, if measured properly, illustrates one of the purposes of Ballenger's physician assistant proposal and perhaps suggests some of the beneficial results that may emerge from such a proposal. Admittedly, the problems in the dental field are not as numerous as in the medical field, but the analogy is still hopeful and suggestive.

As to the Weiss paper specifically, I have the distinct impression that many of the comments I am about to make are unfair in the sense that his paper could not have been long enough to cover them. Also, I have a feeling that many of these points are probably covered in the larger paper upon which his paper is based.

Firstly, presumably Ballenger's physicians' assistant would be level II or or level III—patient care medical—but one is not sure because specific criteria are not given nor are specific examples of levels given. Such examples would be useful and would enable the reader to get a better feel for Weiss's classification scheme.

Secondly, readers aware of Scoville's work<sup>3</sup> might be interested in why Weiss adopted a three level scheme instead of the four level scheme used by Scoville in his health family.<sup>4</sup> Reasons for differences might be very instructive since Weiss certainly looked at the health field more intensively than did Scoville. These reasons for the differences might also help people who want to extend a Scoville-Weiss analysis to other fields.

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<sup>3</sup> James G. Scoville, *The Job Content of the U.S. Economy, 1940-1970*, (New York: McGraw-Hill, 1969).

<sup>4</sup> Scoville really uses a five level scheme for the entire economy but in the health family no one is classified in the fifth (lowest) level.

Thirdly, I think it would have been very revealing to compare the changes in employment in health manpower by level of job content from 1940 to 1960 with similar figures for the economy at large as generated by Scoville. Such figures are presented in my Table 1 for Scoville's first four levels. They reveal a distinctly different trend from that experienced in the health manpower field (a trend that is understated since medical is included in the total). For the economy as a whole, higher level manpower has grown faster than lower level manpower whereas in the health field the opposite changes took place. Reasons for this phenomenon should be examined and they may include differential sex composition in occupational structures (which Weiss notes), differential reactions to market or technological forces, or maybe differences in the legal-institutional forces which Ballenger discusses. Anyway, these differences are striking and should be noted.

TABLE 1

Level	Percent of Change		
	1940-50	1950-60	1940-60
I	39	42	97
II	53	36	104
III	42	16	65
IV	7	-9	-3

Fourthly, changes in prices of health services, if such figures are available, would be interesting to link with changes in the occupational structure. No attempt is made in Weiss's paper but if possible it might be worth pursuing.

Finally, the whole approach to investigating the production functions of health services strikes me as very intriguing. Although it is lined with difficulties such as the measurement of outputs and inputs, I think it is well worth pursuing. Furthermore, differences in the production functions of subfamilies within the health field may provide estimates as to how much the legal institutional constraints suggested by Ballenger make a fixed-coefficient model acceptable, or whether technological considerations dominate. In short, there would seem to be much more fruitful research to be done.

Other comments on both papers could be made. Suffice it to say that this paper is intended to stimulate discussion not usurp it. In

conclusion, I think both papers are contributions to an important area. I found the papers especially profitable when read in conjunction with each other and each paper's conclusions are clarified by knowledge gained from the other's paper. But perhaps more than anything else these papers demonstrate that intelligent people with diverse backgrounds are beginning to enter the area of medical manpower problems and consider old problems with new techniques and new ideas. This is indeed hopeful.



# **VII**

## **INVITED PAPERS**

**George H. Hildebrand, Chairman**  
**U.S. Department of Labor**

# A COST BENEFIT ANALYSIS OF TRANSFER PAYMENTS: JOB CREATION VERSUS WELFARE

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It is customary in cost benefit analyses of manpower programs to consider both the costs and the benefits in "real" terms. That is, the benefits are usually seen as future additions to output or reductions in unemployment while the costs are viewed in terms of the alternative uses of the training resources. For the logic of this from a purely economic standpoint may be unassailable, the technique has shortcomings from a policy standpoint since it fails to consider the effects of the transfer payments involved. The rationale for omitting the impact of transfer payments is that these monies do not represent "real" costs to society since they simply alter the distribution of income without affecting total output. At the same time it is clear that the level of transfer payments is a very important consideration from a policy viewpoint since, if it were not, we could simply legislate the demise of poverty through massive transfer payments.

The purpose of the following analysis is to focus exclusively on the transfer payments involved in a trade-off between two forms of anti-poverty programs—job creation and welfare. Throughout the analysis we shall be testing the hypothesis of whether job creation programs make sense from an economic standpoint if the only benefits are reduction in welfare payments. That is, we have completely eliminated the effects of "real" costs and benefits, and are considering only the impact of the transfer payments. It can, of course, be argued that if job creation programs are economically sound from this narrow criterion they will be even more desirable when viewed from a long run standpoint of increased real output.<sup>1</sup>

The reasons for considering reductions in welfare payments as a benefit of job creation become clear when one considers the relation between the poverty area of a country and the remainder of the economy in a manner identical to the relation between a developed and an underdeveloped country. While foreign aid payments are not a cost to the total role of the economy, they do



represent a cost to the country that disperses them. Similarly, welfare expenditures are a direct cost to those persons, namely the more affluent, who must pay for them in the form of increased taxes. To this sector the savings in welfare is a direct concern as a benefit of job creation.

It is evident that most persons, including economists, do think of welfare as being, in some sense, a cost. When speaking of alternative welfare programs attention is invariably given to the different costs each implies. There would appear to be little reason for devising different plans such as the various negative income taxation proposals if the different outlays were not relevant. From a pragmatic political standpoint the effect on transfers may well be the most important consideration of a job creation program.

To assume that a person working on an employment project would be receiving welfare in the absence of a government job implies that there must be some relation between unemployment and poverty which makes welfare and job creation substitutes. Most of the poor are able to work although it must be emphasized that many of them are not so that no matter how vigorous a job creation program is undertaken there will remain the necessity for welfare expenditures.

Making the realistic assumption that there is an element of training involved in working on a job creation project, even though it be of the most general sort, we can conclude that after working on such a project for a certain length of time the person will be able to find employment in the private sector. Thus, in terms of transfer payments, we can consider the savings of future welfare payments to a person who receives this training as a benefit of the job creation program. For the purposes of this analysis these are the only benefits attributed to job creation. Viewed in this manner the expenditure allocated to job creation programs can be thought of as an investment in human capital with the benefits measured in terms of decreased future welfare payments.

We are thus able to identify five crucial variables which must be determined before the analysis of various projects can be made. Specifically, these are (1) the *welfare plan* and the amount it pays; (2) the *discount rate* to apply to the savings in future welfare payments; (3) the *training period* or employment time required on the government job to make the person employable to private in-

dustry; (4) the "*expected welfare period*" which is an estimate of the time the person would remain on welfare without any government training or employment; and (5) the *wage payment* on the government project *less* the productivity of the newly employed. Once these variables are fixed the benefit-cost ratios of job creation to welfare payments are determined. It should be noted that the first two variables are set by policy, and next two are determined exogenously, and the last one is a combination. After briefly considering each of the variables, benefit-cost ratios of employment to a number of current and proposed welfare plans will be developed.

### THE VARIABLES

#### 1. *The Welfare Plan*

The amount of welfare that a person would receive if he were not employed is, of course, a matter of policy choice and depends upon the welfare program in existence in his area. Table 1 illustrates the discounted value of the payments that would be made to a representative family of four under various welfare plans both in existence and proposed. For example, it can be seen that the present value of ten years of payments under the administration's Family Assistance Plan would amount to \$19,060 if discounted at a rate of four percent. While this figure would drop to \$11,795 if the discount rate were set at 15%. These discounted figures, then, represent the benefits from a transfer payment viewpoint that would accrue to the government (or one sector of society) if a job creation program were put into effect which could be substituted for welfare.

#### 2. *The Wage Payment*

The wage level chosen on government projects would have to be low enough to prevent large numbers of employed persons from desiring work on the governmental project while high enough to be meaningful to the hard core poverty persons which the program is designed to attract. As a compromise to the various forces that would determine the actual wage rate I have chosen to use the Bureau of Labor Statistics' estimate of a "lower living standard" for a family of four. The average of this figure for the urban United States is \$5,915 which, when divided by 2000 hours of employment, yields an hourly wage rate of \$2.95. Table 2 depicts

TABLE 1  
Discounted Value of Selected Welfare Plans for Different Time Periods and Discount Rates\*

Discount Rate	Expected Welfare Period							
	1**	2	3	4	5	6	7	8
Administration Guaranteed Minimum Income Plan								
4%	\$2,340 <sup>†</sup>	\$4,432	\$6,474	\$8,539	\$10,533	\$12,319	\$14,105	\$15,823
10%		4,080	5,844	7,450	8,909	10,234	11,440	12,537
15%		3,821	5,365	6,709	7,878	8,892	9,776	10,544
Friedman Plan (NIT)								
4%	1,500	2,829	4,133	5,445	6,678	7,863	9,002	10,100
10%		2,604	3,730	4,755	5,687	6,533	7,302	8,003
15%		2,439	3,425	4,283	5,028	5,676	5,824	6,731
AFDC-UP New York <sup>†</sup>								
4%	2,479	4,675	6,830	8,999	11,037	12,995	14,879	16,691
10%		4,304	6,165	7,858	9,398	10,796	12,068	13,225
15%		4,030	5,650	7,077	8,310	9,380	10,313	11,123
General Assistance Mississippi <sup>†</sup>								
4%	652	1,231	1,799	2,370	2,907	3,423	3,319	4,397
10%		1,134	1,624	2,070	2,476	2,844	3,179	3,484
15%		1,062	1,491	1,864	2,189	2,471	2,176	2,930

\* These values are the maximum amount payable under the various plans. Where applicable, family size is considered to be four.

\*\* First year values are not discounted.

<sup>†</sup> Source: *Welfare in Review*, June 1969, p. 53.

<sup>†</sup> Includes food stamp allotment.

TABLE 2  
Employment Costs Using BLS Lower Living Standard Budget for a  
Four-Person Family, 1967†

U.S. Urban Average Budget = \$5,915			
Hourly Wage Rate = \$2.95			
Case I : Productivity = Zero			
Discount Rate	4%	10%	15%
Training Period :			
1 year	(\$5,915) *		
18 months	\$8,371	\$7,716	\$7,243
2 years	11,156	10,268	9,618
Case II : Productivity = one-half wage payment			
Training Period :			
1 year	(\$2,958)		
18 months	\$4,186	\$3,858	\$3,622
2 years	5,578	5,134	4,809
Case III : Productivity = two thirds wage payment			
Training Period :			
1 year	(\$1,972) *		
18 months	\$2,790	\$2,572	\$2,414
2 years	3,718	3,423	3,206

† Source : *Monthly Labor Review*, Vol. 92, No. 4, April, 1969, p. 4.

\* Values for one year are not discounted.

the discounted values of this wage rate for up to two years using the same discount rates as were earlier applied to the welfare payments. This table also reflects different assumptions with respect to the productivity of the newly employed. Case 1 presents the extreme example where productivity is assumed to be zero for the entire period of employment thereby making the entire wage payment a subsidy. Cases 2 and 3 represent a productivity factor of one-half and two-thirds respectively, with only that part of the wage that is not represented by productivity (the subsidy) being discounted.

### 3. The Training Period

A major problem in determining the required training period to make a person attractive to private industry is that the time required will depend upon the past experience of the potential worker and this varies greatly within the poverty population. Also the rate of unemployment within the economy will influence the training time required since as unemployment goes lower it is safe to assume that the productivity of the remaining unemployed (the

hard-core) also decreases. As persons with less productivity are taken into the employment program the time necessary to make them attractive is lengthened.

Existing cost benefit studies of retraining programs provide only indirect evidence for use in determining a reasonable training period. First, many of these programs are concerned with teaching a specific skill rather than simply providing employment. Thus, the training time can be assumed to be shorter than it would be on a job creation program. Second, most existing studies measure the success or failure of the program in terms of the employment experience of the trainee and this may not be directly related to his productivity. But if the individual's productivity does increase, it will lower the cost of the job to the government even though the person may not be able to find a job in the private sector due to overall economic conditions. Finally, the original purpose of the MDTA programs was to attack structural unemployment and not to alleviate hard core unemployment. As a result, the trainees had higher qualifications than a good deal of the poverty population, thereby making the training period required for them less than for this latter group.

Given the scattered evidence from the MDTA programs as well as other hard core unemployment projects one year would seem to be a reasonable minimal time necessary to raise the productivity of the newly employed persons on government programs. Although somewhat arbitrary, two years would seem to be a reasonable maximum. Recognizing that any choice will be arbitrary to a degree we assume that eighteen months, the median of these minimum and maximum figures, will be the average time necessary for the employment training period.

#### *4. The Discount Rate*

The technique adopted here is similar to that of most cost benefit studies in that a range of different discount rates is adopted leaving it to the policy makers to choose the one best fitted to a particular program. Since this discount rate includes a risk factor the more optimistic one is concerning the training aspects of job creation the lower will be the rate he chooses, while the inverse is true for persons more skeptical of these employment projects. It is suggested that until experience is gained a discount rate of 10% be adopted in considering the costs and returns of the investment.

### 5. *Expected Welfare Period*

The expected welfare period is of prime importance since it determines how far into the future the welfare payments can be discounted for present benefits. The evidence from current programs is sketchy and inconclusive. A study of AFDC cases in 1961 indicated that 27 months was the median length of time a recipient remained on welfare. This figure, it should be noted, reflects the *continuous* time spent on welfare and therefore does not take into account the number of marginal persons who go on and off welfare periodically. A 1965 study undertaken by the Erie County Department of Social Services in Buffalo, New York, indicated that the median length of continuous time on welfare was approximately three and one third years. Since this again does not include the marginal persons who move on and off welfare, four years would seem to be a reasonable (and somewhat conservative) estimate of the expected welfare period. Given these estimates four years would seem to be a reasonable expected welfare period upon which to base the analysis. Also too longer periods of six and eight years are included in the following tables to illustrate the difference these estimates will make on the benefit cost ratios.

### THE BENEFIT COST RATIOS

Having estimated the parameters we can now compute the various benefit cost ratios of the different welfare plans. It should be remembered that these figures are based upon what are considered to be the best available estimates of the different variables. Different ratios would, of course, be generated by changing the magnitude of these variables. A feature of this analysis is that it allows for a change in any of the parameters and can thereby fit any number of specific job creation and welfare programs.

### CONCLUSIONS AND POLICY RECOMMENDATIONS

The most striking impression one gets from an examination of the benefit cost ratios in Table 3 is that job creation almost always pays. Even under the very conservative assumption of case 1 (where productivity is zero) the benefits exceed the cost in the more industrialized states while under the assumption of case 2 (where productivity is one-half the wage payment) the benefits more than double the costs in many instances. Given what seem to be reason-

TABLE 3  
Employment-Welfare Benefit-Cost Ratios .

Welfare Plan	Expected Welfare Period**		
	4 years	6 years	8 years
Case 1: Productivity = Zero			
Administration GI Plan	.97:1	1.33:1	1.62:1
Friedman Plan (Neg. Income Tax)	.62:1	.85:1	1.04:1
AFDC-UP New York	1.03:1	1.41:1	1.73:1
General Assistance—Mississippi	.29:1	.40:1	.49:1
Case 2: Productivity = One-half wage			
Administration GI Plan	1.93:1	2.65:1	3.25:1
Friedman Plan (Neg. Income Tax)	1.23:1	1.69:1	2.07:1
AFDC-UP New York	2.06:1	2.82:1	3.46:1
General Assistance—Mississippi	.58:1	.80:1	.98:1
Case 3: Productivity = Two-thirds wage			
Administration GI Plan	2.90:1	3.98:1	4.86:1
Friedman Plan (Neg. Income Tax)	1.86:1	2.55:1	3.12:1
AFDC-UP New York	3.09:1	4.23:1	5.19:1
General Assistance—Mississippi	.87:1	1.20:1	1.47:1

\* The other variables are set at the following levels, the rationale for which is discussed in the text: Discount Rate = 10%; Training Period = 18 months; Wage Payment = BLS Lower Living Standard Budget for a Family of Four. The appropriate level of wages is used for each area in the above calculations, the national average being \$5,915.

\*\* As noted in the text, four years is deemed to be the most reasonable expected welfare period. The other periods may become more relevant the lower the unemployment rate goes and are therefore included for purposes of comparison.

able estimates of the variables involved, the case for job creation is a strong one.

The rationale for viewing the benefits of job creation from the standpoint of transfer payments would seem to be quite relevant in terms of public policy. These may well be the costs and benefits that would be considered in allocating funds for the program. In terms of the figures generated in this study the normative implications are quite clear: if the government adopts a guaranteed annual income concept or sets minimum welfare standards it will pay to develop as many job opportunities as possible. This is already the case in the industrial states which have more adequate welfare programs. Even when the only benefits considered are reduced welfare expenditures the investment in job opportunities is a sound one. When other benefits are considered job creation becomes even more attractive.

# LABOR RELATIONS AND MANPOWER FLEXIBILITY EXPERIENCE UNDER CONTRACT MAINTENANCE

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Contract maintenance, where a firm buys an outside maintenance labor force to meet new demands of manpower flexibility, has been a controversial subject involving a number of significant industrial relations problems. Key among these is the task of predicting the labor relations behavior of outside building trades unions which are required to adapt and operate in an industrial union setting in order to win the competition of a new labor force.

Chandler has pointed out in this area "there is a real need to study further the effect of the contract relationship on the inside organization."<sup>1</sup>

The following discussion focuses on a study undertaken to fill this informational gap in several important areas. Before the study could begin, a definition of the areas to be researched was needed. This was accomplished through an intensive literature search supplemented by in-depth interviews with contractors, union officials, both craft and industrial, and plant maintenance management. From this research four areas emerged as being essential to the decision making process of the inside organization as to whether or not an outside labor force would be used—(1) Labor Relations, (2) Flexibility, (3) Cost, and (4) Quality.

These were consistent with the findings of other studies.

"To management of many firms, the issue (contracting out) involved may involve the size of organizations and the number of workers employed. Problems of control over the labor force and the desire by in-plant supervision to determine quality and work standards are basic pressures. Questions of control over costs and the belief most frequently held by management that they can perform maintenance functions at lower costs loom large in decision making influences. Of equal importance is the feeling held by many managements that they are not only bring-

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<sup>1</sup> Margaret K. Chandler, *Management Rights and Union Interests*, (New York: McGraw-Hill, Inc., 1964), p. 164.



ing in outsiders over whom they have no control, but also who may be in potential conflict with their own workforce. And above all there exists a natural desire to avoid getting involved in jurisdictional disputes from which no gains can be attained."<sup>2</sup>

In this paper only labor relations and the flexibility of the workforce will be discussed because of their relatively greater industrial relations importance. It was found that firms desiring to use CM were most interested in the manpower flexibility it seemed to offer and were most concerned over the fear of poor labor relations which might result.

The data were collected by case studies and questionnaire surveys including all companies (61) using contract maintenance in the chemical and oil refining industries. These industries are technologically advanced and have been able to automate, thus offering an insight into developing new demands on labor supply and flexibility.<sup>3</sup> As the following discussion demonstrates, in-depth studies coupled with the 28 firms which responded to the questionnaires, have raised some serious questions as to the validity of several key arguments used to dissuade firms from utilizing contract maintenance as a new method of coping with changing manpower requirements.

### Labor Relations

The biggest fear confronting most firms considering the implementation of contract maintenance is that it will produce severe labor relations problems. This fear arises from a number of considerations.

1. The construction industry has lost more man-hours due to walkouts than any other.
2. Jurisdictional disputes have been a way of life in construction.
3. The presence of a unionized contract force in a non-union plant could encourage unionization.
4. Serious controversy could develop between the inplant and contract maintenance employees—the old craft vs. industrial union clash over property rights.

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<sup>2</sup>Leo C. Brown, I. Sobel and John Dunlop, *A Review of the St. Louis Construction Industry's Market*, St. Louis Construction Industry Conference, St. Louis, Mo., October 21, 1961, p. 23.

<sup>3</sup>Herbert R. Northup, "Automation Effects on Labor Force Skills and Employment," *Proceedings of the Tenth Annual Meeting of the Industrial Relations Research Association*, (Madison, Wis., 1958), p. 36.

5. A real question existed as to whether the craft organization could adapt and modify to meet requirements and behavior identified with industrial unions.

Research revealed an almost complete lack of serious labor relations problems. One of the clearest findings of the study is that this fear of labor problems is unfounded. Many managements using contract maintenance spent less time on labor relations and personnel matters than they would have with an in-plant maintenance force.

Using the strike situation as a key to test the effect of contract maintenance on labor relations, it was found that only 3 of the 28 respondents had actually had a strike—two had a strike of one day while one had a strike lasting only one hour.

The strike record of CM was compared with that of industry in general. The following table reports idleness as a *percent of estimated* working time over a four-year period (1964–1967) for industry as a whole and for contract construction in particular.

STRIKE RECORD <sup>4</sup>

	All Industries	Contract Construction
1964	.18	.35
1965	.18	.57
1966	.18	.73
1967	.30	.62

Student's t-test applied to these data shows a significant difference between the strike record of all industry and contract construction at the 95% confidence level.

It is interesting to compare the percentage of time lost by contract maintenance with those reported above. In the survey it was estimated that CM workers lost approximately 500 hours of a total of 9,944,480 hours worked. This represents a percentage of total time lost of .005. Since this is the only available estimate for CM workers, it would be inappropriate to stress its statistical significance. On the other hand, it can be seen that the mean percentage for contract construction is just less than three times that for industry as a whole, and this represents a significant difference. Given that the mean percentage for CM workers is

<sup>4</sup> *Handbook of Labor Statistics, 1969*, U.S. Department of Labor.

only about 1/30 of the mean for all industries and only 1/85 of that for contract construction (and assuming .005 is a reliable figure), it is reasonable to conclude that comparatively less time is lost by CM workers.

The respondents' experience in the resolution of jurisdictional disputes was favorable. In the three firms subjected to rigorous in-depth investigation there has been no problem with jurisdiction, a fact confirmed by the 28 firms included in the questionnaire study. In fact, jurisdictional lines have been loosened and company analysis found mixed craft crews working on a number of jobs.

The time factor, so important in building construction, is not present in contract maintenance where the work is continuous. There is no need to shut down the job over a jurisdictional dispute. If the contractor's job assignment is questioned, the contractor and the business agents of the grieving parties meet and the jurisdiction is decided for the future.

These findings are surprising considering the fact that "historically, one of refinery management's greatest objections to contract maintenance has been their fear of jurisdictional disputes and work stoppages by the craft union members employed by contractors."<sup>5</sup>

The ten non-union plants represented in the survey helped dispel the fear that contract maintenance would encourage unionization. None of the ten replied that contract maintenance had caused any attempts at unionization nor had any plant been organized because of it. In fact, the in-depth studies revealed that the reverse was true.

In one case when an industrial union began an organizational drive in a plant, contract maintenance union personnel went to plant management, pointing out problem areas that should be corrected in order to defeat the union. Members of the contract maintenance force stated to management at that time that they wanted the plant to stay non-union. This is easy to understand because if the outside union organized the plant, one of its first objectives would have been to try to eliminate contract maintenance so its members would organize the entire plant.

On the other hand, the experience of unionized firms revealed

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<sup>5</sup>Floyd S. Brandt, "Independent and National Unionism in the Oil Refining Industry," Unpublished Ph.D. Dissertation (Harvard University Graduate School of Business, 1960), p. 167.

that in-plant industrial unions did not prevent a successful experience with contract maintenance by "outside" craft unions. Eighteen companies, or over 60% of the respondents, had organized plants, yet only one company felt its union had made it possible to have good contract maintenance. In-plant union representation was by the Oil, Chemical and Atomic Workers, representing seven plants; the Rubber Workers, three; District 50, ATW, two; the International Brotherhood of Electrical Workers, two; the Operating Engineers, one; the Paper Workers, one; the International Longshoremen Workers, one; and one independent union. The data indicate that in-plant unions and contract maintenance have not conflicted to any appreciable extent.

After the first questionnaire was distributed and the responses tabulated, a second questionnaire was devised to focus on particular areas of interest highlighted by the original inquiry. All of the 28 original respondents were again consulted with the following results. When asked, "What is the biggest labor relations problem CM has caused you?" it is significant that 11 replied, "Difference in wage rates." The case studies have indicated that the sharp division in the job security of the two jobs, in-plant vs. contract work, has eliminated most of the clout this argument carries, although this continues to be the major trouble point, especially with the size of the recently negotiated building trades wage settlements. Nine respondents took the trouble to write "little or no problems," and eight did not respond at all to this question. The results of these two questions, coupled with the first survey and the case studies, illustrate that labor relations in contract maintenance has been highly satisfactory, despite the fact the image of the building trades unions is the greatest deterrent to its use.

#### FLEXIBILITY

Manpower flexibility is of two kinds. One is the ability to add and subtract manpower to meet varying needs. This is measured best by comparing the total maintenance manpower at high and low work periods; for example, a peak maintenance need as contrasted to the lowest period of maintenance activity. This is especially important to the automated and technologically advanced industries which need only small crews when operating normally and yet

require high manpower in shutdown situations to quickly bring "a plant back on stream."

The other aspect of the problem, and equally as important, is the internal composition of the workforce - how many pipefitters, how many carpenters, electricians, etc., are needed. It is conceivable that the total number of maintenance men needed could be constant, but the varying plant needs might require very different craft skills from week to week, even day to day.

The adaptation of the traditional manpower flexibility of craft unionism to the industrial jobsite has seemingly done much to meet these two needs. Certain characteristics of craft unionism have enabled it to respond and adapt to the manpower problems of chemical and oil refining. The building trades unions normally function in an environment where the ability to form a labor force quickly and to vary it in terms of skill mix is crucial. Through the union hiring hall and the lack of seniority, craft unions have been able to meet the needs of a widely varying labor force. Their ability to transfer this experience to the industrial jobsite has been rated excellent by 24 of the 28 respondents who named flexibility as the greatest advantage of contract maintenance.

As the following discussion demonstrates, contract maintenance has responded well to major maintenance problems.

#### *Fluctuating Labor Needs.*

The investigation revealed that contract maintenance can be used where a plant has a fixed number of in-plant maintenance men but needs a supplemental workforce to take care of work peaks. In many cases this combination has offered optimum cost savings. Case examples revealed a pre-turnaround workforce of 181 men being increased to 480 men in a week; to 900 men in the second week; to a peak of 924 men in 17 days. A week later 375 men were working and in another week the force was at its average of 150 to 180, all with no shortages of skilled manpower and no scheduling problems.

Seniority has not been an obstacle. The number of grievances filed on discharges was almost nonexistent. Those few filed were settled on the spot. In fact, the building trades practice of no seniority was carried out in industrial plants. The seniority of

the men working made little or no difference to the local business agents as long as every one working was "union."

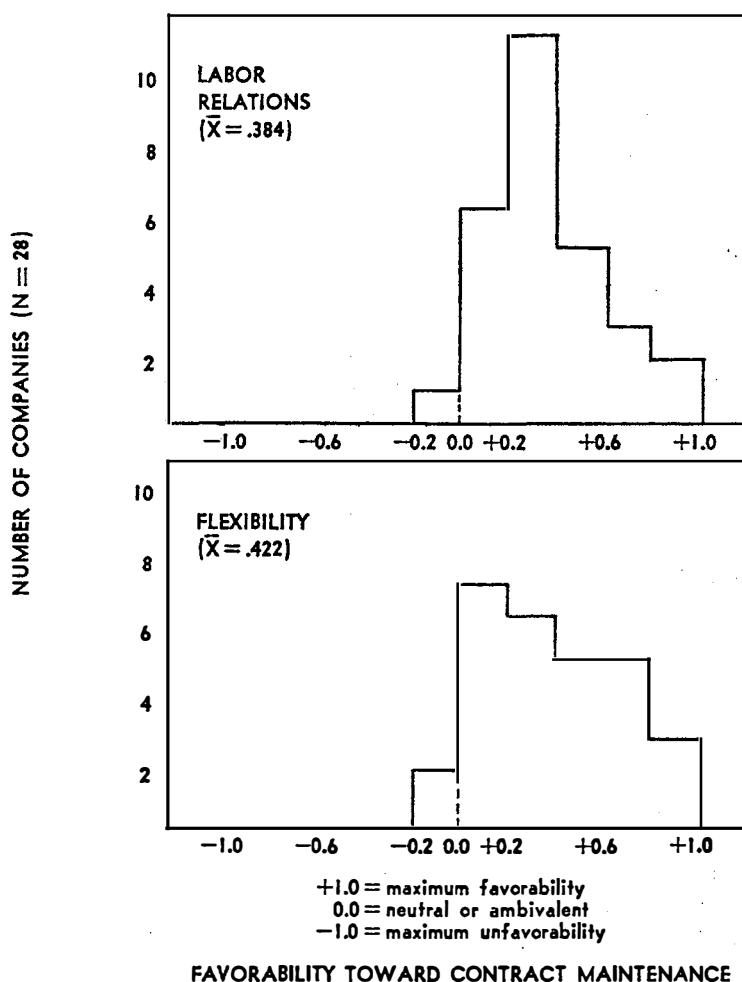
*Internal Craft Balance.*

Contract maintenance has enabled management to mix the right proportions of specialized trades, often on a daily basis. Consequently there are no unbalanced crews. For instance, in one case asbestos workers were needed and obtained in the daily variation - 15, 25, 5, 4, 2. One maintenance man commented, "I don't have the problem of most maintenance men of wishing I had five more electricians while being stuck with excess pipefitters. I've got exactly what I need for the job and no more." Thus the problem presented by an in-plant force of assigning a relatively stable workforce to fluctuating maintenance requirements has been effectively surmounted by CM.

This is not to say that CM can always provide the exact number of people needed at any time. On the contrary, only ten of the respondents to the questionnaire indicated this was always true. In the "Remarks" section the users of CM pointed out that on jobs requiring a large number of people for one or two days, or requiring unusual skills not ordinarily found in the area, contract maintenance could not always deliver. For example, one of the respondents stated, "I had a job requiring 12 extra pipefitters for a 1-shift term. There is plenty of work available in the area and I couldn't find them for just one day."

The employment of mixed crews has also been noted under CM. Electricians, pipefitters, and boilermakers may all work together on a job with little or no difficulty. In cases of emergency each was found doing the other's work, something that no doubt would precipitate a stoppage on a normal construction job.

As the earlier discussion on jurisdictional disputes demonstrated, this has been accomplished without the discord common to the building trades. Again, the key seems to be that the work is of a continuing nature and thus the reasons for jurisdictional disputes which had existed so long in the construction industry are non-existent in contract maintenance. The conditions of contract maintenance, where the work is of a recurring nature and a grievance settlement has a future, are obviously different from those prevailing in construction.



"On the average, a craft works on a project for a short period of time. For this reason, when dispute over a work assignment arises, there is a natural desire to have it decided then and there. Moreover, the aggrieved union is quite aware that the contractor may have agreed to a penalty payment if the work is not completed by a given date. The result is hasty resort to economic pressures through a work stoppage. In this

situation there is no effective remedy once the work has been done."<sup>6</sup>

### *Statistical Analysis.*

In addition to the above findings, the data also lent themselves to a more rigorous analysis based on a statistical approach. In order to effectuate this analysis, every relevant question on the 2-questionnaire structure has been scored with either a zero, a +1.00 or a -1.00, yielding a series of scores in each area for each company. The averages of these series must range from -1.00 (all unfavorable responses) to +1.00 (all favorable responses). To the extent that a company is neither consistently favorable nor consistently unfavorable toward a particular issue, the mean for that issue should be close to zero since the -1.00s and the +1.00s will tend to cancel one another. For each area then we have a distribution of 28 averages, one supplied by each company. If the companies in general are neither favorable nor unfavorable toward the issues involved, we would expect the distributions of these averages to be centered around zero. The distributions for the labor relations and flexibility areas are shown on the preceding page. It can be seen that the means of these distributions are both on the "favorable" or positive side of zero.

Further analysis of the data, including the application of the Newinan-Keuls method, allowed comparison of each issue with every other issue. The results showed the attitudes toward labor relations and flexibility to be the strongest (i.e., most favorable). In summary then, the companies in general displayed favorable attitudes toward all issues, but these attitudes are significantly more favorable for the issues of *labor relations* and *flexibility*.

### SUMMARY

The survey results, both from a descriptive analysis and a statistical one, confirm the findings of the case studies. Companies using contract maintenance have had favorable results with its use. The favorable judgments are most easily identified and justified in the area of labor relations and flexibility.

The data in these two areas have demonstrated success of the

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<sup>6</sup> S. H. Slichter, J. J. Healy, E. R. Livernash, *The Impact of Collective Bargaining on Management*, Washington: The Brookings Institute, 1960, p. 259.



craft unions in adapting and modifying their behavior to fit a new environment - the industrial plant. Consequently, the data to date justify a conclusion that a company having a maintenance need where flexibility is important would do well to investigate the use of contract maintenance as it would not appear that the labor relations problems common to the construction industry will present any great difficulty. It is suggested that the economics of industrial maintenance, which is continuous rather than short-lived project work, largely accounts for the difference in the behavior of the craft unions.

# LABOR STANDARDS AND THE INTERNATIONAL COORDINATION OF COLLECTIVE BARGAINING

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Unions often speak of "taking wages out of competition" when faced with competition from outside their bargaining units. At the international level, this same idea accounts for efforts to raise labor standards through the International Labor Organization (ILO), for proposals to include fair labor standards in international trade agreements, and for recent attempts to coordinate collective bargaining across national borders. Current import problems of a number of American unions require increased attention by labor economists to these related topics.

## I. ILO LABOR STANDARDS

Proposals for international coordination of labor standards can be traced back quite far. In 1788, Necker, the French statesman, argued that Sunday rest should be observed in all countries simultaneously.<sup>1</sup> But, it was not until the aftermath of World War I, that the ILO was formed. Part of the original rationale for the ILO was that enforcement of standards would help ensure world peace. However, another motive was also involved. It was recognized that enforcement of standards in a single country would place it at a competitive disadvantage in world markets.<sup>2</sup>

Conventions and recommendations of the ILO vary in their impact on production costs. Certain standards deal with items such as union rights, rather than working conditions and wages. In addition, implementation and enforcement may be quite uneven. Some less-developed countries regard ILO standards as future goals, rather than current requirements. But, it is clear that some

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<sup>1</sup> Paul Perigord, *The International Labor Organization: A Study of Labor and Capital in Coordination* (New York: D. Appleton and Co., 1926), pp. 50-51.

<sup>2</sup> The ILO hoped that this line of reasoning would entice the recalcitrant United States to join in the 1920's. See International Labor Office, *The International Labour Organization: The First Decade* (London: George Allen & Unwin, 1931), pp. 42-43.

standards, if enforced, could have an impact on competition in world markets.

Less-developed countries sometimes fear that inappropriate standards might be used by pressure groups in the industrialized nations to limit import competition.<sup>3</sup> On the other hand, member states of the ILO are not compelled to accept conventions and recommendations. Furthermore, in the postwar years, the ILO has recognized that possible adverse impacts must be considered in formulating standards.<sup>4</sup>

The imposition of labor standards by nonmarket mechanisms is often discussed in terms of alleged economic effects. Do minimum wage laws, for example, restrict employment and output? Only in the case where the impact on employment and production is negative is the competitive rationale for internationally-coordinated labor standards applicable. Often an "equity" criterion is put forth concerning international trade. It is said to be "unfair" for producers in a high-standard country to have to compete with foreign low-standard industries. What is not always realized by economists is that this view can be supported by economic theory under a "second-best" approach. Suppose Country A unilaterally imposes higher-than-prevailing labor standards on an exporting or import-competing industry. If the standards do not generate offsetting productivity increases, employment and production in the industry may be restricted. Foreign suppliers may increase their competitive production to take up the slack. The result is a distortion of the location of world output. Imposition of higher standards in competing nations, will tend to reverse this misallocation.

## II. UNION PROPOSALS FOR FAIR LABOR STANDARDS

According to Walter Reuther, CIO President Phillip Murray advocated international fair labor standards as a basis for trade as early as 1943.<sup>5</sup> But, it is difficult to pinpoint the date when this

<sup>3</sup> Early Indian labor legislation resulted from pressure by British textile interests who resented Indian competition. See Rajani Kanta Das, *Factory Legislation in India* (Berlin: Walter De Gruyter & Co., 1923).

<sup>4</sup> The ILO's latest Minimum Wage Fixing Recommendation (1970) suggests that authorities should consider the balance of payments among other variables in setting wages.

<sup>5</sup> Reuther's statement appears in International Metalworkers' Federation, *Minutes of the Nineteenth Congress of the International Metalworkers' Federation* (Rome: May 9-12, 1961), p. 83.

became an official demand of organized labor. The proposal appeared often in the documents of the AFL-CIO which supported its endorsement of the Trade Expansion Act of 1962. Similar proposals have been made by the International Trade Secretariats and the International Confederation of Free Trade Unions (ICFTU). There have been efforts to incorporate such standards into the General Agreement of Tariffs and Trade.<sup>6</sup>

Various definitions have been provided for such standards, but three features seem to run through most of the proposals. First, references to wages are generally (but not always) in money terms, presumably converted into a common currency. "Decent" *real* wage levels are not spotlighted. It is quite possible for a wage to be "decent," but not "fair," (or vice versa) based on some of the suggested definitions. However, for a union concerned with injury from foreign competition, the money wage indicator makes the most sense.

Second, definitions of "unfair" competition often assume that only a foreign export industry can be "unfair". Import-competing industries are always supposed to be the plaintiffs. This view appears arbitrary. Why not consider cases in which an import-competing industry is "unfairly" increasing its share of "its" domestic market at the expense of "fair" foreign exporters?

Third, the proposals assume that necessary data for the determination of "fairness" are readily available. Even where wage figures are obtainable, international differences in customary fringe benefits make comparisons difficult.<sup>7</sup> If profits are part of the definition, even more complications arise. Accounting practices of multinational firms can reallocate profits towards or away from any national operations. The problem of defining the stock of capital by which the rate of return is to be judged is well known to public utility regulators. And, in multiproduct firms, the allocation of joint profits is conceptually difficult. An investigating agency, faced with these problems, could easily become a *de facto* forum for international trade negotiations. Defendants and plaintiffs could haggle over the interpretation of data, as well as over the actual criteria to be applied.

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<sup>6</sup> Article 7 of the charter of the International Trade Organization (ITO) contained such standards. But the ITO never came into existence for lack of American ratification.

<sup>7</sup> Consider the difficulties in valuing the lifetime employment commitments made to workers in certain Japanese firms.

Many criteria have been suggested for defining unfair competition. Only three versions are reviewed here for purposes of brevity. These are:

- A) Comparisons between wages paid in the export industry and in other industries of the exporting country.
- B) Comparisons between wages paid in the exporting firms with other firms in the same industry and country.
- C) Comparisons of unit labor costs in the export and import-competing industry of the exporting and importing countries.<sup>8</sup>

Comparison A represents a search for "exploitation" of workers in an export industry relative to local standards. To be meaningful, such a comparison would have to be made on an occupational basis, since differences in average earnings between industries might reflect nothing more than differences in occupational composition. Interindustry occupational differentials might be due to regional differences in wages (and regional immobility), or to minimum standards applied to other sectors. An industry might happen to be located in a less-developed region of a particular country. The literature on standards generally recognizes that less-developed countries will pay lower wages than developed countries. Would this generalization be applied to less-developed regions within a country? Or, if an industry paid less-than-average wages because of a special exemption from general labor standards, would elimination of those general standards makes the industry "fair"?

In any case, workers in developed countries might not obtain much protection from a standard based on Comparison A. Many future complaints of unfair competition are likely to result from light manufacturing exports of less-developed countries, especially textiles. But in general, the manufacturing sector pays higher wages in less-developed countries than do other sectors.

Comparison B may suggest "company town" arrangements in which a firm faces an upward-sloping (or vertical) supply curve of labor. Labor is presumed to be immobile and, hence, heavily dependent on the employer for jobs. However, economic theory

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<sup>8</sup> Proposals A and B appear in the ICFTU's *Economic and Social Bulletin*, Vol. 12 (May 1964), p. 43, and Vol. 13 (January/February 1956), p. 10. Proposal C can be found in AFL-CIO, *AFL-CIO Looks at Foreign Trade* (Washington, 1961), pp. 140-141. A list of twelve possible criteria can be found in Robert B. Schwenger, "Fair Labor Standards for World Trade," *Monthly Labor Review*, Vol. 90 (November 1967), pp. 27-31.

indicates that such a situation will be self-limiting. Depression of wages, if anything, reduces the amount of labor available, and certainly does not attract outside labor. Expansion of production would be difficult under these circumstances.

A more likely source of interfirm differentials is collective bargaining. In such circumstances, wages throughout the industry may be above "market" levels. Labor recruitment is then no problem. Differentials can reflect differences in "bargaining strength." In some cases, however, they could be due to union recognition of variation in "ability to pay" between firms. Should such discrimination *by unions* between firms be labeled "unfair"?

Comparison C—involving unit labor costs—was put forth by the AFL-CIO. Lower export unit labor costs, particularly in the face of excessive profits, were suggested as *prima facie* evidence of unfair competition. A modified version of the proposal confines unfairness to situations in which *both* wages and unit labor costs were lower in the exporting industry.<sup>9</sup> This modification would generally exempt American industry from charges of unfairness. It would exempt the developed world from charges of unfairness by the less-developed countries. The modification is therefore quite arbitrary, since it allows competition on the basis of unit labor costs by certain countries, but not by others.

Equalization of unit labor costs could result in peculiar wage structures. If an industry was characterized by the same level of productivity in the United States and India, Indian workmen in the industry would have to be paid American wages. This would raise their incomes far above workers doing equivalent work in other, less productive, industries. An ILO report suggested that such wage differentials should be allowed. On the other hand, the AFL-CIO proposed taxing the unfair industry to finance general social benefits.<sup>10</sup>

Whether accomplished by wage differentials or taxation, the scheme is really a form of tariff based on labor cost. The exporting country in effect places a "duty" on its own export industry. Under the conventional system, the importing country levies the duty. The

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<sup>9</sup> This is the position of the Steelworkers. See "Urge Tariff Surcharge on Foreign Steel: Bernstein," *Steel Labor* (May 1968), p. 2.

<sup>10</sup> ILO, *Conditions of Employment and Related Problems in the Textile Industry in Countries in the Course of Industrialization* (Geneva, 1963), pp. 103; AFL-CIO, *op. cit.*, p. 141.

difference is that residents of the exporting nation collect the "revenue" in the former case. In both cases, the effect is a contraction of output by the exporter.

The use of the unit labor cost criterion depends on the existence of the industry in question in at least two countries. If an unfair industry in a particular country succeeds in putting all its foreign competitors out of business, it ceases to be unfair. If a U.S. firm invented a product, but produced it abroad from the beginning, it would not be unfair. If the firm began production at home, *then* moved abroad due to lower unit labor costs, it would be unfair during the transition.

Transitional problems are, of course, central to much of the discussion of international fair labor standards. If workers could move painlessly from industry to industry, import competition would pose few micro-level problems for workers. But, there are also some macro problems involving the impact of international trade on income distributions. Specifically, would unrestricted trade depress U.S. wages toward foreign levels? This specter, originally confined to abstract international trade theory, is now beginning to haunt us.<sup>11</sup> Given the relatively small size of the foreign-trade sector, the magnitude of such a tendency (if one exists) would also be small.

### III. PRIVATE UNION EFFORTS AT COORDINATION

In a number of countries, unions have been devoting increased attention to the possibility of private coordination of labor standards through collective bargaining. Union literature concentrates on dealing with multinational firms. Three characteristics of these firms are cited. First, multinational firms have large financial resources, and so can stand strikes in individual countries. But, this financial advantage might be neutralized by simultaneous strikes in several countries. Second, multinational firms often can reallocate production from struck plants to operating plants abroad. Coordinated action—such as refusal to work overtime—can prevent such reallocation. Third, multinational firms can take advantage of international differentials in labor costs. A wage increase in one country could lead to an induced reduction of production there and

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<sup>11</sup> For an introduction to this literature, see Daniel J. B. Mitchell, *Essays on Labor and International Trade* (Los Angeles: Institute of Industrial Relations-UCLA, 1970), Chapter 1.

an expansion of production abroad. Coordinated wage demands could eliminate the incentive to make such reductions and expansions.

The first two points are matters of "bargaining power." Indeed, the first point need not involve a firm engaged in international trade. For example, the International Union of Food and Allied Workers (an ITS) has intervened in disputes involving international hotel operations. Hotel services cannot be reallocated so the advantage of coordination was clearly in neutralizing financial power. The third point is applicable even where multinational corporations are not involved. Changes in international wage differentials can cause reallocation of production if one country's producers are put at a competitive disadvantage relative to foreign producers.

Some sort of bargaining coordination is clearly desirable from a union viewpoint. But a conflict of interest is also involved which could prevent significant cooperation. Coordination is desirable for unions because it makes the demand curve for labor more inelastic. If a domestic union knows that foreign affiliates will raise wages in some relation to its own wage demands, its fear of induced production reallocation is lessened. But an interunion agreement must be reached on how employment in the firm or industry is to be divided among countries. The situation is analogous to that faced by oligopolistic firms. They may agree that market sharing is more desirable than competition, but may have trouble in agreeing on the size of the relative shares.

The clearest instances of internationally-coordinated bargaining occur across the American-Canadian border. Over 70 percent of Canadian union members belong to unions headquartered in the United States. Decisions on employment allocation are internalized in these international unions. Occasionally, there have been complaints that American unions were aiming at reducing Canadian competition. During a 1937 automobile strike, the Premier of Ontario charged that "foreign agitators" were out to destroy Canadian exports. But the widely-respected Brecher-Reisman study found no evidence for such allegations.<sup>12</sup>

Coordination of labor standards in the U.S.-Canada case has often taken the form of demands for "wage parity." For the United Automobile Workers, the parity they obtained in 1968 involved

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<sup>12</sup> Irving Brecher and S. S. Reisman, *Canada-United States Economic Relations* (Royal Commission on Canada's Economic Prospects, 1957), p. 220.



the same wage in both sides of the border, denominated in the respective "dollars" of the two countries. That is, changes in the exchange rate between the American and the Canadian dollar alter the actual wage differential. Other industries have used different definitions of parity.<sup>13</sup>

Outside the U.S.-Canada case, instances of coordinated bargaining have developed through the various ITS.<sup>14</sup> Originally, these organizations viewed themselves mainly as information gatherers. Even now much of the initial efforts at coordination have taken the form of conferences at which information is provided about particular multinational corporations for affiliates dealing with these firms. For example, the International Federation of Petroleum and Chemical Workers held a conference for unions dealing with Shell in June 1970. Conferences are also planned for other major chemical companies.

The International Metalworkers' Federation (IMF) and the International Federation of Chemical and General Workers' Unions (ICF) have been particularly active in this field. Under Walter Reuther, the Automotive Division of the IMF organized company councils of unions dealing with major automobile firms. Meetings (but not bargaining sessions) were held in 1966 between management representatives of General Motors and Ford, and representatives of the councils. Councils have also been established by the IMF in the agricultural machinery and electrical machinery industries. In the latter industry, delegates from the IMF met with officials of the Swiss Brown Boveri Company, and reached an agreement to put blue and white collar workers on a monthly salary. In the former, an IMF representative sat as a union representative at the recent General Electric negotiations in the U.S.

World company councils have been established in the Pulp and Paper section of the ICF for Bowater (British) and Borregaard (Norwegian). Particularly pleasing to the ICF was its glass section's activities in a dispute involving Saint-Gobain in 1969. Affiliates agreed not to sign contracts until authorized by a central committee. Similar coordination is planned for other glass companies. Encouraged by its success, the ICF has even published a how-to-

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<sup>13</sup> See "Wage Parity for Canadian Workers," *Labour Gazette*, Vol. 68 (August 1968), pp. 466-469.

<sup>14</sup> Information for this section comes from a variety of ITS and ICFTU journals and documents.

do-it guide for international collective bargaining. The plan involves approaching the target firm for purposes of "consultation." Non-controversial demands are then made. Finally, bargaining can begin "where circumstances are favorable."<sup>15</sup>

It cannot be known at this point how often favorable circumstances will be found. With the exception of the American-Canadian case, different countries usually exhibit wide divergences in legal systems and trade union philosophies. These could prove to be formidable barriers for international collective bargaining. One wonders, for example, whether certain actions on behalf of foreign affiliates might not subject an American union to unfair labor practice charges. Can a U.S. union legally refuse to sign a contract until the company grants concessions to foreign workers? In some countries, the exclusive bargaining agent concept is not the general rule. Can American unions obtain satisfaction from affiliates who may represent a minority of workers in their industries? Can useful allies be found in countries where the state plays a major role in wage determination?

It is unlikely that unions suffering *severe* injury from import competition will find salvation in international bargaining. The conflict of interest between the foreign union (if one exists) and the domestic union is probably too great. American unions will undoubtedly continue to support unionization in less-developed countries. But coordination, where it succeeds, will probably occur mainly between developed nations.

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<sup>15</sup> *ICF Bulletin* (June-July 1968), pp. 7-11.

# CORRELATES OF WORK RELATED TENSION<sup>1</sup>

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## INTRODUCTION

Attempts to determine the amount of job related tension or anxiety being experienced by organizational employees have become increasingly commonplace. Perhaps the most comprehensive effort thus far is that of Kahn, Wolfe, Quinn, Snoek, and Rosenthal.<sup>2</sup> In their research Kahn, et al., combined both a national survey of industrial employees and an indepth analysis of individuals occupying fifty-three institutional positions or "offices." Data analysis revealed that levels of job tension increased with factors such as organizational rank, perceptions of role conflict, role ambiguity and role overload. Furthermore, it was demonstrated that job related tension or anxiety is negatively related to job satisfaction. Although a modification of these findings has been suggested by Lichtman,<sup>3</sup> the work of Kahn, et al., still stands as a landmark piece of research on correlates and consequences of work related anxiety.

A number of unanswered questions relating to felt job tension among professional employees became the foci of this study. It has been shown that professional employees are particularly susceptible to pressures emanating from differences in "professional" and "organizational" exigencies.<sup>4</sup> Some authors have suggested that one outgrowth of these cross pressures has been an increase in the

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<sup>1</sup> This research was funded by the State University of New York at Buffalo School of Nursing as part of a long term study of organizational problems confronting nursing and other medical personnel.

<sup>2</sup> R. Kahn, et al., *Organizational Stress: Studies in Role Conflict and Ambiguity*, New York: Wiley, 1964.

<sup>3</sup> C. Lichtman, "Some Interpersonal Response Correlates of Organizational Rank," *Journal of Applied Psychology*, Vol. 54, No. 1, 1970, pp. 77-80.

<sup>4</sup> See: P. Blau and W. Scott, *Formal Organizations*, San Francisco: Chandler, 1962; A. Gouldner, "Cosmopolitans and Locals: Toward An Analysis of Latent Social Roles, I and II," *Administrative Science Quarterly*, Vol. 2, 1957-8, pp. 281-306 and pp. 444-480; and P. Montagna, "Professionalism and Bureaucratization in Large Organizations," *American Journal of Sociology*, Vol. 74, No. 2, 1968, pp. 138-145.

militancy of professional employees.<sup>5</sup> What remains unknown, however, are the specific relationships between job tensions experienced by professional employees, such as registered nurses, and issues such as commitment to a profession, commitment to an employing organization, and attitudes toward strikes, unions for professionals and the more traditional professional associations.

In addition, while it is known that organizations employing particular types of professionals differ in terms of characteristics such as authority structure and decision-making processes it has not been determined if it is possible to differentiate between such institutions in terms of the job tensions being experienced by employed professionals. For example, while it is known that one can effectively differentiate between school districts, and buildings within a particular district, in terms of the militancy of teachers and the relative authority of principals and superintendents,<sup>6</sup> it is not known whether one could also effectively utilize degrees of felt job tension as a basis for institutional identification.

In light of the preceding discussion this research was designed to test four specific hypotheses.

I. For registered professional nurses there exists a positive relationship between degree of job tension and attitudinal militancy. This is to say, as job tension or anxiety increases among professional nursing personnel we expected to discover a positive increase in attitudes toward unions and strikes and a corresponding decrease in the evaluation of traditionally more conservative professional associations.

II. For registered professional nurses there exists a negative relationship between degree of job tension and commitment to either their profession or employing organization. One reason for this hypothesis is that one would expect those most highly committed to either profession or organization to most readily resolve job tensions; this would occur either through simple adherence to pro-

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<sup>5</sup> J. Belasco and J. Alutto, "Organizational Impacts of Teacher Negotiations," *Industrial Relations*, Vol. 9, No. 1, 1969, pp. 67-79; and S. Cole, "Teachers Strike: A Study of the Conversion of Predisposition into Action," *American Journal of Sociology*, Vol. 74, No. 5, 1969, pp. 506-520.

<sup>6</sup> Alutto and J. Belasco, "Decisional Participation Among Teaching Personnel and Perceptions of Administrative Influence." Paper presented at the 1970 meetings of the American Educational Research Association, Minneapolis, Minnesota.

professional precepts by those highly committed to their profession (even if it required changing employing organizations) or the continuous adherence to organization norms by those highly committed to their employing organization.

III. Degree of job tension or anxiety is differentially distributed among registered professional nurses employed in different hospitals. In other words, we believed that levels of job tension among professionals would prove to be an effective vehicle for comparing alternative institutional settings for professional practice.

IV. Among professional nursing personnel job tension is negatively related to both age and length of professional experience. Since professionals have usually possessed the potential for high inter-organizational mobility and a fair degree of job autonomy we assumed that they would also tend to experience reduced job tension with the passage of time; this would occur regardless of whether professionals shaped the job to their own personalities or searched for existing jobs which satisfied personality demands.<sup>7</sup>

#### METHODOLOGY

In order to test the preceding hypotheses questionnaire data were gathered from nursing personnel ( $n = 472$ ) employed in three separate hospitals located in Western New York State. Included in the sample were subjects employed by Community, Religious and County "general hospitals." Sampling procedures resulted in completed, usable responses from 85% of the nursing population in each hospital, and guaranteed representation of subjects by organizational level, work shift and clinical specialty area.<sup>8</sup> Data for each subject concerning employing hospital, age and number of active years in nursing were obtained directly from completed questionnaires. Indices were computed in order to operationalize the following concepts.

Measurement of attitudes toward "Unions for Nurses," "Strikes by Nurses" and "Professional Nursing Associations" involved use of semantic differential techniques. Subjects responded to four

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<sup>7</sup> E. Schein, *Organizational Psychology*, Englewood Cliffs, New Jersey: Prentice-Hall, 1965; and R. Merton, *Social Theory and Social Structure*, Glencoe: Free Press, 1949.

<sup>8</sup> See: R. Alonso "An Analysis of Commitment Orientations Among Professional Nurses" unpublished Ph.D. Dissertation, State University of New York at Buffalo, 1970.

pairs of bipolar adjectives (good—bad, harmful—beneficial, wise—foolish, reputable—disreputable) arrayed on seven point scales and designed to elicit each subject's evaluation of the three attitude objects. Subject attitudes for each object (Strikes, Unions and Professional Associations) were the average scores for each set of bipolar scales. For interpretation purposes the lower the score the less positive the evaluation of each object.

"Commitment to Nursing Profession" and "Commitment to Employing Organizations" were measured through use of identical item sets. Both commitment scores were obtained by asking subjects if they would accept non-nursing employment or employment in another hospital if such a move resulted in:

a slight increase in pay  
slightly more freedom to be creative  
slightly more status  
colleagues who were a little more friendly

Possible responses for each item were "Yes," "Uncertain" and "No." Commitment scores for each subject for either Profession or Organization could range from 4 to 12, with the higher score indicating greater respective commitment. Extensive scale development<sup>9</sup> demonstrated the effectiveness of this particular index when used with nursing personnel.

The measure of job related tension was an adaptation of that reported by Kahn, et al.,<sup>10</sup> and Lichtman,<sup>11</sup> and involved subject responses on a five point scale to various aspects of job related tension (e.g., I never know what's expected of me, my work interferes with my home life, I find work rules confusing, etc.). The greater the numerical "tension score" the greater the tension or anxiety being experienced by each subject.

Interpersonal trust was conceived as individuals' predisposition toward their social environment, particularly the degree to which the social context of their lives was perceived as either benign and friendly or hostile and unpredictable. Subjects were asked to respond to a set of six items by denoting their agreement, agreement in part, or disagreement. Examples of trust items included "most

<sup>9</sup> *Ibid.*

<sup>10</sup> R. Kahn, et al., *Organizational Stress: Studies in Role Conflict and Ambiguity*, New York: Wiley, 1964.

<sup>11</sup> C. Lichtman, "Some Interpersonal Response Correlates of Organizational Rank," *Journal of Applied Psychology*, Vol. 54, No. 1, 1970, pp. 77-80.

people can be trusted" and "if you don't watch yourself people will take advantage of you." All items in the scale focused on beliefs concerning the fundamental cooperativeness and trustworthiness of human nature. The higher an individual's score the greater his interpersonal trust.

As a means of determining degrees of perceived role conflict subjects responded to ten nursing activities by stating the percentage of time they actually devoted to each and the percentage of work time they believed should be allocated to each activity. The summed over absolute magnitude of differences between time spent and time which should be spent for all ten activities provided our index of perceived role conflict. The greater the sum of absolute differences the greater the degree of role conflict.

Finally, authoritarianism was measured by a shortened fifteen item version of the California F-Scale.<sup>12</sup>

#### FINDINGS

Presented in Table 1 are the results of correlation analyses for all variables except type of employing hospital. In terms of demographic characteristics it can be seen that as the age of professional nurses or the number of actual years experience increases felt job tension decreases. As suggested by hypothesis IV, apparently among professional employees one effect of both age and work experience is a reduction in felt anxiety about the job. These data suggest that future research efforts might profitably focus on the *relative* importance of personality or job modification in explaining reduced job anxiety among senior professional employees.

Data reported in Table 1 also indicate that feelings of anxiety about one's work are inversely related to both degree of interpersonal trust and authoritarianism. Consistent with the relationship stated in hypothesis IV, as opposed to individuals perceiving low anxiety, those subjects experiencing greatest job related tension tended to be young, have fewer years of professional practice, have lower levels of interpersonal trust and be characterized by lesser degrees of authoritarianism.

Surprisingly, hypothesis I is specifically refuted. Increased job tension is clearly *negatively* related to attitudes toward strikes by

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<sup>12</sup> T. Adorno, *The Authoritarian Personality*, New York: Harper and Brothers, 1950.

TABLE 1  
Intercorrelations Between Nurse Characteristics

	1	2	3	4	5	6	7	8	9	10	11
1. Job Tension	1.00										
2. Active Years in Nursing	-.13**	1.00									
3. Age	-.14**	.73**	1.00								
4. Attitude to Professional Associations		-.11*	-.10*	1.00							
5. Attitude to Strikes	-.17**	.22**	.21**		1.00						
6. Attitude to Unions	-.16**	.21**	.18**		.53**	1.00					
7. Commitment to Nursing Profession	-.25**				.16**	.13**	1.00				
8. Commitment to Employing Organization	-.21*	.26**	.23**	-.09*	.17**	.14**	.55**	1.00			
9. Authoritarianism	-.09*	.25**	.23**		.16**				1.00		
10. Interpersonal Trust	-.21**				.16**	.16**			-.13**	1.00	
11. Role Conflict	.16**									-.09*	1.00

n = 472

\* Significant at .05 level

\*\* Significant at .01 level



nurses and unions for nurses, and unrelated to evaluations of professional nursing associations. Thus one must examine more closely assumptions that when professionals are faced with job related frustrations they will be more favorably disposed toward undertaking militant activities as a means of seeking redress. It should also be remembered that this finding may be a result of either sex (all subjects females) or occupational (all subjects members of a "medical" profession) factors.

Of greater interest is the relationship between age, experience and relevant attitudes. As age and professional experience increase evaluations of strikes and unions become more positive, while attitudes toward professional nursing associations decrease in favorableness. Thus, at least for nurses, receptiveness to traditionally militant activities appears to increase with the progression of individuals through a professional life cycle.

In addition, favorable attitudes toward strikes and unions are associated with high degrees of professional and organizational commitments. In the same vein, commitment to employing organization was found to be negatively related to evaluations of professional nursing associations. Apparently the greater a nurse's professional or organizational commitment the greater her willingness to alter organizational structure and functioning through participation in militant activities.

These findings suggest that attitudinal militancy among professionals may be more a function of demographic or personality characteristics than immediate job concerns such as felt job tension. This contention is also supported by the positive relationship between level of interpersonal trust and attitudes toward unions and strikes. In that sense researchers will have to look beyond contemporary job conditions in order to understand the willingness of professionals to engage in professional activities.

Data reported in Table 1 do, however, lend support to hypothesis II. Among nursing personnel the lower the commitment to organization or profession the higher the degree of felt job tension. Interestingly, while age and experience were unrelated to professional commitment, organizational commitment was positively related to both age and professional experience. As discovered by Kahn, et al.,<sup>13</sup>

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<sup>13</sup> R. Kahn, et al., *Organizational Stress: Studies in Role Conflict and Ambiguity*, New York: Wiley, 1964.

TABLE 2  
Analyses of Covariance

	Hospitals		
	Community	County	Religious
Mean Tension Scores (adjusted)	32.1	34.5	31.8
Standard Error (adjusted)	.61	.58	.66
F - Value (df. 2/472) = 5.80, significant	<.01		

Regression Analyses for Covariates		
	Regression Coefficients t - value <sup>1</sup>	
Interpersonal Trust	-.674	-4.11*
Role Conflict	.039	3.64*
Professional Commitment	-.807	-3.24*
Age	-.278	-1.75
Organizational Commitment	-.280	-1.39
Evaluation of Strikes	-.029	-1.16
Authoritarianism	-.049	-.93
Years in Nursing	.052	.87
Evaluation of Unions	-.013	-.52
Evaluation of Professional Assn.	0.11	.34

<sup>1</sup> With 472 df

\* Significant (<.01)

role conflict was found to be positively related to anxiety about work.

Presented in Table 2 are the results of analysis of covariance tests in which type of employing hospital is treated as the independent variable and job tension as the primary dependent variable. Through this method we were able to determine that degrees of job tension are differentially distributed in each of the hospital sites, even when controlling for the effects of possible covariates (i.e., variables previously reported in Table 1). Apparently nurses employed in the county hospital experienced greatest job tension while those working in the religious hospital perceived least tension. In this respect hypothesis III is supported; degrees of felt job tension provide a viable method of comparative organization analysis.

Also reported in Table 2 are the results of regression analyses conducted simultaneously with the analysis of covariance. In essence, this technique allows us to determine which covariates contribute most to discovered tension scores when statistically controlling for type of employing hospital.<sup>14</sup> These data suggest that the most

<sup>14</sup> J. Guilford, *Fundamental Statistics in Psychology and Education*, New York: Wiley, 1956.

TABLE 3  
 Characteristics of Nursing Personnel by Institutional Affiliation\*

Characteristics	Hospitals			F-Values	Significance Levels
	Community	County (mean scores)	Religious		
Job Tension	31.7	35.2	31.3	11.49	.001
Trust	14.3	14.4	14.9	3.13	.05
Authoritarianism	38.5	35.2	38.3	10.46	.001
Role Conflict	51.7	52.3	51.3	.04	NS
Professional Commitment	11.1	10.8	11.2	2.01	NS
Organizational Commitment	10.8	10.0	10.7	3.15	.05
Active Years in Nursing	11.1	10.3	10.3	.39	NS
Age	38.1	35.9	36.5	.83	NS
Attitudes:					
Professional Associations	2.1	2.3	2.4	3.13	.05
Strikes	5.2	4.5	4.8	5.90	.01
Unions	4.6	3.9	4.3	5.51	.01

\* n = 472

reliable predictors of felt job tension under these conditions are, in order of importance, level of interpersonal trust, perceived role conflict and degree of professional commitment. This is, of course, consistent with information previously reported in Table 1.

Table 3 presents data concerning attempts to investigate differences in the characteristics of professionals in each hospital. Apparently one may differentiate nursing populations from each hospital in terms of degrees of organizational commitment, general attitudes, interpersonal trust, authoritarianism and, as previously reported, job tension. Employees of the county hospital are characterized by (1) the least positive evaluation of strikes and unions, (2) the lowest degree of organizational commitment, (3) a low degree of interpersonal trust, (4) a lower degree of authoritarianism, and (5) the highest level of felt job tension or anxiety. Of these characteristics it appears that degree of experienced job related tension and authoritarianism level provide the most effective bases for institutional differentiation.

#### CONCLUSIONS AND IMPLICATIONS

In this paper we have attempted to expand on the research of Kahn, et al., and Lichtman concerning perceptions of job tension.

While these authors have shown that job tension is an important variable in discussions of role conflict, job satisfaction and status differences within organizations, in this study we have attempted to provide evidence of its more widespread importance and utility. Analysis of data derived from 472 professional nurses employed in three different hospitals resulted in support of three specific propositions involving the concept of job related tension or anxiety.

First, our data suggest that one can effectively utilize degrees of job tension among professionals, particularly nursing personnel, employed in similar organizations as a basis for comparative organizational analysis. Of the many characteristics of nursing populations examined in this study, degrees of job tension and authoritarianism were the most effective criteria serving to differentiate between members of alternative employment systems.

The second proposition supported in this study concerned the relationship between age, professional experience and job tension. As individuals progress through stages of a professional life cycle they tend to experience decreasing degrees of job related anxiety. Whether this results from more successful job search activity<sup>15</sup> and/or modifications in personality characteristics over time<sup>16</sup> is a question which should be addressed in the future. This research does suggest that the immediate posteducational socialization experience of nursing personnel may account for a significant amount of felt job tension. Most younger professional employees, particularly those recently graduating from professional schools, will have had time for neither extensive search activities nor personality modification, which almost certainly requires an extensive time period.

Third, this research suggests that job tension or anxiety is negatively related to both commitment to profession and commitment to employing organization. Thus it is apparently easier for those highly committed to either profession or organization to reduce dilemmas and accommodate cross pressures from role definers than it is for those with moderate degrees of commitment. Therefore, the moderate commitment professional finds herself in a particularly difficult situation; she experiences job tension but is either unable or unwilling to expend the energy and other per-

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<sup>15</sup> J. March and H. Simon, *Organizations*, New York: Wiley, 1958.

<sup>16</sup> R. Merton, *Social Theory and Social Structure*, Glencoe: Free Press, 1949.

sonal "cost factors" necessary to reduce the conflicts and difficulties inherent in her work situation. It should also be noted that the greater the reluctance to initiate change in work demands the greater the probability that job tensions will be reduced primarily through personality modification. This is particularly pertinent in the case of many professionals whose mobility is reduced due to employment or educational commitments of family members.

In relation to the above propositions our research suggests that a syndrome of personality characteristics may be associated with experienced job tension. Not only do those individuals experiencing anxiety about work requirements tend to be professional juniors perceiving high role conflict, they also tend to exhibit lower degrees of interpersonal trust and be somewhat less receptive to administrative influence. In this manner the consequences of job tension may be evidenced throughout a wide range of personality dimensions and organizational behaviors.

Our data did *not* support one original hypothesis stating that increased job tension would be related to more favorable evaluation of professional militancy. More specifically, this research indicates that lower degrees of job tension among nursing personnel were associated with relatively favorable predispositions toward strikes and unions while greater degrees of perceived job related anxiety were associated with relatively negative evaluations of strikes and unions. A number of explanations for this finding appear plausible. For example, it is possible that this result is merely a consequence of either the sex of subjects (female) or the orientation of medical professionals. If this is the case then one might still expect to discover a positive tension-militancy relationship for males and/or members of other occupational categories.

A related, and we believe more probable, rationale for this finding concerns the perceived consequences of strikes and union membership for professional employees. It has been repeatedly reported that some professional groups, including nurses, tend to view membership in unions and participation in strike activity as dysfunctional inhibitors of professional practice.<sup>17</sup> If this observation is

<sup>17</sup> Seidman, "Nurses and Collective Bargaining," *Industrial and Labor Relations Review*, Vol. 23, No. 3, 1969, pp. 335-336; J. Alutto, "The American Nurses Association and Collective Action by Nurses" in M. Arnold, et al., (eds.) *The Planning of Health Care Systems*, New York: Atherton, 1971; and H. Northrup, "Collective Bargaining and the Professions," *American Journal of Nursing*, March 1948, pp. 140-145.

correct then it is understandable that those professionals currently experiencing greatest work related tension would also tend to devalue objects and activities which are perceived as adding to job problems. In the same vein this would also provide an explanation of why those experiencing lowest tension and exhibiting greatest professional or organization commitment also tend to more favorably evaluate militancy. For these individuals the emotional and professional costs involved in militant activities are bearable, especially in light of their potential for further satisfactory modification of job conditions. Thus this segment of the professional population can view the incremental costs incurred as both reasonable and necessary. In any event the relationship between job tension and militancy among professionals appears to be far more complex than often anticipated.

## DISCUSSION

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The two papers I have been asked to discuss are quite different in their subject matter, their methodology, and their implications. The first has implications for manpower flexibility and labor-management relations in firms using outside contract maintenance. The second examines hypotheses about the implications of work-related tensions among professional nurses, and in particular how these might be related to militant attitudes leading to strikes and union affiliations. While both are part of the IRRA program, they represent the breadth of disciplinary backgrounds and research methods represented within our Association.

Dr. Jordan's paper deals with a significant development in the use of outside contract maintenance crews to help meet peak maintenance requirements in a plant, when the regular in-plant maintenance crew would have to work overtime or be expanded to meet these needs. In fact, as he points out, technically-advanced industries such as chemicals and petroleum refining have special periodic peak needs which the small regular maintenance crew could not possibly handle, and outside craft union members employed by a contractor can get the plant back "on stream" faster after a shutdown. Contractors and craft unions have promoted this use of outside contract maintenance, and the firms in Jordan's sample were on the whole enthusiastic about it. His study is persuasive about the manpower flexibility this device provides, and on the lack of significant labor relations problems—either in jurisdictional disputes and strikes among the contractor's craft employees, or apparently on the rest of the plant's regular work force.

Apparently, the higher outside craft union wages have not seriously affected the wage demands of inside maintenance men, although nearly half of the respondents mentioned this as the "biggest labor relations problem" caused by CM. We are not told when the study was done, and whether the much higher construction wage settlements during the past six months might have accentuated the problem, in the author's judgment. Managements of industrial plants have usually argued that their inside mainten-

ance crews should not compare their hourly rates with the higher constructions crafts which have less regular employment throughout the year. But this argument may be breaking down as construction settlements spiral.

Finally, Jordan does not deal with another aspect of outside contracting. To what extent do inside maintenance crews, or the industrial unions of which they may be members, feel that their work opportunities are reduced by contract maintenance? From the paper, we cannot tell whether this question was specifically explored, other than the management respondents' reply that they had not experienced serious labor relations problems. But the whole question of outside contracting which affects jobs in the bargaining agent has been the subject of numerous NLRB and arbitration decisions. There is little indication that Jordan explored this question carefully in his otherwise excellent paper.

The study of correlates of work-related tensions among a sample of 492 nurses in three hospitals tests some interesting hypotheses by what appears to be a careful methodology. Professor Alutto and his associates state their four hypotheses clearly, and admit their surprise in finding that their first hypothesis (increased job tension is positively related to attitudes toward strikes by nurses and unions for nurses) was not supported by their data. In fact, they found *favorable* attitudes toward strikes and unions "associated with high degrees of professional and organizational commitments."

Apparently nurses who feel committed to their jobs and hospitals are willing to seek further improvements by what the authors term militant action. They also suggest, however, that such militancy may be more a function of demographic or personality characteristics, but their data do not permit a full test of this tentative hypothesis. Their suggestion that the younger, less committed nurses with higher job tension reject strikes and unions because these add to job problems is one which would seem to fly in the face of much of the conventional wisdom about those employees who favor and join unions in other branches of industry. It has usually been thought that employees with unsatisfied grievances, insecurity feelings of unfair treatment, etc., are those most active in forming unions. Perhaps the study's conclusions reflect attitudes of professionals as opposed to blue-collar workers.

In any event, the paper offers hypotheses and a methodology,



based in attitudinal questionnaires, which might be replicated in other nursing situations, as well as in other studies of the consequences of job tensions in a work environment in other types of industries.

## DISCUSSION

JOEL SEIDMAN

*University of Chicago*

Professor Mitchell's paper, in my estimation, is a good analysis of the complexities involved in the international coordination of collective bargaining.

In any consideration of this subject there are analogies on the domestic front that are suggestive. One is that workers are interested both in job security and in higher pay, and that sometimes these may conflict. An example is a runaway shop, seeking to escape union control by going to a low wage area. If the union follows, trying to organize, the workers are not likely to be receptive if they think the union's objective is to drive the employer back to unionized markets, though they may respond favorably if the union does not seek to change the existing dispersion of the industry, contenting itself with raising wage standards so as to prevent further dispersion.

Another analogous point concerns the relationship between union and management. While typically we emphasize the conflict inherent in that relationship, we recognize that under some circumstances, as where the company faces loss of markets, with the result that the workers fear loss of their jobs, cooperation is likely to replace conflict. We might expect to find comparable reactions, where workers sense a threat to their jobs, in the international field.

I would suggest that there are two types of situations that might encourage efforts at international coordination of collective bargaining. One is the penetration of external markets by exporting firms, threatening manufacturing jobs in the importing countries. The industries concerned may be labor-intensive, using workers at low levels of skill and pay, as in the case of many imports from areas such as Hong Kong; or the products may be made by skilled workers in advanced countries, as in the cases of automobiles, steel, or cameras from Western Europe or Japan. In either case the result may be cooperation between unions and managements in the importing country to preserve markets and jobs, with joint pressure for tariffs or quotas. The government in each country, whether it is importing or exporting, is likely to be responsive to the joint efforts of its union and management groups.

The other type of situation occurs where a firm in an advanced country, such as the United States, shifts production abroad to take advantage of lower labor costs, in order to serve its foreign or even its U.S. customers. In this type of situation the U.S. union may give assistance to unions abroad, particularly in under-developed countries, whose members are employed by the U.S. firm. The most usual type of cooperation is likely to be an exchange of information, though there may also be assistance, in the case of weak unions in under-developed countries, in the form of skilled bargainers or financial aid. The workers abroad are unlikely to cooperate if they see a threat to their jobs; cooperation is more likely to come if the U.S. union accepts the existing international division of jobs, seeking merely to raise labor costs abroad so as to prevent further export of jobs.

Coordinated bargaining, however, presents serious practical difficulties, even where it takes place within the boundaries of a single country. The most successful case is likely to occur where a company operates within a single industry or group of closely related industries, as in the case of General Electric or Westinghouse. Here the cooperation of multiple unions produces the advantages that would accrue if a single industrial union were involved. Where a company is active in a series of unrelated industries, as in the case of conglomerates, the problem is far more complicated; here an exchange of information may be the only type of cooperation that is readily achievable.

Where cooperation across national boundaries is required, the problems are far greater. Here again the easiest case is where the same company operates in different countries—though even here, as Professor Mitchell points out, difficulties may be presented by differences in labor law, government wage policy, and local labor market conditions. If the companies are different, the problems are greatly magnified. Job protection is vital to each national union; if one of them sees a threat to its members' jobs, it is likely to view its local management as a partner and the union abroad as a competitor. In cases such as these, I would not expect to see much more than an exchange of information for a long time to come.

To turn now to Professor Pohlman's paper, it impressed me as an interesting attempt to compare the relative costs of job

creation programs and welfare payments, where the reduction in welfare payments is the only benefit of job creation that is being weighed. Even here Professor Pohlman's conclusion is that job creation almost always pays, provided allowance is made for a worker's productivity so that only the excess wage above this is compared with welfare cost. Other benefits also result, needless to say: a gain in work habits and job skills that may raise workers to the level of employability in the regular job market, along with psychological benefits such as gains in self-esteem and the esteem of others, and gains to society such as a lessened likelihood of social delinquency.

Considerations such as these, which are beyond the scope of Professor Pohlman's analysis, make the case for job creation rather than welfare overwhelming. While it is clear that job creation will cost more than welfare in the short run, Professor Pohlman shows that job creation will usually cost fewer dollars, if allowance is made for the value of the services that are received. The problem is to make government, with its many claims on tax revenue, follow this course.

For job creation to serve its intended purposes, however, some conditions would have to be met: (1) the services would have to be in addition to those presently provided; (2) the services would have to be of value to society, or the productivity of the workers would have little meaning; (3) the jobs would have to employ a considerable number of persons at low levels of education and training; and (4) there should be some carryover to the labor market in terms of job skills, or else the only gain for market purposes would be in work habits. There are many areas in which such jobs might be created—as in education and recreation, in the care of the aged or ill, and in the provision of a variety of services in low income areas. To do this successfully, however, we would need a rearrangement of government priorities, and also a higher level of employment in society, to absorb marginal groups in regular employment.

# VIII

## PERSONNEL AND ORGANIZATIONAL RESEARCH: EMPIRICAL STUDIES BY SELECTED MICHIGAN EMPLOYERS\*

Thomas H. Patten, Jr., Chairman  
Michigan State University

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\* The papers and discussions presented in this session by Larry J. Bossman, Jr. of General Motors Corporation, William E. Blevins of National Bank of Detroit, and Gary G. Petersen of Omni Spectra, Incorporated, are not included in the published *Proceedings*.

# ORGANIZATIONAL DEVELOPMENT RESEARCH

JAMES A. THURBER

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This paper is intended to describe and illustrate, through the use of a case study, some of the principles of effective impact in the area referred to as "organizational development" or OD. These principles include: (a) obtaining the active commitment of top management personnel in the organizational unit; (b) interest in a long-term rather than a short-term perspective; (c) periodic measurement of the psychological aspects of the supervisory workforce coupled with more traditional measures of organizational effectiveness; and (d) starting with an organization "where you find it" and moving from there in the direction it wants to move.

Published accounts of organizational development activities, both theoretical and actual, generally have as their common denominator a systemic orientation, peaks and valleys of intense OD activities, unfreezing-changing-refreezing cycles, and results presented in terms of both psychological and productivity measures. The manner in which these dynamics are practiced cover the continuum from increasing the sensitivity and awareness of individuals to change through personnel decisions. The case study described here falls somewhere near the midpoint of this continuum in terms of modal activities.

## CONCEPTUAL FRAMEWORK

In order to understand both the strategy and results of this project, let me first describe the dynamic model which was employed. As a result of over two decades of research at the Institute for Social Research, Rensis Likert and his associates have formulated a model describing the dynamics of organizational behavior. The model consists of three sets of variables: causal, intervening, and end-result (or in other terminology: input, throughput, and output). Causal variables are of two types: supervisory behavior and organizational behavior. These are seen as influencing the display of communication processes, decision-making processes, motivational processes, leadership processes, control processes, etc. As a result,

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(Note: The case-study names are pseudonyms.)

these processes influence the end-result variables of organizational productivity and organizational health (including "satisfaction"). As might be expected, this is both a sequential and repetitive chain of activities. In addition, we are talking about elapsed time in units considerably larger than days for the impact of a change—for example in supervisory behavior—to show its effects on organizational productivity. It must also be recalled that between supervisory behavior and organizational productivity are many filtering devices. While these filters may both augment and diminish the effects of causal inputs, their general characteristic is one of diminishment; thus a major change in supervisory behavior is required to produce a minor change in organizational productivity.

#### CASE STUDY

In 1967, Z. X. Frederikson was transferred to Arborview Assembly Plant as the Plant Manager. Shortly after his arrival it became quite apparent that not only the organizational productivity of this plant but also the psychological health of its workforce required a major rebuilding effort. To assist him with part of this assignment, he engaged the services of a firm of consulting behavioral scientists. Their assignment was to develop a measuring instrument to describe fairly precisely the psychological state of the supervisory workforce so that priorities might be established for rebuilding efforts. The consultants interviewed some 50 key personnel, and on the basis of these interviews developed an attitude survey which was subsequently administered to all salaried employees (about 1/10 of the plant workforce). The results of the survey were fed back to the Plant Manager and his Department Managers for review. Based upon their analyses of the results coupled with their own observations, a rather extensive training program was launched. Training included both job-specific components (e.g., techniques of fusion welding) as well as more general topics (e.g., problem-solving techniques). In this program, plant management had begun to communicate to the employees that some of their needs had been recognized and considered of sufficient importance to expend some organizational resources (i.e., time and money). This training occurred at all levels of the organization—from the hourly worker through the department manager.

The following year the survey was repeated to assess the impact

of the activities of the preceding year. The results showed a gain in the general area of "employee morale"; yet significant problems still remained, the most important of which was the rather low degree of interdepartmental cooperation. Next of importance was the feeling of first- and second-level supervision that upper plant management was not as concerned with this problem as it might be. In addition to a total plantwide summary of results, departmental breakdowns of the survey findings were made available to facilitate more precise defining of key problem areas. After analyses of the survey results and considerable discussion among top plant management as to why this had been communicated, the decision was made to form problem-solving groups along functional lines at the level of first-line supervision. Under the leadership of two behavioral scientists from corporate staff, three problem-solving groups were formed around a specific production activity. For example, all personnel concerned with the painting of automobiles comprised one group. This group consisted of the foremen, general foremen, superintendent, process engineer, industrial engineer, labor relations representative, material handling representative, cost analyst, etc. The assignment given each group was to discuss problems interfering with their productive effectiveness and to develop some solutions as to the way in which some of their major problems might be solved. These recommendations were then fed back to the Operating Committee, composed of the Plant and Department Managers, for consideration and implementation. A major contribution of these problem-solving groups was the development of a cross-departmental coordinating mechanism similar to one which existed at the level of top plant management. This procedure was the idea of a problem-solving group; but equally important, it received top level support, visibility, and encouragement. While not all of the recommendations of these groups were implemented, they were all considered and their disposition explained.

In 1969, the survey of the salaried supervisory workforce was again repeated to take yet another reading on the effectiveness of plant management's efforts in organizational development. In discussing the survey results, the decision was made that each Department Manager should again incorporate in his quarterly objectives some specific action(s) to deal with the key problems which had emerged from the survey. To assist them, the services of staff be-



havioral scientists were again secured. During the ensuing year, the behavioral scientists met individually with each of the Department Managers to provide assistance in exploring key problem areas and in enlisting the support of departmental personnel in resolving them.

A second major result of the 1969 survey was the clear realization that the survey instrument needed a major refinement if it was to adequately measure the current state of organizational health. In 1967, the task had been to measure the relative importance and magnitude of global problems; by 1969, the more global issues had reduced in size and a more sensitive measuring device was required. In addition, between 1967 and 1969, the attitude of management personnel had changed from one of skepticism and latent hostility to one of mild interest in the benefits to be derived from this type of measurement and subsequent activity. As a consequence, the Department Managers, with the technical assistance of a behavioral scientist, were given the task of designing the 1970 survey. It was felt that this would be beneficial both as a test of management's commitment to the activity as well as a way of increasing their ownership of the survey results. In addition, they were the ones who would be best able to suggest those areas which needed more systematic assessment.

The results of the 1970 survey bore out these predictions. At this point, the plant was back to the beginning of the cycle in that key problems were surfaced that existed at the top levels of plant management. And if continued progress were to occur, these problems would have to be more satisfactorily resolved. The dynamic was similar to that surfaced by the 1968 survey, but the magnitude had changed.

This chronicle of events is far from complete, but it does give the basic activities and processes which occurred. Only one type of data is presented here to illustrate the impact of these activities: performance to budget. However, similar patterns were exhibited in other measures as well: warranty and policy, vehicle quality, and development of personnel. As shown in Table 1, the performance of Arborview Assembly Plant for the 1968 Model Year was within 1 percentage point of other domestic assembly plants except for the first period. In the 1969 Model Year, however, the performance was somewhat more erratic. And not until the 1970 Model Year did performance show sustained improvement. In light of what was pre-

TABLE 1  
 Arborview Assembly Plant  
 Quarterly Performance to Budget (%)  
 Relative to Domestic Assembly Plants

1968 Model Year		1970 Model Year	
1st Quarter .....	-10.4	1st Quarter .....	-5.0
2nd Quarter .....	-4	2nd Quarter .....	+1.4
3rd Quarter .....	-8	3rd Quarter .....	+2.7
4th Quarter .....	-1.0	4th Quarter .....	+2.6
Model Year .....	-2.5	Model Year .....	+4
1969 Model Year		1971 Model Year	
1st Quarter .....	-8.6	1st Quarter .....	+5.8
2nd Quarter .....	-4.9		
3rd Quarter .....	-4		
4th Quarter .....	-3.5		
Model Year .....	-4.4		

sented previously, these results might appear inconsistent at best.

Returning to the model of organizational behavior and the effects of change, we recall that two things are occurring: (a) time is passing between causal and end-result effects, and (b) filters are operating between them. Thus in the first period of the 1968 Model Year, the survey was being developed, administered, and analyzed. Beginning in the second period, training activities were begun and continued through the model year. As revealed in the 1968 survey, employe morale had improved but was still on the low side, and major problems still remained. Add to this an extensive model change. Add to this that the job of plant management was more than just changing a direction: it also included stopping an earlier direction—a conclusion supported by the behavior pattern displayed during the 1969 Model Year. Thus it was not until the 1970 Model Year that the real payoff of this improvement matured. And even then, dividends were not to be realized until the 1971 Model Year (projected by preliminary indicators).

#### SUMMARY

What we have tried to demonstrate through this abbreviated case study are some of the dynamics of the OD process, why the benefits of this type of activity are closer to long-term investment rather than get-rich-quick schemes, and one way in which activities and concerns initially considered "foreign" to an environment can be made relevant, important, and contribute to the overall effective-

ness of an organization in terms of both "satisfaction" and "productivity." An attitude survey alone, a series of training activities alone, an annual "where are we" analysis alone, the concern of a few individuals alone—none of these is likely to achieve the results desired. But put together in an appropriate sequence, monitored-reviewed-explored on a regular basis by top level management of the organization, using resources as required by an objective, viewing the organization as an interdependent system, utilizing the behavioral scientist as a resource rather than as an auditor, and using a time frame appropriate to the magnitude of the task provides a realistic opportunity for OD activities to produce the impact they claim possible.

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(Note: Reprints are available from the Author, Ford Motor Company, Personnel Research, 431 Central Office Building, The American Road, Dearborn, Michigan 48121.)

# APPLIED METHODS FOR EVALUATING TRAINING

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## INTRODUCTION

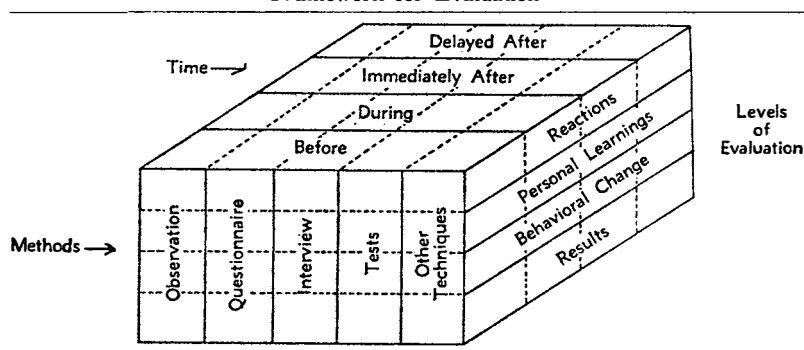
Within the Dow Chemical Company, training has held a significant position for many years. The climate within Dow has nurtured the development of a variety of training programs. Two of these efforts include sensitivity training called within Dow, Management Skills Laboratory (MSL), and a human relations program for Dow secretaries called Individual and Group Relations Seminar (IGRS). Approximately 1800 persons have participated in MSL since its introduction in 1957. A typical MSL program is one week in duration, includes 24 participants and 4 trainers (two professional trainers and two experienced lay trainers), and is held out of town. The IGRS program was developed and introduced in 1966. Since that time, approximately 300 secretaries have participated. Such topics as perception, decision making, factors affecting interpersonal relations, and the impact of needs and goals on behavior are some of the seminar topics.

## FRAMEWORK FOR EVALUATION

Approximately a year ago, I developed a model or framework for evaluation (see Table 1). None of the basic components in the model are original, and their arrangement and use represent a modification of ideas expressed by others.

Time: Data for an evaluation project can be gathered at a variety of points before, during, and after a training or development experience has occurred. Methods: Many methods can be used to gather data. These include questionnaires, tests, interviews, and any variety of methods developed as the situation demands. Levels of Evaluation: (a) The reaction level includes the "gut feel" reactions participants have to subject matter, method of presentation, quality of training and instruction, and so forth. With this method, it is impossible to know if enduring learning occurred, and if behavior changed as a consequence of training. (b) At the personal learning level, you should be able to answer the question, "What

TABLE 1  
Framework for Evaluation



learning has occurred?" From a subjective viewpoint, it is possible to ask participants to identify their personal learnings. An alternate method would involve the use of pre and post measurement and the use of a control group. (c) The behavior change level includes change from two viewpoints. Does a participant feel that he has changed and do others agree? Participants and others can be asked to identify behavioral change. Again, pre and post measurement can occur with the use of a control group. (d) At the results level, what do you want to see happen as a consequence of training? What do you want a participant to be able to do after training? In addition, it is desirable to identify how much of the desired results is attributable to training. This suggests the use of pre and post measurement, the use of a control group, and the careful definition of the dependent variable, i.e., the variable used to measure or reflect the impact of training.

#### A REVIEW OF FOUR EVALUATION PROJECTS

##### *Survey of Reactions to Sensitivity Training.*

Questionnaires were sent to 300 MSL participants, 100 from labs conducted during 1965, 1967, and 1969. The items are keyed to correspond with program objectives and certain Company objectives. The program objectives include: increasing understanding of self, learning to understand others better, identifying the processes affecting group morale and productivity, increasing leadership, decision making, and communication skills (see Table 2). Generally

TABLE 2  
Summary of Survey Results

		Yes	No	Uncertain
		%	%	%
1.0	Do you believe that sensitivity training contributes towards these objectives :			
1.1	Increase self understanding			
	1965	90	4	6
	1967	88	2	10
	1969	88	4	8
1.2	Learn to understand others better			
	1965	85	2	13
	1967	90	6	4
	1969	86	4	10
1.3	Identify the process affecting group morale and productivity			
	1965	52	8	40
	1967	66	6	28
	1969	46	15	39
1.4	Increase leadership, decision making, and communication skills			
	1965	40	13	47
	1967	57	10	33
	1969	50	15	35
2.0	How do you see sensitivity training contributing to company objectives in the areas of :			
2.1	Making significant contributions to needs of society			
	1965	17	43	40
	1967	38	24	38
	1969	33	28	39
2.2	Developing people resources			
	1965	74	7	19
	1967	83	4	13
	1969	79	5	16
2.3	Developing dynamic management with decision making in depth			
	1965	22	43	35
	1967	20	25	55
	1969	18	34	48
2.4	Planning to achieve profitable growth			
	1965	18	32	50
	1967	24	29	47
	1969	16	45	39
2.5	Flexibility in adapting to change			
	1965	60	10	30
	1967	71	10	19
	1969	55	15	30
2.6	Ethical conduct in all business relations			
	1965	22	36	42
	1967	38	23	39
	1969	28	34	38

sensitivity training was viewed as a useful management development tool that contributed to increased self understanding and understanding of others. There was less certainty about the contribution of sensitivity training to the identification of processes affecting group morale and productivity and the sharpening of leadership, communication, and decision making skills. Sensitivity training was regarded as a contributing factor in the development of Dow's

people resources and as a method for developing flexibility in adapting to change. On the other hand, its relationship to the attainment of other Company objectives was perceived as either more uncertain or not contributing than contributing.

*Sensitivity Training—Impact on Behavior.*

Data generated by 215 MSL participants responding to a 20 item semantic differential questionnaire were factor analyzed. The twenty items were reduced to six factors (see Table 3).

The next step in the study required the drawing of a sample from a population of MSL participants. The population was defined as all those persons who attended MSL during 1966 and 1967. A sample of 90 was drawn, 45 from each 12 month period. The experimental design involved the determination of how many (frequency) participants were described by themselves or others, e.g., work associates, subordinates, or supervisors, after training in a way that varied from the pretraining description.

Median scores were determined for each of the six dimensions based on the pretraining data. A median-chi square test was applied to the data to measure the difference in frequency between pre and post training scores above and below the median value for each of the dimensions of behavior. The participants themselves reported a significant change on only one of the six dimensions, Personal Ease ( $<.05$ ). Others reported no significant changes. This suggests that change, although it may have occurred, was not observable, that it is difficult for people to quantify behavioral change, and that

TABLE 3  
Summary of Factors

Personal Accountability		Personal Thrust	
Items: Frankness	.75*	Items: Boldness	.45
Responsibility	.65	Modesty	-.76
Practicality	.55	Self Assurance	
Personal Ease		Items: Efficiency	.71
Items: Easygoing	.79	Maturity	.65
Calmness	.77	Trying	.64
Patience	.57	Energy	.64
Interpersonal Facility		Confident	.60
Items: Cooperation	.74	Careful	.54
Friendly	.67	Intelligent	.44
Grateful	.65	Cheerfulness	
Thoughtful	.51	Item: Cheerful	.79

\* Factor Loading = correlation between an item and a factor.

the evaluation technique combined with the type of data is questionable.

*Evaluation of Human Relations Training for Women.*

A second example of evaluation at the behavior change level involved the evaluation of the Individual and Group Relations Seminar (IGRS). Follow-up questionnaires were sent to 46 participants three months after attending an IGRS program. Each participant was asked to give similar questionnaires to her boss and one work associate, e.g., another secretary. The behavior statements used in the questionnaire were defined after interviewing a sample of fifteen IGRS participants. They were asked to identify personal "critical incidents," that is, behavior they felt resulted from the application of learnings derived from the program that precipitated either positive or less than positive results on the job. These incidents

TABLE 4  
Behavior Statements and Summary of Results

Since participating in this program, she :	Perceived Change by :		
	Partici- pants	Bosses	Co- workers
	%	%	%
1. Appears to find it easier to permit others to explain their side of the situation.	72	52	32
2. Demonstrates an increased awareness of personal strengths whatever the strengths may be.	40	56	44
3. Is less hesitant to express her opinions, feelings, and beliefs.	48	48	36
4. Makes snap judgments about others based on little information.	8	0	0
5. Demonstrates greater understanding and feeling for others' opinions and beliefs.	76	48	44
6. Takes time to listen to what others have to say and then reacts.	76	32	48
7. Asserts herself more and demonstrates a willingness to take a stand.	28	32	36
8. Is more willing to talk openly about her feelings with others.	32	48	40
9. Spends more time being critical of others	4	8	0
10. Demonstrates an appropriate balance of involving herself in others' activities.	32	20	20
11. Is able to exhibit self-control in frustrating situations.	52	48	68
12. Looks for strengths rather than weaknesses in others.	56	28	28
13. Demonstrates a deeper insight into the dynamics of human behavior.	68	32	20



were used as the basis for developing a series of behavior statements used as items in the questionnaire (see Table 4).

Participants perceived the most change; they perceived the most change in the greatest number of dimensions of behavior. Co-workers reported that they perceived the least overall amount of change. These results suggest that although participants believed their behavior had changed in demonstrable ways, their feelings of personal change had not been translated into change recognized by others. This may be explained in terms of a basic difference between how a person believes he is behaving (conceived self) and how he is really seen by others (projected self).

Consistency of perceived change between the participants and bosses, participants and co-workers, and co-workers and bosses was determined by rank ordering the questionnaire items in terms of most to least change and correlating the rankings (see Table 5).

There was greater agreement between the bosses and co-workers than for either of the other two comparisons. This level of agreement may result from being "outside" and looking at the behavior of the participant. The next greatest agreement was between the participants and co-workers and the least agreement existed between participants and bosses. One interpretation is that in a typical boss/secretary relationship other secretaries are more likely to be exposed to a greater variety of secretarial behavior than is the boss himself.

### *Sensitivity Training: The Results Level.*

This study represented an attempt to use existing data to build experimental and control groups, to test for differences between the two groups, and to experiment with an evaluation design.

A population of Dow employees hired during 1960 thru 1962 was compiled. Next, those subjects in the population who had participated in MSL were identified. This list represented the "experi-

TABLE 5  
Rank Order Correlations (rho)

Participant		
Co-worker	.516*	Co-worker
Boss	.467*	.769**

\* <.05. \*\* <.01.

mental" group. The final match between those in the "experimental" and "control" groups resulted from holding four variables constant. These variables included date of hire (within six months), degree level, entry function, and level of previous industrial experience, i.e., no previous experience. A relatively small sample in each group resulted from holding these variables constant. Twenty-two pairs of subjects were identified.

The most conspicuous limitation of this project included the possible built-in difference between the two groups. Perhaps the more qualified, promising, and aggressive employee attends MSL. Although the subjects, at the time of prehiring interviews, were seen to have essentially equal potential based on interviewer ratings, the issue of a built-in difference still existed. The time factor and the impact it can have on performance and career development remained an uncontrolled dimension of the study. Those who were in the experimental group participated in MSL sometime during a 2-5 year period after date of hire.

The four dependent variables used to reflect possible differences between the two groups were performance ratings and frequency of promotions, cash awards, and merit raises.

The mean difference in performance ratings between the two groups was .63 with a mean rating of 2.81 for the control group and 2.18 for the experimental group ( $t = 2.27, < .05$ ). The experimental group, on the average, was rated significantly "better" compared to the control group. The rating data were viewed from a second perspective (see Table 6).

Generally, those in the experimental group were rated more frequently in the 1, 2, and 3 categories than those in the control group. No subject in the experimental group was rated a 4 or 5; however, one-third of those in the control group were rated in

TABLE 6  
Frequency of Ratings in Each Rating Category

		Control	Experimental		
Rating Categories	1	3	8	1	Above Average
	2	8	6	2	
	3	4	8	3	Average
	4	6	0	4	Below Average
	5	1	0	5	
		$X^2 = 8.86$	Significant at .07		

these categories. Generally, more people in the experimental group received a promotion(s) compared to the control group and fewer people did not receive a promotion compared to the control group ( $X^2 = 5.98$ ,  $<.05$ ). Comparisons between the groups in terms of frequency of cash awards and merit raises were not significant.

There appeared to be some implicit relationship between participation in MSL and long-range performance indicators such as frequency of promotion and performance rating. Based on the data, the word "implicit" may be too strong; however, there was a hint of some type of a relationship. How much or how little is a consequence of training is debatable.

### SUMMARY

Each of the studies reported in this paper represent attempts to identify the impact of training on participants. "Impact" was considered in terms of levels of evaluation. Specifically, I dealt with three levels, reactions to training, behavior change, and results. The experimental approaches used to assess the impact included a survey technique, a factor analyzed semantic differential questionnaire, a questionnaire based on the critical incidents technique, and a comparison between "control" and "experimental" groups using four dependent variables.

This type of research is valuable to us in that it serves as a feedback mechanism. We can determine the impact of programs, modify and reinforce program content, and deal with specific questions raised by either participants or managers. Most importantly, I believe it is our professional responsibility to evaluate.

Finally, none of these studies are without limitations. Some fundamental limitations include the lack of clearly defined control and experimental groups, the lack of specific objectives for evaluation, i.e., what is the real purpose of evaluation, and the possible sacrifice of experimental integrity in the search for meaningful ways to evaluate.

## DISCUSSION

J. B. RITCHIE

*University of Michigan*

It is encouraging to note that of the six people involved in this discussion of organization research, five are from the "real world" of the business firm. As the lone academician on the panel I should like to say that I see this as a healthy sign and as an opportunity for a fruitful learning experience. So often we find organization research reported by Professors whose intent was to test their favorite hypothesis, substantiate a prescriptive theory of management, implement their change program, etc. While these motives are not necessarily bad, nor are in-house researchers free from such bias, I do think the perspective offered in the types of papers presented provides an additional insight in the study of organizations.

Realizing that there are many methodological and conceptual pitfalls which may be encountered in organizational research regardless of the organizational identification of the researcher, I would like to briefly suggest some ways the three papers (or in-house organization research in general) might make a contribution. First, it is interesting to note what top management (or whoever directs the project) thinks should be researched. The delineation of an "appropriate" area of inquiry from within the organization might suggest an important problem, criterion, or measurement which an externally generated design may miss.

In addition to the development of the research effort, in each of the three cases discussed we observe a type of research-feedback-change approach to an organizational process or program. This suggests the possibility of *application* which is often lacking in outside projects. There may be more of a commitment to use the results generated within the organization.

On the criterion issue, it is interesting to find out how Ford evaluates their OD program, or Dow their training activities, or GM the dimension of organizational climate. In each case I would suggest that criteria are not as precise, or "hard," as some would like—a charge often leveled at academic research. I suspect it is both encouraging and discouraging to find that Ford, Dow, and GM end up with criteria similar to the academic world.

While I would hope that in-house research would generate a more rigorous statement of objectives and measurements, I think we can also see a possible source of contamination. For example, who are the individuals selected for training at Dow, and how do they think they "should" respond to follow-up evaluations? If training is perceived as part of a reward system for "good" employees, how might their evaluation responses be biased?

A problem which is partly definitional, but also conceptual, is involved in the climate-motivation-trust issue in the Bossman paper. In this area, the lack of carefully defined constructs might lead to some circular conclusions. A similar type of question might be raised in the Thurber paper regarding the relationship between subject-reported attitudes and the measured behavior or performance.

A positive aspect of all three papers which should be mentioned is the attempt to formulate a theoretical framework for the design and interpretation of the research. Also in each case there is a level of conceptualization which results in a more careful and qualified conclusion, thereby avoiding overgeneralizations. At the same time there is a need to identify additional explanations for the phenomena discussed and to develop further research programs to test them. I am hoping that these researchers inside the organization will do a better job in this continuing investigation where those of us outside the organization normally default.



# **IX**

## **LEGAL REMEDIES UNDER NLRA**

**Bernard L. Samoff, Chairman**

**National Labor Relations Board**

## REMEDIES FOR UNFAIR LABOR PRACTICES

JOHN H. FANNING  
*National Labor Relations Board*

The general topic this morning is legal remedies under the Labor Management Relations Act. The specific topic I am to consider is remedies for unfair labor practices. Section 8(a) of the Act, which lists unfair labor practices by employers, had 5 subsections. Section 8(b) lists 7 major categories of union unfair labor practices. Section 8(c) is directed to both. It is, I think, unlikely that you expect or want from me a catalogue of how the Board has dealt with each of these, what variations of detail have turned up, how we have made interstitial improvements and modifications.

Such details are important and they have to be dealt with. It does make a difference whether back pay is tolled or not, whether interest is added or not, whether our notices are written in legal phraseology or in the vernacular. But it is not such details that I want to discuss today.<sup>1</sup> Today I would like to take a somewhat broader look at what the Board does that is remedial, based on the fundamental proposition, so easy to forget, that the entire statute is a remedial one.

First, something not generally thought of as a remedy—jurisdiction. There is no unfair labor practice in the statutory sense unless the respondent is subject to the Act. When the Board asserts jurisdiction over hospitals, nursing homes, baseball, private colleges, it is making available to all those sectors of our society the remedies of the Act, not merely those for unfair labor practices, but also the representation procedures, which are in themselves remedial, because they channel possible conflicts into an orderly and efficient procedure for peaceful settlement. The fact that the Board is now available to parties who think they have been wronged is going to have its effect on the conduct of all those there involved, causing them, I should hope, to bring themselves into line with the standards of civilized industrial behavior that have been developed in the Board's cases over the years.

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<sup>1</sup> For extended treatment see "New and Novel Remedies for Unfair Labor Practices" by John H. Fanning, *Georgia Law Review*, Vol. 3, No. 2, 1969.



Now, what precisely can the Board do? The Act states that when the Board has found an unfair labor practice has been committed, it shall issue and cause to be served upon the person who committed the unfair labor practice an order requiring such person to cease and desist from such unfair labor practice and to take such affirmative action including reinstatement of employees with or without back pay, as will effectuate the policies of the Act. That sounds broad, and it is fairly broad, but it is not unbounded. Far from it, in fact. I stress again, the Act is remedial. The Board cannot impose penalties. It cannot justify a draconian remedy on the ground that it will deter respondents as yet unborn. What the Board does in any case must be related, and closely related, to the specific unfair labor practices it has found in that case. Let me deal with this by considering a few cases in which the Courts have rejected our remedies.

Take, first, *Local 60, Carpenters*.<sup>2</sup> This was the case in which the U.S. Supreme Court rejected the Board's *Brown-Olds*<sup>3</sup> remedy. In *Brown-Olds* the Board decided that the policies of the Act would best be served by requiring reimbursement of dues and fees paid to a union under an illegal closed-shop arrangement because that money was the price to retain the job. Such illegality could also flow from the failure of the contract to include the provisions the Board had found necessary to decontaminate a hiring-hall in the *Mountain Pacific*<sup>4</sup> case. However, in *Local 60* there was no evidence that any union membership or dues payment was coerced. The employees on the project were all members of the union when hired. That being so, the majority of the Court held, there was no violation that could be remedied by the Board's remedy, which therefore became punitive. The concurrence by Mr. Justice Harlan is interesting. He begins by noting that the Board, in its application of *Brown-Olds*, had not admitted evidence that some employees made the payments voluntarily. The Board had created an irrebuttable presumption of coercion, on the underlying theory that whatever the employees' wishes might, in fact, have been, the illegal system deprived them of complete freedom of choice. As Mr. Justice

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<sup>2</sup> *Local 60, United Brotherhood of Carpenters and Joiners of America, AFL-CIO et al. v. N.L.R.B. (Mechanical Handling Systems, Inc.)* 365 U.S. 651.

<sup>3</sup> *Brown-Olds Plumbing & Heating Corporation*, 115 NLRB 594, 37 LRRM 1360.

<sup>4</sup> *Mountain Pacific Chapter*, 119 NLRB 883, 41 LRRM 1460.

Harlan saw it, granting the deterrent effect of a *Brown-Olds* remedy, but noting that deterrence alone is not a sufficient basis for a Board order, the issue is whether the Board can provide a dues-reimbursement order as a remedy for that lost freedom of choice. He held it could not because he saw no rational relation between the amount of dues paid and the value that an employee, who is willing to join a union, would place on his freedom to change his mind.

Now, another hiring hall case, this one in the Second Circuit—*Local 138, Operating Engineers*.<sup>5</sup> Here the Board had found, and the Court agreed, that the hiring hall had been operated in a discriminatory manner by the Respondent Local, which was a repetitive offender. The Board noted that its previous orders had proved ineffective, as shown by repeated violations of a nature similar to those it was now finding. It therefore decided that special remedial measures were necessary to attain the objectives of a non-discriminatory hiring and referral system. The Board's order therefore, among other things, required the respondent to set up a non-discriminatory hiring system in conjunction with the Board's Regional Director and subject to his approval. The Circuit Court of Appeals for the Second Circuit held that the Board could not require the union to set up a hiring hall, nor should it be injected into the procedures by which parties establish a referral system. In view, however, of the pattern of continuing discrimination, the Court enforced requirements that adequate records of the operation of the referral system be kept and be available to the Regional Director or his agents upon request.

The *Garwin* case in the Court of Appeals for the District of Columbia is another instance where the Board's order, designed to cope with a somewhat unusual situation in an unusual way that the Board considered suitable to expunge the unfair labor practices found, was cut back in scope by the Court. *Garwin* was a runaway shop. The Board found *Garwin* had moved from New York to Florida, in violation of Sections 8(a)(1), (3), and (5), to avoid dealing with the union. The Board's remedy, to the extent relevant to my purpose here, ordered the Respondent to bargain with the union upon request, as representative of the Florida employees, without requiring the union to establish its majority in Florida.

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<sup>5</sup> *Local 138, Operating Engineers v. N.L.R.B. (J. J. Hagerty, Inc.)* 321 F. 3d 130, 53 LRRM 2754.

The majority of the Court of Appeals held that that order was invalid because it imposed a bargaining representative on the Florida employees without regard to their choice. The case was remanded to the Board, which thereupon devised an order that opened channels of communication between the union, the employer and the employees, and also provided that the employer would bargain with the union upon proof that a majority of the Florida employees had designated it as their agent.<sup>6</sup>

As you may recall, in the recent *H. K. Porter*<sup>7</sup> case the Board and the Court of Appeals for the District of Columbia had found that the Company's refusal to bargain about checkoff was not in good faith, but solely to frustrate the making of any bargaining agreement. After considerable litigation, the Board, upon a remand from the Court of Appeals, ordered the Company to grant a checkoff clause. That order went to the Supreme Court, where a majority held that the Board simply did not have the power, in any circumstances, to impose a contract clause that had not been agreed to. And this was so even though the Court accepted the finding that the Company had acted in bad faith. These four cases all show the courts telling the Board it has done more than it should or could.

Where do these decisions leave us? They make clear that the Board is not omnipotent; it cannot legislate, as the Supreme Court made clear in the *Los Angeles-Seattle*<sup>8</sup> case, decided the same day as the *Local 60* case I considered above. It cannot intrude itself into the actual day-to-day functioning of the parties to a collective bargaining relationship, as the *Operating Engineers* case showed us. And it cannot remedy all injustice, even all unfair labor practices, as *H. K. Porter* made clear. It cannot remedy more than what it finds in the case before it. To suggest that a more severe remedy would have a desirable deterrent effect does not advance the Board's cause. It must establish the rightness of the remedy it proposes in the case at hand. It cannot, when it decides what the parties ought to put into their contract, even with overwhelming justification, compel any contract term.

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<sup>6</sup> *Garwin Corporation*, 153 NLRB 664, remanded 374 F. 2d 295, cert. den. 387 U.S. 942, 196 NLRB No. 154.

<sup>7</sup> 397 U.S. 99.

<sup>8</sup> *Local 357, Teamsters v. N.L.R.B. (Los Angeles-Seattle Motor Express)*, 365 U.S. 667.

The effect of the holding in *Porter* was almost immediately apparent when the Board issued its decisions in the *Ex-Cell-O*<sup>9</sup> line of cases. The Board majority held that the Board did not have the authority to grant the relief sought, however desirable it might be. In *Ex-Cell-O* the union argued that the employees should receive monetary compensation as a remedy for the employer's refusal to bargain, on the theory that the employees had been denied the benefits of union representation, especially a contract providing for higher wages and fringe benefits during the period of the litigation—benefits which arguably would have been obtained through collective bargaining if there had been no refusal to bargain. Basic to the view of the majority was the holding that computation of such an award would in effect be the writing of a contract nonetheless real even though never formalized, and in terms imposed upon the parties. We have not heard the end of *Ex-Cell-O*, obviously. The Board's decision is now awaiting review in the Court of Appeals for the District of Columbia, which had previously indicated, in the *Tiidee Products*<sup>10</sup> case its belief that the remedy rejected by the Board thereafter in *Ex-Cell-O* was within the Board's powers. Before leaving *Ex-Cell-O*, I should like to note another aspect of the case. The Board is now seeking injunctive relief under Section 10(e) of the Act, which provides that the Board may seek immediate relief when it petitions for enforcement of its decree. We thought that rarely used remedy warranted on the facts of *Ex-Cell-O*. We may well initiate the same action in other suitable cases.

What all this means is that the Board is not the highway to Utopia. Within the present statutory framework, no amount of creative and innovative thought is going to work a revolution in labor relations by the development of some new statutorily permitted remedy. That is not to say that the creative thinkers should not keep thinking their creative thoughts. It is to suggest what the Board offers is something a little different from what is sometimes thought.

The Board administers a system, if you will, a system which sets the rules for collective bargaining. Its remedies, in the most meaningful sense, are the entire body of its decisions, the law that lets parties know what is expected of them. The measure of the

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<sup>9</sup> *Ex-Cell-O Corporation*, 185 N.L.R.B. No. 20.

<sup>10</sup> *IUE v. N.L.R.B.*, 426 F. 2d 1243, 73 LRRM 2870.

success of our remedies is the constantly increasing acceptance of the entire process of collective bargaining. This is not to say that certain parts of the system do not need constant attention, shoring up and refurbishing, from time to time.

Other members of this panel are going to be discussing Section 8(a)(3) and 8(b)(2) orders. I will observe only that after all the years of the Board's activity, regrettably the discriminatory discharge of an individual for union activities is still the most common unfair labor practice. It is also, in a sense, the easiest to remedy. An employee has been fired—the remedy is simple: Put him or her back to work with the pay he—or she—has lost. I suspect that my fellow panelists will tell you that this is not really that simple, and it is not, but I shall content myself with saying that we put a lot of people back to work. In Fiscal Year 1970 about 3500 employees received offers of reinstatement pursuant to Board action, and some \$5,000,000 was recovered in back pay.

That leaves me with refusals to bargain. I think it could be argued that refusal to bargain is now the unfair labor practice that goes to the heart of the Act, at least as much as the discriminatory discharge, of which that was originally said. It is the most difficult violation of the Act to remedy. A bargaining relationship, like Gaul, is divided into three parts: How does it begin? What is it about? How does it end? The Board has recently been involved in major decisions in each of these areas: *Gissel*,<sup>11</sup> *Fibreboard*,<sup>12</sup> *Wiley*.<sup>13</sup>

*Gissel* settled an issue that had produced more heat than almost any other in recent years—whether a bargaining order could be supported where the union's majority was established not by an election, but by the use of authorization cards. *Gissel* unequivocally affirms the Board's power to use cards. What it does not make perfectly clear is exactly those conditions in which an election is to be preferred to the card count, as to which there already have been conflicts among the circuits. So this will continue to be a matter for elucidating litigation.

After a bargaining relationship has been established, the next question is what is to be bargained about. It may at first blush

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<sup>11</sup> *N.L.R.B. v. Gissel Packing Co.*, 395 U.S. 575 (1969).

<sup>12</sup> *Fibreboard Paper Products Corp. v. N.L.R.B.*, 379 U.S. 203 (1964).

<sup>13</sup> *John Wiley & Sons, Inc. v. Livingston*, 376 U.S. 543 (1964).

seem that I am getting somewhat afield from remedies, but I don't think so. We are very often too much given to thinking of remedies in an excessively narrow way—an obvious crime and an obvious penalty or remedy. But that is not what our Act is about. We are concerned to make collective bargaining work, and whatever does that is, in a broad but significant sense, remedial. Parties must know what it is that has to be bargained about.

The Act is general. It says that the representative will bargain about wages, hours, and other terms and conditions of employment. Those terms have to be given meaning, and the meaning they acquire through the decisions of the Board and the Courts that review our decisions determines the scope of bargaining at any point in the development of our society. What has been happening is that the scope of bargainable issues has been expanding. There was a time when it could be argued that pensions were not a bargainable subject. That is long past.

The Board's decision in *Fibreboard* is the landmark decision in this area. Nothing is of more significance to the employees than whether or not the employer will continue to do the work that they have been engaged to perform, or whether he will decide to have it done elsewhere. *Fibreboard*<sup>14</sup> made it clear that this is indeed a subject that must be bargained about.

Closely connected with subcontracting is the last point I wish to consider about refusal to bargain. How long does the relationship last.

Ever since the decision of the Supreme Court in *Wiley v. Livingston*,<sup>15</sup> the question of the survival of the contract after one of the contracting parties had left the scene was a difficult and much debated one.<sup>16</sup> The Board has now decided the issue and has held<sup>17</sup> that an employer who is a successor is obligated to assume the contracts executed by his predecessor, and that a successor employer can insist upon the union's adherence to the contract it executed with the predecessor employer.

<sup>14</sup> *Fibreboard Paper Products Corp. v. N.L.R.B.*, 379 U.S. 203. The Board, over my dissent, had originally dismissed the complaint. 130 NLRB 1558. Upon reconsideration, the Board adopted my dissenting position—138 NLRB 550; that decision was affirmed in the Supreme Court.

<sup>15</sup> *John Wiley & Sons, Inc. v. Livingston*, 376 U.S. 543 (1964).

<sup>16</sup> *Wackenhut Corporation v. Plant Guards*, 332 F. 2d 954 (C.A. 9). Compare *Steelworkers v. Reliance Universal, Inc.*, 335 F. 2d 891 (C.A. 3).

<sup>17</sup> *The William J. Burns International Detective Agency, Inc.*, 182 NLRB No. 50; *Kota Division of Dura Corporation*, 182 NLRB No. 51.

These decisions are made in the context of a finding of successorship, which means that the employing industry has remained essentially the same despite the change in ownership. It had been the rule for some time that a successor must recognize and bargain with the union selected, before the change in ownership, by the employees. That obligation includes the injunction to refrain from unilaterally changing wages and other benefits established by a prior collective bargaining agreement even though that agreement has expired.<sup>18</sup>

The Board majority in *Burns* combined these considerations with the policy considerations of Section 8(d), which demonstrates that Congress recognized the importance of adherence to existing agreements in maintaining industrial peace. Therefore, it is not of paramount importance that the successor has not signed the contract. Nor does this holding mean that the successor has to agree to any proposals or make any concessions. The majority therefore concluded there was no inequity in requiring the successor, who could make his adjustments in the pre-takeover negotiations, to assume the contract for the balance of its term. This is a relatively new line of decisions, not all questions have been resolved, and I expect it to be a growing part of the law we administer.

By the guidance these decisions provide the labor-management community, they help to prohibit violations of the statute and can truly be said to be remedial in their impact.

One last comment on remedies. I remain convinced that the real key to the problem of adequate remedies is accelerating the Board's processes. The individual discriminatee who must wait months before a Board Order, or a Court Order, issues directing his employer to reinstate him with back pay probably has had to make interim adjustments which make that kind of remedy no longer adequate. This is also true in refusal to bargain situations where the employees and their bargaining representative are deprived of the benefits of collective bargaining for months and even years while the Board grinds out its Decision and the case is then further litigated in an already overworked court. By the time a final Decision is rendered there is no question that the frustration of waiting for definitive action has quelled the enthusiasm if not the capability for

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<sup>18</sup> *Overnite Transportation Co.*, 157 NLRB 1185, enforced 375 F. 2d 765 (C.A. 4), cert. den. 389 U.S. 838.

effective collective bargaining. If our unfair labor practice decisions could be issued within 90 days, instead of 300 or more days, and if they could be followed by self-enforcing orders in another 30 to 45 days, much of the remedial frustration we all feel could be eliminated. I have on many occasions spoken of the desirability of permitting the Board to adopt some kind of a certiorari procedure which would permit the delegation of decisional authority in relatively simple cases to lower echelons of the Board establishment and thereby accelerate the issuance of all Board decisions. I and others have endorsed the principle of self-enforcing Board orders. I remain convinced that the key to the problem of adequate remedies is the modernization of Board procedures in these respects. So far we have not been successful in persuading the Congress or many others in the labor-management community of the merit of these concepts but I have seen no effective substitute being proffered to meet the increasing caseload problem of the Board. In my judgment, the Board cannot continue to operate in a jet age on a Model T basis, good as that automobile was in its day.

At the outset, I said that I thought you did not want a catalogue of how we remedy each unfair labor practice, and I certainly have not given one. What I have tried to do is to touch upon the critical areas of a critical area—refusal to bargain, and to show how we have been making progress—perhaps not revolutionary progress—but steady progress in fostering the bargaining relationship. There is nothing final about any of these, they are stations along the way.

In the last analysis, it is the substantive matters that we decide that determine what labor relations will be like. Of course, it is important to make our specific remedies as close to perfection as we can, and I do not suggest that efforts to that end will not continue. But the impact of the *Gissel* and *Fibreboard* lines of cases in letting employers know what they can do, of the *Miranda*<sup>19</sup> decision in imposing a duty of fair representation upon unions, is far greater and more important. In short, I am arguing that what we remedy is more important than how we remedy it.

What I am suggesting is that the great mass of labor relations does not come to the Board, and that the body of our decisions is, in that broad sense, the remedy we offer. We are trying, by our

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<sup>19</sup> *Miranda Fuel Co.*, 140 NLRB 181, enforcement denied 326 F. 2d 172 (C.A. 2, 1963); but see *Vaca v. Sipes*, 386 U.S. 171 (1967).



decisions, to let labor and management know what the rules of the game are. Most of them abide by those rules, and we do not see them in our caseload. This is not to suggest that everything is for the best and that all that can be done has been done. It is only a suggestion that perspective is necessary. If I appear to have stressed unduly the limitations on the Board's powers, it is because I detect at times and in some quarters the suggestion that the Board can, with the powers it now has, fix everything that is wrong in labor relations. That is not so. The means with which we have been equipped are fitted to the attainment of limited ends. To forget those limitations is to approach Santayana's definition of a fanatic as one who redoubles his efforts when he has forgotten his goal.

## EFFECTIVENESS OF 8(b)2 REMEDIES

PHILIP ROSS

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Section 8(b)2 was included in the Taft-Hartley Act for several reasons. From one point of view, it belongs with Section 8(b)1a and Section 8(b)3 as a union counterpart to employer practices whose unlawfulness under the Wagner Act was continued in the amended statute. In this way the alleged one-sided public policy was balanced and presumably made politically more palatable. Of course there were specific reasons for prohibiting unions for causing or attempting to cause employers to discriminate against employees for reasons made invalid under Section 8(a)3. There was some testimony in the hearings that preceded the passage of the Act that unions with closed shops restricted membership and that, on at least one occasion, an employee was discharged because of a personal quarrel with a business agent. But the union security issue was extensively debated only in connection with the proviso to Section 8(a)3 which, under the Wagner Act, authorized both the closed shop and state right to work laws.

The purpose of section 8(a)3 - 8(a)2 is clear, although it may be variously phased. After its enactment, Senator Taft said that it was aimed at prohibiting the closed shop "because the Congress felt that it destroyed the freedom of American youth to choose their own occupation in life, and particularly to select that occupation which they considered best suited to their abilities." More broadly, Justice Reed, speaking for the Supreme Court, noted: "The policy of the Act is to insulate employees' jobs from their organization rights. Thus Section 8(a)3 and 8(a)2 were designed to allow employees to freely exercise their right to join unions, be good, bad or indifferent members, or abstain from joining any union without imperilling their livelihood," subject only to a modified union shop.

Since 1947 the National Labor Relations Board has received and investigated tens of thousands of charges alleging a violation of Section 8(b)2 and the Board and the courts have issued hundreds of decisions. For all of this, what can be said about the impact of this part of the law. Is it working? How and to what extent has it affected union behavior?

Conventional wisdom, which can be defined as the consensus of everybody with an opinion, has a firm answer. This is that Section 8(b)2 does not work. The basis for this conviction can be found readily documented in the literature. For example, Professors Haber and Levinson observed:

The closed shop had become one of the basic features of industrial relations in the building industry. This situation has largely remained true in practice up to the present time, despite the passage of legislation in 1947 prohibiting this type of provisions. In all of the strongly unionized areas studied during the Summer of 1952, employment arrangements equivalent to those under the closed shop were in effect. Membership in the union was almost universally regarded as a prerequisite for obtaining employment; in most instances, men were employed directly or indirectly through the union itself. Both parties viewed this as standard practice and showed little or no concern for the illegality of the arrangement.<sup>1</sup>

Clyde Summers' comments were even sharper. In evaluating the first decade of the Taft-Hartley Act he said: "The real failure of the law is that it has not been obeyed. The closed shop and hiring hall are still standard practice in the construction industry . . . In the building trades the established practice of the unions and employers is to ignore the law . . . The closed shop, closed union, and hiring hall—an inseparable trilogy—persist because of practical needs of both unions and employers."<sup>2</sup>

Even Samoff's landmark study, the only empirical investigation of the subject, shares the same pessimism, although qualified, about the effectiveness of the statute. Samoff concluded that formal board decisions only modestly helped discriminatees and probably imposed small restraints upon the practice of job discrimination.<sup>3</sup>

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<sup>1</sup> William Haber and Harold Levinson, "Labor Relations and Productivity in the Building Trades," (Ann Arbor, Michigan: Bureau of Industrial Relations, University of Michigan, 1956), p. 62 ff.

<sup>2</sup> Summers, "A Summary Evaluation of the Taft-Hartley Act," II ILRR 405 (April 1958), p. 409. For additional citations to the same effect, see, Samoff, "Union-Caused Employee Discrimination Under the Taft-Hartley Act," Ph.D. thesis, University of Pennsylvania, 1963, p. 287.

<sup>3</sup> Samoff, *op. cit.*, p. 331. While Samoff formally concluded that "job protection from union discrimination has not really been accomplished" (*Ibid.*, p. 332), he acknowledged that some contributions had been made including the benefits to some workers, and the adoption by unions and employers of more objective standards governing employment. *Ibid.*

This extraordinary agreement about the ineffectiveness of Section 8(b)2 must be carefully scrutinized. To say that a statute which has been in effect for nearly a quarter of a century does not work is a serious matter. It raises questions about the effectiveness of the law as an instrument of social policy as well as casting doubts about the meaningfulness of the NLRB. It implies that the Board's operations are part of a monstrous charade in which public resources designed to protect individual rights squandered.

Before examining the issues involved in the enforcement of Section 8(b)2, I think it necessary to make the following critical comments upon the literature:

1. There is a stunning neglect of the influence of Section 8(b)2 upon union disciplinary action and union security.

2. The breakdown in Section 8(b)2 enforcement is accordingly attributed to the inability of the law in handling employment discrimination arising out of the operations of hiring hall.

3. With the exception of Samoff, no empirical research has been used. Samoff's data which are priceless as only facts can be, are extremely narrow. They are limited to the personal consequences following the closing of litigated cases which include less than 5% of the charges filed with the NLRB. Further, none of the authorities has made independent studies of hiring halls themselves and examined the degree to which their practices may have been affected by legal considerations.

4. All of the work is dated. Both impressionistic and empirical evidence which provide the basis for dismissing the value of Section 8(b)2 is now more than ten years old.

5. There is a distressing lack of information about the means by which the law is evaded. Summers' view that the law fails because of the "practical needs" of union and employers purports to explain the causes not the methods of the breakdown. Whatever the practical needs of unions and employers, there are the very real job interests of employees which are supported by the government. And whatever the relationship between the closed shop, closed union and the hiring hall, the Taft-Hartley Act does not outlaw the closed union and hiring hall. None of the authorities has offered to explain how and in what precise ways the law permits widespread if not open defiance. In short, the authorities may be right, but their case remains unproved.

## STANDARDS OF MEASURING THE EFFECTIVENESS OF SECTION 8(B)2

The meagerness of empirical studies on the impact of the Taft-Hartley Act is well known and periodically voices are raised usually at IRRA meetings calling for more studies. That the call has been largely unheeded is testimony to the difficulties and tediousness of such research. But enough work has been done to give us a framework in which the right questions can be asked and judgments made even with partial information and incomplete data.

The threshold question is the choice of standards by which the Act's effectiveness is measured. The most common standards are those suggested by the remedial action taken. Are discriminatees reinstated to their old jobs and do they remain working? Is collective bargaining resumed after a violation of the duty to bargain and are new contracts signed? Do unions win elections after employers' unfair labor practices are remedied? The balance sheet is accordingly drawn up and the Act is evaluated in terms of the proportion of employees reinstated, contracts signed and elections won.

While these tests are obviously relevant, it is by no means certain that they are conclusive. In each of them there is the implicit assumption that but for the unlawful activity the discriminatees would have been working, that contracts would have been signed and the union would have won the election. While this is undoubtedly true in some cases, we have no way of knowing that it would have been true in every case or even in most cases. A persuasive argument can be made that it is the low seniority employee with an irregular work history who is most often unlawfully discharged and that it is the weak union which invites employers' unfair labor activities.

And then there is the matter of time. A respondent's decision to litigate a case delays compliance for years during which time events unrelated to the unlawful acts may acquire paramount importance. Turnover in work force, major growth or decline in business, illness and death, all may make the remedial tests inappropriate. Of course the decision to litigate may be related to the respondent's obduracy and the extent of unlawfulness—and there is some evidence for this—but the number of dismissals by the Board and courts is sufficiently high to suggest that more charitable explanations for litigation are available.

It seems that we must go beyond the immediate consequences to charging parties in order to assess the workings of the Taft-Hartley Act. We must deepen our inquiry and using all available information try to find out what specific unlawful acts took place, the identity of the charging parties, and the bargaining context of the violation. In this way, and perhaps only in this way, can we be in a position to inquire into the response of unions and employers to government regulations, and discover whether the behavioral changes, if any, induced by the Act are in conformity with public policy.

#### VIOLATIONS OF SECTION 8(b)2 IN FISCAL 1968

As part of a larger study on the operations of the NLRB, I have examined all cases closed by fifteen regional offices during fiscal 1968, a year in which a violation of 8(b)2 was alleged. The fifteen regions represent about 40% of the agency's total case load and are scattered throughout the country with every geographical region covered. The overwhelming majority of charges are dismissed or withdrawn as without merit which is characteristic of unfair labor practices generally. Of the meritorious cases, a very small number are closed after a Board or a court order. Most violations of Section 8(b)2 are settled informally and it is to this hitherto unexplored category that we must turn to gain the broadest perspectives on the operation of the statute.

#### INFORMAL SETTLEMENTS OF SECTION 8(b)2 VIOLATIONS

There were 112 cases closed prior to litigation in which the regional office found a violation of Section 8(b)2. Most of these cases were closed after compliance with a written settlement agreement, but a significant number were withdrawals after the respondent union agreed to remedy its unlawful practices.

These cases can be classified into three categories according to the context in which the events arose. First there are violations which originated in the enforcement or attempts to enforce union security agreements. The second group covers unlawful union disciplinary action. Finally, there are those cases in which the hiring hall is the tool of unlawful discrimination. While these categories are not mutually exclusive, the few classification difficulties which arose are unimportant. The number of violations was: 36 cases developed out of union security, 34 cases in union discipline, and 42 in hiring hall situations.

## UNION SECURITY CASES

The law of union security is straightforward. The proviso to Section 8(a)3 authorizes a union representing an uncovered majority of the employees within an appropriate unit to cause an employer to discharge a non-member pursuant to a union security agreement in which the employee has declined to tender dues and initiation fees uniformly established after thirty days of employment. Innumerable Board cases have laid down more specific employee safeguards interpreting employees' financial obligations towards the collective bargaining representative, the lawfulness and scope of the contract, the timeliness of the request and the good faith of the union, and the like.

Nearly all these cases fall into three sub-groups with roughly equal frequency: dues checkoff violations, unlawful demands for dues and assessments, and the existence or enforcement of an otherwise lawful union security clause in a contract at a time when the union was not the majority representative. About half of the cases did not involve discharges and this was particularly evident in checkoff cases where the most common violations were the collection of dues without written authorization or when the authorization was purposely revoked.

Discharges commonly accompanied violations in the other categories when dues were required during the statutory grace period, when former members were obligated to pay past dues, or where the payment of fines and assessments was made a condition of employment. On a few occasions, unlawful behavior resulted from a union security arrangement which was not validated by a contract or was invalidated by a state right to work law. The charging parties were frequently other unions where the respondent union did not represent a majority of employees. In some of these cases the violation lay in the existence of a union security clause which occasionally resulted in discharges.

The stock remedies in Section 8(b)2 were applied in these informally settled cases which meant that monetary reimbursement of dues and assessments was made, reinstatement was offered and in nearly all cases accepted, and unlawful contracts including recognition agreements were abrogated.

### UNION DISCIPLINE CASES

Although the ability of unions to discipline members is nominally protected by the proviso to Section 8(b)1a, Section 8(b)2 read together with Section 8(a)3 insulates the employment relationship from all forms of union discipline. In the regions covered, the most prominent reasons for unlawful discipline were violations of union working rules, the engaging in dual union activity, opposition to incumbent officers or to union policies and procedures, and the filing of charges against the union or the filing of representation petitions to oust the union.

In most of these cases fines were either levied, or the employee was expelled, and in many cases the member was discharged. The unlawfulness of the union action and the remedy applied depended, of course, upon both the cause of the discipline and its employment consequences. Any union discipline, job-related or not, is a violation if it is imposed as a penalty for filing Board charges. On the other hand, the fairness or vindictiveness of union discipline is of no concern to the Taft-Hartley Act in nearly all other circumstances unless job rights were jeopardized.

Under the conditions of each case, the standard Section 8(b)2 remedies resulted in rescinding of fines, lifting of suspensions, restorations to membership and in nearly every case, job reinstatement.

### HIRING HALL CASES

Union-administered hiring halls are lawful under the Taft-Hartley Act provided that they are not used as an instrument to accomplish ends in violation of Sections 8(b)2 and 8(a)3. The extent to which a union may discriminate in favor of its members depends upon whether the employer is bound by contract or by practice to use the hiring hall exclusively as a source of labor. In general, an exclusive hiring hall is lawful only if it is run without any regard for membership considerations. If an employer is free in fact to hire from any source, the union is liberated from most restrictions in conducting its dispatching services.

The key fact in understanding hiring hall violations is the identity of the charging party. By far, most of the charging parties in settled cases were traveling members of the same international as the respondent local. Next in order of frequency are local members who were discriminated against largely for internal political



reasons. Only a small number of non-members had their employment rights affected by illegal operations of a hiring hall system.

It is not difficult to understand the reasons for this. In the construction industry, where most violations occur, skill requirements are ordinarily high and union members, whatever their local, make up the largest source of available manpower. The hiring hall is in most instances, not the cause of union control of labor supply but a result of it.

The conventional remedies that were applied to hiring hall cases include reinstatement to job or to proper place on the dispatching list, and back pay. On a number of occasions, the respondent union went beyond anything the Board could order by admitting or clearing the charging party into the union.

#### FURTHER DISCUSSION OF HIRING HALL CASES

The prominence of the hiring hall in the literature requires additional comment. In particular, we must ask whether hiring halls are operated today in violation of Section 8(b)2. It is necessary to distinguish this question from such others as: what were hiring halls like in the past and the grounds for union discrimination in the hiring halls.

Time does not permit an extensive elaboration of the evidence, but I should like to present the conclusions I have drawn from the data.

1. Until the end of the 1950's most unions throughout the United States conducted their hiring halls in almost casual defiance of section 8(b)2.

2. A sequence of events beginning with the stock effect of the Brown-Olds remedy, the enactment of Section 8(f) in the Landrum-Griffin amendments to Taft-Hartley Act, and several Supreme Court decisions have decisively changed the form and practices of hiring hall. For nearly ten years we have had the coexistence of widespread compliance with Section 8(b)2 in the administration of hiring hall and the continuation of job discrimination. This job discrimination is based upon such objective factors as attachment to labor market, length of employment, possession of skills or credentials that allegedly attest to skills and the like. In practice, the workings of lawful priority systems often do perpetuate past discrimination which is tied to membership considerations.

3. Apart from instances of plain stupidity and ignorance, most violations of legal hiring hall rules are due to the carelessness of union officials who have so much legal freedom to discriminate that they neglect to take the most elementary precautions.

4. Nearly all non-litigated violations of Section 8(b)2 in hiring hall situations are swiftly remedied. A considerable part of the reason for union compliance is the fact that unions are non-litigious organizations who not only will settle weak cases, but will frequently take remedial steps beyond what is required in order to avoid law suits.

5. Employees in general and union members in particular are not reluctant to file charges against unions. Despite union influence or control over the hiring process, little evidence exists that employees are intimidated or coerced by unions in the exercise of their Taft-Hartley rights.

#### CONCLUSION

This brief sketch of Section 8(b)2 can conclude on two notes. First, the scope and power of available remedies are adequate to correct nearly all violations in non-litigated cases. They cover, it must be remembered, not only reinstatement with back pay, but abrogation of contracts, reimbursement of fines, and overhaul of hiring hall dispatching methods.

Secondly, it is also apparent that these remedies do not cure every violation or succeed in reforming all illicit hiring procedures. But two of the reasons for the limited effectiveness of Section 8(b)2 are common to the enforcement of all parts of the Act. They include the effects of time in litigated cases and the devices and subterfuges available to all respondents to resist everything but nominal compliance with an ultimate order or decree. While resistance may not always be successful, the possibilities are both tempting and relatively riskless if proper precautions are taken. Until public policy is prepared to accept draconian measures, little perhaps can be done to restore the status quo ante years after the commission of a violation.

There is at least one feature about hiring hall cases which deserves special attention. This is the perpetuation of past discrimination through the use of currently applied objective standards. The law is clear that if their true purpose and intent is to disguise

otherwise unlawful tests of discrimination such as race, a violation has taken place. It is at least arguable that the NLRB and the courts have unrealistically and passively accommodated themselves in their interpretation and application of Section 8(b)2 to systems of job discrimination which are inconsistent with the Act and the public policy on equal employment opportunity. The extent to which the Board and the courts are legally compelled to take this position in light of our knowledge about the functioning of hiring halls must remain, for the present, an open question.

# LEGAL REMEDIES UNDER THE NLRA

## Remedies Under 8(a) (3)

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### I

Section 8(a)(3) is the most frequently violated section of the National Labor Relations Act. The 8(a) sections of the Act contain the unfair labor practices which apply to companies, while the 8(b) section contains those which apply to unions. About two-thirds of all unfair labor practice charges are charges of violation of one of the 8(a) sections. And 8(a)(3) charges make up 70 to 75% of the total 8(a) charges. Thus half of the unfair labor practice charges (against both companies and unions) are 8(a)(3) charges.

If the charge is found to have merit the remedies which the National Labor Relations Board seeks in 8(a)(3) cases are three in number. First the company must post notices documenting which unfair labor practices the company has committed and stating that the company will not commit them in the future. Second, the company must reimburse the individuals for any loss of pay suffered due to the unfair labor practice. Third, the company must offer to the Discriminatees reinstatement to the same or "substantially equivalent" employment.

As to the effectiveness of these remedies very little is known. There has been no study on the 8(a)(3) sections of the NLRA such as the one Philip Ross did on the 8(a)(5) sections for example. Still unanswered were such basic questions about the 8(a)(3) section as: How many Discriminatees accept reinstatement and how many refuse: If they go back to the company, do they stay or leave? If they leave, what is their reason? It was to get these answers to these kinds of questions and to the larger policy questions that this study was undertaken.

The sample for the study contained 71 8(a)(3) cases settled between July 1, 1962 and July 1, 1964 by the NLRB's First Region Office (i.e., the New England Region). It is these cases which have supplied the all-important empirical data. Of the 71 companies, 36 were in manufacturing, 21 in service and 14 in sales. Most of the 8(a)(3) cases in the sample (62 out of 71) arose out of a

union organization drive and most of them (50 out of 71) were settled informally. These 71 cases contained a total of 194 Discriminatees.

About 80% of the data for this study comes from the "Informal Files" of the First Region's Office in Boston. The affidavits, the Field Examiner's report, the inter-office memos, and even short notes jotted on scraps of paper contain a wealth of information about both the company and the Discriminatee. The other 20% comes from the interviews with the Discriminatees themselves, with the NLRB agents involved in the case, and with other employees both pro-union and anti-union.

This then is the study and the sample used. The study was not particularly concerned with the merits of the cases or whether the Boards' findings were just or unjust. Rather it was concerned with the results of the cases, taking the Boards' findings as given. To some extent the study was concerned with how settlements came about, but it was more concerned with what happens after a case has been settled.

## II

The initial reactions of most Discriminatees is to want reinstatement. As a matter of routine the NLRB Agent usually asks the Discriminatees to state in their affidavits if they want reinstatement. Eighty-two percent responded in the affirmative.

Yet, less than half the Discriminatees ever go back. Of 194 Discriminatees, 85 went back, 86 did not and 23 were put on preferential hiring lists. Our special concern now is with those who did not go back and what caused so many of them to change their minds.

The reasons the 86 Discriminatees gave for not going back are listed in Table 1 below.

TABLE 1

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39	Fear of Company Retaliation
28	Possession of a Better Job
10	Needed Backpay (Accepted Company Offer to Settle without Reinstatement)
3	Had Weak Case (Accepted Company Offer to Settle without Reinstatement)
9	Did Not Like the Company
12	Unknown
(Totals add up to more than 86 because some Discriminatees gave more than one answer.)	

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Some of these reasons given for refusing reinstatement are not self-explanatory. Those that said they "did not like the company" were women who were only marginally attached to the labor force. Those who settled because they had a weak case decided to do so after conversation with the Board Agent in which it was pointed out that if they tried the case and lost they would have lost their backpay too.

The need for backpay is a real problem for the Discriminatees. Depending on state law the Discriminatee may or may not be receiving unemployment benefits but he is certain to be running up bills and trying to fend off his creditors. When a company offers to settle with perhaps several hundred dollars of backpay if he will only waive reinstatement there is a strong temptation to agree to these terms.

But the most frequent reason given for waiving reinstatement was fear of company retaliation. During the settlement negotiations and during the union's organization drive, the Discriminatee is able to observe the company's attitude and he begins to think about what it will be like to go back. He knows that some jobs are heavier or dirtier than others and he thinks about how they will be assigned.

In fact, the results of this study showed that anything which lessens the Discriminatee's fear about company retaliation (e.g., other Discriminatees also going back, successful union organization drives) is likely to encourage reinstatement. Factors which increase fear of company retaliation (e.g., if the company has a long history of labor cases) have an adverse effect on reinstatement.

When the company does not want the Discriminatee reinstated, it seems to have little difficulty in conveying this attitude to the Discriminatee via the negotiations for an Informal Settlement Agreement. There were 30 companies which offered to settle their cases provided the Discriminatees were willing to waive reinstatement. In 21 of them reinstatement was ultimately refused and in only nine cases was it accepted. When there was no such stipulation on the part of the company, the figures were reversed. In 20 cases out of 29, Discriminatees accepted. It seems then that company resistance to reinstatement is a major factor in the low number of acceptances.

The length of time it takes to settle a case is another indication.

The closeness of the complications of a case can be important in the length of time it takes to settle. However, settlement time is mostly a matter of company tactics, and how antagonistic the company's representatives feel toward the case, toward the Discriminatees, or toward unions in general. In the study it was found that a settlement time of more than four months meant that the Discriminatee was less likely to go back. But the truly remarkable factor is that nobody refused reinstatement when the case was settled in less than a month.

By all of this it would be wrong to picture the Discriminatee as nothing more than some sort of weather vane—being pushed this way or that by external forces. The Discriminatee's own personal resolve must be taken into account.

For instance, as one might expect, the more seniority he has, the more the Discriminatee is interested in reinstatement. Low seniority is not so influential. Discriminatees with seniority of less than one year refused reinstatement only slightly more often than they accepted. But high seniority is different. Out of 28 Discriminatees with over five years' seniority, 20 of them went back.

Besides seniority, as might be expected, the Discriminatee's views toward reinstatement are colored by his ability to find other employment. This is true not only of those who waived reinstatement because they have a better job. Even though he has found a job which he considers better, if the Discriminatee has found any job at all (even one which does not pay as well), he is less likely to press for reinstatement.

These then are the factors which the study found were influential in determining whether or not a Discriminatee went back or not. Originally over 80% wanted reinstatement but by the time the case settled less than 50% actually went back.

### III

When the case is settled and reinstatement has been resolved, the case is still not officially closed, but to a large extent the Board loses contact with the Discriminatee. By the time the closing letter on a case has been sent out at the end of the 60-day-posting period for notice, the Board rarely has any knowledge of what has happened to him.

Of the 85 Discriminatees that were actually reinstated, the study found that within two years 60 had left their company. The

rest were still employed at their reinstated position. In interviewing those who left, two-thirds or 40 Discriminatees said they left because of bad company treatment. Usually this involved a specific complaint. "They were always on my back," or "I always get the worst jobs." But sometimes the complaints were general: "It was really awful," or "I hope I never have to go through that again."

In further discussion and examining the data the study uncovered some interesting and surprising aspects about successful reinstatement. Let us begin by noting some surprising factors on which successful reinstatement does *not* depend.

The first of these, and perhaps most surprising, is union organization. Whether or not a company was organized had nothing to do with the success of reinstatement. In fact in the sample used for the study reinstatement was successful more often when the company was not organized.

A second factor which surprisingly has no influence on the success of reinstatement is the type of settlement. Much of the emphasis which the NLRB puts on Informal Settlements is based on the premise that a settlement which is agreeable to both sides is more likely to have a satisfactory compliance than a settlement which is forced upon the parties. But the study found that there is no difference. Out of the successful cases, 70% were settled informally, while out of the unsuccessful cases, 71% were settled in this way.

However, of the factors which *do* affect the success of reinstatement some are predictable (e.g. seniority). Where reinstatement was successful, the average seniority of the Discriminatees was 6½ years and the median was between 3½ and 4 years. Where reinstatement was not successful, the average seniority was only 2½ years and the median was only 1½ years.

The other factors which influence the success of reinstatement are not so obvious, but they came out in the discussions with the people involved. Three of them are so important that, among them, they can account for nearly every one of the 16 companies which had successful cases of reinstatement in the study.

The first, and most important of these is company size. There were five companies in the sample with 10 or less employees, and five others with more than 300 employees. Out of these 10 companies, seven were cases with successful reinstatement. Thus if



the company is very small or very large, successful reinstatement is a distinct possibility. When the company is very large there may be more chance for the Discriminatee to be lost in the whole operation. When the company is very small, the employees and the manager may deal with each other on a more personal basis. In each case bad treatment by the company seems less likely to occur.

A second factor which seems to lead to successful reinstatement is a change in the management. Management here can mean only one person, anyone from the foreman on up. At times the anti-union sentiment in a company can be traced to one man. If he leaves the company, there is an excellent chance that reinstatement will be successful. In four companies in which reinstatement was successful, there was a change in management. In one case not only did the new management keep the reinstated Discriminatee but it is now trying to hire back another Discriminatee who waived reinstatement.

A third factor which can lead to successful reinstatement is fast company growth. In three companies, growth seemed to be the prime reason why excessive pressure was not put on the Discriminatees. The Discriminatees who do go back are those with higher seniority and more experience. A large increase in business and the addition of new employees suddenly puts a premium on such people. In addition, it may be that the increased prosperity makes management more forgiving.

Thus of the 16 companies where reinstatement was successful, four of them had management changes, three were fast growth companies, three were very small companies, and four were very large companies. This accounts for 14 out of the 16 companies. Reinstatement was a success in these cases but not because the union was there to protect the Discriminatee, nor was it due to an agreeable settlement between the two parties. It was simply due to the fact that these Discriminatees felt more determined to stay, and their companies for reasons extraneous to their compliance with the NLRA put less pressure on them to leave.

All Discriminatees feel to a varying degree pressure from the company to leave, and all feel some pressure (if only from their own original inclination) to go back. In fact, what really determines whether a Discriminatee accepts reinstatement or not, and having accepted reinstatement, whether he stays or not, is the relative

strengths of these two groups of countervailing pressures. The study found that the Discriminatee will accept reinstatement and still be there if there are *strong* pressures for him to stay—high seniority, union pressure, poor job market—and if there are *weak* pressures for him to go—very small or very large company, change in management, fast company growth, etc. In short, successful reinstatement depends on a set of factors which the NLRB can neither anticipate nor control.

#### IV

The other two remedies in 8(a)(3) cases are the notices and backpay. Both can be criticized for failing to be as effective as they might be. But this study concentrated on the reinstatement provisions. Of 194 Discriminatees 155 originally wanted to be reinstated but only 85 actually went back and of those only 25 were still in their reinstated position two years later.

The main obstacle to the effectuation of the Act in our sample was company opposition. The companies were not only opposed to the investigation of the cases and to complying with the prescribed remedies. Often they were also opposed to the law. Since the Wagner Act was passed in 1935, the law has clearly stated that "employees should have the right to self-organization, to form, join or assist labor organization . . ." There is ample evidence among the companies in our sample that this right has not been fully accepted.

There are companies that do voluntarily comply with the law. They do so by not breaking the law in the first place. Most companies fall into this category. In our sample of 71 companies which broke the law, only one was a company with a national reputation. It is important to remember that in these unfair labor practice cases, we are dealing for the most part with only one element of the business community. However, for those companies which are not complying with the law and perhaps are not even accepting the law, a whole battery of new weapons will be needed.

First, to help relieve financial pressure, unions should take it upon themselves to try to find a job on the union payroll for the Discriminatee while the case is being litigated.

Second, the NLRB should make liberal use of the 10(j) provision of the Act. This provision allows the Board to seek an

injunction and reinstate the Discriminatee immediately. It is a remedy which is now used extremely rarely and only in cases of repetitive violation. The advantage to using the 10(j) provision is that it would reinstate the Discriminatee before pressures against his accepting reinstatement persuade him to change his mind. Also he would be going back at a time when the company would not be likely to mistreat him.

Third, the preferential hiring lists should be all but eliminated. Only if the company has ceased operations altogether should preferential hiring lists be used. When they are used, the Board should check periodically until either the Discriminatee has been rehired or until the Board is convinced that the company will not go into business again.

Fourth, the Board Agents should adopt a policy of actively encouraging reinstatement in all settlements. A system of follow-up interviews should be instituted. The company should be advised that these interviews will take place, but should not be told when they will occur.

The Board should send a letter to the Discriminatee when the case is settled, telling him what his rights are under reinstatement and what kind of treatment is not allowed. The letter should contain the name of the Compliance Officer whom he should contact if he has any trouble or questions.

Fifth, unfair labor practice violations should be well publicized. The Regional Office of the Board should establish a rapport with the press and encourage reporting of unfair labor practice cases. If such cases were widely reported, as for instance pricefixing cases are, this might well prove to be an effective deterrent.

Sixth, violators should pay to the Discriminatee damages of triple backpay. Recently, the Board instituted the principle of including the 6% interest in the backpay figure on the theory that the Discriminatee might have invested his wages. This seems to be already very close to the principle of charging damages.

Seventh, stiff fines should be imposed on repeat violators. It is very important to have this recommendation or something like it. There was evidence in our sample that some companies repeatedly and deliberately violated the law simply because it cost less money to break the law than to accept the union.

These recommendations, taken together, are designed to form a deterrent to breaking the law. As the law now stands, there are no penalties for violations. The law does not seek punishment; it seeks only restitution. But the study showed that this policy of conciliation did not work. Many companies were breaking the law because, in their view, the end justified it and because it cost them little or nothing to do it. Sufficient penalties, vigorously enforced, would offer important incentives to complying with the act.

## DISCUSSION

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My own experience reinforces the findings of Les Aspin. I have in the past few years seen more and more cases in which the employer has deliberately fired the leading union adherents on the theory that this is the cheapest course for him to follow. The decision to discriminate against the leading union figures has been made consciously and deliberately, and then all of the long drawn out processes of the National Labor Relations Board (NLRB) have justified the employer's plans.

The thread running through all of the papers read in this session is that it is the attitude of the parties concerned rather than their conduct which determines the effectiveness of remedies. It is significant that Philip Ross notes, unlike Aspin's conclusions with respect to employers, that unions are non-litigious and indicate a greater desire to settle, sometimes even going beyond what is required of them. He also points out that there is no evidence that union members or non-members are reluctant to bring legal proceedings against unions, regardless of the pressures which may be brought to bear.

Some of the other conclusions of Professor Ross, I believe, need more thought and research. I find that striking changes have occurred in the conduct of building trades unions and that it is not safe to draw general conclusions about all of them based upon the activities of a few organizations. Not all building trades unions follow the same practices and many of them, such as the laborers and bricklayers, do not utilize hiring halls. And the changes which have occurred I do not find due to the NLRB's *Brown-Olds* decision. That case resulted only in a change in the language used in hiring hall provisions, but I saw no changes in substance whatever.

The marked changes which have taken place in the conduct of building trades unions, I believe, have come about because of fair employment practices laws adopted by the states and Title VII of the Civil Rights Act of 1964. There is a tendency among experts in NLRB law to assume that NLRB decisions are responsible for all of the new developments in the labor-management relations field. From my own law practice I find that the role of the NLRB

grows smaller and smaller and that other areas of labor law have taken on far greater importance. The actual negotiation of collective bargaining agreements, internal union problems such as elections and disciplinary cases, grievance handling and arbitrations, and the administration of jointly-trusted health and welfare and pension funds are all taking up far more time than the processing of NLRB cases. Of course, the role of the NLRB is basic and in many instances underlies the entire structure, but the time spent with the NLRB is on an overall basis becoming less and less significant.

It is also important to remember that the large majority of NLRB cases are settled with only a small percentage winding up in Board decisions or in the Courts of Appeals. But to the individual worker and to his labor organization these cases, even though a minority of all that are filed, are extremely important. It is in these 8(3) cases that I have myself seen a growing trend on the part of recalcitrant employers to engage in a deliberate course of conduct which is violative of the Act, then utilize to the fullest all of the delays and strategies which are permitted by the Board and its procedures and wind up better off—with a cheap backpay order and no reinstatement—and ready to begin the process of carefully planned discrimination all over again.

A note in the UCLA Law Review for February 1970 traces the various remedies used by the Board in dealing with the Stevens Company. But this study is headed, "An Analysis of Ineffectuality."

It seems that everyone agrees that the more rapid the remedy, the more effective it is. The problem is how to speed up the Board's processes and how to keep up the faster pace. My own experience with NLRB cases is that the Board operates by fits and starts. Just before the end of the fiscal year loads and loads of decisions are piled out. But during the summer, with vacations and Board members and staff being away, the delays start mounting again. And if one division starts moving along more quickly, then the machine bogs down somewhere else along the line. If the Board turns out a raft of decisions in speedy order, then the delays grow inordinately long in the briefing division, and it seems to take forever to get the record filed and the Board's brief in. The employer seems assured that he will find the overall time which is afforded him before a Court of Appeals rules against him to be completely to his liking.

I would urge that the Board must keep the goal of speedier handling of cases before it at all times—at every instance during the fiscal year. I don't know all of the problems involved but I would hope that it could be possible to move staff around from one duty to another so that peak loads in briefing could be overcome on the basis of crash programs.

Aspin's explicit suggestion, which is supported by the conclusions of Ross and the comments of Board Member Fanning, that Section 10(j) injunctions should be more widely sought in 8(a)(3) cases must, I believe, be adopted by the Board. The number of 10(j) injunctions which have been sought have been relatively few. Even though the Board has not always been successful in the courts, I would urge that it seek 10(j) injunctions in more cases and in closer fact situations, and I predict that more such 10(j) litigation will educate the courts and in the long run improve the Board's record and effectuate the purposes of the Act.

I see no reason for the fact that injunctions are more often brought against unions than employers, even though a comparison of Aspin's paper with that of Ross indicates that it is employers who are more opposed to the ultimate resolution of unfair labor practice charges.

Finally I would urge that the Board must keep this problem of effective remedies before it at all times. I believe the Board should revive the campaign of about 1967 when the Special Subcommittee on Labor of the House of Representatives held hearings on H.R. 11725 to improve the Board's remedies for violations of Sections 8(a)(3) and 8(b)(2). That bill would have made three changes in the statute: it would make trial examiners' decisions and orders final in discriminatory discharge cases, subject to a certiorari-type review procedure before the Board; it would apparently make the Board's orders in discharge cases "self-enforcing," subject to judicial stays; and it would create a "subsistence fund," under the Board's administration, from which illegally discharged employees could receive weekly compensation not to exceed their net weekly wages during the pendency of unfair labor practice litigation.

These are ideas which the Board should again consider and once again attempt to have the Congress adopt.





**X**

**MANPOWER PLANNING:  
INVITED PAPERS**

**R. Thayne Robson, Chairman  
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# CORPORATE MANPOWER PLANNING: THE ROLE OF POLICY IN A MODEL

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## INTRODUCTION

The growing interest in corporate manpower planning has focused attention upon the need for integration between industrial relations policies.

....we have typically taken a little selection, a little motivation, and a little training, and not dealt either with their interaction or with their implications for a broad organization-wide view of the process of managing human resources.<sup>1</sup>

The basic question for this study is whether it is methodologically feasible to incorporate organizational policy variables in a process model for corporate manpower planning. Our knowledge of internal labor markets suggests that institutional rules are an important determinant of mobility patterns within a firm.<sup>2</sup> The challenge is to combine our industrial relations knowledge with the expanding literature of operations research models.<sup>3</sup>

Several authors have suggested that manpower flows be analyzed utilizing stochastic process models; in particular, Markovian models have been suggested for use in manpower planning.<sup>4</sup> In Markov models, labor mobility is represented as the probability of transition between two employment categories. When Markovian models have been utilized in manpower forecasting, transition probabilities are the independent variables, and the projected number of persons in

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<sup>1</sup> Mason Haire, "Approach to an Integrated Personnel Policy," *Industrial Relations*, Vol. 7, (February 1967), p. 107.

<sup>2</sup> Summarized recently by Peter B. Doeringer, "Determinants of the Structure of Industrial Type Internal Labor Markets," *Industrial and Labor Relations Review*, Vol. 20, (January 1967), pp. 206-20.

<sup>3</sup> For example: A. Charnes, et al., "Static and Dynamic Assignment Models with Multiple Objectives, and Some Remarks on Organizational Design," *Management Science*, Vol. 15, (April 1969), pp. B 365-75; W. R. Dill, D. G. Gaver and W. L. Weber, "Models and Modelling for Manpower Planning," *Management Science*, Vol. 13, (December 1966), pp. B 142-67.

<sup>4</sup> See, respectively: David J. Bartholomew, *Stochastic Models for Social Processes*, (New York: Wiley, 1967); Kendrith M. Rowland and Michael G. Soverign, "Markov-Chain Analysis of Internal Manpower Supply," *Industrial Relations*, Vol. 9, (October 1969), pp. 88-99.

each employment category are the dependent variables. Personnel policies are treated as either exogenous variables or as constants in the system.

All projections hinge on the assumption that the transition probabilities and the career-development policies that they reflect do not change during the period for which inferences are being made.<sup>5</sup>

#### GENERAL MODEL

An organization can be represented as a job hierarchy with an inventory of manpower in each job at some given point in time. Observed over time, a portion of the manpower moves between jobs. Corporate manpower planning is concerned with policy interventions intended to achieve desired manpower inventories over time. The characteristics of future manpower inventories are a function of manpower flows into and out from these manpower stocks.<sup>6</sup> Thus, the manpower system of an organization appears to consist of dynamic interactions between three kinds of system components—policies, flows, and stocks.

Consider the simplest job structure, a hierarchically-linked job dyad with jobs being designated  $J$  and  $J+1$  (the job above reference job  $J$ ). By combining several of these job dyads together, the number of job levels and occupational ladders can be increased to depict any job structure. The major promotion channel is expected to be the upward ( $u$ ) mobility flow of  $J \rightarrow J+1$ . Perhaps most prominent is the "recyle" ( $r$ ) flow of staying in the same job over the time interval. Addition of an external labor markets vector enables the representation of entry flows and exit flows.

This study develops a process model based primarily upon sequential relationships. Therefore, most of the organizational behavior under study concerns changes in variables over time. Time is clocked at specific dates ( $T$ 's) and time periods ( $t$ 's), where  $t$  is a one-year interval.

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<sup>5</sup>Victor H. Vroom and Kenneth MacCrimmon, "Toward a Stochastic Model of Managerial Careers," *Administrative Science Quarterly*, Vol. 13, (June 1968), p. 40.

<sup>6</sup>For similar approaches, see Richard H. Bolt, Walter L. Koltun, and Oscar H. Levine, "Doctoral Feedback into Higher Education," *Science*, Vol. 148, (May 14, 1965), pp. 918-28; A. Reisman and E. S. Buffa, "A General Model for Production and Operations Systems," *Management Science*, Vol. 11, (September 1964), pp. 64-79.

## METHODOLOGY

The empirical research focuses upon the ten year history (1958-67) of a national corporation's managerial manpower system. The managerial sector of their internal labor market is delineated vertically by job responsibility level, and is delineated horizontally by occupations.<sup>7</sup> This study includes 52 jobs containing 6,257 employees in 1967. The study focuses upon 8% of the managerial jobs, with these accounting for 74% of the managerial employees.

Data on manpower flows and manpower stocks were derived from annual employee distribution reports, thereby avoiding the potential bias from sampling only the "organizational persister" currently available for interviews. Information concerning manpower stock characteristics is derived by aggregating individual employee data cards, where there is one card per employee per yearly inventory date. A manpower flow is defined here as the probability of manpower moving between two stocks over a one-year time interval. Probabilities are calculated by dividing the number of "movers" during a period by the total number of employees in that inventory at the beginning of the period. Information about manpower flows is generated by a computer program that matches employees at the beginning of one time interval and at the beginning of the next time interval, and then categorizes each mover by the nature of the flow.

## RESULTS

In order to illustrate the roles of organizational policy in corporate manpower planning, a partial system is developed and tested. Variables and relationships depicted in figure 1 are selected from a larger study, with selection designed to illustrate different combinations of relationships between the three manpower system components. Relationships examined are Policy→Flow (hypotheses 1,7,8), Policy→Policy (5,6), Policy→Stock (3), Flow→Stock (2), and Stock→Policy (4).

*Policy→Flow (Hypothesis 1)*

Manpower tend to move up within the occupational ladder of

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<sup>7</sup> Following Gitelman, vertical mobility is defined in terms of levels of responsibility differentiated by a formal job evaluation program. H. M. Gitelman, "Occupational Mobility Within the Firm," *Industrial and Labor Relations Review*, Vol. 20, (October 1966), p. 64.

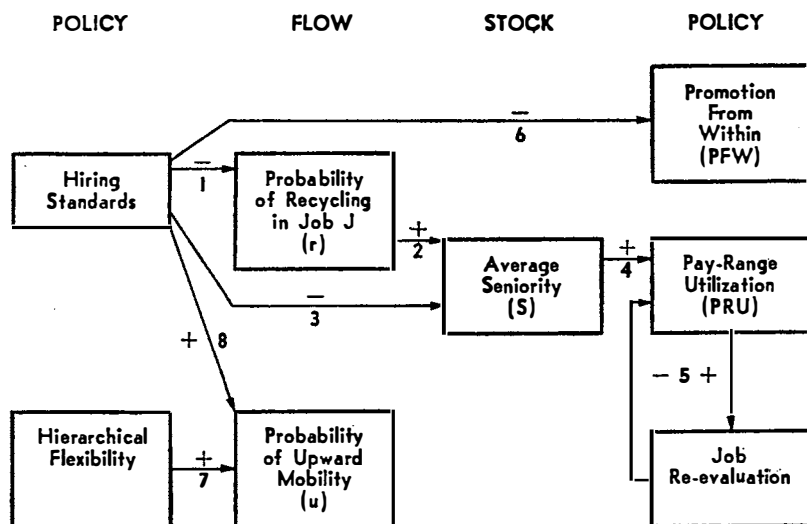


Figure 1. Process Model of a Partial Organizational Manpower System

their initial job assignment.<sup>8</sup> Therefore, the quality of an organization's manpower resources is partially determined by the level of hiring standards established for entry jobs. Under such circumstances, hiring standards may be based upon the requirements of higher jobs in an occupational ladder, and not solely upon requirements of the entry job.<sup>9</sup> Occupational ladders with tighter hiring standards should tend to have lower recycle probabilities, because the higher quality manpower resources would be capable of more rapid learning of tasks and might have higher aspiration levels with an impatience to move up the hierarchy.

As a matter of organizational policy, hiring standards differed for each major entry job under study. This policy is evident in the different minimum intelligence test score required for each entry job. Jobs are selected from three major occupational ladders, and are matched on four levels of job responsibility (see table 1). Manpower in occupational ladders with tighter hiring standards

<sup>8</sup> In this study, 80% of all mobility (1,269 of 1,597 moves) over a one-year period involved a move up to the next job (no change in occupation, geographic region, or organizational unit).

<sup>9</sup> John T. Dunlop, "Job Vacancy Measures and Economic Analysis," in National Bureau of Economic Research, *The Measurement and Interpretation of Job Vacancies*, (New York: Columbia University Press, 1966), pp. 45-46.

have lower recycle probabilities in jobs at each of the four job levels. An analysis of variance indicates that the hiring standards factor is statistically significant at the .10 level, and the job level factor at the .01 level. These results corroborate hypothesis 1: Probability of recycling in jobs is inversely related to the level of hiring standards for entry job J.

*Flow→Stock (Hypothesis 2)*

Changes in the rate of manpower flow out from job J are expected to lead to changes in the level of organizational experience of manpower stock J, where organizational experience is reflected in the average seniority (S) for the manpower stock in job J. Both a one-period change ( $\Delta S_1$ ) and a two-period change measure ( $\Delta S_2$ ) (i.e.,  $\frac{SenT+2 \div SenT+1}{SenT \div SenT-1}$ ) are analyzed. Based upon forty-three observations, the correlation coefficient for  $\Delta r \rightarrow \Delta S_1$  is .28 (sig. at .10 level), increasing to .50 (sig. at .01 level) for  $\Delta r \rightarrow \Delta S_2$ . These results corroborate hypothesis 2: Changes in the recycle probability for job J lead to direct changes in the average seniority of manpower in job J.

*Policy→Stock (Hypothesis 3)*

An analysis of variance design similar to that discussed in hypothesis 1 indicates that both the hiring standards factor and the job level factor are statistically significant at the .01 level. Results corroborate hypothesis 3: Average seniority of manpower in jobs is inversely related to the level of hiring standards for entry job J. This finding supports the algebraic logic of the model.

*Stock→Policy (Hypothesis 4)*

An organization is expected to respond to increasing organization

TABLE 1  
Relationship Between Hiring Standards for Different Occupational Entry Ports (J) and the Average Probability of Recycling in Higher Jobs

Job Level	Occupations (Minimum test score)		
	O <sub>1</sub> (80)	O <sub>2</sub> (85)	O <sub>3</sub> (90)
J + 1	.57	.28	.21
J + 2	.81	.67	.63
J + 3	.88	.84	.82
J + 4	.93	.93	.91

experience of its manpower by allocating financial rewards such as salary increases. The inference often made in rewarding seniority is that this measure of an input (length of service) is a valid correlate of a desired output (job performance). Payment of salary increases will drive up the average salary relative to established salary structure parameters, such as the pay range midpoint. The ratio of Average Salary Paid divided by the established Midpoint Salary yields an index number referred to here as the degree of pay-range-utilization (PRU). The regression coefficient for  $\Delta S \rightarrow \Delta PRU$  is .37 (sig. at .05 level), based upon 45 observations. These results corroborate hypothesis 4: Changes in average seniority lead to direct changes in pay-range-utilization.

*Policy→Policy (Hypothesis 5)*

As the pay-range-utilization index approaches the value of 1.00, there is less opportunity for the organization to differentially reward employees. Under such circumstances, employee pressures for status differentiation are expected to result in a re-evaluation of job J upward to a higher dollar level. The organization under study has two major salary structures for managerial jobs. These salary structures are essentially parallel with respect to dollar levels, but differ in width of the pay class ranges. Field interview information suggests that salary structure X is subject to considerable pressures from external market forces, whereas salary structure Y changes as a result of internal forces such as employee maturation. Graphical plotting of PRU data for experimental and control groups indicates that each salary structure has different PRU parameters for behavioral responses. An organizational response of re-evaluation is evoked in structure X at  $PRU = 1.00$ , with PRU subsequently dropping to .94 as it starts its next ascendancy. Re-evaluation is evoked in structure Y at  $PRU = 1.04$ , which then drops to .89. Results corroborate hypothesis 5: Pay-range-utilization increases preceding job re-evaluation upward, and decreases subsequent to job re-evaluation.

*Policy→Policy (Hypothesis 6)*

Entry ports to a managerial labor market tend to be jobs which are at intermediate levels in the organizational hierarchy; they are jobs that can often be staffed by promotions up from sub-managerial jobs which have lower hiring standards. Therefore, an

increase in the standards set for job J may tend to eliminate the manpower in J-1 from effectively competing with manpower from external labor markets.

The organizational policy variable of promotion-from-within (PFW) is operationally defined as the ratio of (a) the number of new incumbents to job J reassigned from within the internal labor market over (b) the number of new incumbents to job J hired from the external labor market. Both concurrent differences and longitudinal changes are presented in table 2. These results appear to be consistent with hypothesis 6: Degree of promotion-from-within utilized to staff job J is inversely related to the level of hiring standards for job J.

TABLE 2  
Relationship of Differential Hiring Standards to Degrees of  
Promotion-From-Within

Time Period	Entry Job Hiring Standards		
	O <sub>1</sub> (low)	O <sub>2</sub> (medium)	O <sub>3</sub> (high)
Before Reduction in Hiring Standards	14%	2%	2%
After Reduction in Hiring Standards	30%	5%	1%

*Policy→Flow (Hypothesis 7)*

Manpower in a job (J) may be affected by conditions existing higher up the occupational ladder. Hierarchical flexibility is the degree to which the manpower stock in J + 1 varies in size over time relative to size of the manpower stock in J + 2. A measure of hierarchical flexibility is developed by (a) computing the ratio of  $N_{J+2}/N_{J+1}$  for each yearly inventory date at which both jobs in the dyad exist; (b) calculating the standard deviation for these ratios of a job dyad over the years; and (c) using these standard deviations to calculate a coefficient of variation for each (J + 1, J + 2) job dyad. Observation of the relationship between hierarchical flexibility and upward manpower flows in ten job triads over eight years yields a Spearman rank correlation coefficient of .90 (sig. at .01 level). These results corroborate hypothesis 7: Probability of upward mobility (J→J+1) is directly related to the degree of hierarchical flexibility (J+1, J+2).



*Policy→Flow (Hypothesis 8)*

If hiring standards influence the quality of manpower resources, then occupational ladders utilizing tighter hiring standards might be expected to provide their manpower with greater promotional opportunities. Analysis of variance results tend to corroborate hypothesis 8: Probability of upward mobility is directly related to the level of hiring standard for entry job J.

## CONCLUDING REMARKS

The major finding is that it is methodologically feasible to incorporate organizational policy variables in a process model for corporate manpower planning. Tests of hypothesized relationships between variables subsequently corroborate the general model.

One particularly interesting line of inquiry concerns the role of organizational policy as a dependent variable. Most research treats policy as either a constant or an exogenous variable. Yet, this study has shown that a change in policy may be the predictable outcome of other system changes. In other words, organizational policies should often be modeled as endogenous variables within a dynamic manpower system.

## PROJECT STEP-UP: A SYSTEMS APPROACH TO UPGRADING LAID-OFF DISADVANTAGED WORKERS

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Economically, politically, and socially, the 1960's promised to be the decade in which chronic, hard-core unemployment would be ended in the United States. Since the mid-1960's, many programs have been initiated to recruit, train, and place disadvantaged workers in jobs. However, the employment system that has developed is incomplete; it appears to work well only under the full-employment conditions of tight labor markets and strong profits and under the impact of heightened political pressures and extreme social unrest.

A major drawback of the existing process is the lay-off. While the employment system was designed by many complex components,<sup>1</sup> the responsibility for lay-offs appears to be the burden of only one system component, the employer. This is a decision often forced on him by an economic system that he can not control. Proper contingency planning has not been done by any of the components. To achieve true economic equality for the previously hard-core unemployed American, a system must be developed that will either eliminate the lay-off or use it to maintain and upgrade both the employee's skill and socialization levels that have been improved through prior hiring and training programs. The Skills Training Evaluation for Progress and Upgrading Program (STEP-UP) was conceived to help the disadvantaged worker weather the lay-off by using it to upgrade his inventory of marketable skills so that he is able to compete with other workers when the economy fluctuates.

This paper will consider: (1) the components of the present system; (2) the need for a complete system; (3) a functional description of STEP-UP; (4) the allocation of resources in STEP-UP; and (5) future proposals for STEP-UP.

### COMPONENTS OF THE PRESENT SYSTEM

Many different components of the social system and their inter-relationships have been analyzed when programs to hire, train, and

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<sup>1</sup> See, Paul S. Goodman, "Hiring and Training the Hard-Core Unemployed: A Problem in System Definition," *Human Organization*, (Winter, 1969), pp. 259-69.

employ the hard-core have been discussed. In this paper, the relevant components include: the hard-core trainee, the firm (the focal organization),<sup>2</sup> major employer's associations, unions, government agencies, and community organizations.

*The Hard-Core Trainee.* The hard-core individual referred to throughout this paper is identified by the U.S. Department of Labor definition of a "disadvantaged person."<sup>3</sup> Such an individual is either unemployed, underemployed, or hindered from seeking work, and is often—but not always—black.<sup>4</sup>

He is faced with various obstacles preventing him from obtaining satisfactory employment including institutional, access, or socio-psychological barriers.<sup>5</sup> Institutional barriers stem from discriminatory hiring practices, educational inadequacies, and *de facto* environmental conditions.<sup>6</sup> Access barriers involve transaction conveniences such as information availability, transportation, and other dysfunctional aspects of formal job channels.<sup>7</sup> Finally, socio-psychological barriers refer to behavioral characteristics of job activity including attitudes, aspirations, motivation, general deference, and self-image.<sup>8</sup>

<sup>2</sup> *Ibid.*, p. 259, "the set of actors within the focal organization includes the recruiter, trainer, foreman, and the trainee's peers."

<sup>3</sup> See, "Labor Department Issues 'Official Definition of 'Disadvantaged'," *Daily Labor Report No. 34*, (February 19, 1969), A-2. Specifically, the definition states: "Such an individual is described as a poor person who does not have suitable employment and who is either (1) a school dropout, (2) minority member, (3) under 22 years of age, (4) over 45 or (5) handicapped."

<sup>4</sup> For more detailed discussion of the demographics of the hard-core, see, *Ibid.*, A-3; Lawrence A. Johnson, *Employing the Hard-Core Unemployed*, (American Management Association, Inc., 1969), p. 33.

<sup>5</sup> U.S. President, 1963-1969 (Johnson), *Manpower Report of the President*, Department of Labor (Washington: U.S. Government Printing Office, 1968), p. 86.

<sup>6</sup> For a discussion of institutional barriers, see, Phyllis A. Wallace, "Discrimination: A Barrier to Effective Manpower Utilization," *Industrial Relations Research Association: Proceedings of the Twentieth Annual Meeting*, (December 28-29, 1967), p. 120; James A. Thomas, "Institutional Barriers," in Edward B. Jakubauskas and C. Philip Baumel (eds.), *Human Resources Development*, (Ames, Iowa: Iowa State University Press, 1967), p. 113; and Kirk R. Petshek, "Barriers to Employability of Negroes in White Collar Jobs," *Industrial Relations Research Association: Proceedings of the Twentieth Annual Meeting*, (December 28-29, 1967), p. 107.

<sup>7</sup> For discussion of access barriers, see, "Barriers to Parity in Employment," from *Youth in the Ghetto*, in Louis A. Ferman, Joyce L. Kornbluh, and J. A. Miller (eds.), *Negroes and Jobs*, (Ann Arbor: University of Michigan Press, 1968), p. 249; and Harold L. Sheppard and A. Harvey Belitsky, *The Job Hunt*, (Baltimore: The Johns Hopkins Press, 1966), pp. 93-100.

<sup>8</sup> U.S. President, 1963-1969 (Johnson), *op. cit.*, p. 86.

*The Focal Organization.* To overcome these obstacles to employment confronting the hard-core unemployed and to develop sources of untapped manpower, numerous companies have taken action and conceived programs<sup>9</sup> to select and upgrade otherwise unqualified individuals so as to meet regular employment standards. Touching all phases of employment, company-sponsored programs have evolved with the unemployable individual as the focus of attention. Areas of emphasis have been recruitment, selection, testing, interviewing, training, stipends, counseling, and termination.

*Employer Associations.* The 1967 Riot Commission Report proposed a program to create one million jobs in the private sector within three years.<sup>10</sup> With the cooperation of Henry Ford III, President Johnson launched the Job Opportunities in the Business Sector (JOBS) Program<sup>11</sup> through the National Alliance of Businessmen in January, 1968. There have been problems including administrative funding and operational problems in such areas as sub-contracting, absenteeism, tardiness, backlash, and unions. However, over 378,000 people have been hired with over 200,000 still on the job. In the past two years, the program has been termed at least a qualified success.<sup>12</sup>

*Unions.* While unions have been involved in programs to develop jobs for the hard-core to some extent, their role has been mostly passive. Various labor union programs (Project Build, OLEOP, HRDI Buddies, etc.) have had major local impact in some areas. However, one of the massive problem areas in the hiring of hard-core individuals, and later in the lay-off process, is the seniority system and its application in other work rules. "Inverse seniority" or

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<sup>9</sup> James D. Hodgson and Marshall H. Brenner, "Successful Experience: Training Hard-Core Unemployed," *Harvard Business Review*, Vol. 46, (September-October, 1968), pp. 148-156; Allen R. Janger, "'New Start'—for Harder Hard-Core," *The Conference Board Record*, Vol. 6, (February 1969), pp. 10-19; and National Citizen's Committee for Community Relations, *Putting the Hard-Core Unemployed Into Jobs*, Parts I and II, Washington: U.S. Government Printing Office, 1968).

<sup>10</sup> U.S. National Advisory Commission on Civil Disorders, *Report of the National Advisory Commission on Civil Disorders*, (New York: Bantam Books, 1968), pp. 413.

<sup>11</sup> U.S. President, 1963-1969, (Johnson), *op. cit.*, p. xiv.

<sup>12</sup> Systems Development Corporation, *Final Report Evaluation of the Jobs Program in Nine Cities*, An Unpublished Report Prepared by Systems Development Corporation for U.S.D.L., (Santa Monica, Cal.: Systems Development Corporation, 1969), p. 23.

"juniority" systems may be gaining importance across the country,<sup>13</sup> and ultimately may have a positive impact on this problem.

*Government Agencies.* Through the Department of Labor, the federal government has had great impact. Both the MDTA of 1962 and the Economic Opportunity Act of 1964 have been very catalytic in this area. The Manpower Administration and the Experiment and Demonstration Division of the Labor Department have initiated new programs such as WIN, CEP, CAMPS, and OJT.

*Community Organizations.* In many instances, the only way to reach the target disadvantaged persons has been through various community agencies (e.g., Opportunities Industrialization Center, CORE, NAACP, and the Urban League). Even when private hard-core programs have been carried out by individual companies, case reports indicate that these agencies provide services resolving the entire gamut of employment problems and may be the prime contractor for the private training programs.<sup>14</sup>

#### THE NEED FOR A COMPLETE SYSTEM

The systems approach focuses on the achievement of a specific purpose or goal simultaneously seeking: (1) to organize technology, manpower, and money within a specified time frame; and (2) to respond to changes in the environment of the goal, including needs and values that are important to its achievement.<sup>15</sup> The first aim of the systems approach in the area of employing the hard-core has generally been met. That is, a broadly organized consortium—rather loosely knit—has been developed to recruit, hire, and train the hard-core individual. However, this coalition has not responded adequately to the fluctuations of employment.

Under the existing system, older, black, and less educated workers have been the least successful coping with the lay-off.<sup>16</sup>

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<sup>13</sup> "Where Workers Opt for a Layoff," *Business Week*, (March 14, 1970), p. 88.

<sup>14</sup> National Citizen's Committee for Community Relation, *op. cit.*, p. 19.

<sup>15</sup> Sidney A. Fine, *A Systems Approach to Manpower Development in Human Services*, (Kalamazoo, Mich.: W. E. Upjohn Institute for Employment Research, 1969), p. 27.

<sup>16</sup> William Haber, Louis A. Ferman, and James R. Hudson, *The Impact of Technological Change*, (Kalamazoo, Mich.: W. E. Upjohn Institute for Employment Research, 1963), pp. 13-21; and David B. Lipsky, "Interplant Transfer and Terminated Workers: A Case Study," *Industrial and Labor Relations Review*, Vol. 23, (January 1970), p. 191.

Yet, when conditions develop which favor lay-offs, attempts to help these people have been ineffective.

Thus, the advantage of a more complete system, implementing STEP-UP would be three-fold. First, it would insure that the disadvantaged trainees would benefit from a lay-off. Second, the regression to non-work oriented behavior on the part of the trainee which may occur in a regular lay-off can be substantially reduced or eliminated. This refers to the behavioral attributes of the work place and the new credibility of the "establishment" that have developed in the trainee during his work experience. Third, although the new system may be more expensive, the public and private investment in the program, in terms of time, money, and effort, can be justified. For example, one estimate of the return on investment has shown that "the average hard-core person taken off welfare and placed in a productive job in his region will repay the debt to society in the short span of 20 months."<sup>17</sup>

#### FUNCTIONAL DESCRIPTION OF STEP-UP

In preparing a functional description of the new system, this section will consider: (1) input, (2) throughput, and (3) desired output.

*Input.* Figure 1 is a flow chart, describing the approach that has been taken in dealing with the recruiting, hiring, and training of the hard-core unemployed person. Briefly, Box 1 indicates the target person, while the dual condition in Box 2 categorizes the milieu as (1) favorable for progress, or (2) unfavorable which loops the hard-core person back—or not moving him at all—into Box 1. Box 3 simplifies a complex stage (outreach, recruiting, and hiring) by identifying it with a major model program—the NAB-JOBS Program. Typically, when the worker is hired, he goes into a training program of some duration, obtains certain entrance level skills, and is placed in a job (see Box 4). From this point, the individual is on his own to a large degree. He is now part of the economy and is now subject to its fluctuations. Box 5 identifies the favorable or unfavorable conditions of the economic, political, and social climates that may exist. If favorable, the worker con-

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<sup>17</sup> "Progress Report to the President from Leo C. Beebe, Executive Vice-President, National Alliance of Businessmen," *Daily Labor Report*, No. 219, (November 7, 1968), D-1.

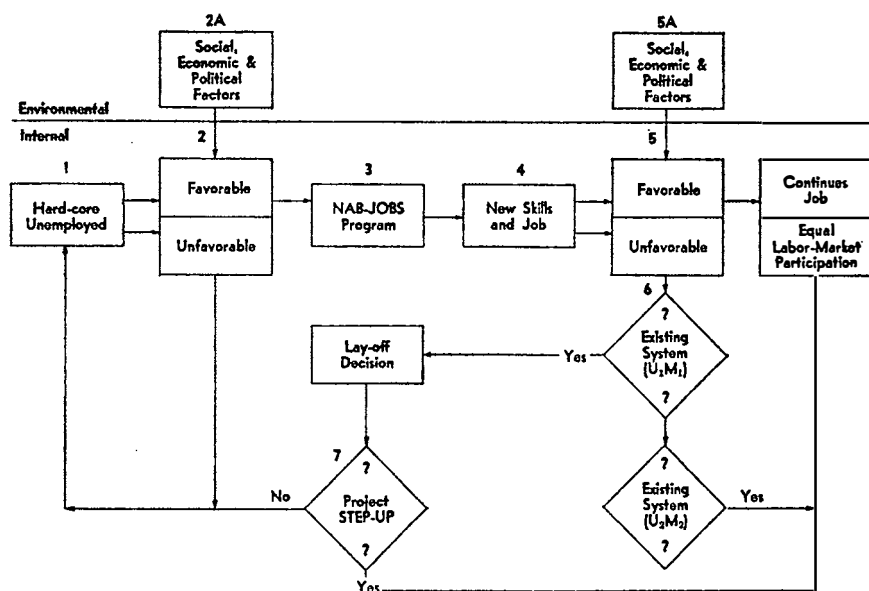


Figure 1. Input Diagram of STEP-UP

tinues on his job and satisfies the system objectives. If unfavorable, he must move involuntarily through one of two general existing systems used by his superiors to make the lay-off decision. This process is described in the two decision junctions labeled Number 6. Two types of traditional decision systems, the union seniority system and management "marginal analysis" system, are the most frequently used. The union seniority system ( $U_1$ ) is a process to protect the worker who has been on the job longest. The "marginal analysis" class of considerations states that the man with the lowest marginal return to profits is the first laid-off. In both cases, the loser is the target trainee.

Alternatively, ( $U_2, M_2$ ) a second pattern is identified that includes a new union disposition toward the lay-off question and provides a new decision variable available for management.  $U_2$  is called the "inverse-seniority" or "juniority" system. This specifies that the more senior employee has the first option in choosing a lay-off. He may prefer some time off or begin preparations for early retirement.  $M_2$  describes a class of managerial decisions that may result in no lay-offs for hard-core trainees. These companies may

choose to maximize other goals, or recognize the investment they have already made. In either case, ( $U_2$  or  $M_2$ ), the target trainee may be saved from the lay-off and remain in the system until the next lay-off decision is made.

Another alternative is that of STEP-UP (see Box 7). Without STEP-UP, the laid-off, previously disadvantaged worker probably will return to his hard-core unemployed status. In his short time on the job, he has not received sufficient job reinforcement, and will probably return to a worse position in the labor market.

*Throughput.* Figure 2 describes STEP-UP. This program attempts to make it easy for the employer to use the lay-offs for a training and upgrading process. After the lay-off decision has been made, a "skills evaluation" is made for each trainee and a "skills profile" is developed. This profile position is applied to a "relative occupational index." An appropriate "index" is based on the *Dictionary of Occupational Title's*<sup>18</sup> General Educational Development Scales and Worker Complexity Function levels.<sup>19</sup> The target trainee would be given the opportunity to upgrade his skills by one level in each of these areas.

The significance of the system is that throughout the entire process, (1) the trainee has never left the work place; (2) he is being paid a stipend by the firm; (3) he has not lost faith in the economic system; (4) all components of the system have been reunited in the process; and (5) it is feasible for the business community.

Project STEP-UP would be financed by two major spending needs: stipend support and training expense. The entire program would be developed on a regional or local basis through a major employers' association. Regular payments in the form of risk-spreading insurance would be made by the participating firms. This could be done in two parts:  $C_T = C_t + C_s$

Where:  $C_T$  is the total payment by the firm

<sup>18</sup> Dale L. Hiestand, "The Changing Position of Negro Workers," in *Race and Poverty: The Economics of Discrimination*, ed. by John F. Kain, (Englewood Cliffs, N.J.: 1969), p. 70; and U.S. President 1963-1969, (Johnson), *Manpower Report of the President*, Department of Labor (Washington: U.S. Government Printing Office, 1969), p. 150.

<sup>19</sup> Sidney A. Fine, *Use of the Dictionary of Occupational Titles to Estimate Educational Investment*, (Kalamazoo, Mich.: W. E. Upjohn Institute for Employment Research, 1968), pp. 365-366.



$C_t$  is the training cost which is a weighted percentage of the total training cost of the program;

$C_u$  is equal to an "unemployment compensation type of payment" equal to about .03 times the sum of all target employees' wages.

These payments would spread the financial burden of STEP-UP.

There would be a contractual agreement between the trainee and the firm, consisting of the firm's commitment to the trainee through STEP-UP in exchange for the trainee's guarantee that he will return to an appropriate job with the firm or to the employers' association job pool after the training program for a stated period of time.

**Output.** In the introduction, the STEP-UP goal was defined: to help the disadvantaged worker weather the lay-off by using it to upgrade his inventory of marketable skills so he is able to compete with other workers. Given that certain manpower planning decisions are made properly at the beginning of STEP-UP, and that there is some level of universal skill transfer, it is felt that this goal will be satisfied. The man who is a STEP-UP "graduate" will be a more mobile worker, will be able to participate in the labor market equally, and will have maintained his recently developed skills.

#### ALLOCATION OF STEP-UP RESOURCES

From the beginning of STEP-UP, broad component participation is necessary. To implement the skills evaluation process, a committee will be established consisting of four members, three

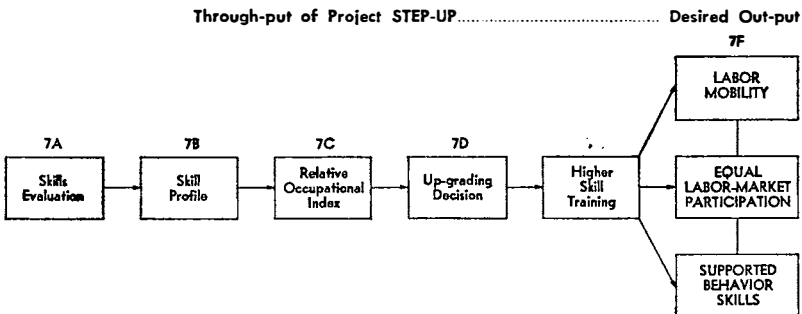


Figure 2. Through-Put and Out-Put Diagram of STEP-UP

permanent, and the other ad hoc, for each trainee. There will be one permanent member for the firm, the union, and the community action agency active in the trainee's original input. The ad hoc member will be a counsellor, from any component, who represents the trainee. He will conduct interviews and testing with the target trainee and come to the meeting prepared to recommend a GED and WCF level for his counselee. This background information is presented to the committee which approves the trainee's skill level evaluation.

For the purposes of evaluation, the company will provide relevant hiring records for each trainee and all pertinent information regarding his training and on-the-job experience. The interviews and committee meetings are to be held at a neutral location provided by the local NAB office.

The final skill evaluation is converted to a standard form called a skill profile and is kept for reference purposes by all components of the program.

Computation of the relative occupational index is an automatic process. Upon agreement of the involved parties, the conversion figure will be at least a one step increment in GED achievement.

The upgrading decision is a critical point in the overall process, and for that reason, all components are drawn into its implementation. The firm will provide information relative to its own manpower planning for the future and will counsel the target trainee and his "advisor" concerning this information. NAB will provide comparable data regarding the future growth and manpower trends in the local community. The union will also provide informational services pertinent to various apprenticeship and job openings existing in the local area. Finally, the U.S. Department of Labor will provide national manpower planning data to insure the making of intelligent decisions for the trainee's future. During this entire process, the trainee's advisor will help him filter the information and direct it toward his particular interest and abilities. The trainee will be responsible for the final decision.

#### THE FUTURE OF STEP-UP AND SIMILAR MANPOWER SYSTEMS

To demonstrate the feasibility of STEP-UP, a controlled experiment could be conducted with before and after lay-off measurements of the trainee's relative occupational participation, increased be-

havioral skills, increased labor mobility, and of the employer's productivity, turnover, and cost reduction resulting from STEP-UP.

The future of STEP-UP lies in its generalized application to: (1) other types of workers, including professionals and managers; (2) subsequent manpower planning programs; and (3) unemployment insurance coordinated with manpower policy and programs. Through a systems approach similiar to STEP-UP, the analysis of lay-offs in defense industries could be programmed. Such a systems approach could also be utilized in working out federal, state, and local coordinated programs in certain manpower problem areas (e.g., Puerto Ricans). Furthermore, it could be used to work out the ultimate consolidation of public and private agencies dealing with various types of hard-core and manpower problems (e.g., comprehensive health-planning programs).

# FOREIGN MANPOWER TRAINED IN THE UNITED STATES: POLICY IMPLICATIONS OF NON-RETURN

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American universities have become the linchpin of higher learning for much of the developing world. The numbers from these countries studying in the United States has more than tripled since the mid-1950s. Most growth has been at the graduate level where a five-fold increase occurred. Nationals from the less developed countries (LDCs) now account for about 5 percent of all graduate enrollment at American universities: for engineering the LDC component runs higher than 15 percent. But as growing numbers of foreign students seek higher degrees in America, so too do growing numbers of them avoid or postpone return to the home country. Viewed as brain drain, this type of mobility pattern has inspired considerable interest and debate, most notably in the United States itself. The bizarre notion is that poor countries are subsidizing the richest.

The convention has been to measure drain at the point in time foreign manpower enters the United States on an immigrant visa, or, being already here, it converts to this type of visa. Thus two channels for international relocation exist. The first, which accommodates the individual who obtains an immigrant visa in another country, can be thought of as "in-migration". It is the second channel, "student non-return" (SNR), that foreign nationals wanting to remain and work in the United States at study's end follow. Of all high level manpower relocating into the United States in 1967-68, 20 percent were student non-returnees. From the LDCs, though, this channel accounted for over 35 percent.<sup>1</sup>

The purpose of this paper is to identify and evaluate a feasible range of alternatives available to those policy makers who would confront the student non-return phenomenon. An examination is made first of conventional brain drain measures, and then of the

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<sup>1</sup> U.S. Department of Justice, *Annual Indicator of the In-Migration into the United States of Aliens in Professional and Related Occupations, FY 1968*, (Washington: USGPO, 1969). Calculated from Charts 3, 24 and 30.

motivational underpinning of student non-return. These points, frequently overlooked or misinterpreted, are important because they can affect the cost-benefit complexion of drain which in turn will influence policy. The final section deals specifically with the policy alternatives available.

### *The Measurement of Non-Return*

An attempt is made in Table I to shed some light on the relative magnitude of student non-return. The number of SNR immigrant visas issued in 1968 is expressed as a percentage of those foreign students in 1967 technically able to apply for this visa. It is apparent that the overall impact of SNR drain on some countries is considerably greater than it is on others, and that for any given country the rate of non-return can vary greatly between different occupational categories. This contrasts with current policy formulation whose approach tends to be uniform across separate countries and manpower groups.

The absolute level of these rates, on the other hand, is much less reliable for policy formulation. Although the subsequent ramification may be wide, brain drain is essentially a labor market phenomenon: it is a movement of manpower from one country's work force to that of another. In this sense, at least three weaknesses with the immigrant visa method of measurement can be identified. The first involves lagged measurement. Prior to the 1965 abolition of national origin quotas,<sup>2</sup> less developed non-western hemisphere countries like India were limited to 100 immigrant visas per year. Concurrently, though, many more would apply for the visa, an act which of itself entitles entry into the work force where *de facto*, unmeasured drain occurs. This latter group will only enter the conventional brain drain statistics in future years as they move up the waiting list to receive one of the 100 immigrant visas. Yet individuals from a developed western hemisphere country such as France, with a quota that exceeds the numbers wishing to relocate, can all receive immigrant visas and become *de jure*, measured drainees in the same year in which they enter the U.S. labor force.

One of the main effects of the 1965 legislative changes, thus, will be a considerable improvement in the accounting of gross drain

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<sup>2</sup>E. M. Kennedy, "The Immigration Act of 1965," *The Annals*, (September 1965), pp. 137-149.

TABLE 1

Conversions to Immigrant Visas FY 1968 (cols. 1) Proportionate to Terminal Foreign Students AY 1966-67 (cols. 2) : For Selected Fields and Countries\*

	Bio-Science		Chemistry		Math		Physics		Economics		Engineering		Architecture	
	I/V (1)	% (2)	I/V (1)	% (2)	I/V (1)	% (2)	I/V (1)	% (2)	I/V (1)	% (2)	I/V (1)	% (2)	I/V (1)	% (2)
Australia	0	.....	0	.....	2	29.6	0	.....	0	.....	10	51.3	1	26.7
Canada	3	2.4	2	3.8	0	.....	2	4.2	2	2.3	32	10.9	3	9.5
France	1	17.3	0	.....	0	.....	0	.....	0	.....	3	5.3	1	44.4
Germany	1	5.7	5	40.0	0	.....	4	32.0	1	4.6	25	36.0	4	69.6
Greece	1	6.1	7	37.3	3	16.0	4	17.4	0	.....	51	36.0	1	9.3
Israel	3	13.3	5	40.0	1	6.4	1	11.8	3	18.5	51	43.5	1	8.7
Italy	0	.....	0	.....	2	47.1	4	45.7	1	7.8	3	9.0	2	72.7
Japan	3	13.5	8	26.3	2	7.5	2	11.9	2	4.1	26	25.6	2	12.7
Spain	1	36.4	0	.....	0	.....	0	.....	0	.....	5	30.8	0	.....
UK	2	4.4	6	35.3	1	4.7	6	29.3	2	6.7	23	29.9	3	36.4
<i>DC Total</i>	15	5.3	33	20.8	11	5.7	23	15.1	11	4.1	229	24.7	18	19.4
Hong Kong	3	3.7	29	32.3	6	10.3	14	25.0	2	15.4	89	43.8	8	36.0
India	20	15.6	93	93.9	19	24.7	23	26.8	16	27.5	751	91.7	14	96.5
Iran	2	6.1	20	44.4	1	2.4	3	10.3	1	2.2	94	19.5	5	16.7
Iraq	0	.....	6	64.9	2	25.0	1	25.0	0	.....	15	25.3	0	.....
Korea	6	17.0	31	70.0	2	4.6	8	23.9	8	19.5	72	50.4	5	52.6
Nigeria	1	2.8	2	23.5	0	.....	1	33.3	0	.....	11	15.5	0	.....
Pakistan	0	.....	4	41.0	2	26.7	2	24.2	2	10.1	30	35.3	0	.....
Taiwan	24	13.3	115	54.0	23	13.9	30	24.2	37	75.1	464	74.6	14	66.7
Thailand	0	.....	3	27.9	0	.....	0	.....	0	.....	15	16.7	2	15.7
UAR	0	.....	3	30.8	1	12.9	3	57.1	3	14.8	18	37.3	2	47.1
<i>LDC Total</i>	56	9.5	306	56.8	56	12.9	85	24.1	69	21.2	1559	59.3	50	40.4

Source: *Open Doors*, 1967, New York: Institute of International Education, 1968. Tables 2 and 3, and U.S. Dept. of Justice, *Annual Indicator of the In-Migration into the United States of Aliens in Professional and Related Occupations, Fiscal Year 1968*, USGPO, 1969. Charts 24 and 30.

\* The ten countries listed for the developed and less developed sections, generally, are the largest suppliers of SNR manpower to the United States. The occupational fields listed are those which are conformable between *Open Doors* and *Annual Indicator*.

from the low quota countries. In formulating policy, care must be taken not to interpret this as an increase in the incidence of drain.<sup>3</sup> Further, although the abandonment of the quota system will remove the main source of lagged measurement, the distinction between *de jure* and *de facto* will not disappear entirely. Foreign manpower in the United States can still legally delay immigrant visa application for up to eighteen months after it enters the labor force here. If another six months is required for processing the application, the immigrant visa record of relocation would be lagged several years.

In addition to lagged measurement, a second weakness is that some manpower may in fact never be counted. Specifically, no record of *de facto* drain will ever occur in the perfectly feasible event that departure for home precedes the issue of an immigrant visa.

Third, inherent to the immigrant visa is the implication of a deliberate and permanent commitment to work in the United States. To many who enter the conventional brain drain statistics, however, their action is a simple technicality which in no way reflects their actual mobility plans. This tends to be the most serious source of mismeasurement. For example, data collected in a recent Asian Engineering Survey<sup>4</sup> suggests that the gross rate of graduate student non-return for India in 1967 was 88 percent, but the return that same year of engineers who had drained in earlier years established an effective or net rate of 65 percent. For China it was 95 percent reduced to 75 percent; for Korea, 90 percent to 60 percent; for Japan, 22 percent to 20 percent; and for Thailand, 7 percent to 4 percent. While a 65 or 75 percent net rate of non-return may be still rather alarming to some developing countries, it seems clear that policy should be based on this rate rather than on the significantly higher gross rate.

The practice of measuring international relocation in terms of an administrative technicality—the immigrant visa—can be highly

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<sup>3</sup> As, for instance, John Shearer, "International Migration of Talent and the Foreign Student," *Proceedings*, (December 29-30, 1969), p. 260.

<sup>4</sup> This survey was conducted with the assistance of the Institute of International Education and supported by the National Science Foundation grant GR-60. A total of 450 Asian engineering graduate students responded to a questionnaire circulated among twice this number at 165 American universities. See John R. Niland, *The Asian Engineering Brain Drain* (Boston: Heath Press, 1970), pp. 26-38.

misleading, particularly as the rate of non-return is often important to policy considerations. Specific improvements are needed in both the method and unit of measurement. As a first step the Immigration and Naturalization Service might publish its figures on immigrant visa applications. These would be more reflective of relocation than figures on the visas actually issued. As a further stopgap measure, it would be useful to have an annual count on the number of aborted applications. The real problem, however, can only be met when a record becomes available of the foreign student's entry into the U.S. labor market. This type of data could be most conveniently gathered through the American university as it completes a modified 120-B form.<sup>5</sup> It is equally important to know about the foreign national's departure from the U.S. labor market. The annually completed Alien Registration Cards, were they centrally located and properly processed, hold the key to this information.

### *The Mobility Rationale*

The reasons foreign students remain in the United States and/or return home has become a focal point in brain drain debate. At least a dozen research projects in the past several years have confronted this question in one form or another. Yet the motivational underpinning of international mobility still remains unexplained in any generally satisfactory manner. A major problem has been attempts to understand the issue at too broad a level. Simply stated, it is no easier to account for international mobility patterns with a single, all-purpose sweep of the pen than it is to similarly explain why anyone works or lives or behaves as he does. Given then that generalizations are to be avoided, we must speak to specific countries, and even within set national groups to particular occupational categories. With this qualification in mind, and within the context of the Asian Engineering Survey, several observations can be offered on the character of non-return.

There are at least three identifiable mobility patterns followed by foreign students after they graduate. The first involves immediate return home, the second a temporary non-return, and the third a long range or permanent non-return. Most students have

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<sup>5</sup> This is the document by which universities notify the State Department that foreign students have completed their studies and are leaving the campus.



committed themselves to one pattern or another within their first six months in the United States. Indeed, for countries like India and China which experience relatively high rates of drain there is good evidence that the majority contemplated some form of non-return even before coming to the United States. In this sense, policy formulation should not treat America as the post-arrival seductress she is often supposed to be.

It is generally believed that the probability of non-return increases the longer the student has been in the United States. This is true in the case of India and China to the extent that those who do not make a firm mobility commitment within the first six months usually end up choosing a non-return pattern. But for Thailand and Japan, which experience low rates of non-return, the tendency is for students to set plans to remain, but as the end of the degree program draws near to revise these in favor of returning.

There seems to be a positive relationship between the quality of the university attended, as measured by the Cartter Report, and an early return to the home country. This suggests that return/non-return behavior may be locked into a type of socio-educational cycle that begins at an early stage in the home country. With good quality education a scarce and expensive commodity in the less developed country, the children of the wealthy are at a distinct advantage in securing admission to the better rated American universities. This, along with the greater influence of their family, in turn secures for them a better chance of being placed in the limited number of more acceptable positions in the home country. Hence they return with greater frequency than their compatriots at less well regarded American universities.

Temporary non-returnees choose to remain in the United States for a variety of reasons. Most prevalent is the desire to take advantage of research facilities here. Also important for this particular group is the prospect of capital accumulation in the form of savings which can be returned to the home country. This practice, time honored by unskilled labor in the developing world,<sup>6</sup> seems similarly characteristic of high level manpower. Among Indian, Chinese, and Korean engineers, over half of the temporary non-returnees have a specific savings goal to be met before returning

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<sup>6</sup> M. P. Miracle and S. A. Berry, "Migrant Labour and Economic Development," *Oxford Economic Papers*, (March 1970), pp. 96-98.

home. Thus, the financial attraction of the United States is based not so much on straight salary as on its "potential" for the home country context.

Long range or permanent non-returnees, on the other hand, are more attracted by the absolute level of salaries offered in the United States, and the general life-style available. Indians, Koreans, and Chinese surveyed expect that the salary they would receive if they returned home would be only 60 to 70 percent of the salary they in fact would require to induce them home. Conversely, the U.S. salary they expect to receive ranges between 10 and 20 percent greater than the minimum for which they would remain. These differentials, combined, represent a formidable financial push-pull factor in commitment to permanent non-return.

The importance of post-graduation work experience in the United States seems to be something of a myth. In the first place, very few of the temporary non-returnees set this as important in their decision to work for a while in the United States. Secondly, there is general pessimism that such work experience in the United States will be financially rewarding in the home country. Indians, Koreans, and Thais estimated that manpower with five years American experience receive a salary only 2 to 8 percent greater than similarly qualified manpower with five years experience in the home country. The Japanese, perhaps predictably, imagined that U.S. experience would bring a salary some 2 percent less than that for home country experience.

Each of these features bears on the type of policy that should be developed toward foreign student non-return.

### *Policy Alternatives and Implications*

The scope of alternatives ranges from a fully open doors approach to an absolute regulation of the time and manner in which international movements occur. The generally *laissez faire* approach of the Internationalist eschews any action to abbreviate non-return. Such policy, of course, is easily implemented. The policy requirements of the Nationalist stance, on the other hand, imply a considerable degree of government intervention, both on the part of the United States and the home country.<sup>7</sup> Generally speaking,

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<sup>7</sup> See articles by Harry Johnson and Don Patinkin in Walter Adams (ed.), *The Brain Drain* (New York: Macmillan, 1968), pp. 69-91; pp. 92-108.

action taken might involve attempts either to affect the manner in which foreign students flow into the United States or the manner of the outflow. Turning first to the inflow alternatives, several possibilities exist. The home country could reduce the number of its students permitted to study in the United States. Such an approach might be acceptable if the home government implemented it by reducing its financial support for overseas study. The scope here, however, is extremely limited as most foreign students either support themselves or are supported from other private sources.<sup>8</sup> During the past decade home governments have been supporting only about 5 percent of their overseas students.<sup>9</sup> To hold back on this small group would have very little effect, for its members normally enter the United States on a J visa and thus return home anyway.<sup>10</sup> A major impact could be achieved only by refusing permission for overseas study to those of its students who were able and willing to finance themselves anyway. Applying a value judgement, many would consider that such action constrains the freedom of movement, and is hence morally untenable.

America could reduce the number of foreign students permitted to enter. But the United States government extends only slightly more financial support than do the home governments. Hence, if the decision is taken to reduce numbers, it would be much better for the individual home countries to institute such action. The United States, presumably, would have to act alike for all countries and this would only suit some who in any event could have taken the action themselves. Of course, reduction of foreign student enrollment may be sought not so much to combat non-return as to accommodate the growing number of black and other indigenous minority groups seeking university berths.

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<sup>8</sup> Charles Susskind and Lynn Schell, *Exporting Technical Education* (New York: I.I.E., 1968), pp. 15-16.

<sup>9</sup> *Open Doors*, *op. cit.*, 1959 through 1969.

<sup>10</sup> Students usually enter the United States on an F visa. A much smaller group, normally those sponsored by some program such as the Fulbright Scholarship scheme, enter on a J visa, and are designated "exchange visitors." These students, like those on F visas, are required to leave the United States within eighteen months of completing their studies here. In contrast though, the J visa holder, having left the country, must remain away for at least two years before being eligible for re-entry through immigration. A more important distinction is that the F visa holder can easily extend his stay indefinitely by converting to an immigrant visa. The J visa holder, however, is very seldom able to gain such waiver of the exit requirement.

Running counter to these approaches is the alternative that the number of foreign students coming to the United States in fact be increased. This presumes that the percentage of non-return will remain constant and that the absolute number of those returning therefore would increase. Such an approach seems more feasible than reduction for countries like India which apparently experience comparative advantage over the United States in producing, and even in over-producing, manpower to the baccalaureate level.<sup>11</sup> But whereas this alternative may be possible for a limited number of countries, it could not work over all. The proportion of foreign students at American universities has been extremely stable during the past decade. A regression of foreign student enrollment (E) on domestic U.S. enrollment (D) and time (T), 1956-68 produces:<sup>12</sup>

$$E = -292.4 + 0.023D - 2.518T \quad F = 1560.9$$

$$(SE) \quad (0.002)** \quad (6.875) \quad R^2 = 0.9$$

Obviously percentage quotas are imposed on foreign admission, which implies that the scope for increasing total foreign student enrollment is constrained by the manner in which U.S. enrollment itself moves up.

Preselection might be attempted by the home country to insure that those students with a high probability of returning would go to the United States in preference to those who would more likely not return.<sup>13</sup> While attractive in many respects, this approach suffers two specific weaknesses. First, for such an exercise to be successful, students intending to remain in the United States must display certain characteristics in the home country that would reliably distinguish them from students who will return. As seen earlier, Chinese and Korean engineering students attending universities with high quality ratings show greater tendency to develop

<sup>11</sup> See M. Blaug, R. Layard and M. Woodhall, *The Causes of Graduate Unemployment in India* (London: Penguin, 1970). For developed countries, however, it is less likely that the present value of U.S. educated manpower, discounted by the probability of non-return, will be greater than that of manpower educated at home. For the Canadian case, see Yochanan Comay, "The Benefits and Costs of Study Abroad and Migration," *Canadian Journal of Economics* (May 1970), pp. 300-308.

<sup>12</sup> From *Open Doors, op. cit.*, with figures adjusted for 1967 definition change, and U.S. Office of Education, *Digest of Educational Statistics* (Washington: USGPO).

<sup>13</sup> For example, Shearer, *op. cit.*, p. 269.

non-drain plans. But to give preference to the children of the rich would, in the minds of many, promote undesirable social consequences. Even apart from this the socio-educational cycle identified earlier is by no means strong enough to support a full decision model. In the Asian Engineering Survey a score of variables were analyzed using multiple regression analysis but in almost every case it was not possible to identify future mobility patterns with greater than a 50 percent chance of success. Thus, a considerable degree of caution should be brought to the proposition that preselection is a feasible exercise. Even if preselection were possible, the fact remains that in only financing a small proportion of students the foreign government has a limited arsenal at its disposal with which to implement preselection decisions.

A different range of alternatives exists for reshaping the nature of the outflow. For one thing, the United States could mandate departure. Here the House Committee on Government Operations has recommended an increase in the proposition of J visas.<sup>14</sup> Such action would no doubt reduce non-return, but more so for some countries than for others. Only a third of the Indians studied would return home if the United States government enforced departure at the end of the study period. Judging from the magnitude of the temporary non-return group, about the same proportion intended returning home in time anyway. But Korea, with a similar proportion of temporary non-returnees, would experience a much greater impact as two-thirds of those forced to depart the U.S. in fact chose to return home. Care, therefore, should be exercised in imputing benefit to the less developed countries in a more rigid U.S. departure policy. Should India be more representative than Korea, it is other developed countries such as Canada and Great Britain that become the main beneficiaries. To the extent that America continues overproducing certain types of manpower, the market mechanism itself will strongly discourage non-return: the outlook for foreign Ph.D.s in physics or aeronautical engineering is undoubtedly even bleaker here than for the American counterpart.

If some manipulation of outflow is to occur, a more suitable approach would be to alter the operation of the F visa rather than, as is usually advocated, a wholesale switch to the J visa.

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<sup>14</sup> U. S. Congress, House, Committee on Government Operations, Report, *Scientific Brain Drain from the Developing Countries*, 90th Congress, 2nd Session, 1968, p. 7.

The eighteen month post-graduation grace period permitted holders of both types of visas was initially established at a time when the rationale for delayed return was indeed to gain practical work experience. This limit was reasonably appropriate to the proportion then that came from the developed countries. Today, however, over 70 percent of foreign students are from the less developed countries, and practical experience is no longer the prime mover in delaying return. More important, as suggested earlier, is the accumulation of savings capital for subsequent repatriation. Thus the interests of the individual and of the developing countries might be better served by extending the eighteen month period to say three or four years at which point a less than automatic conversion to an immigrant visa would be possible. At this stage those wishing to become long range or permanent non-returnees could be required to establish first, that the home government does not have or does not know of specific and suitable employment available, and second that the United States employer desires their continued employment.

In another approach it is sometimes suggested that the home country might try to force return by implementing citizenship sanctions against those who remain on in the United States beyond a certain period of time. Again, this is an absolutist approach that draws opposition from those who are morally committed to the principles of freedom of movement. Further, there is no guarantee that the temporary non-returnees would not become permanent non-returnees in the face of such drastic action.

Some countries, such as India with its Scientific Manpower Pool, have attempted to increase return by reducing the unattractiveness of home labor market conditions. The salary differential between the home country and the United States, admittedly, is only one aspect of this unattractiveness. Yet it is unquestionably one of the more important push factors in drain, and as seen earlier may be quite substantial. Obviously it is out of the question for the home country to significantly reduce the differential between what its overseas manpower would want and what it would get in the home country. Further, there seems little scope for immediately compensating salary inadequacies with a more congenial working milieu: cultural and social constraints in the home environment tend to dampen attractiveness no less effectively than do the economic factors.

A substantial portion of drain into the United States can indeed be stopped, either by shutting off the flow of students or by forcing departure at the end of the study period. Such measures, however, are generally thought to be too drastic. More important, they would do little to solve the home country's problem where there is in fact a need for higher trained manpower. A more preferred policy, then, would seem to be one that does not legally limit movement one way or the other, at least in the first few years after graduation. Further, the magnitude of and the motivation behind non-return so varies from country to country that, to be effective, action implemented by the United States would need to be specific to individual occupational categories. Such diversity, which would introduce a whole range of new problems, commends rather the appropriateness of a home country initiative.

Given the heterogenous character of student non-return, policy formulations should be country specific. Several generalizations, however, are possible. First, the issue of an immigrant visa does not imply a permanent commitment to remain in the United States. Any assessment of the character of international relocation based on this conventional measure is likely to be faulty. Second, the incidence of temporary non-return can be significant and attention should be directed to ensuring that students in this category in fact carry through with their plans to return. Such action is likely to be more rewarding than an overall approach in which effort would be wasted on the permanent non-returnees. As Myers observes, "Some non-return must be expected."<sup>15</sup> Third, given that the mobility plan is set early in the study program, efforts should be made to contact and classify the foreign student as soon after his arrival in the United States as is possible. At present, though, few embassies know who or where their students are in the United States. Over three-quarters of the engineers in the Asian Survey thought that their contact with the home authorities left much to be desired. This in many cases is responsible for a growing sense of alienation from the home country which in turn endangers the eventual return of those who initially planned on only temporary non-return.

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<sup>15</sup> Robert Myers, "Some Thoughts on Student Non-Return," *Exchange* (Fall 1968), p. 47.

Finally, in concentrating on the temporary non-returnee, specific attention should be paid to his reasons for remaining in the United States. If, for example, the savings goal is important, care should be taken to facilitate its realization. The home country, perhaps, could arrange for savings repatriation which involved preferred rates of interest in the home country. In the case of the engineer, India is likely to benefit more from the presence of U.S. dollars than it is from attempts by the individuals who own them to find productive work in an already over subscribed profession.

In conclusion, neither of the extreme positions usually identified in the literature offers a truly feasible policy stance. The Internationalist's desire to maximize the welfare function of the world rather than of selected countries is appealing, but it must face an intractable fact: the nation-state does exist, and often with a fierce passion for self, not global, identity. And the Nationalist's quest for rapid-fire return, as seen earlier, is equally beyond the scope of feasible policy. It is desirable, then, that policy embrace neither extreme, but rather be based on some mid-way ground. Such would be the nature of a *delayed* return focus.



# JOINT PRODUCTS IN CANADA MANPOWER CENTRES

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There are approximately 370 permanent Canada Manpower Centres (CMC's) providing a variety of services for workers (who may be employed or unemployed at the time the services are rendered). These services include: (1) referral to jobs (the placement function); (2) authorization for training and allowances under the Adult Occupational Training Act; and (3) authorization for grants under the Manpower Mobility Program. As part of the process of deciding which of these services they can offer a given worker, they also provide counselling and testing services. This is not an exhaustive list of the functions performed by CMC's, but it suffices for present purposes.

The concern in this paper rests with the nature of the decision process underlying the choice of which of the three services listed above is offered to a given (type of) worker. The contention is that this process can be viewed as a special case of joint products in production.<sup>1</sup> The choice of service is obviously constrained by the preferences of the worker involved. It is assumed, as an abstraction, that the counselling process consists of first appraising the worker of the general characteristics of the services available, and then ascertaining which of these services the worker will accept. Assumedly some workers will at this point indicate that they are not interested in relocation, given the level of grants available; or that they are only interested in placement, and so forth. It is assumed that a sufficient number of workers indicate willingness to accept more than one type of service so that there is some remaining latitude for allocative decisions.

Specifically, the purpose of this paper is to develop a simple model for making these allocative decisions. To simplify this process, several assumptions are made. First, it is assumed that all inputs into the production process are in fixed supply. The production

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<sup>1</sup>The jointness arises not because of technical relationships, but because of political and institutional relationships.

process itself is viewed as a transformation of the state of workers into one of the following four categories:

- (1) a worker referred to a job;
- (2) a worker authorized for training;
- (3) a worker authorized for a mobility grant;
- (4) a worker in his original state.

The fourth category is included only for completeness, and includes definitionally all those workers whose state is not transformed into one of the first three categories. The activity of transforming a worker into his original state is assumed to produce zero benefit at zero cost.<sup>2</sup>

The problem is seen to be a pure allocation problem, constrained by worker preferences. There are some additional constraints. The total number of job vacancies is not under the control of the CMC. Indeed, under my assumptions, the total number of vacancies known to the CMC is outside their control, and hence fixed for practical purposes. It is also assumed that the total number of openings in training courses, and the total number of mobility grants, are fixed.<sup>3</sup>

The decision-making phenomenon of real interest in this paper cannot be analysed under the assumption of homogeneous workers. The point is that the training activity is currently being evaluated with the aid of a benefit-cost model, where benefits are measured as differential earnings (defined as post-training minus pre-training earnings). The same type of model for the mobility program is in the final stages of implementation, and some type of model for the placement activity is planned. Now the presumption is that a given worker who will yield a high benefit minus cost component for one program (e.g. training) will also, in many cases, yield a high benefit minus cost component for other programs (e.g. placement). No problem arises as long as the cost of an input (worker)

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<sup>2</sup> This activity is what is usually referred to as a "zero cost disposal activity," i.e., unused inputs can be "disposed of" costlessly. The assumption of zero benefit is unrealistic, but is made for simplicity. The process of transforming a worker into his original state undoubtedly does provide this worker with some information which is of value to him, i.e., there is a positive (gross) benefit.

<sup>3</sup> All training courses are treated as being homogeneous, and the same for all mobility grants. A more interesting line of analysis is to consider program budget fixed and allow for, e.g., "cheaper" and "more expensive" training courses, each with their associated benefits.

is evaluated in opportunity cost terms, i.e. in terms of his "value" (benefits minus costs) in his "next best" alternative use (program). However, there is a problem when benefits are measured on a straight differential earnings basis. As long as some programs are not subject to evaluation, this may result in a "creaming" of the client population, i.e. the use of the "best" inputs in the evaluated programs. This is a minor, and obvious, point. A more important observation is that if all programs are subject to evaluation, there may be a tendency to mix the "better" and "poorer" quality inputs in such a manner as to achieve "acceptable" benefit-cost results for all programs, when this is not the action dictated by "overall" optimization.

The purpose herein is, then, to investigate a particular type of program interrelationship; that caused by inputs from a common client population. To do this, it is posited that workers are of two qualities: those which yield "high" benefit minus cost magnitudes in all programs and those which yield "lower" magnitudes in all programs.<sup>4</sup>

The model for allocation decisions could obviously be written in several formats. It is written herein in a programming format; for simplicity in a linear programming format. It is assumed that the CMC maximizes:

$$(1) \sum_j (b_j - C_j) X_j$$

Subject to:

- (2)  $X_1 + X_2 \leq V_1$
- (3)  $X_3 + X_4 \leq V_2$
- (4)  $X_5 + X_6 \leq V_3$
- (5)  $X_1 + X_3 + X_5 \leq V_4$
- (6)  $X_2 + X_4 + X_6 \leq V_5$
- (7)  $a_j X_j \leq V_j \quad (j = 1, 3, 5)$
- (8)  $a_j X_j \leq V_j \quad (j = 2, 4, 6)$
- (9)  $X_j \geq 0 \quad (\forall j)$

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<sup>4</sup> This assumption obviously distorts reality to make a point. Realistically, one can certainly find pairs of workers such that the first has the higher benefit minus cost magnitude in some given program, but the lower in another program. This case is excluded by assumption.

Where the notation is defined as follows:

- $X_1$  and  $X_2$  are the number of workers which yield "high" benefit minus cost magnitudes (hereafter referred to as "H type" workers) referred to jobs in the placement process, and the number of workers which yield "lower" benefit minus cost magnitudes (hereafter referred to as "L type" workers) referred to jobs in the placement process, respectively;
- $X_3$  and  $X_4$  are the number of H type and L type workers authorized for training, respectively;
- $X_5$  and  $X_6$  are the number of H type and L type workers authorized for mobility grants, respectively;
- $b_j$  is the benefits (differential earnings) attributable to a unit of  $X_j$ , and  $C_j$  is the cost associated with "producing"  $b_j$ ;
- $V_1$  is the total number of vacancies known to the CMC;
- $V_2$  is the total number of training places available;
- $V_3$  is the total number of mobility grants available;
- $V_4$  and  $V_5$  are the total number of H type clients, and L type clients, respectively; and
- $a_j$  is the reciprocal of the proportion of workers of a given type willing to accept a given service.

The form of the model discloses some implicit assumptions. It may be noted from expression (1) that marginal net benefit ( $b - c$ ) is defined to be invariant as to scale. This is purely to simplify the exposition, as there is no conceptual or computational reason why, e.g. a quadratic objective function could not be used. The formulation in expressions (7) and (8) recognizes worker preferences only to a limited extent, since any preference ranking among "acceptable" types of services is ignored. Further, it is assumed that every job referral results in placement, and analogously for the other two services.<sup>5</sup> Finally, although two types of labour are defined based on their benefit-cost contributions, it is that all workers can be placed, trained, and relocated at some cost not exceeding the associated benefit, i.e. it is assumed  $(b - C)_j > 0 \forall j$ .

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<sup>5</sup>The assumption is not necessary in this strict a form, at least if we assume  $(V_4 + V_5)$  to be "substantially" greater than  $(V_1 + V_2 + V_3)$ . In this case we could simply interpret  $C_j$ , e.g., to be the cost, on the average, of filling a vacancy using whatever number of referrals is required.

Assume that the program formulated above is solved, and that the optimal solution vector is  $X_j^* \geq 0$ . One can then compute benefits minus costs for each service as  $(X_j^* b_j + X_{j+1}^* b_{j+1}) - (X_j^* C_j + X_{j+1}^* C_{j+1})$  for  $j = 1, 3, 5$ . One can also compute benefit cost ratios by dividing the first bracketed term by the second. Now the effect of a decision to require certain characteristics of the benefit-cost magnitudes for *all* programs is to introduce another set of constraints, the exact form of which depends upon the nature of the characteristics desired. One simple form of constraint is to require benefit-cost ratios for all programs to exceed some constant  $k > 1$ . These constraints would appear as:

$$(10) (b_j - kC_j) X_j + (b_{j+1} - kC_{j+1}) X_{j+1} > 0 \quad j = 1, 3, 5.$$

The effect on the previous optimal solution vector of adding constraints (10) may take many forms:

1. No effect, i.e. all constraints of type (10) are slack.
2. No basic feasible solution exists. Assumedly the next step here is to reduce  $k$ .
3. An allocation change with no scale effect, i.e. some type H and/or type L workers are shifted to different service activities, but the total number of clients served in all three programs is unchanged.
4. An allocation change with a scale effect. The scale effect would take the form of a decrease in the number of L type workers served, thereby "enriching" the mixture of workers served.
5. A pure scale effect.

The argument is not that shortsighted program administrators, with a model such as the one given above in hand, *would* add a constraint such as (10). However, evaluation of a given program (service) in isolation, when that program is highly inter-related with other programs, can lead to the same effective result. Further, the type of interrelationship of interest here, a common client population, is widespread in human resource development and maintenance programs generally.

A simple numerical example may illustrate some of these points. Assume the following (hypothetical) values:

$$b_j = (30, 25, 300, 200, 160, 130), \quad j = 1, 2, \dots, 6$$

$$c_j = (10, 10, 100, 100, 80, 80), \quad j = 1, 2, \dots, 6$$

$$V_1 = 20, V_2 = 10, V_3 = 5, V_4 = 10, V_5 = 30$$

$$a_j = (1, 1, 1.25, 1, 2, 1), j = 1, 2, \dots, 6$$

Note that:

1. For every type of service, it is assumed benefits minus costs are higher for H type workers than for L type (consistent with our definition), but that benefits minus costs for L type workers are higher for some type of service (training) than are benefits minus costs for H type workers for some other type of service (placement and mobility).
2. Total "service places" are less than total clients. Hence some clients will not be served in any case.
3. The conditions on  $a_3$  and  $a_5$  state that only 80 percent of the H type workers will accept training and only 50 percent will accept a mobility grant. All other  $a_j$  coefficients are assumed equal to unity, in order to simplify computations.

The solution to this example (obtained by the simplex procedure) is:

$$X_j^* = (0, 20, 8, 2, 2, 3), j = 1, 2, \dots, 6$$

$$D_i = (15, 100, 50, 30, 0, 0, 70), i = 1, 2, \dots, 7.$$

Where the  $D$ 's represent the values of the dual variables, or what are commonly termed the "shadow prices". The index  $i$  indexes the seven constraints of the model. What the program has essentially done is allocated all the H type workers it could (constrained by preferences) to training, and the rest to mobility. The L type workers are then allocated to fill all remaining "service places", with five L type workers not served. The interpretation of the dual variables is straightforward if it is noted that:

$$(1) D_1 = (b_2 - C_2)$$

$$(2) D_2 = (b_4 - C_4)$$

$$(3) D_3 = (b_6 - C_6)$$

$$(4) D_4 = (b_5 - C_5) - (b_6 - C_6)$$

$$(5) D_7 = (b_3 - C_3) - (b_4 - C_4) - (b_5 - C_5) + (b_6 - C_6)$$

The dual variables represent the potential gain in total net benefit possible by increasing the right hand side of the respective constraints by unity. Thus,  $D_6$  and  $D_6$  are zero, since these constraints were not binding in the solution.

The total net benefit under  $X^*$  is 2,410, broken down as shown below. What would be the effect if the decision-maker were now to decide that the benefit-cost ratio for mobility was "too low"? It may be noted from the values specified for  $b_j$  and  $C_j$  that the maximum ratio obtainable is 2.0 (when only H type workers are given mobility grants). Assume that it is determined that a ratio of 1.85 would be "acceptable". This can be added as a constraint in the manner previously suggested, or, given what we know about the current numerical example, can be added as:

$$(11) X_5 \geq 3$$

If this is done, the new solution vector, denoted by primes, is:

$$X'_j = (0, 20, 7, 3, 3, 2), j = 1, 2, \dots, 6$$

The total net benefit is now 2,340, broken down as shown below.

	Including Constraint 11		Excluding Constraint 11	
	Net Benefit	Benefit-Cost Ratio	Net Benefit	Benefit-Cost Ratio
Placement	300	2.5	300	2.5
Training	1,800	2.8	1,700	2.7
Mobility	310	1.775	340	1.85
Aggregate	2,410	2.51	2,340	2.4625

It may be noted that aggregate net benefit and the aggregate benefit-cost ratio both decline when the new constraint (inequality 8) is added. This will always be the case whenever an additional binding non-redundant constraint is added.

Although the simple model presented above was constructed for the purpose of illustrating a specific point, it may also have some operational significance as an evaluative tool. Many of my simplifying assumptions can be removed without making computations very difficult or parameter estimates very cumbersome, as the basic constraint matrix will still consist primarily of zero-one coefficients. Consider the effect of some possible changes in assumptions. It is difficult operationally to isolate H type and L type workers. Greater usefulness will be obtained for administrative decision-making purposes if  $X_j$  is defined as, e.g., workers in age, sex, education, and marital status group  $j$ . Any number of characteristics can be added to the definition of  $j$ . Since the  $X_j$ , once

defined, are used for all programs, the selection of these definitions must be guided by the general principle that it is desired to maximize within group homogeneity regarding both the benefit and cost magnitudes<sup>6</sup> for that group for all programs, constrained by computing facilities and especially data costs. Assume for notational purposes that we have  $n$  groups of workers defined on the product set workers by characteristics crossed on service categories (programs).

The objective function can be rewritten:

Max:  $\sum_{j \in n} (b_j - C_j) X_j$ , and constraint 2 becomes

$$(2.1) \sum_{j \in n_1} X_j - X_{n+1} \leq V_1$$

$$(2.2) \sum_{j \in n_1} C_j X_j + C_{n+1} X_{n+1} \leq B_1$$

where:

- $n_1$  is the subset of  $n$  applicable to the placement process;
- $X_{n+1}$  represents an additional activity, the number of vacancies added to  $V_1$  by canvassing employers;
- $C_{n+1}$  is the cost per additional vacancy of canvassing;
- $B_1$  is the total budget (\$) for the placement activity.

Similarly one can define another set of activities for advertising for workers of specified types, with some associated cost. For example, if we define an additional activity, advertising for H type workers (in the original program), denoted  $X_{n+2}$ , constraint 5 becomes:

$$(5.1) X_1 + X_3 + X_5 - X_{n+2} \leq V_4$$

We would also have to add another constraint (using the notation just developed) such as:

$$(12) \sum_{j=1}^{n+2} C_j X_j \leq B$$

where  $B$  is the total budget for all programs and  $C_{n+2}$  is the cost of "recruiting" one more H type worker.<sup>7</sup> Note that  $X_{n+1}$  and

<sup>6</sup> For the model as previously specified, it is sufficient to achieve homogeneity regarding the (benefit-minus cost) magnitudes. This is no longer sufficient if the resource constraints are in the form of dollars instead of, e.g., training places.

<sup>7</sup> This type of "total budget constraint" is necessary because it is not known *a priori* to which program the additional workers recruited will be allocated.



$X_{n+2}$  do not contribute *directly* to the objective function, indeed they do not appear in the objective function, but they do contribute indirectly by "loosening" tight constraints. In sum, the point is that many of the simplifying assumptions previously made can be removed, or at least relaxed, without seriously altering the approach.

The basic structure, of course, remains; and the basic structure contains a serious flaw. It assumes that benefits and costs for different programs are measurable on a comparable basis. Even assuming that the primary goal of each program is to "maximize contribution to GNP", as measured by differential earnings,<sup>8</sup> each program will have a different impact on the achievement of other, secondary, goals. The model proposed above cannot handle this unless these secondary effects can be measured in a comparable way in commensurate units for all programs.

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<sup>8</sup> It is mandatory that differentials be measured from a common base for all programs. Pre-service earnings fulfils this requirement, but may lead to poor allocation decisions if earnings *potentials* vary among persons with the same preservice earnings. Potential earnings, in the absence of any service, are a better choice as a base.

## DISCUSSION

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There is a message in the four papers selected for this session. It seems that the IRRA is rapidly emulating the American Economic Association from whose midst it sprung and that numerology is also taking over this association. The papers suggest that model building is "in" with the IRRA, or at least with Thayne Robson and those who helped him plan this session. Whether these models have vital organs—to borrow the late Jacob Viner's phrase—remains to be seen. It is clear, however, that this session follows in the great tradition of the knights of old: the contributors of the papers are deep in the search of the Holy Grail and apparently with equal success.

Professor Paul Nystrom embarks on the search of a model for corporate manpower policy. In the elaborate system which he develops, he omits consideration of the great elasticity of his subject. How useful is a system for corporate manpower planning which does not recognize that the unit of input, the individual, is so flexible that he is apparently ready to switch tasks at the drop of a hat or the promise of an extra buck. Take, for example, this roomful of highly distinguished manpower experts. A decade ago, I would venture, no one in this room would have been so classified. To reverse Say's law, demand creates its own supply; the creation of a multi-billion dollar manpower industry brought forth a surprising number of experts over night or as soon as funds were made available.

Robert Bjorklund, David Gray, and Max Wortman design a system for personnel at the other end of the spectrum; rather than deal with corporate executive manpower, they are concerned with upgrading disadvantaged workers. Essentially, their message is that if you hire a fellow, upgrade him, and don't fire him, then he will have a job. They are right, of course, but this does not create a "system." Their faith in the vetoed Employment and Manpower bill is touching, but even if the bill had been enacted into law, it is still not clear what kind of system our friends from Massachusetts would favor. Nor is it clear what the role of the employer would be in their scheme of things. If laying off workers is eliminated, what

would happen to the role of discipline in the market place? Would society or equity be served if the employer would retain the Bjorklund-Gray-Wortman clients and lay off workers with better qualifications or more seniority? It would be easy to list numerous other questions that are raised by the system developed under Project Step-up.

I am at a loss to comment on Professor Dennis Maki's paper. Are we to believe that his paper actually deals with employment offices or is his intent to spin formulas without references to reality. I'm too old to play the role of the boy who shouted that the emperor has no clothes. But let's not kid ourselves that Maki's paper is an attempt to deal with a living Canadian institution or that it addresses itself to the subject of this session, namely manpower planning. Once Maki gets through with the various assumptions and constraints he has to establish in order to "adjust" his model to fit his theoretical framework, any similarity between his structure and the Canadian manpower centers is completely nonexistent.

John Niland's paper is made of different cloth. Though not so intended, it is a panegyric to the United States; it makes clear that this country still retains great attractions to some of the best products from other nations. But this is not the time for July 4th speeches; here we are concerned with substantive contributions of Niland's excellent discussion of the brain drain from poor countries to the United States. Like the other contributors, Niland also plays with models. He shows admirable restraint, however, and is fully aware of the limitations that are inherent in a regression coefficient. Instead of locking himself into rigid models, he freely admits his value judgments.

There is no reason to be overly concerned about model builders taking over the IRRA if others would follow Niland's example. It is refreshing to find a paper which presents a problem, analyzes the data, indicates the role of value judgments, and comes up with a rational and reasonable explanation of the problem posed.



# **XI**

## **ISSUES IN INCOME MAINTENANCE**

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## ONGOING EXPERIMENTS IN INCOME MAINTENANCE

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There are presently two income maintenance experiments in operation—an urban program in New Jersey and Pennsylvania and a rural study in Iowa and North Carolina. These are being conducted by the Institute for Research on Poverty at the University of Wisconsin and are funded by the Office of Economic Opportunity. Two other experiments are about to begin. These are funded by the Department of Health, Education and Welfare and both deal with urban residents. One is in Gary, Ind.; the other in Seattle.

The primary focus of this paper is on the two ongoing experiments and will describe the rationale and design of the research programs.

These two experiments were planned over three years ago, before the Family Assistance Plan was conceived. At that time they seemed premature; now they appear to be almost too late to yield useful information for policy formulation. The experiments were planned in response to a widespread public dissatisfaction with existing welfare programs. This dissatisfaction generated a number of proposals for welfare reform, the most important being a family allowance and a negative income tax. There is currently no experiment on the family allowance, probably for two reasons: (1) students of welfare policy felt a negative income tax was a more efficient mechanism for transferring money to the poor, and (2) the family allowance has only an income effect upon the recipients, something economists already know a great deal about.

However there did seem to be some compelling reasons for experimenting with a negative income tax. The cost of any specific negative income tax plan can be quickly calculated *if* we assume no change in *earned* income of the recipient, but there is little evidence to support or refute the assumption that individuals will not alter their work habits, and consequently their earnings, if a negative income tax is introduced.

The importance of the work disincentive issue can be illustrated

TABLE 1  
Examples of Alternative NIT Plans

Family Earnings	G = \$2400/yr. T = 50%		G = \$2400/yr. T = 66 2/3%		G = \$2800/yr. T = 66 2/3%	
	NIT Payments	Total Income	NIT Payments	Total Income	NIT Payments	Total Income
0	\$2400	\$2400	\$2400	\$2400	\$2800	\$2800
\$1200	1800	3000	1600	2800	2000	3200
2400	1200	3600	800	3200	1200	3600
3600	600	4200	0	3600	400	4000
4200	300	4500	0	4200	0	4200
4800	0	4800	0	4800	0	4800

by referring to Table 1. The first column shows various levels of family earnings. The second two columns show NIT payments and total family income (earnings plus NIT payments) corresponding to these various levels of earnings, assuming a guarantee of \$2400 per year and a tax rate of 50%. Notice that families earning up to \$4799 in income received some transfer payment.

One might argue that this is an inefficient transfer program in that a substantial number of nonpoor (say those between \$3600 and \$4800) receive some transfer payment. This situation can be corrected if a higher negative tax is imposed. The next two columns portray a plan with the same guarantee but a tax rate of 66⅔%. Here the payments terminate at \$3600, roughly the current poverty level. Obviously the second program is preferred to the first *if* people will react to both programs in the same manner. However, if a 66⅔% tax rate will induce a substantial work disincentive as compared to a 50% tax rate, the second plan may turn out to be more costly, even though transfer payments are made to fewer families. This illustrates the importance of selecting an appropriate negative tax rate for any given program, and the tax rate is one of the major experimental variables in the studies I will describe.

A second major experimental variable is the guarantee level. The last two columns of Table 1 portray a plan with a tax rate of 66⅔%, and a guarantee of \$2800. This is the same as the second plan except that the guarantee level is higher. An important question is whether, given a fixed tax rate, there will be more work disincentive with a higher guarantee. We do not currently possess information which allows us to draw significant inferences

in response to various guarantee levels, so this is the second major experimental variable.

The cost of any negative income tax program must be balanced against the benefits, and these benefits will be mostly in terms of changes in the attitudes and behavior of the poor upon receiving transfer payments. This, then, is the rationale for the current negative income tax experiments—to provide information for evaluating both the cost and impact of various welfare programs.

#### THE URBAN EXPERIMENT

The first experiment involved only urban families—in New Jersey and Pennsylvania. Twelve hundred families headed by a male aged 18 to 58 were selected in five separate urban areas. Some of these families began receiving payments in August 1968; the last started getting payments a year later. The families were chosen at random, and were then randomly assigned to a control group or to one of eight alternative income tax plans (involving three different negative tax rates and four different guaranteed minimums). The alternative plans are shown in Table 2 (guarantees and cut-off levels are for a family of four).

While the tax rate is independent of family size, the poverty line, and hence the minimum guarantee, is not. Poverty levels established for various family sizes are shown in Table 3.

Only families with incomes below one and one-half these poverty levels were drawn for the sample. About half of them were assigned to a control group and the other half to one of the various plans, and they will remain in that assignment for the duration of the experiment unless they leave the continental limits of the United States. The sample is dispersed in an effort to provide anonymity to the participants. This is deemed desirable to minimize the bias in their response to the experiment.

TABLE 2

Poverty Levels	Tax Rates		
	30%	50%	70%
	Guarantee Level/Cut-off		
½	1650/5500	1650/3300	
¾	2475/8250	2475/4950	2475/3535
Full		3300/6600	3300/4714
1½		4125/8250	



TABLE 3

Family Size	Urban Experiment (1968 level)	
	Marg.	Total
	-----dollars per year-----	
Household head	1000	1000
Spouse (2nd adult)	1000	2000
1st dependent	750	2750
2nd dependent	550	3300
3rd dependent	400	3700
4th dependent	350	4050
5th dependent	300	4350
6th dependent	250	4600
7th dependent	-0-	4600

The experiment will run for 36 months at a cost of approximately \$5 million.

*Objectives of Experiment.*

The principal purpose of the experiment is to determine the effect of alternative tax rates and minimum guarantees upon the work behavior of male-headed families—labor force participation, employment, hours worked, and vocation. Of secondary importance are a host of other objectives, one of which is to learn the effect of payments upon the children of the poor, e.g. their health, school performance, delinquency rates and vocational aspirations. Changes in expenditure patterns are also of interest—the distribution among savings, investment, and consumption; relative expenditures on necessities and luxuries; marginal expenditures on medical and dental care; and the effect upon credit versus cash buying. Other objectives include the effect of NIT payments upon nutrition, adult education (including job training), family stability (separation and divorce rates), involvement in social, business, and political organizations, and attitudes towards one's self and others.

The experimental households are being interviewed quarterly to gather evidence towards some of these objectives. Information will also be obtained from sources other than the families, such as schools, hospitals, and public organizations offering services to the poor.

*Payment Interval and Income Accounting.*

Payments are made bi-weekly based on past income and number of dependents, both of which are obtained from monthly reports

filed by the participants. The income base is an average of household income over the past 12 weeks. Any household which can establish eligibility for public assistance must choose either welfare or NIT payments, but not both.

#### THE RURAL EXPERIMENT

The New Jersey experiment is expected to yield a great deal of information about the effect of various negative tax plans on attitudinal and behavioral characteristics of *urban wage earners*. There is reason to believe, however, that these results may not be directly applicable to the rural sector, in which one-third of the nation's poor resides. One expected difference between rural and urban residents is in their work response to such a program—because of differences in alternative employment opportunities and in the proportion of self-employed people. An accurate estimate of the magnitude of disincentive, both rural and urban, is crucial to estimating the cost of a nationwide program.

Also, it is not readily apparent that the specific program most effective for addressing urban poverty problems is best suited for rural poverty. For example, a large number of rural residents with low incomes are operators of farms or businesses in small towns. Determination of annual income as well as the appropriate timing of payments for the self-employed are likely to be different than for wage earners. This is especially true for those farmers receiving their entire annual income at harvest time.

This need for learning the response of rural residents to a negative income tax resulted in a second experiment. A dispersed sample of 825 rural families was selected for the study. Six hundred of these are headed by a male aged 18–58, 110 by a female in the same age range, and 115 headed by either a male or female over 58 years of age. Families began receiving payments in November and December of 1969. The experiment will continue for three years at an estimated cost of \$3.3 million.

Two locations were chosen for the experiment, one in the South (North Carolina), the other in the Midwest (Iowa). The choice of two areas rather than one was made because policymakers may distinguish between northern and southern rural residents. By selecting two locations, regional and ethnic differences in work incentive, migration, and other behavioral characteristics can be tested. The

South was chosen because it contains a higher incidence of rural poverty than any other area in the United States. The Midwest was selected because it is (as classified by the USDA) "a relatively affluent area with a poor white minority."

The same tax rates and guaranteed minimums as in New Jersey apply, though only five of the eight combinations are used. Most of the families are on a three-month accounting period. However, 75 of the families receive payments based on their last month's income. Income is defined similarly to the New Jersey guidelines, except that special provisions are made for farm and business assets.

#### THE GARY AND SEATTLE EXPERIMENTS

In early 1971 an income maintenance experiment will begin in Gary, Ind., as part of a Model Cities Project. This study will differ from the two previously mentioned projects in several ways: (1) it will focus almost exclusively on black families in a ghetto setting; (2) approximately half of the 1600 families will be headed by a female; and (3) one of the prime thrusts of its behavioral measurements will be an attempt to measure the demand for specific types of social services, with particular emphasis on day care services.

The Seattle project differs from the other three in that a primary purpose will be to measure the demand for manpower services, including vocational training, within the context of an income maintenance program. Approximately 2300 families will be involved in that experiment, and it also is expected to begin in early 1971.

Both of these studies should be a useful verification of, and augmentation to, the results obtained from the New Jersey-Pennsylvania and rural experiments.

#### RESULTS TO DATE

There are some tentative results of the first year's operation of the urban experiment in New Jersey and Pennsylvania. This analysis was done in response to a request by OEO, which in turn was a response to political pressures placed upon OEO when the House of Representatives was considering the Family Assistance Plan. These results are not expected to adequately reflect the overall response to the program. There are several reasons for this. First, poor people are generally suspicious of government programs, and

one must be in operation for a while in order to establish credibility. After this has been proved to their satisfaction, they must learn about the rules of the program. Finally, each family must identify and assess its options within the experimental framework. All in all, this process will likely take six to twelve months. Therefore, we feel that the behavior exhibited by experimental families during the first year of the study may not be indicative of their behavior during the second and third years.

With this word of caution, the first year's results of the New Jersey-Pennsylvania experiment are presented. In general, they indicate no work disincentive by those receiving payments. Table 4 shows a simple comparison of the percent of control and payment groups who experienced a weekly earnings change of more than, and less than, \$25 between the start of the experiment and the end of the first year. There is very little difference between the two groups.

The New Jersey-Pennsylvania sample is composed of approximately one-third blacks, one-third Puerto Ricans, and one-third English-speaking whites. In a crude analysis of ethnic differentials, a higher portion of blacks showed an increase in earnings than did English-speaking whites. A smaller percent of Spanish-speaking whites had increases in earnings than the other two groups. But these differences are not statistically significant.

It is expected that any negative income tax program will have its greatest impact upon second jobs of a primary worker and upon employment of secondary workers. It is interesting to note that at the start of the experiment 10 percent of the wives of control families worked, whereas 23 percent worked one year later. In the payments group, 15 percent worked at the start of the program and only 16 percent worked one year later. Yet the figures cited in Table 4 are *family* earnings rather than the earnings of the male head, and this table shows that the increase in family earnings of the payments group exceeded that of the control group. One

TABLE 4

Change in Weekly Earnings	Control	Payments
Increase $\geq$ \$25	34%	33%
<  \$25	37%	39%
Decrease $\leq$ \$25	29%	28%

might hypothesize that, for some reason, family heads in the control group experienced greater unemployment and that income was made up by the wife starting work. However this analysis is far too crude to draw any definitive conclusions.

In summary, the first year's data of the New Jersey-Pennsylvania experiment has shown no dramatic response to the various NIT plans. None of the simple analyses done so far have revealed any statistically significant differences between control and experimental groups, or between those on various experimental plans. But since this was expected, it can hardly be considered a remarkable result. We will have to await the second year's data in order to attempt to evaluate the effects of the experiment.

No results of the rural experiment are available, though some interesting administrative problems have been resolved, such as how to handle individuals with cyclical incomes, what to do about families with large business assets but low incomes, and how to measure income of the self-employed.

#### SOME COMMENTS ON SOCIAL EXPERIMENTATION

Social experimentation of the nature and magnitude of the negative income tax experiments is unique. Experiments designed to measure physical responses of both human and nonhuman agents are common, especially in the area of medical science. Psychologists have performed social experiments involving animals. There have also been social experiments involving human beings, but these fall principally in the areas of business games, consumer panels and observed group interaction. Social experimentation is a relatively new area. Some potential problems can be foreseen; others cannot.

The Hawthorne Effect is obviously a matter of concern. There is some evidence to suggest that families' behavior is influenced by being interviewed quarterly. Hopefully, this will be minimized somewhat because they are not aware of what we are trying to measure, let alone the responses we expect.

The greater problem is contamination of the experiment by the communications media. There has been considerable pressure by representatives of television, radio, magazines, and newspapers to learn the details of the experiments and to interview families involved. To date, the communications people have acted quite responsibly when explained the implications of their actions, but

it is not clear that these arguments can successfully stave off their efforts for the entire duration of the experiment.

Obviously, local changes in the employment situation, the wage structure, etc. will have an influence upon the measured responses of individual participants. This is one of the reasons that both the urban and rural samples are not only dispersed within specific areas, but more than one area is selected for experimentation. This, however, does not control for external national changes, such as in the general level of unemployment, government spending, or inflation.

Finally, there is just the problem of keeping track of the original sample. In the first four months of the New Jersey experiment an attrition rate of five to six percent was experienced. Some of this was due to families moving and leaving no forwarding address. Obviously, this could potentially bias the experiment, since these families may well differ in their response to the program from those who remain in the experiment.

There are other serious problems in this type of social experimentation. A period of three years cannot hope to simulate a nationwide, long-term program. Furthermore, the information available to participants in a nationwide program may be greater than that available to those in the experiment. In a nationwide program there would also likely be significant interaction effects among participants, among non-participants with respect to the program, and between participants and non-participants. These may have an effect upon changes in attitudes and behavior of those receiving transfer payments.

In summary, those involved in conducting these experiments recognize a good many limitations to an experimental approach of evaluating alternative government policies. It remains to be seen whether the information gathered from these and similar efforts will justify the sizeable cost of obtaining it.

# DYNAMIC MICROSIMULATION OF THE IMPACT OF INCOME MAINTENANCE PROGRAMS\*

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Work is in progress at the Urban Institute<sup>1</sup> on a dynamic microanalytic simulation model of the U.S. population of individuals and families<sup>2</sup> designed to be a tool for analyzing alternative social policies, particularly as they affect the distribution of income and wealth. In this paper we describe how the model could be used to trace over time direct and indirect effects of an income maintenance (IM) program. However, the work has not yet progressed to the point that we can present the results of such simulations. The major point of the paper is the following: used in conjunction with analyses of experimental and other data, microsimulation is an important way to improve our knowledge of the likely effects of alternative public policies.

## *Static Simulation*

Static simulation has been used to determine the cost and the effect on the income distribution of IM programs with different guaranteed income levels and different tax rates. Under these various programs the simulations determine the number of families that will be affected and the extent of their assistance. This work, which was started on the Presidential Commission on Income Maintenance<sup>3</sup> and is currently being continued at the Urban Institute,<sup>4</sup>

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\* This work is being conducted under grants from the Ford Foundation and the Social Security Administration.

<sup>1</sup> Our colleagues in this project are Guy Orcutt, Harold Guthrie, John B. Edwards, Sara Kelly, George Sadowsky, and James Smith.

<sup>2</sup> This work is an extension of the model described in G. H. Orcutt, M. Greenberger, J. Korb, A. M. Rivlin, *Microanalysis of Socioeconomic Systems: A Simulation Study* (New York: Harper, 1961).

<sup>3</sup> Gail R. Wilensky, "An Income Transfer Computational Model," and Nelson McClung, "Estimates of Income Transfer Effects," in *The President's Commission on Income Maintenance Programs: Technical Studies* (Washington: U.S. Government Printing Office, 1970).

<sup>4</sup> N. McClung, J. Moeller and E. Siguel, "Transfer Income Program Evaluation," Working Paper 950-3, October 16, 1970, The Urban Institute, Washington, D.C.

has been an exceedingly valuable tool in evaluating the cost and benefits of alternative formulations of such programs, including the Nixon administration's Family Assistance Plan.

Static simulation is limited, though, in that it can not follow a particular individual or family over time. In the dynamic model under development population growth will be simulated, and the behavioral characteristics of individuals and families will be generated within the model so that program effects over time can be examined.

In static microanalytic simulation one applies to a sample population, which represents the U.S. population, the rules from the proposed program. From the records of the family's income from various sources and records of the labor force participation of each family member it can be determined how much income, if any, each family will receive. The simulation thus determines how many families will benefit from the program and how much their income will be raised; an estimate of the total cost of the program follows directly.

The direct effect of income supplementation is well handled by the static model, but secondary effects are more difficult to obtain. Particularly difficult to analyze are the interactions with the behavioral characteristics of the family and the cumulative effects over time. For example, labor force behavior of the head and other family members is expected to be influenced by a negative income tax plan. Available empirical evidence can be used to modify the work record contained in the sample population and therefore incorporate into the static estimate an imputed labor force response for that year.<sup>5</sup> But it is difficult to continue this technique to find the cumulative response over an extended period of time. Furthermore, it is usually impossible with a static approach to trace the effects of change in labor force activity, for example, on other conditions of the family. A woman's fertility, for one, is strongly dependent upon her labor force participation, so that any change in her labor force status is likely to affect, through this indirect link, her fertility. (An IM program might also be expected to have a direct effect on fertility as will be discussed later.) The

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<sup>5</sup>D. Greenberg and M. Kosters, "Income Guarantees and the Working Poor: The Effect of Income Maintenance Programs on the Hours of Work of Male Family Heads," Rand Publication R-579-OEO, and these proceedings.



dynamic model is being developed to enable us to deal with these cumulative and interactive effects.

### *Dynamic Simulation*

The demographic core of the dynamic microanalytic model is essentially complete and is described in another paper.<sup>6</sup> Briefly, for each family in the initial population, births, deaths, marriage, separation and divorce are simulated to represent the basic demographic processes of the population. Educational attainment of the children in the family is simulated to increase the contact with basic social and economic processes. Currently under development are operating characteristics to simulate income acquisition and migration by the family. Total wage income for each family is generated by determining the labor force status of each family member, and then finding for each person who works the number of weeks worked in the year and the wage rate. The sum of wage income from each family member is added to any transfer payments and income from wealth, which are also imputed, to give the total family income. Taxes are then imputed and subtracted to give the total disposable income. From the disposable income savings are imputed to generate the accumulation of assets.

To provide an environment in which the microanalytic model can operate, an auxiliary macro model is also being developed. Given a target unemployment rate the macro model will interact with the core microanalytic model to determine total employment, investment income, and wealth as well as price changes. The microanalytic model will determine the distribution of the aggregate unemployment, income and wealth. We expect that in a later stage of development this combination of models will enable us to examine the distributive effects of different federal macroeconomic policies, including fiscal and monetary policies.

### *Behavioral Response*

The dynamic model provides the framework for an evaluation over time of certain effects of an IM program. However, to analyze both the direct and indirect effects of an IM program over time it is necessary to incorporate into the model evidence on the dynamic

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<sup>6</sup>G. Orcutt, G. Peabody and S. Caldwell, "Microanalytic Simulation: A Demographic Model," *Proceedings of the American Statistical Association*, Social Statistics Section, 1970.

behavioral responses of individuals to the program. In many areas, e.g. fertility, migration or educational attainment, it may be sufficient to assume that people whose income is raised by an IM program will behave in a manner similar to those already at that income level. However, in other areas—labor force activity and possibly savings and family stability—the response may be peculiar to the nature of the income transfer program, and additional evidence must be brought to bear in developing the operating characteristics that contain the behavioral responses. The model thus must rely heavily on the results from the various income maintenance experiments that are being conducted and on other empirical research on the nature of the expected response to such a program. The usefulness of our approach is directly dependent on the quality of data that can be brought to bear in the development of these response functions.

In building the response functions we also intend to make extensive use of the data contained in the increasingly available micro-data sets. At the same time we wish to avoid incorporating those aspects of microeconomic theory that do not have a firm empirical base. For example, microeconomic theory predicts, from both the substitution effect and the income effect in labor supply theory, that there will be reduced work effort by anyone receiving an income subsidy through a negative income tax plan.<sup>7</sup> Both effects follow from the assumption that individuals make a trade-off between leisure and work. From the income effect, people enrolled in the IM program will have a higher income with the same work effort than before the program was enacted. Since leisure is a desirable good, they will opt to purchase more leisure and consequently will work less. From the substitution effect, there is a much larger tax rate on wages after the program is in effect than before so the new cost of substituting an hour of leisure for an hour of work is lower and the person will substitute leisure for work.

We feel it is unlikely that families with incomes at the levels that are presently being discussed for IM programs in fact make a trade-off between leisure and work.<sup>8</sup> We would argue that few

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<sup>7</sup> Richard A. Musgrave, *The Theory of Public Finance*, (New York: McGraw-Hill, 1959).

<sup>8</sup> For a similar view see David E. Kaun, "A Comment on the Work-Leisure Myth," *The Review of Radical Political Economics*, Vol. 1 (May, 1969), pp. 85-88.

whose income is so far below the level necessary for subsistence can be meaningfully considered to be choosing leisure over work. Most people in this situation are probably there because they cannot find a better job, which may be due either to their inabilities or to the characteristics of our economic system. Whatever the cause, we expect that they would like to have rewarding, socially useful work as much as anyone else. An income support plan that does not bring them up the subsistence level is not likely to slack their thirst for a decent standard of living. (Recall that the Bureau of Labor Statistics subsistence budget is \$6,500 for an urban family of four in 1969;<sup>9</sup> an examination of this budget reveals that it is indeed minimal.)

There may be a decrease in work effort by some of those affected by an IM program, but we believe an explanation counter to the conventional work-leisure theory is more likely to be valid. The lowest paying jobs in our society are also frequently the most physically and psychologically degrading. We would interpret withdrawal from the labor force in terms of avoidance of the high costs of such work rather than a preference for leisure. (In fact we would find such an effect a desirable outcome of an IM program.) If meaningful work were available, such persons might be more than anxious to work.

It has also been hypothesized that people who are now on welfare and don't work because they face a 100% tax on wage income will enter the labor market under an IM program in which their tax rate will be significantly reduced. We find this theoretical prediction more plausible. The important thing to note, however, is that *no* theoretical explanation of potential labor force response has sufficient empirical confirmation. We thus plan to base simulation of both entry and withdrawal from the labor force on empirical observations insofar as possible.

Using experimental data still leaves a number of unresolved problems, of course. The experiments are on a small subset of the total population that would be eventually affected by such a program, and they necessarily cover a small range of possible parameters (mainly, the tax rate and the income floor) of any actual program.

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<sup>9</sup> This figure corrects for inflation the 1967 figure of \$5,900; see U.S. Department of Labor, Bureau of Labor Statistics, *Three Standards of Living for an Urban Family of Four Persons: Spring, 1967*, Bulletin No. 1570-5, 1969.

It is unlikely that the details of any enacted program will be identical to one of the experimental programs. A work test on eligibility and the availability of more day care centers are just two examples of potential differences between the experimental situation and an enacted program. Also, the enacted program will affect a wider variety of people than were covered in the experiment. In particular, the experiments are not aimed at detecting the response of those who don't directly benefit from the program but will pay for it through their taxes.

Assuming the experiments do give meaningful response functions, there remains a question of the temporal stability of the coefficients that enter the functions. It is possible that experience with the program will lead to a changed response over time. Changes may come about both because people begin to accept the program as permanent, and, whether or not the program is accepted as permanent, it provides a new environment in which decisions are made. Most non-experimental empirical data are drawn from cross-sectional surveys and the experiments currently under way are for only a few years (three years in the case of the New Jersey-Pennsylvania and rural experiments currently being conducted). It is quite possible that the static responses obtained in this manner will change dramatically over a period of time.

Conlisk<sup>10</sup> has given one example of how the effect of motivations changing over time might lead a person who initially reduced his work effort at the start of an IM program to increase it within a few years. In fact, it is quite likely that we should expect such labor force decisions to change with time. Our felt needs for income are shaped by the circumstances in which we find ourselves. A sudden jump in income, as one might have at the start of an IM program, may leave us satisfied with our income and with less desire to work. But we adjust to this higher income with an accompanying change in tastes, etc., which may in turn lead to a desire for a higher income and a higher labor force response.

Another important problem that must be dealt with in any dynamic consideration of labor force response under an IM program is the response of the demand side of the labor market ledger. Any major

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<sup>10</sup> John Conlisk, "Simple Dynamical Effects in Work-Leisure Choice: A Skeptical Comment on the Static Theory," *Journal of Human Resources*, Vol. 3 (Summer, 1968), pp. 324-326.

change up or down in the quantity of labor supplied will have a significant effect on the total labor market. The response of employers to this change must be known to fully evaluate the impact. Thus if many of the poor with a guaranteed income withdraw from work, but employers feel they need the lost labor, they might upgrade the jobs in an attempt to make them more desirable. The workers response to this change will, in part, depend upon their reasons for withdrawing in the first place. If they withdrew to gain more leisure, it may be quite difficult to coax them back; while if they left because the work was alienating, they would be more apt to return if the nature of the jobs was improved. As presently conceived, the dynamic model being developed will not be able to deal effectively with this question, since we do not plan to include much detail on the demand side of the labor market in the near future. This sector is, of course, crucial to any full understanding of the distribution of income in our society, and we would like to include a detailed demand sector as soon as possible.

It is easy to become too pessimistic when confronted with the enormous demand for knowledge generated by a model of this kind. Certainly the adequacy of the model rests entirely on the validity of the behavioral relationships imbedded within it. But gaps in our knowledge of behavioral responses are endemic in most areas of social science and the fact that the model has a tendency to highlight certain lacunae, thus in effect setting a research agenda, may be one of its virtues. By itself such a model will not generate answers where fundamental knowledge is lacking. It provides a framework in which basic research results, at the microanalytic level, can be knit together. New insight can come about from observing the interaction of the component relationships. If certain interactions are found to be relatively unimportant, that itself is significant and could mean that very crude bracketing is sufficient for certain system parameters.

### *Program Assessment*

The cost and distribution of benefits of any program will clearly depend on the state of the national economy, and the mix of alternative anti-poverty programs that are concurrently available. We will therefore examine program effects under different macro-economic environments (through the macro model) and in combina-

tion with different configurations of alternative (or complementary) policies.

The most important output the dynamic model will provide is the income history for each individual and family over the course of the simulation. The wage rate equations and labor force equations will all depend, where possible, on the individual's work history. To estimate these equations we are using longitudinal data whenever possible. With a longitudinal record of the income and labor force involvement for each person in the population we can do much more than give a cross-sectional listing of the number of families eligible for the program and of the distribution of benefits to them. We will be able to give a description of the flow into and out of eligibility for the program. We can also investigate the effect on the flow past a poverty line, either a fixed poverty line or one tied to the income distribution (one half the mean income, for example).

Given the capability of analyzing income trajectories we can also examine the relative effects of programs that try to prevent people from falling into poverty, those that try to help those families that are temporarily in poverty, and those that are intended to aid those who have been locked into poverty for some time. We can also use the model to examine programs other than IM programs where it is essential to have a detailed income and work history; social security and workman's compensation are two such examples. The joint effects of various combinations of policies, including transfer or human capital programs, should eventually be explored.

Consumption is a major area of concern in evaluating IM programs. By imputing savings, we also impute total consumption. But, as presently conceived, the model will not deal with specific areas of consumption. It is quite conceivable, however, that equations expressing demand for housing, for example, or other goods could be added to the model in the future.

Fertility is another area of concern about the response of the poor to an IM program. The poor, on average, have much larger families than other people. Critics of IM programs suggest that they will simply provide a guaranteed income so that the poor can afford to have even more children. To analyze the potential response to this program two factors must be considered, both of which, on their face, might be expected to increase the fertility of

the poor. First, with a rise in total income conventional economists expect that, since children are a "desirable good," families will purchase more children. Second, there is a price effect involved; most income schemes include an increase in the guaranteed floor with increased size of the family. Thus a family could increase its income by having an additional child.

The empirical data on the dependence of fertility upon income does not support the view that people with higher incomes have more children; the bulk of the evidence seems to show that whether the effect of income is positive or negative, it is virtually negligible. Also, the additional income per child contained in current programs is so small that it is not likely that it will induce people to have more children.

It might be, therefore, that an IM program will have very little direct effect on the fertility of the poor. A strong indirect effect, however, may be more likely. Women with a history of labor force activity have a much lower average fertility than those women who stay at home. To the extent that an IM program, perhaps coupled with increased numbers of day care centers or a work test on eligibility, induces women to work more it might have a negative effect on fertility. The dynamic model is perhaps most useful in tracing this type of complicated interactive effect.

Other areas in which it will be important to capture the responses, if they exist, are education of recipients and their children, migration, family stability, health, saving, and asset accumulation. These relationships are especially important because they relate to the crucial question of the long-term effects of an IM program; i.e., whether it tends to perpetuate poverty and inequality, or whether it leads to a long-term improvement in the socioeconomic welfare of the recipients. We want to examine the fundamental question of the shape of the American stratification system, and the impact on that shape that an IM program would have. It is not enough to construct a program that enables some people to climb from the bottom of the ladder if others immediately replace them. To truncate the bottom of the ladder altogether should be the goal. We intend, therefore, to examine not only trajectories overtime, i.e., the patterns of intra- and inter-generational mobility, but also the shape of the distribution over time as it responds to a national IM program.

In closing we note that inequality in the U.S. involves more than the distribution of income and wealth.<sup>11</sup> We deal with some of these other dimensions in the model, but there are many more factors less amenable to measurement and for which fewer data have been collected. The quality of work, access to social services, and the degree of political power and control over the forces that affect our lives are important and are also inequitably distributed in our society. Our work focuses on the quantifiable measures of inequality, and thereby, perhaps gives them legitimacy beyond their true relative importance. But it is our personal hope that substantial improvement in the distribution of quantifiable measures may at the same time lead to improvements in the other spheres of life that may be closer to the core of our well-being.

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<sup>11</sup> S. M. Miller and Pamela Roby, *The Future of Inequality* (New York: Basic Books, 1970).



# THE IMPACT OF INCOME MAINTENANCE PROGRAMS ON HOURS OF WORK AND INCOMES OF THE WORKING POOR: SOME EMPIRICAL RESULTS<sup>1</sup>

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Widespread dissatisfaction with the current welfare system has resulted in numerous proposals for reform, most of which incorporate negative income tax principles. Intelligent reform of the existing system requires information on the improvement in incomes of participants under alternative programs and on the costs to non-participants of the programs. Although estimates of the potential costs and benefits of alternative programs do exist, they are deficient in that the effect of the program on work incentives is usually ignored. Neglecting work incentive effects is not inadvertent, but is instead a consequence of a lack of necessary information on the relationship between wage and income changes and work decisions. However, if a program reduces labor supply for new participants, projected increases in money income will be overly optimistic and subsidy costs will be higher than expected unless this reduction in labor supply is offset by increased work by those under current welfare programs. Another important aspect of program impact—a reduction in economic output associated with a decrease in work effort—will not be taken into account if work incentives are ignored.

This paper presents some results from a study that attempts to fill some of these gaps. Estimates of the relationship between wage

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<sup>1</sup> This paper summarizes some results from a study sponsored by the Office of Economic Opportunity. A full report on the study is presented in David H. Greenberg and Marvin Kusters, "Income Guarantees and the Working Poor: The Effect of Income Maintenance Programs on the Hours of Work of Male Family Heads," The RAND Corporation, R-579-OEO, December 1970.

Any views expressed in this paper are those of the authors. They should not be interpreted as reflecting the views of the Office of Economic Opportunity, the Council of Economic Advisers or The RAND Corporation, or the official opinion or policy of any of its governmental or private research sponsors.

and income changes and hours of work were obtained from cross-sectional data. These estimates were used in a simulation of the costs, the impact on incomes, and the changes in work patterns that might result from the extension to the working poor of income maintenance programs incorporating negative income tax principles, including the Family Assistance Plan proposed by the present Administration. Although the study was limited to male-headed families and incorporates only the hours of work response of the family heads, it does take into account a major component of adjustments in work patterns and in earnings of the working poor. This group is of particular interest because extension of income supplements to them represents one of the major new departures of proposed programs.

#### METHODOLOGY

Negative income tax programs affect work incentives in two ways, both of which tend to reduce the labor supply. First, they pay a subsidy to participating families. Although the subsidy can be used to purchase more market goods, part of the increase in income resulting from the subsidy may be offset by the purchase of increased leisure. Second, such programs impose a tax rate on earnings, thereby reducing the amount of market goods and services that can be obtained in return for an hour's work, which encourages those who are taxed to reduce their work effort. The first program effect on incentives is called an income effect and the second a substitution effect. Empirical analysis of the impact on hours of work of alternative income maintenance programs requires estimates of the labor supply response to both program dimensions.

Estimates of the labor supply response to variations in the family head's wage rate, net of taxes, and in family income were obtained by measuring the differences in annual hours of labor supplied by workers with different wages and different levels of non-employment income. The analysis is based on the assumption that information on the systematic relation between work choices and differences in wage rates and income levels can be used to infer the response of a typical worker faced with changes in these variables similar to the differences observed. The analysis was based on a national sample of approximately 6,000 households, headed by married males under 62 years old, drawn from the 1967 Survey of Economic Opportunity file. The labor supply response parameters were estimated by regression techniques.

In addition to the wage rate and nonemployment income, a number of other variables were incorporated into the analysis to attempt to control for other differences between workers. The most important and novel of these additional variables is our attempt to control for the influence of different preferences for assets on the observed relation between non-employment income and work choices. The construction of a variable to control for asset preference differences is regarded as the major innovation in the study and the evidence indicates that it results in more reliable labor response estimates than those obtained in earlier studies.

Estimates of the effects of changes in the wage rate and in nonemployment income on hours of work varied between different demographic subgroups of the sample, although they showed a tolerable degree of consistency between major subgroups. They also varied somewhat depending on the precise functional form and construction of variables. In particular, the estimated relation between hours and non-employment income is sensitive to the manner in which the non-employment income variable is defined and constructed. On the basis of the evidence we obtained and our judgment of the most likely character of biases in the estimates, three sets of supply parameter estimates were selected to use in analyzing labor supply responses to alternative income maintenance programs:

	Substitution Effect	Income Effect
	(Elasticity)	(Slope Coefficient)
Low estimate	.10	-.09
Intermediate estimate	.20	-.10
High estimate	.25	-.11

The high and the low estimate in our judgment represent the maximum and minimum response that could be inferred from the overall evidence. The intermediate set of estimates represents our best judgment as to the most likely response. The intermediate set indicates that a one percent decrease in a male family head's wage rate or a one percent increase in his marginal tax rate would cause him to reduce his hours of work by two-tenths of one percent through the substitution effect. A one dollar increase in income received by his family would lead him to reduce his work effort by one-tenth of an hour through the income effect; his labor

earnings would be reduced by twenty cents for each additional dollar of income at a wage rate of two dollars per hour.

### THE SIMULATION

These labor supply parameters were used in a simulation of the impact of several alternative negative income tax programs. The simulation technique can be illustrated by examining the labor supply response of the average or mean family headed by a male under 62 years of age who would participate in both the Family Assistance plan and the Food Stamp Program (FAP + FSP)—the combination of programs that comprises the main features of the Administration's recommended changes to the current welfare system. Prior to the imposition of the program the income of this family was \$3941. The family head earned \$3484 from 1,950 hours of work. Under the program, but prior to any adjustment in work effort, the average participating family would be eligible for a subsidy of \$1361.

Earnings would be taxed at a 59 percent marginal rate under the program. Introducing such a tax on earnings, together with an income guarantee level just sufficient to compensate for the reduction in earnings implied by the lower net wage rate, would lead to a reduction in work effort of the male family head through only the substitution effect. On the basis of the intermediate substitution effect estimate the family head would reduce his hours of work by almost 12 percent ( $59 \times .2$ ) or by 229 hours ( $.59 \times .2 \times 1950$ ). The subsidy for which the average family would be eligible, in excess of the guarantee level sufficient to compensate for the tax on earnings, would result in an additional reduction in hours of work by the family head through the income effect of about 136 hours ( $-.1 \times 1361$ ). The head's total reduction in hours in response to FAP + FSP would be 365 hours ( $136 + 229$ ), about 19 percent of his initial hours of work, and his earnings would decline by about \$666. The outcome of the introduction of the program, together with the hours adjustments induced by the program, would be an average subsidy that would increase to \$1,760 ( $\$1,361 + .59 \times \$666$ ). Family income, however, would increase by slightly less than \$1,100 ( $\$1,760 - \$666$ ). Thus, the \$666 can be viewed as that part of the subsidy that is used by the family to purchase additional leisure.

The results indicate that over one-third of each subsidy dollar under the Administration's proposed program is taken in increased leisure. It might seem surprising that families at the low end of the income distribution would place so high a value on increased leisure, but it should be recognized that a .59 percent tax rate and a \$1361 subsidy gives rise to a very substantial change in incentives. On the basis of these results it seems clear that a restructuring of the welfare system along the lines of the proposed program could also significantly increase the work effort of families currently receiving welfare. Reductions in work effort in response to a negative income tax program will introduce some cleavage between participating families and non-participants. But this cleavage will be offset in part by a reduction in the existing cleavage between the working poor and those in poor families who do not find it advantageous to work under current welfare programs.

The range of the hours of work responsiveness estimates used in the simulation does not seriously influence some of the most important measures of program impact on an "average" participating family. (See Table 1.) The annual subsidy and the net increase in family income, for example, vary by less than 15 percent between

TABLE 1

Selected Measures of the Impact of FAP + FSP<sup>a</sup> on an "Average" Participating Family Using Three Different Sets of Labor Supply Parameters<sup>b</sup>

	Low Estimates	Intermediate Estimates	High Estimates
Annual Pre-program Hrs. of Family Head	1950	1950	1950
Hrs. Reduction by Family Head	237	365	436
Annual Pre-program Family Income	3941	3941	3941
Annual Subsidy	1625	1760	1835
Net Increase in Family Income	1189	1094	1042

Notes:

<sup>a</sup> FAP + FSP participants receive both Family Assistance payments and food stamps. FAP provides a guarantee of \$400 to a family with no other source of income plus \$300 for each family member. Earnings in excess of \$720 are taxed at 50 percent. FSP provides a guarantee of \$296 to each family plus \$184 to each family member. It taxes family income—including any subsidies received under FAP—at an 18 percent rate.

<sup>b</sup> The three sets of estimates used are those reported above.

the low and the high hours response estimates. Estimates of reductions in hours, however, are considerably more sensitive to differences in labor supply responsiveness.

#### AGGREGATE PROGRAM IMPACT

Our estimates indicate that about 2.3 million families that are headed by males under 62 years of age would participate in FAP + FSP. On the basis of the intermediate set of labor response estimates, it appears that these families would receive around \$4 billion in transfer payments.<sup>2</sup> About a third of this subsidy would go to the central cities of urban areas with at least a quarter of a million inhabitants and over a third to rural areas. More than half would be received by families in the South Census Region. Although these families account for less than 30 percent of the sample used in the simulation, they comprise over half the families who would participate in FAP + FSP.

Families headed by whites would receive about 62 percent of the total transfer payments under FAP + FSP, while those headed by Negroes would receive about 36 percent. Rather surprisingly, more than half of the benefits would go to families whose pre-program income exceeded \$4000 and more than two-thirds to families with 6 or more persons. Although a "typical family of four" is often used to illustrate the operation of negative income tax programs, only 26 percent of the families participating in FAP + FSP and 16 percent of the subsidy would be accounted for by families with three or four persons.<sup>3</sup> These families constitute almost half of the sample, however. The finding that 58 percent of the subsidy would be received by families with incomes over \$4000 also reflects the tendency for large families to receive a large share of the subsidy.

Some of the \$4 billion subsidy would, in effect, be used to purchase leisure. Thus, the earnings of the family heads, a measure

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<sup>2</sup> There are at least three reasons why our subsidy figures cannot be directly compared to those issued by the Nixon Administration: (1) As pointed out above, our results do not cover all the potential participants in the Administration's program (e.g., female heads of households and secondary workers). (2) Administration estimates assume no reduction in work effort. A reduction in work effort reduces earnings and hence increases the size of subsidy payments. (3) The Administration's estimates are for the incremental cost of FAP. Ours are for the full cost of FAP *plus* food stamps for working poor families.

<sup>3</sup> Single persons and couples without children are ineligible for FAP.

of the market value of the goods and services they produce, would decline by about \$1.4 billion. As a result, the tangible family income of participating families increases by only \$2.6 billion, rather than by the full \$4 billion in transfer payments. In contrast to these results, our estimates indicate that families who are eligible for food stamps, but who do not qualify for the combined FAP + FSP program would reduce their earnings by about \$800 million—roughly the amount of the food stamp subsidy. These families would experience no net increase in income; the subsidy would result only in increased leisure.

Summary measures of the impact of FAP + FSP and three additional programs that were investigated are presented in Table 2.

TABLE 2  
Selected Measures of Aggregate Impact Using the Intermediate Labor  
Response Estimates

	FAP + FSP <sup>a</sup>	High Tax Rate-High Guarantee Program <sup>a</sup>	Low Tax Rate-Low Guarantee Program <sup>a</sup>	President's Commission Plan <sup>b</sup>
Number of Participating Families (thousands)	2316	5412	7457	4004
Total Program Subsidy Cost (\$ million)	4077	13748	9336	4926
Total Pre-Program Income of Participating Families (\$ millions)	9127	27715	41916	18310
Net Change in Income of Participating Families (\$ millions)	2647	8601	4889	2675
Total Loss in Production (reduction in head's earnings) (\$ millions)	1430	5147	4447	2251

Notes:

<sup>a</sup> These programs all decompose into two components: (1) a Food Stamp component and (2) a Family Assistance component. All participating families are covered by both components. The Food Stamp component is identical for all three programs and is described in the notes to Table 1. The Family Assistance component of the High Tax Rate program taxes earnings in excess of \$720 at 75 percent, while the Low Tax Rate program taxes these earnings at 25 percent. The High Guarantee under the Family Assistance component is \$500 per family plus \$750 per family member. The Low Guarantee is \$400 per family plus \$300 per family member.

<sup>b</sup> This program is based on the proposals of the President's Commission on Income Maintenance Programs. The guarantee is \$600 per family plus \$450 per family member. Income is taxed at a 50 percent rate.

It is apparent that the largest impact on lower income families is achieved with the high guarantee-high tax program. On the other hand, this program is the most costly, in terms of both direct subsidy cost and production loss. However, although the high tax rate-high guarantee level program provides transfer payments to the poor that are 47 percent higher than those provided by the low tax rate-low guarantee level program, the loss in production that results is only 16 percent higher. This is because it covers fewer participants and those that it does cover tend to have lower wage rates. Correspondingly, this program would offer little inducement for families under current welfare programs to increase the extent to which they supplement their incomes through earnings.

The President's Commission's proposals permit childless couples to be subsidy recipients. They also have lower tax rates than the Administration's combined Family Assistance-Food Stamp Plan. For these reasons, more families would participate in the Commission's program. Consequently, the Commission program produces slightly higher production losses and is associated with a slightly higher subsidy bill. The amounts presented in Table 2, however, exclude the subsidy costs and production losses associated with families who would be eligible for food stamps but not FAP payments. When these amounts are added, virtually no difference in the subsidy costs or production losses associated with the two programs is apparent.

Some measures that attempt to place the hours reductions and production losses associated with FAP + FSP and the two alternative programs into economic perspective are reported in Table 3. Male heads of families participating in FAP + FSP would reduce their labor supply by around 19 percent. This decline in hours would reduce the total hours worked by *all* married male family heads under 62 years of age by somewhat more than 1 percent. In terms of the output produced by such persons, the reduction is about .6 percent. Hours worked by the entire labor force would be reduced by about one-half of one percent and labor's contribution to national output by about three-tenths of one percent.

A breakdown of the results for selected demographic groups indicated that under the FAP + FSP program, the hours reduction of Negro married male family heads under 62, as a percent of total hours worked by both participants and non-participants in that



TABLE 3  
Selected Measures of Hours Adjustments and Production Losses

	FAP + FSP <sup>a</sup>	High Tax Rate-High Guarantee Program <sup>a</sup>	Low Tax Rate-Low Guarantee Program <sup>a</sup>	President's Commission Plan <sup>a</sup>
Total Program Subsidy Cost (\$ millions)	4077	13748	9336	4926
Total Reduction in Hours as a % of Pre-program Hours Worked by:				
Married Male Heads <sup>b</sup> of Participating Families	18.7	24.0	12.5	14.8
Married Male Heads of Participating and Non- participating Families	1.2	3.7	2.7	1.6
Total Labor Force	0.5	1.7	1.3	0.7
Total Production Loss as a % of Pre-program Earnings of				
Married Male Heads of Participating Families	17.7	21.2	12.1	14.7
Married Male Heads of Participating and Non- participating Families	0.6	2.1	1.8	0.9
Total Labor Force	0.3	1.1	0.9	0.5

## Notes:

<sup>a</sup> These programs are described in Tables 1 and 2.

<sup>b</sup> Family heads on which these results are based are less than 62 years of age.

group, would be nearly 5 percent, compared to less than 1 percent for whites. This differential does not arise because Negroes are more responsive to work incentives than whites, the same labor responsiveness estimates were used for both groups in the simulation because no convincing evidence for a significant difference by color was found. The differential instead reflects the disproportionately low incomes of Negro families. As a consequence, Negro families comprise 30 percent of the participants in FAP + FSP but only 8 percent of the sample. Other demographic groups with relatively large reductions in work effort are families who live in the South Census Region, families who live in rural areas, and families with six or more members. The first two groups, like Negro families, have disproportionately low incomes. For the third group, large families, the size of the subsidy, and hence the reduction in hours of work through the income effect, increases with family size.

## STATE SUPPLEMENTS

The results that have been presented so far are based on an assumption that the states will not supplement federal payments to poor households headed by working males. Under the Family Assistance Plan, state supplementation of the difference between the proposed federal payment level and the State's current level of payment would be required for all those *currently* eligible for welfare; but supplementation is neither required nor precluded for poor households headed by working males. It was not possible to evaluate the national impact of possible state supplementation for these households, since the states in which households are located are suppressed in the SEO file. However, the incremental impact of extending state supplements to families headed by poor working males who live in New York City was investigated.<sup>4</sup> Program results for the City were estimated by alternatively assuming that male-headed families would and would not be eligible for supplements that would pay the difference between the proposed FAP payments schedule and the current New York City public assistance schedule.

The public assistance schedule for New York City is among the highest in the nation. A family of four with no other source of income is eligible for \$4260 under the New York City schedule, but for only \$1600 under FAP alone. The FAP tax on earnings over \$720, however, is only 50 percent, while that associated with state supplements is 67 percent on earnings between \$720 and \$3920 and 80 percent on earnings in excess of \$3920. The results indicated that the addition of state supplements in New York City would have a dramatic impact. For example, total subsidy costs would increase by five-fold, and the total loss in hours and in production by almost four-fold. The income of the average or mean New York City family eligible for FAP + FSP, but not state supplements, would equal \$4162 before the introduction of the program and \$4831 under the program once the family head's hours are fully adjusted. The addition of state supplements to the national FAP-FSP program allows higher income families to participate. The pre-program income of the average participating family would now equal \$5385 and the family's post-program income would be \$6649.

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<sup>4</sup> For a full report of the New York City results, see David H. Greenberg, "The Potential Impact of the Family Assistance Plan on New York City," The RAND Corporation, P-4586, March 1971. The study was sponsored by the Economic Development Administration of New York City.

## CONCLUDING OBSERVATIONS

The simulation results indicate that roughly one-third of the subsidy under the Administration's proposed Family Assistance Plan-Food Stamp program would be devoted to the purchase of increased leisure by the male heads of participating families among the working poor. While these estimates indicate that work incentive effects should not be disregarded in analyzing the impact of income maintenance programs, the resulting changes in work patterns should be kept in perspective. Male heads of participating families would reduce their hours of work by about 20 percent, and labor's contribution to national output would be reduced by only three-tenths of one percent. For families eligible for food stamps but not eligible for participation in FAP, on the other hand, the subsidy would result in no net increase in family income. The major beneficiaries of the program would be large families and families from low income demographic groups such as Negroes and those living in rural areas and in the South. The results also show that state supplements to the basic FAP-FSP program can have very significant effects on total program costs and perpetuate disparities in income support levels among states, or—if families not currently eligible for welfare are not eligible for the supplement—maintain much of the existing inequity of treatment based on family structure and work patterns.

## DISCUSSION

BERT SEIDMAN

*Department of Social Security, AFL-CIO*

I do not regard myself as qualified to evaluate the technical validity of the studies described in these papers. I am, however, very much concerned with the implications of their conclusions for income maintenance policy. Looked at from this standpoint, they are both significant and constructive.

I begin with the paper by Greenberg and Kusters. This paper focuses entirely on the so-called "trade-off" between work and leisure that can be expected to occur with an income maintenance program. By confining their attention to this one aspect of income maintenance, they tend to lose sight of the broad social objectives of income maintenance. This is precisely what happened in the consideration of the Family Assistance Plan in the Senate Finance Committee this year.

The authors' conclusions, if they are indeed valid, point to a very large reduction in work hours of the "working poor" resulting from any likely program of income supplements. Work hours, they maintain, would be reduced even more drastically, especially if cash payments are combined with food stamps. A high minimum guarantee would produce a particularly high work disincentive (the authors apparently do not consider those who can't or shouldn't work and must depend entirely on the guarantee for their entire income). The way the authors put it is that under FAP, for example, one-third of each subsidy dollar would be used to "purchase increased leisure."

I have already stated that I am not qualified to assess the technical validity of the study, but I nevertheless find it most difficult to accept these conclusions. The authors point out that two-thirds of the benefits would go to families with six or more persons. It is simply hard for me to believe that income supplements which would still leave such families with quite meager incomes would cause their heads to drastically restrict their work hours. Moreover, even if they should wish to do so, it would in most cases be quite difficult. In most jobs, there is a fixed working schedule. It is hard to see a recipient of an income supplement

telling his boss he now intends to work only 30 hours instead of 40 as all the other workers at his place of employment do.

Moreover, why should this trade-off between work and leisure operate so strongly for income maintenance recipients when it has been a relatively weak factor in the regular labor market? Even where there is an institutional framework to push for hours reduction as in collective bargaining, by and large, workers and their unions have shown a far greater preference for higher incomes than for more leisure. Since these questions have a very direct bearing on the shape of—or indeed even the possibility of achieving—an adequate income maintenance program, it is extremely important that such startling conclusions as those set forth in this paper be thoroughly documented before they are made generally available.

I do not have the same misgivings about the other papers. Bawden's paper describes ongoing "natural" experiments (both of the other papers report on simulated experiments) in a number of areas. Like the Greenberg-Kosters study, it focuses primarily, but fortunately not exclusively, on the work response of recipients of income supplements who are the subjects of these experiments.

The paper illustrates very well the difficulty of doing *timely* experiments. As the paper points out, the Nixon Administration prematurely insisted on having tentative results of the New Jersey experiment. But it is also interesting to note that none of the experiments will provide information on the particular problems which seem to have figured so importantly in the deliberations of the Senate Finance Committee on FAP, i.e., the "notch" problems associated with the combination of FAP cash payments with Medicaid, food stamps and public housing. Thus, even if the final results of these studies had been available, they would not have helped to resolve the most difficult questions raised in the Committee.

Bawden's paper very aptly points to the danger of focusing on only one aspect of income maintenance, namely, its impact on "work behavior." I do not wish to minimize the importance of utilizing employment to the fullest to meet the poverty problem. But exclusive concern with that one objective tends to distort the picture. In the first place, it may result in a more costly approach since a low "tax," which adds to cost, is thought to be needed to produce a strong work incentive. Secondly, as has already been mentioned, it fails to take account of the needs of those

who can't or shouldn't work. Thirdly and more broadly—it loses sight of “secondary objectives.” Bawden lists such important factors as health, school performance, delinquency rates and vocational aspirations. Indeed, in this light, the program represents investment in the future generation. This is the real trade-off between the cost and benefits of the program. It would be most useful if studies could be developed—perhaps simulations since these are long-term effects—to dramatically highlight these issues.

Peabody and Caldwell have produced a most interesting and useful paper. As a non-technician, I was particularly interested not so much in the model itself as in the authors' challenges to cherished notions and conventional wisdom. The paper describes a new tool for assessing income maintenance proposals while forbearing from overemphasizing the usefulness of the tool or its importance. To the contrary, the authors stress the important gaps which will still exist after the tool is fully exploited. Such realistic modesty is both refreshing and highly commendable.

I also found stimulating the authors' treatment of the trade-off between leisure and work. They rightly point out in considering attitudes toward “work,” how important it is to take account of such factors as deadend jobs, lack of adequate day-care, etc. They correctly give consideration to the impact of an income maintenance program not just on its direct beneficiaries but on the total labor market. This relates very directly to the concern of organized labor that if FAP is enacted, there should be requirements as to suitability of employment and payment of the minimum wage.

The authors point out that different programs may have different goals which are not usually clearly distinguished. Yet all must be sought. We need a battery of programs which will prevent the nonpoor from falling into poverty, help families temporarily in poverty and help those locked into poverty.

In conclusion, I would especially endorse the authors' warning of the distortion resulting from focus on quantifiable measures. Highly mechanistic approaches are apt to reveal highly selective and very incomplete cause-and-effect relationships. The experience with the consideration of the family assistance proposal this year has shown that such partial approaches can be very dangerous to achievement of critical social objectives.

## DISCUSSION

MICHAEL K. TAUSSIG  
*Rutgers University*

The three papers in this session complement each other very well. The Greenberg and Kusters paper describes their work in extending standard econometric methods of estimating the income and substitution parameters that are needed to predict the labor supply response of the low-income population to extensions of income maintenance programs, while Bawden outlines the new experimental approach to obtaining this same empirical information. The Peabody and Caldwell paper in turn discusses a new dynamic model which requires as empirical inputs good estimates of all kinds of socio-economic behavioral parameters, the foremost of which are the same labor supply parameters being sought in the work described in the other two papers.

Which approach to the estimation of income and substitution parameters is more useful for income maintenance policy purposes—the imaginative and careful reworking of existing bodies of cross-sectional data by investigators like Greenberg and Kusters or the experimentation described by Bawden? A more provocative alternative form of the same question is to ask whether expensive experimentation really does yield sufficiently better information than the standard econometric methods to justify its great cost. Bawden poses this issue well when he asks why we can not simply extrapolate from the observed labor supply response to the positive income tax and apply the findings to the negative income tax. He argues against such an extrapolation on three grounds: (1) possible differences in individual perceptions of positive and negative income taxation; (2) lack of knowledge of the labor supply response to the positive income tax (and, I may add, to any natural variations in market wage rates); and (3) the presumable difference in such labor supply responses between the low-income population and the moderate- and high-income populations. But Greenberg and Kusters and others have recently made great strides in answering the second and third of these arguments for the necessity of experimentation by applying the Kusters labor supply model directly to the low-income population to produce estimates of the relevant labor supply parameters. Thus the case for income maintenance

experimentation must henceforth rest either on the first point made by Bawden, which is virtually impossible either to refute or confirm, or on the demonstrated superiority of the experimentally derived parameter estimates for policy purposes.

Since none of the income maintenance experiments has yet produced any estimates of labor supply parameters to be compared with the Greenberg-Kosters results or with other results based on roughly similar methods, it is still premature to venture a judgment on the value of the experimental efforts. If by chance it turns out that the experimental findings are indistinguishable from existing results, the government may well ask whether the gains in the form of a reduction in uncertainty about the labor supply response to new income maintenance programs is worth the expenditure of many millions of dollars on the experimental programs! But the experimental results will probably differ from the estimates we now have available, for better or worse. At this point, we can observe that the results based on cross-sectional data will ideally enable us to predict the long-run equilibrium labor supply adjustment to new income maintenance programs for a given set of "tastes" at a point in time prior to implementation of the programs. They can not be used to infer anything about the time path of response to new programs or to indicate how changes in tastes may interact over time with the new labor market environment created by expanded income maintenance. In contrast, experimental results will ideally be directly applicable to both these latter problems but, as Bawden indicates, we shall not be able to infer with any confidence the long-run equilibrium labor supply response from the experiments as they are now designed. He notes correctly that start-up and termination problems make any inferences drawn from the first and last year observations of the experiments most dubious, and I would simply extend the logic of his remarks to cover the one middle year as well.

In short, then, both sets of results will be less than ideal for policy purposes, even if we could somehow ignore the many great practical difficulties involved in both approaches. (Existing estimates of the labor supply parameters derived from various cross-sections differ sharply, and we can speculate that such puzzling differences in results may also plague the different experiments now in progress.) If appropriate bodies of longitudinal data could be developed and



exploited, or if the income maintenance experiments could be redesigned to make the length of the program an experimental parameter, both approaches would yield better results for policy purposes, but of course at far greater cost. At some point, it is necessary to ask whether the benefits of further work on the problem under discussion are worth the additional costs. My own guess (and I admit bias) is that the urban and rural experiments are worth their costs, but that the marginal costs of additional experiments are impossible to justify given the extreme relative cheapness of pursuing the traditional econometric approach.

To turn now to the Peabody-Caldwell paper, I wish to repeat their own point that their model is a useful exercise for policy purposes only if the empirical inputs—behavioral parameters such as the labor supply income and substitution parameters—are available and are of acceptable precision and stability. I am even more skeptical than they are that they will be able to find empirical inputs of the quality they need for their work. We simply do not know anything about the temporal stability of socioeconomic behavioral parameters, even in such relatively well-researched areas as labor supply. Peabody and Caldwell seem to me to be overly optimistic about the various experiments as sources for their empirical estimates of these parameters. I am sure that the authors agree with me, however, that the only valid test of the usefulness of their work is the one they suggest themselves—a comparison of the predictions of their model with the results of surveys to be conducted in the future. We shall all await the results of such tests with great interest.

Finally, I am troubled by the Peabody and Caldwell discussion of the effect of income maintenance programs on labor supply. They suggest that there is no tradeoff between work and leisure for low-income families; that any withdrawal from market work by such families is due to the physically and psychologically degrading nature of low-paying jobs; and that no withdrawal from work would occur if only “meaningful” work were available. They even argue that any reduction in labor supply due to income maintenance programs is socially desirable. I have some ideological sympathy with their views, but on scientific grounds I can not condone what my colleague Orley Ashenfelter would call their loosey-goosey reasoning on these points.

Low-income workers may well find their jobs distasteful for many reasons, but industrial relations scholars have long observed that such job discontent extends well up the job ladder into at least middle income ranges. To the extent that low-income workers find their jobs unusually distasteful, the consequences will be captured in the relative sizes of the income and substitution parameters of the labor supply functions of the low-income population. Beyond this point, recognized by Bawden in his paper and by many other income maintenance scholars, I can find no other scientifically meaningful implications of the Peabody and Caldwell rejection of the traditional economic theory distinction between time spent in market work and time spent in all non-market activities, which in the extreme case only may be termed pure "leisure." Low-paying work is meaningful in the broad social view appropriate to policy decisions in that it contributes a great deal to the size of the total market output that must be shared among the total working and nonworking populations. Every potential worker who decreases the amount of labor he supplies to the market in response to expanded income maintenance opportunities thereby decreases the size of the total output pie and increases the burden per remaining worker in supporting the nonworking population. Peabody and Caldwell may be seconded in their implicit advocacy of measures that would upgrade jobs for the poor, but responsible scholars must recognize that the successful implementation of such programs is only a hope for the distant future and that in the meantime we can not ignore the importance of the labor supply effects of improved income maintenance programs.

# **XII**

## **UNION ADAPTATION TO CHANGES IN THE LABOR FORCE**

**Joel Seidman, Chairman**

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## UNION ADAPTATION TO CHANGES IN THE LABOR FORCE

RUDOLPH A. OSWALD, AFL-CIO

How have unions adapted to changes in the labor force?

First, of all the AFL-CIO, the trade union federation, has undergone change and been a major factor for change in our society during the past decade. Secondly, national and local unions have developed new collective bargaining approaches and new organizational structures. And thirdly, specific manpower programs have been initiated by unions to reflect the shifts in the labor force.

Mr. McGlotten's paper addresses itself to this third type of adaptation, while this paper will concentrate on changes made by the Federation and by national and local unions.

In the past decade, the labor movement has been a leading force for national economic and social policies and programs designed to meet the needs of the 1960's and 1970's. But more than merely enunciating its goals, the AFL-CIO has activated a comprehensive approach to achieve those goals—through the preparation of expert legislative testimony on these issues, through the lobbying on Capitol Hill and through the review of Executive Agency regulations following enactment of the legislation.

Furthermore, the structure of the Federation itself has undergone change in the past decade and will undoubtedly do so in the decade ahead. Specific new AFL-CIO programs were also developed to meet the new challenges facing the labor movement.

A decade ago the fad was to talk of the decline and death of the labor movement.<sup>1</sup> However, organized labor proved to be a major force in the enactment of basic manpower, economic and social legislation in the decade of the 1960's. Although the trade union Federation was the actual spearhead or one of the leaders of just about every effort for domestic, social and economic progress, the final enactments resulting from the legislative process were often "too little and too late."

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<sup>1</sup> Solomon Barkin, *The Decline of the Labor Movement* (California: Fund for the Republic, 1961); Richard A. Lester, "The Changing Nature of the Union," *New York University Annual Conference on Labor*, (New York, Matthew Bender and Co.), pp. 19-30; A. H. Raskin, "The AFL-CIO: Confederation or Federation? Which Road for the Future?" *The Annals of the American Academy of Political & Social Science*, (November 1963), pp. 36-45.

The record of AFL-CIO supported policies is much too long to recite in anything like its entirety. There have been defeats and setbacks, as well as positive achievements. Merely in the past year alone, consider these efforts: the rejection by the Senate of the President's nominations of Justices Haynesworth and Carswell to the Supreme Court; adoption of the Occupational Safety and Health legislation; the manpower bill, with its public-service employment provisions, which the President successfully vetoed; the over-riding by the Congress of the President's vetoes of appropriations for education and for hospital construction; and the steady, frequently lonesome fight against the Nixon Administration's restrictive squeeze on the national economy. And that's only a partial list. Quite a record for an institution that has so often been pronounced dead or dying through much of the decade.

Let us look back briefly at some of the policies advocated by labor and enacted in whole or in part since 1960—the Area Re-development Act of 1961; the Manpower Development Act and its subsequent amendments; consumer legislation, such as Truth-in-Lending, Truth-in-Packaging and meat inspection; the small forward step towards tax justice embodied in the Tax Reform Act of 1969.

And think of the historic breakthroughs of civil rights legislation and federal aid to education, as well as the Economic Opportunity Act, the Vocational Education Act, Medicare, the Model Cities legislation and other housing legislation, the GI Bill, the improvements of the Fair Labor Standards Act, the beginnings of anti-pollution legislation.

The historic Civil Rights Act of 1964 and ensuing civil rights legislation was the product of a coalition of civil rights, religious, liberal and labor groups. The specific inclusion in that 1964 law of Title VII, aimed at eliminating discriminatory employment practices of both business firms and unions, was largely the result of the special efforts of George Meany and the AFL-CIO.

It was in recognition of these efforts by one who knows them well and in detail, that Clarence Mitchell, the director of the Washington Bureau of the NAACP stated a couple of years ago:

“Without the help and day-to-day work of the legislative representatives of labor, headed by Andrew Biemiller, no civil rights legislation would have passed in any session of Congress. Without the help of labor, the great marches for civil rights

that brought thousands of Americans to Washington would not have been a success. Labor contributed its brain power, its manpower and its finances to make these historic events possible. . .I believe that it would be a fatal mistake in this country if civil rights and labor groups did not continue to work together. . .We must never forget that *we* are the foundation on which the House of Freedom is built. If we crumble and fall apart the whole structure may very well collapse.”<sup>2</sup>

In seeking improvements of the Fair Labor Standards Act, the AFL-CIO has stood almost alone—except for some assistance from the civil rights groups and the hard work of a group of stalwart economic liberals in the House of Representatives and the Senate. In 1961 Congress finally enacted the \$1.25 minimum wage and extended coverage of the Act to large retail enterprises. In 1963 as a result of further union activities, the equal pay amendment was attached to the Fair Labor Standards Act, assuring workers equal pay regardless of sex. In 1966, the labor movement worked for an increase in the minimum wage to \$1.60 an hour and for the extension of the law’s coverage to hospitals, schools, laundries, hotels and large farms. As the decade closed, the labor movement was still fighting to extend the Act’s protection to all workers regardless of industry and to raise the minimum wage to at least \$2 an hour.

However, the labor movement realized that these specific programs would be fruitless unless the overall economic policy of the country were geared towards achieving full employment. In this regard, unions supported actively the tax cut of 1964, the tax reform of 1969, and lead the current opposition to Nixon’s game-plan policy of curbing inflation through rising unemployment.

All of these efforts, with their varying degrees of success and failure, have been made within the context of organized labor’s conviction that sound social and economic progress in the United States can be achieved only through the tough daily work of organization and attempts to convince a majority of the members of the Congress and the electorate.

Related to these efforts has been not only the work of the Legislative, Research and other staff departments of the AFL-CIO,

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<sup>2</sup> Speech of Clarence Mitchell at 14th Annual AFL-CIO National Conference on Community Services, Washington, D.C., May 20, 1969.

but also the increasingly effective work of the Committee on Political Education (COPE). COPE's activities in Washington and in many parts of the country have been major factors in registration-drives, bring-out-the-vote efforts and political campaigns on behalf of liberal candidates, endorsed by the trade unions on the basis of their records.

#### STRUCTURAL CHANGES IN THE AFL-CIO

While the AFL-CIO may seem unchanging to those who refuse to look at the record, an examination of the Federation's structure reached substantial and dynamic changes in the past decade. The AFL-CIO is a Federation of some 120 diverse unions composed of wage and salary earners in various industries and crafts. Some of these unions are growing rapidly<sup>3</sup> (such as the Airlines Pilots Assn.; the American Federation of Government Employees; the American Federation of State, County, Municipal Employees; the Retail Clerks International Association) reflecting increased employment in their jurisdiction. Some others are declining in membership (such as the railroad unions, Tobacco Workers and Cigarmakers) and reflect a shrinking labor force. The rapid growth of governmental unions is also a result of state legislation in places like Wisconsin, Michigan, Massachusetts and more recently Pennsylvania and Hawaii, as well as the federal Executive Orders dealing with labor-management relationships such as President Kennedy's E.O. 10988 and President Nixon's E.O. 11491.

The small Farm Workers Organizing Committee is also growing—in a struggle against great odds. The credit for this achievement belongs to many, including this union's leadership and its members. But without the day-to-day assistance of the AFL-CIO—in terms of funds, staff, affiliated unions, state and city central bodies—it is doubtful that contracts would have been successfully negotiated and the grape boycott won.

The membership of the trade union movement has not grown rapidly enough and there are varied difficulties—such as the opposition of local government authorities, as in Memphis and Charleston; the rapid increase in the number of part-time workers; and

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<sup>3</sup> See Woodrow Ginsburg, "Review of Literature on Union Growth, Government and Structure—1955-1969" in *A Review of Industrial Relations Research*, Vol. 1, (Madison, Wisc. IRRR, 1970).

the continuing trade union weaknesses in organizing clerical, scientific and technical employees. But the membership has grown, by and large reflecting the changes in the composition of the workforce, certainly, the decade of the 1960s will go down as the period of a break-through in government-employee union organization.

Reflecting these changes, the Executive Council of the AFL-CIO has changed substantially—17 of its present 35 members having been elected in the past 5 years. This is a result of new top officers of national unions as well as the expansion of the Executive Council which took place at the last AFL-CIO convention and the changing composition of the Federation.

In 1961, the AFL-CIO established an internal disputes procedure for resolving questions between unions as to their appropriate jurisdiction in particular circumstances. The constitutional provision, article XXI (now article XX), set up procedures for settling internal disputes involving alleged raids which interfere with established collective bargaining relations of any other affiliate. Also the Industrial Union and Building Trades Departments had agreed on a procedure for settling disputes over new construction and maintenance work in organized plants. The IUD adopted an organizational disputes agreement to ban disputes involving new organizing as well as raiding of organized units. In addition, a number of unions entered into a series of bilateral agreements eschewing jurisdictional conflicts. The curtailment of jurisdictional disputes may be regarded as one of the major accomplishments of the 1960s.

In keeping with the shift of the labor force into the white collar-professional area, a new council of AFL-CIO unions was established in March, 1967. This council—the Scientific, Professional, and Cultural Employees (SPACE) Council—was established in recognition of the need to find new ways to reach white collar workers and is indicative of the efforts of the AFL-CIO among this expanding group of the labor force.

The AFL-CIO has also launched a number of new programs to reflect the problems of the 1960's. A new Labor Studies Center was established. A Housing and Urban Affairs Department was set-up in the AFL-CIO. The Civil Rights Department was vastly expanded. The Education Department conducted young worker schools, the Research Department addressed itself to problems of



consumers and environment, and the Organization Department turned its attention to farm workers, government employees, professional and other white collar workers. The Human Resources Development Institute attacked the problems of the disadvantaged and the International Affairs Department established new cooperative programs in Latin America, Africa and Asia.

The Labor Studies Center was set-up by the 1969 AFL-CIO Convention to train new labor leaders. In addition to a basic studies program, it has also conducted a number of special institutes to meet specific needs of labor leadership. While the program is still new, it has already equipped hundreds of union officials with the ability to cope with problems of the 1970s.

Also, in the past decade, the AFL-CIO has provided substantial help, to unions in difficult collective bargaining situations or disputes—such as the airline mechanics strike, the co-ordinated bargaining with General Electric and the postal workers' strike.

A number of unions have engaged in new manpower training programs under MDTA, and several unions run JOB Corps programs, under OEO. Various local union organizations participate in community action programs. Mr. McGlotten will tell you about both HRDI and the Outreach programs.

None of this is to imply that organized labor has suddenly become the ideal institution. I have never noticed wings on any of the trade union movement's leaders, staff or membership. It is a human institution, with errors of judgment, sins of omission and commission, weaknesses, imperfections and defects. But with all of these warts and foibles, the AFL-CIO is very much alive. It is flexible, changing and growing.

Through all of these changes—in a turbulent decade—it has marched forward, representing the wage and salary earners who are its members and the general interests of the working population as a whole. To say that not enough has been done—or done successfully or in sufficient depth—is obviously true. But the record of day-to-day work, usually unglamorous and frequently against great odds—is there for all to see.

#### ADAPTATIONS OF INDIVIDUAL UNIONS TO CHANGE

National and local unions have negotiated innovative collective bargaining agreements and have undergone internal organizational

changes. It was not long ago that we heard that collective bargaining was "old before its time,"<sup>4</sup> that it could do nothing to meet the new problems of automation and technological change. However, new contract provisions were developed during the 1960s providing for work or pay guarantees including SUB and attrition agreements; pension innovations dealing with early retirement, vesting, and portability; the expansion of transfer rights, new severance benefits, reduction in hours of work, and establishment of day care centers.

Many of the pundits who denounced trade unions and collective bargaining as dying, incompetent, and weak in the early 1960s, now denounce collective bargaining and organized labor as too strong, too militant, or both. But the record shows that all through the 1960s, the labor movement and collective bargaining were trying to achieve adjustments, at the work-place, to the changes that were taking place in the labor force and in technology. In tens of thousands of different agreements, collective bargaining flexibly responded to the differing pressures and needs—never perfectly, frequently belatedly, but it usually responded to the diverse changes in the various and different industries, occupations, crafts and labor markets.

The decentralized nature of collective bargaining in America—with all its defects—once again demonstrated its flexibility and its ability to adjust to the differing and changing needs of the multitude of organized work-places in the country. In the latter part of the decade, even some professional associations began to move in the direction of trade union type behavior and collective bargaining.

Attrition agreements were developed to meet the problem of job loss due to automation, company mergers and changing output levels. Under these contracts, displacement took place at the rate of normal reduction in the existing work force due to quits, retirements or deaths. A number of railroad unions negotiated such contracts and the provision was also part of the overall Kaiser Steel Company and Steelworkers sharing plan.

Work or pay guarantees developed both special guarantees as well as improvements in supplemental unemployment benefits (SUB). For example, the Longshoremens's agreement in New York

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<sup>4</sup> Paul Jacobs, *Old Before Its Time: Collective Bargaining at 28*, (Santa Barbara, Cal., The Fund for the Republic, 1963).

City changed what had been a casual type of job relationship to a guarantee of 2,080 hours of pay or work per year to those workers who had a substantial connection with longshoring. The SUB plans were also improved to provide greater income stability by the addition of short work-week benefits and the extension of benefits to 52 weeks or more as in the rubber and can agreements for long service employees. Benefits were also increased to provide up to 95% of lost earnings in the basic Autoworker's contracts.

Pension plans also improved during the 60's to provide normal retirement at reduced ages generally 60 or 62 and in the recent auto settlement at age 56 with 30 years service. Under the basic Steelworker's contract, the worker can retire with full pension after 30 years of service without any age restrictions. In the maritime industry, retirement is allowed at 20 years of service. Vesting requirements have also been substantially reduced, in some cases eliminated, so that a worker will not lose his entitlement to a pension because of a change in jobs. Furthering this principle a number of building trades unions have established portability of pension benefits.

With an increase of plant closings, unions have negotiated increased transfer rights to protect worker job rights. For example, the Meatcutters in the Armour agreement established a new company-wide seniority date to give workers future bumping rights in case of transfer. A number of contracts also made provision for payment of moving expenses involved in transfers.

Severance pay plans received increasing attention in the 1960s because of the threatened or the actual impact of technological change. These plans were only a partial cushion, however, for many workers who lost their jobs during the decade and certainly did not compensate them for the disruption in their life and loss of job-related benefits.

Reduction in working hours took place through shorter work-weeks, longer vacations and the introduction of sabbatical vacations for the industrial worker. The old standard 40 hour week gradually gave way—in some places to 37½ hours, in others to a 35 hour week and for New York electricians a 25 hour work-week. The decade saw the introduction of a fifth and sixth week of vacation for long service employees, and a reduction in the eligibility requirements for other vacation periods. The Steelworkers in their negotiations in 1962 introduced the concept of sabbatical vacations

in the steel, can and aluminum industries. Now many industrial workers can look forward for the first time to the freedom associated with a 13 week sabbatical.

In the light of a growing number of married women in the work force, new arrangements were made for day-care centers. The Amalgamated Clothing Workers provided for the establishment of such centers in a number of cities. The Retail Clerks and Communication Workers and other unions with heavy concentrations of female employment also developed day-care centers in specific communities.

Organizationally and structurally the labor movement has been changing during the 1960's. There have been mergers of a number of international and national unions as well as the adaptation of new bargaining structures.

Over a dozen AFL-CIO unions have merged during the past decade. Mergers have taken place among the operating rail-brotherhoods and among postal unions and even in the printing industry. Old rivalries were buried between the Packinghouse Workers and the Meatcutters resulting in a merger as well as between the Bakery and Confectionery and the American Bakery and Confectionery Workers. Two old CIO unions merged, the Mine, Mill and Smelter Workers joining the Steelworkers. Declining unions such as the Glove Workers became part of the Amalgamated Clothing Workers and the Stone Cutters joined the Laborers'. New unions such as the Professional Air Traffic Controllers associated themselves with the Marine Engineers'. These mergers reflected changes taking place in the labor force of these respective industries.

In regards to collective bargaining, unions began to coordinate their bargaining, particularly among various unions representing employees of a single firm or conglomerate. Some of the coordinating was done directly by the AFL-CIO but most of it was conducted by the various departments of the AFL-CIO, particularly the Industrial Union Department. Unions themselves also changed their internal structure for bargaining; as for example, the Steelworkers in the establishment of new conferences for can, aluminum and non-ferrous metal.

The decade of the 70s will undoubtedly find a continuation of change as unions gird themselves for the new challenges.<sup>5</sup>

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<sup>5</sup> See the January, 1970 *American Federationist* for "Labor in the 1970's."

## UNIONS' ADAPTATION TO CHANGES IN THE LABOR FORCE

ROBERT M. MCGLOTTEN

*Human Resources Development Institute, AFL-CIO*

The American labor force movement has long recognized the need for adaption to changes in the labor force.

When one thinks of change or adaptation, there are a variety of ways in which these two words have meaning. The definition of adaptation is the act of adapting or fitting one thing to another; the state of being suited or fitted; and the definition of change to make different or to alter. In the work force today there are millions of workers adjusting to some new skills and many who are practicing the same. Labor unions, through collective bargaining, are seeking to make change or adaptation within their particular units. The American Federation of Labor and Congress of Industrial Organizations (AFL-CIO) recognizes that it is not only through the collective bargaining process that new changes must be made, but there are many other areas in which they can make a contribution. One of the primary areas is that the AFL-CIO seeks to influence the Congress as to the need to focus those programs which will benefit all working men and women, particularly in the area of manpower programs. As one looks to the future with respect to Federally funded Manpower activities, it is to be hoped that programs will be more firmly rooted in a sound economic labor market and labor force analysis than has generally been the case thus far. Too much energy and monies have been expended in seeking remedies for the wrong elements; a consequence of which has been that a good deal of the Manpower training activity has been aptly criticized "the numbers game" rather than in connection with sound programmatic approach. It is a basic fact that a healthy growing economy is the answer to poverty and to improving the economic well-being of a society. At the present time, most certainly this is not the case with a 5.8 unemployment rate; but it should not deter this society from seeking to build a comprehensive program for training and retraining workers in new skills as old skills become obsolete by technological improvements in our industrialized society.

In this context, we in the AFL-CIO have in our national Manpower policy:

1. The Consolidation and coordination of the existing Manpower programs into a comprehensive Manpower program under the Department of Labor with overall responsibility for the direction and development of programs vested in the Secretary of Labor.

2. A massive job creation program based largely on public service employment with full federal funding.

3. Training programs that place heavy emphasis on skill upgrading. Training for entry-level jobs is essential, but it is necessary that these disadvantaged workers, who have become regular members of the work force, and the working poor, be given the opportunity to move up the job ladder.

4. To effectively carry out national Manpower policies and programs—the fifty state employment services should be federalized. A federal employment system is essential for the effective operation of a national Manpower program. But until this is achieved, the state employment services need to be strengthened and their functions upgraded.

5. The federal minimum wage should be raised to at least \$2.00 an hour and the Fair Labor Standards Act should be extended to cover all workers.

Our national policy does not consist of just words—the AFL-CIO has committed itself to go beyond that. In September 1968 the AFL-CIO established the Human Resources Development Institute (HRDI) as organized labor's manpower arm to provide direction, guidance, and leadership to increased activity in the manpower field by organized labor. The major adaptation which the HRDI seeks to accomplish immediately centers around the nation's need to increase the rate of penetration by workers from minority groups into occupations higher up the ladder; specifically, the HRDI was mandated to mobilize and utilize the vast resources, skilled talent, and experience within the labor movement to plan, to develop, to coordinate and to operate programs for the hard core unemployed. The HRDI, under a grant from the U.S. Department of Labor, has set up offices in 50 major industrial centers. A full-time staff person works through the AFL-CIO State and Local central bodies to provide a liaison for local, state, and federal

Manpower agencies and to provide technical assistance to the unions on all Manpower programs. Working in this context HRDI is aware that there are many facets and techniques which are applicable in one setting, e.g., the Outreach programs, which may not be transferable to other situations. Indeed it is difficult to see how any program which ignores the particular conceptual framework within which it must function—whether it be the labor market or a collective bargaining relationship—can succeed in its purpose. It is in this context that the AFL-CIO HRDI can be effective in helping the labor movement and the thrust for basic change in manpower programs.

HRDI was just recently funded, under a new Department of Labor grant, specifically to do the aforementioned and provide the expertise of labor in the areas of the JOBS program, MDTA, and OJT programs. AFL-CIO affiliates have currently accepted responsibility for placing over 20,000 persons in OJT slots. The names of the contractors and the number of trainees are listed below:

Name of Contractor	No. of Trainees	Location
AFL-CIO Appalachian Council	4,000	Charleston, W. Virginia operating in 11 states
International Union of Operating Engineers	783	Washington, D.C. operating in 9 states
American Federation of State, County and Municipal Employees	1,000	Washington, D.C. operating in 3 states
International Union of Electricians, Radio and Machine Workers	1,800	Washington, D.C. operating in 30 states
National Joint Painting and Decorating Apprenticeship and Training Committee	1,500	Washington, D.C. operating in 23 states
Laborers International Union of North America	1,768	Washington, D.C. operating in 11 states
OP&CMIA Portland Cement Assoc.	3,412	Chicago operating in 50 states and D.C.
United Auto, Aerospace and Agricultural Implement Workers of America UAW	4,405	Detroit operating in 10 states
United Brotherhood of Carpenters and Joiners	4,048	Washington, D.C. operating in 5 states

A variety of international unions are involved in the Job Corps. Five building trades unions and one maritime union prepared approximately 1,500 enrollees for direct employment as indentured apprentices. Programs are being carried out by the Carpenters and the Painters; other involved building trades unions are the Operating Engineers, Bricklayers, and Cement Masons. The Maritime workers and Stewards are training young men for well-paying jobs aboard ships at the Job Corps conservation center in Hawaii.

There is another very important area in which we feel we can be successful, and that is direct job placement through the local Central Labor Councils. We have had experience in New York City where the Central Labor Council, with their affiliates, placed over 3,500 workers in a variety of jobs within a 21-month period. Those jobs were primarily in plants and institutions which have collective bargaining agreements thereby not only giving workers more than the minimum wage, but also the type of job security and fringe benefits which help to build the worker's conviction of his worth as it relates to the total society. On the basis of this experience in New York, HRDI in the next 12 months will set up 10 such job placement centers throughout the country, which will service the hard core unemployed, the underemployed, and all of those men and women who are interested in working in the various occupations which are available.

Another area in which the AFL-CIO and HRDI will be working during the next year is an effort to assist returning veterans seeking employment through a program established through the Veterans Assistance Program under the direction of HRDI. Their headquarters will be located in the Bay Area of California whereby not only full-time HRDI Representatives will participate but 736 Central Bodies of the AFL-CIO will also assist in referring returning veterans to jobs and/or training programs throughout the country.

In the area of the building trades the major topic of discussion during the past two years has been the Philadelphia Plan, which in effect was structured to increase minority participation in the skilled trades. On January 20, 1970 President George Meany stated in his speech at the Capitol Press Club that the Philadelphia Plan would fail, and it has. The reason that it has failed is because the area of manpower supply in the construction industry is not cen-



tered around contractors—it is centered around the labor unions. In addition, training programs operate in conjunction with the unions, and basically not the employers. Looking at the construction industry in the United States today, and the competitive nature of operation of the one half million contractors, it is inconceivable to believe that a contractor can assume the sole responsibility for training and/or continuity of employment. So, it is the AFL-CIO primarily through the efforts of the Workers Defense League in cooperation with the AFL-CIO Civil Rights Department, that has focused upon the apprenticeship programs in the building industry.

In the last two years, programs sponsored by the Workers Defense League, the Urban League, the Building Trades Councils themselves, and the Negro Trade Union Leadership Council and other various community groups, have been successful in placing over 8,000 minority apprentices. It is one of the least expensive Manpower programs that has ever hit the books of the Manpower Administration in terms of what it turns out in the way of productive individuals with a skilled occupation. You must remember that in many occupational areas, particularly in the industrial sector, there are few guarantees of upward mobility or automatic increases based on performance, except in the apprenticeship programs which are primarily in the building trades crafts. At the end of a four-year period an individual can say that he is a skilled craftsman, and in so saying he has the pride that accompanies the skills necessary to build this country. In many industries there are workers who during their 20 years of service have been performing basically the same function. There have been no changes in the utilization of skills or the worker's location or general surroundings—factors which certainly influence the motivation and attitudes of the worker. While the labor movement seeks to change many of the aforementioned characteristics through the collective bargaining process, and HRDI is engaged in seeking upgrading programs and similar forms of training for workers, it can also be recognized that we have to consult with management. Moving into the area of institutional training, we are seeking to involve craftsmen in the vocational educational system. It is recognized that our educational system, particularly vocational education, cannot meet today's needs without the benefit of the knowledge of skilled craftsmen and the industries utilizing the particular crafts.

It is within the entire area of education as it relates to the world of employment that many changes will have to be made. In the area of services dealing with employment opportunity, as within our State Employment Services, the total system will have to be revamped, as it will in education, to conform with the new direction in Manpower. As new Manpower skills are required, it will become necessary for industry, labor, the school system, and the state employment services—directed by the Manpower legislation in the Department of Labor—to seek to direct all of our energies into building a comprehensive Manpower program that will provide opportunities for retraining the employed, unemployed, and the underemployed.

We will have to build into our educational system, and training programs, the types of curriculum and the types of training methods that will actually seek to give equal employment opportunity to the minorities, the poor, and the unemployed of this country.

Thus, I feel that it becomes important for us to understand that adaptations to change in the labor force have many facets. The American labor movement and the AFL-CIO cannot by itself effect this change. Let me restate the proposition—it will take the educational institutions, industry, and labor—under the direction of a comprehensive manpower bill directed by the Labor Department—to direct this country in an area dealing with change—an area that will give us the type of skills that can build our society. The piecemeal methods that we have used thus far evidently are not the answer. Thus it becomes necessary that we work together in 1971 in an effort to build a manpower program that will give great challenge to our society and will provide the tangible benefit of a full employment economy.

## DISCUSSION

PAUL T. HARTMAN

*University of Illinois*

Both papers were interesting summaries of union responses to labor force change. Mr. Oswald's paper was more comprehensive; he described a number of relatively recent changes in organization and in objectives, both in the AFL-CIO and in the unions themselves. Concerning organization and structure, Mr. Oswald pointed out that unions have been adapting for a long time. As a result of occupational and industrial changes in the labor force, older unions frequently have dwindled or disappeared and new ones have taken their place. Adaption of this sort is continuing. The new Scientists, Professional and Cultural Employees organization, within the AFL-CIO, is but one illustration. Inside the unions, organizational changes to cope with changed circumstances also are being made. For example, the United Steelworkers recently created the Basic Steel, Aluminum, Nonferrous, and other industry delegate bodies to more closely involve the members in major negotiations. Turning to union objectives, Mr. Oswald notes that social concerns are now more prominent than before. The AFL-CIO, for example, recently has added strong support for the medicare and model cities programs to its long standing advocacy of minimum wage and social security extensions. Among individual unions, several have included minimum work-or-pay guarantees and new programs for early retirement at normal retirement pay in their collective bargaining demands. In brief, unions have adapted, and are continuing to adapt to labor force changes.

The scope of Mr. McGlotten's paper was narrower. He emphasized the AFL-CIO's role in providing, encouraging or seeking expanded training programs, skill upgrading, and calling attention to the need for occupational ladders to eliminate or drastically change "dead end" jobs. He marshalled impressive evidence to support his point that the Human Resources Development Institute of the AFL-CIO was a strong force in developing minority group workers to enter skilled occupations. Mr. McGlotten also briefly listed several other important parts of the AFL-CIO's manpower program, including support for increased public works employment, federalization of the state employment systems, and

increasing the national minimum wage to \$2 per hour. In my view, these proposals are intended to cope with immediate unemployment problems or other traditional union concerns and are outside the range of our main topic.

Despite their many interesting observations, I found both papers to be rather disappointing. Mr. McGlotten's paper dealt mostly with training and placement. In other words, his theme was more the adaptation of a work force to changed conditions rather than the adaptation of unions to a changing labor force. Mr. Oswald did link labor force changes to union adaptation, but most of his discussion was concerned with only one kind of change—occupational composition of the work force—and that largely as a result of changes on the demand side of the labor market rather than on the supply side. Both papers neglected a number of important labor force changes that almost certainly will require union awareness if not union adaptation in the near future. I would like to point out several of these changes and to suggest some of the union responses that a more careful study might discover.

First, the most important of the recent past and certain near-future changes in the labor force is the change in the age structure. Although the detailed Census results are not yet available, I have no doubt that they will show a significant rise in the proportion of young workers—for example, those under 25 or 35 years of age—in most industries and occupations. Further, the proportion of young workers will certainly continue to rise throughout the coming decade. To illustrate with some numbers: labor force participants under age 35 were about 38 percent of the total in 1960, 43 percent in 1969, and very likely will be almost 50 percent by the end of this decade.

Another important change is the continued rise in the educational level of the adult population, and thus, of the work force. The median years of school completed among all persons 25 years of age and over has risen from 10.6 in 1960 to 12.1 in 1969. Even more important, and already noted by Mr. McGlotten, is the increasing proportion of blacks in many occupations and industries. The reduction in racial discrimination in hiring, training and promoting; the continued rural-to-urban migration; and the relatively youthful age structure of blacks is steadily changing racial proportions in all but the least skilled occupations.

Finally, the increased numbers of women in many occupations and industries are worth noting. The proportion of women in the labor force has continued to rise over the years, and the relatively recent anti-discrimination legislation, judicial interpretations and renewed militance suggest that some of these increasing numbers will be directed to occupations previously closed to them.

As a result of these four major varieties of labor force change, I would expect some response or adaptation in union objectives and organizational matters. The younger workers probably will make the membership, on the average, more interested in the "now," rather than future payoff, kinds of demands. Specifically, higher wages, prompt redress of work place grievances, and improved working conditions in general will become increasingly more attractive goals than the large pensions, early retirement plans and similar older-worker benefits of the present and recent past. As a result of both their youth and higher levels of education, younger union members probably will be quicker to challenge authority, generally more impatient, and are likely to contribute substantially to growing militance and readiness to strike in many unions or their locals.

In organizational matters, the impact of all four types of change has added and will continue to add new faces among the leadership. I would expect increasing pressure from the young, the blacks, and women to see more of their own placed in responsible positions in the union. This pressure may be exerted through caucuses, as it already has been by blacks in some industries, or other informal groups which then make their demands within the union. I would not be surprised to see more decentralization, perhaps along the lines already taken by the Steelworkers, pointed out by Mr. Oswald, to make the union even more responsive to its members.

Some small points in the two papers were not altogether clear. Mr. McGlotten's reference, for example, to the "5 to 1 ratio of blacks to whites" entering the labor force appears to be clearly incorrect. If the numbers were reversed, the ratio would then stand as a good forecast for the mid-1970s. Similarly, I do not understand Mr. McGlotten's "shrinking labor force." Our labor force has been growing at a rapid rate, and it will continue to do so for the next decade and longer.

All in all, these papers were an interesting introduction to an important and fascinating topic.

## DISCUSSION

RAYMOND E. MILES

*University of California, Berkeley*

I am reminded that the discussant's role is to point out the evils of the papers presented and applaud their virtues. And, as it is typically more interesting to indict than endorse, I shall focus primarily on their sins. In preface, however, I should note that, in the main, the sins which I observe are those of omission rather than commission.

### *Foci of the Papers Presented*

Mr. McGlotten has described eloquently the Federation's efforts (with emphasis on the activities of the Human Resources Development Institute) to develop a manpower policy, and specifically, a manpower training program, which will provide skills for new entrants to the labor force and skill upgrading for the less privileged among those already employed. There is little to criticize and much to praise in this effort. However, activities seemed aimed at responding primarily to only one aspect of the changing structure of the labor force—the influx of young workers and particularly of young minority group members.

With equal vigor, Mr. Oswald has called to our attention the Federation's continued activity in the political arena, pressing for improvements in the minimum wage level and coverage, demanding protection of the bargaining rights of all workers, and generally supporting positive legislation related to the well being of the work force. He has pointed with justified pride to bargaining successes in the areas of early retirement and broadened benefit programs and suggests that these early victories are the first buds on a rapidly blossoming orchard from which growing numbers of workers will be able to reap the fruits of their labor. He has noted the extension of bargaining to farm workers and into the public arena and has described several, although to this point probably relatively minor, adjustments which have been made within the structure of the Federation and the Internationals in an effort to meet the needs of special groups, e.g., engineers and scientists. I share with my fellow discussant, Mr. Hartman, however, some feeling that many of the accomplishments described tend to deal primarily with the needs of the aged, or at least the established members of the labor

force, at a time when much of the nation's concern is focused on the young and their problems.

Finally, in listening to both papers I was struck by the thought that while we were presumably discussing adaptations in the union movement in the face of major changes in our labor force, much of what we were hearing dealt with union efforts to bring about changes in government programs and legislation rather than within their own ranks. Further, I was somewhat surprised that several characteristics of the new labor force appeared to receive only passing attention. My concerns may be clarified by specifying first some of the more striking changes which appear to have occurred or to be occurring within our labor force and then noting some of the areas in which union adjustments to these changes might be expected to be made. We may then compare the nature of union adaptation which has been described with those which the changes in the labor force appear to suggest.

#### *Changes in the Labor Force*

The major changes in our labor force may be roughly characterized by pointing out four rapidly growing, in part overlapping, groups:

1. Youth
2. Minorities
3. Women
4. Professionals and technicians

Each of these groups has its own special concerns, but one senses a common underlying demand running across their ranks—a demand for a responsive work environment which offers them the opportunity to develop and utilize their capabilities in the performance of meaningful and challenging work. From campuses at all levels, from the various “liberation” movements (in California this includes “Kids Lib,” with its own ten-year-old spokesman), and certainly from the ranks of the professionals, this call is consistently forthcoming. While none of these groups is unconcerned about the pay and benefits they may receive, it is their search for a meaningful work environment, one characterized by opportunity, growth, and recognition which draws our attention. The members of these groups are noticeable, and troublesome, because their demands are not easily programmed, and thus not easily dealt with by their organizations or by their unions.

*Areas of Possible Union Adaptation*

How might unions respond to the needs of these groups, both their unique needs and the common demand described above: That is, in what ways may they adapt in order to better serve those members of these groups already within their ranks, and to make their organizations more attractive to those who, to this point, view unions and the union movement as unsuited to their work needs (as apparently is the case with perhaps the majority of the members of these groups). Several areas of possible adaptation can be identified:

1. *Entry.* For some of these groups, the most effective form of adaptation on the part of the union may be to remove barriers to entry to various classes of workers controlled in sum or part by the union movement.
2. *Training.* Adaptation in this area is of course closely tied to the issue of entry, e.g., apprenticeship. The union effort may well go beyond this point, however, as Mr. McGlotten's paper indicated.
3. *Union Structure and Governance.* Adaptation here might involve efforts to develop new union structures at all levels which would be uniquely suited and responsive to special segments of the groups mentioned above. Moreover, it might well include an increased effort to shift the locus of union control closer to the membership. This demand is already being felt in some segments of the movement. In sum, adaptation in this area would involve unions becoming pro-active rather than reactive to membership needs—going well beyond the requirements of law in developing truly participative methods of governance.
4. *Bargaining Goals.* Presently, the collective bargaining goals of most unions focus exclusively on what are widely referred to as “extrinsic rewards”—pay rates and scales, working conditions, rules and policies, etc. In keeping with the demands of at least portions of the new labor force, unions might well consider moving toward a concern for “intrinsic rewards”—such things as the actual design of jobs (the elements of the task itself), the design of career ladders (vertical and lateral routes to more meaningful employment), the range of opportunities for development and growth on the job, etc.



*Are These Adaptations Occurring? Will They?*

Have unions responded to the changing needs and demands of the new labor force? There is some indication that in the *entry* and *training* areas meaningful adjustments have been made, and along with our speakers, I am optimistic that many more will occur—not perhaps at the most desirable pace, but the commitment to change seems real enough. However, in the areas of *governance* and *bargaining goals*, there is little evidence that real innovations along the lines mentioned above are occurring or are likely to occur. In fact, there is some reason to believe that unions may well lag behind other institutions in developing new forms and behaviors particularly suited to their membership's changing needs.

Union leaders, according to recent research,<sup>1</sup> are more idealistic, more moralistic than their managerial counterparts. In the abstract at least, they place more emphasis on the "human element" in work situations. But, union leaders share with their managerial counterparts a common philosophy toward the administration of their own organizations—an essentially autocratic, pseudo-participative, "human relations" oriented set of attitudes.<sup>2</sup>

My own research suggests union leaders look much like managers in terms of the amount of—or perhaps lack of—confidence in their lower level officials and their rank-and-file members.<sup>3</sup> In fact, in one sample of union officials, the confidence expressed by union leaders in the rank and file was lower than that expressed by managers.

Given this philosophy, I see little likelihood of meaningful changes in internal governance to broaden member roles or influence, nor adjustments aimed at increasing the responsiveness of the bargaining process to meet new and challenging member needs. In sum, I see a low probability of unions playing a pro-active rather than a reactive role towards attempts to build a more meaningful work environment.

There is growing evidence that jobs and organizations can be redesigned to provide greater challenge and opportunity to a broader circle of work roles. Progressive organizations and managers are working with behavioral scientists toward this end. In so doing, they are, in my view, pre-empting the union's role.

<sup>1</sup> See George W. England, Naresh C. Agarwal, and Robert E. Therise, "Value Systems of Union Leaders and Corporate Managers," *Industrial Relations* May, 1971.

<sup>2</sup> See Raymond E. Miles and J. B. Ritchie, "Leadership Attitudes of Union Officials," *Industrial Relations*, October, 1968.

<sup>3</sup> *Ibid.*



# **XIII**

## **Annual Reports for 1970 Industrial Relations Research Association**

## MINUTES OF IRRA ANNUAL MEETINGS

### EXECUTIVE BOARD SPRING MEETING

May 9, 1970 in Albany

The IRRA Executive Board met at 8:00 a.m. on Saturday, May 9, in the Thruway Hyatt House, Albany, New York. President Douglass V. Brown presided at the meeting attended by Secretary-Treasurer David Johnson, Editor Gerald Somers, Board Members Garth Mangum, Howard Rosen, Douglas Soutar, Lazare Teper, Local Arrangements Committeemen Irvin Sabghir of Albany and Michael Borus of the Detroit Chapter.

The Secretary-Treasurer, David Johnson, reported on the budget, indicating that the IRRA had continued to accumulate cash reserves in the first four months of the 1970 fiscal period, and that the Association has been on an increasingly sound financial basis since the drain on reserves which had occurred just prior to the increase in membership dues in 1968. Longer term reserves had been invested in high-grade, high-yield corporate bonds, he said.

It was then reported that, although total membership was at an all time high, the records showed that *new* memberships were lower than the previous year. An increase in membership promotional mailings was therefore planned for the year ahead. The budgetary item for publication costs was higher this year because it included payment for some of last year's publications.

Mr. Johnson asked the Board's approval of the application for admission to the IRRA by the Connecticut Valley Chapter. Approval was granted unanimously.

President Brown discussed his activities in response to the Board's request at the last meeting that a committee be formed to appraise the course and purposes of the Association. After lengthy discussion it was decided that the local chapters would be asked to make such an appraisal and report on the basis of guidelines provided to their officers by the IRRA President. Chapter representatives might then meet with a subcommittee of the Executive Board in order to put the composite report into final form.

Editor Gerald Somers indicated that the *Proceedings* of the 1969 December meeting should be available for distribution to IRRA members by mid May. He reported that the 1970 research volume was about to be submitted to the printer. Each of the four chapters to be included in the volume had been reviewed by

two members of the Executive Board, and suggested revisions had been made by the authors. The Editor thanked those Executive Board members who had agreed to review the manuscripts. Authors were being alerted concerning the preparation of manuscripts for the 1971 volume. The Editor also reported on a proposal for the 1973 volume which he and President Brown offered for the approval of the Board. In keeping with the twenty-fifth anniversary of the Association, all past presidents of the IRRA would be asked to write a short chapter on the next twenty-five years of industrial relations in their area of expertise. They would also be asked to look back at the major developments of the last twenty-five years. The Board approved the general principles embodied in this proposal, and it was also indicated that a more detailed statement of authors and titles would be submitted for final approval at the December meeting.

In response to the renewed request of Robert Cox and B. C. Roberts, Secretary-Treasurer and President of the International Industrial Relations Association, that the IRRA nominate a candidate for the next presidency of the international association, a name of one of IRRA's distinguished past presidents was suggested. Upon clearing with the nominee, Mr. Somers was to forward the name to Mr. Cox.

President Brown reported on the plans for the December meeting. He indicated that he would probably try an experiment. In addition to the usual session of invited papers, an invitation would be extended to younger members of the profession to submit papers for possible inclusion in a session with a specific topic devoted to the manpower field. The invitation for submission was to be included in the June *Newsletter*.

The Board discussed the possibility of an independent placement-recruitment facility in the IRRA hotel at the winter meetings for industrial relations job applicants. In the past this function has been included with the agencies serving all of the Allied Social Science Associations. It was indicated that this possibility would be explored. Michael Borus discussed the local arrangements for the Detroit meeting in December. Secretary-Treasurer Dave Johnson discussed briefly the plans for the spring meeting in Cincinnati.

The meeting was adjourned at 9:35 a.m.

MINUTES OF IRRA EXECUTIVE BOARD  
WINTER MEETING, December 28, 1970, Detroit

The Executive Board of the Industrial Relations Research Association met at 12:00 noon, Monday, December 28, in the Howard Johnson's Motor Lodge Downtown. President Douglass V. Brown presided at the meeting attended by Incoming-President George Hildebrand, President-Elect Benjamin Aaron, Secretary-Treasurer David Johnson, Editor Gerald Somers, and Board Members Wilbur Cohen, John Crispo, Wayne Horvitz, Donald Irwin. Rudolph Oswald, Ray Marshall, Albert Rees, Howard Rosen, Bert Seidman, Douglas Soutar, Phyllis Wallace, and Martin Wagner, local arrangements representatives Thomas Patten of Detroit, Robert F. Smith of New Orleans and Edward Herman of Cincinnati, and Robert D. Gray, chairman of the nominating committee. President Brown welcomed the new members of the Board, and expressed his pleasure and appreciation at the large number of Board members attending the luncheon.

Secretary-Treasurer Johnson reported that memberships in the IRRA had continued an upward trend during the past year with 3,472 names on the mailing lists, although the increase of 94 was at a slower rate than in some previous years. He noted that revenues had increased in fiscal 1970, but not as fast as cash disbursements. The most dramatic difference had been in publication expenditures, which had risen \$14,854.16. However, the cost increase was chiefly because of the delayed billing of \$6,241.48 in the 1970 fiscal year for the 1969 research volume, *Public-Private Manpower Policies*. When this delayed payment was taken into account, the Secretary-Treasurer noted that the actual increase in publication costs for 1970 was \$2,371.20. He pointed out that the Association's available cash resources for the past year had actually increased \$1,496.77 when the delayed publication payment was allocated to the year in which it was incurred. Mr. Johnson indicated, however, that a dues increase in the near future was a possibility, since estimates for the next year's publications were up 8.1% due to increases in paper stock prices and contract wages. Anticipated postage rate increases were likely to further raise costs in 1971.

Secretary-Treasurer Johnson was asked to bring comparative cost data to the spring meeting of the Board on the alternative procedures for preparing the 1972 *Membership Directory*, namely

preparation in the National office, with an enlarged staff, versus preparation by a commercial service specializing in this function.

Applications received from the Arizona Chapter, the Hamilton and District Chapter (Ontario), and the Wichita and South Central Kansas Chapter were approved for affiliation with IRRA.

Editor Somers reported that chapters by the four authors participating in the 1971 research volume, *Review of Industrial Relations Research, Volume II*, were expected shortly in initial draft form, and that the volume should be ready for distribution in the fall of 1971. Executive Board members would be called upon again to review chapter manuscripts. He reported that he and President Doug Brown had agreed on a list of topics for each of the past presidents of the IRRA, who would be invited to constitute the authors for the twenty-fifth anniversary volume to appear in 1973.

After discussion of policy concerning advertisement in IRRA publications, the Board authorized the officers to exchange ads with other journals or to buy space in other journals, whichever was more economical or desirable. Editor Somers was asked to bring further data to the spring meeting concerning the possibilities of including advertisements of commercial publishers in IRRA *Proceedings*. The officers were also authorized to apply for a second class mailing permit.

The Board approved the nomination of John Dunlop as President-Elect of the International Industrial Relations Association in 1973.

The Board decided not to appoint another person to fill the one year remaining in Ben Seligman's Executive Board term.

President Doug Brown reported that he planned to discuss procedures for appraising the future role of the IRRA at the meeting of local chapter presidents to be held that evening. It had earlier been decided by the Board that discussions at local chapter meetings would be followed by a committee meeting of some local chapter presidents and Executive Board members to formulate a statement concerning the future role and functions.

Edward Herman reported on the local arrangements for the spring meeting to be held in Cincinnati May 7-8, 1971, and Robert F. Smith told of those made for the 1971 winter meetings to be held in New Orleans. George Hildebrand discussed his tentative plans for the programs of the 1971 spring and winter meetings. It was suggested by Board members that there be more women, students, and younger members invited to participate in

the programs. More practitioners should also be added and informal, unstructured sessions should be stressed. Salt Lake City, Utah, was selected as the site of the 1972 spring meeting.

Finally, Robert D. Gray reported on behalf of the Nominating Committee. The meeting was adjourned at 2:30 p.m.

# MINUTES OF IRRA GENERAL MEMBERSHIP MEETING December 28, 1970, Detroit

The general membership meeting of the Industrial Relations Research Association was opened at 4:30 p.m., Monday, December 28, in Cobo Hall with about 90 members in attendance. President Douglass V. Brown introduced the incoming president, George Hildebrand, and offered him his best wishes for a successful tenure in the year to come.

Secretary-Treasurer David B. Johnson summarized the growth in IRRA membership and the financial report for the past year. Membership had increased by 94, following a continuing upward trend. Revenues were also up, he noted, but incomes had not increased as fast as expenditures. Because of the rapid rise in publication costs for IRRA volumes, he indicated that a membership dues increase was a possibility in the near future.

Mr. Johnson reported that the Executive Board had approved three new affiliates: the Arizona Chapter, the Hamilton and District Chapter, and the Wichita and South Central Kansas Chapter. He noted that there were twenty-eight IRRA chapters currently chartered, exactly double the number of local units functioning five years ago. In reply to questioning from the floor about the prevalence of concurrent memberships in both local and national IRRA, the Secretary-Treasurer indicated that no survey had recently been made of this relationship, but that there are interesting comparisons by occupational categories presented in the 1966 *Membership Directory*, as follows:

Comparison of IRRA National Membership with Local Chapter  
Membership by Occupational Classifications

Members	Aca- demic	Gov- ern- ment	Arbi- tration Consult. Legal	Mgmt.	Union	Stu- dent	Other	Mem- ber- ship Totals
National IRRA in 1966	1,003	390	303	494	154	168	124	2,636
Local Chapter 1965-1966	343	399	388	720	377	132	.....	2,359



Mr. Johnson noted that an effort would be made to encourage local chapter members to become members of the national IRRA.

Editor Gerald Somers reported that Volume II of *A Review of Industrial Relations Research*, the 1971 research volume, was scheduled for publication in the fall. An IRRA *Membership Directory* was to be issued in 1972, and the twenty-fifth anniversary volume in 1973 was to be, *The Next Twenty-Five Years of Industrial Relations*.

James R. McDonnell of the State University College, Buffalo, described the program of the Secondary Schools Foundation which was designed by the Western New York Chapter of IRRA to reach high school students. The program consists of in-service seminars in labor history, management history, collective bargaining, mediation and arbitration, and related subjects in the field of industrial relations for the purpose of instructing high school social science teachers. A collective bargaining resource center is also maintained by the IRRA chapter to provide books, pamphlets, films and video tapes for classroom use; and speakers and panels drawn from the IRRA membership are provided for classes, assembly programs and mock collective bargaining or mediation sessions. This program accords with the IRRA's expressed interest in developing curriculum materials in industrial relations at the high school level.

George Hildebrand outlined the general topics he planned for the IRRA's 1971 spring meeting in Cincinnati and December meeting in New Orleans. He indicated that there would be one or two genuinely competitive sessions of invited papers included in the programs. After asking for other questions or comments from the floor, Mr. Hildebrand adjourned the meeting at 5:10 p.m.

#### IRRA LOCAL CHAPTER REPRESENTATIVES' DINNER December 28, 1970, Detroit

The dinner for local chapter presidents was held at 6:30 p.m. on Monday, December 28, in Howard Johnson's Motor Lodge Downtown. IRRA Secretary-Treasurer David Johnson presided. President Douglass V. Brown, Incoming-President George Hildebrand and President-Elect Benjamin Aaron met with representatives of IRRA local chapters and proposed chapters. The representatives were: James McBrearty, Arizona; Mortimer Gavin, S.J., Boston; Robert Kanter, Connecticut Valley; Thomas Patten, Jr., Detroit

Area; Edward Herman, Greater Cincinnati; Michael Borus, Michigan State University; John M. Malkin, New York City; Bernard Samoff, Philadelphia; Thayne Robson, Utah; Benson Soffer, Washington, D.C.; Fraser Isbester, Hamilton & District; and Robert Davison, Jamaica.

Edward Herman of the Greater Cincinnati Chapter, suggested that it would be desirable to have greater representation of local chapters on the IRRA Executive Board. This might be achieved by having 50% of the Executive Board members nominated by local chapters. In similar vein Bernard Samoff of the Philadelphia Chapter noted that only one IRRA session in the Detroit program was of significance to local chapters.

In discussing procedures by which local chapters could improve their programs, Benson Soffer of the Washington, D.C. Chapter, suggested that several chapters, located close to each other, might arrange a whole day's joint session on a topic of current significance.

John Malkin, of the New York City Chapter, raised the question of what the chapters could do to help the national IRRA, rather than what can the IRRA do for the local chapters. In this regard, it was indicated that the national office will obtain lists of local chapter members and send national membership promotional letters to those who are not now members of the national IRRA.

President Douglass Brown discussed plans to reappraise the IRRA's roles, functions and organization. The IRRA's Executive Board had suggested that discussions along this line be initiated in local chapters. The questions to be raised in such discussions are the relationship of local chapters to the national office, the emphasis on research in IRRA programs, and the composition of IRRA membership. Benjamin Aaron, President-Elect of the IRRA, felt that in the Southern California Chapter there would be little response to a meeting devoted wholly to discussion of future goals of the IRRA. Their local chapter members were more interested in discussions of practical industrial relations problems. David Johnson indicated that the national officers will write to the local chapters suggesting guidelines for discussions of the future role of the IRRA.

The meeting adjourned at 8:45 p.m.

## IRRA AUDIT REPORT FOR FISCAL 1970

Gentlemen:

We have audited the cash receipts and disbursements of the Industrial Relations Research Association for the fiscal year ended November 30, 1970. We submit herewith our report.

The available cash and investments of the Industrial Relations Research Association on November 30, 1970 totaled \$15,859.02. The November 30, 1970 bank balances were verified directly with the First Wisconsin National Bank, Madison, Wisconsin. The corporate bonds owned were confirmed directly with Robert W. Baird & Co. who hold the securities.

The cash disbursements for the fiscal year totaling \$49,765.31 exceeded the cash receipts of \$44,808.25 by \$4,957.06. The excess was primarily due to having paid a publication invoice for fiscal 1968-69 in the current fiscal year. The amount of this invoice totaled \$6,617.44.

The cash receipts for the 1969-70 fiscal year were \$2,111.53 more than the cash receipts for the 1968-69 fiscal year. The cash disbursements for 1969-70 fiscal year were \$19,082.83 more than the cash disbursements for the 1968-69 fiscal year. This large increase in total disbursements is partially due to a publication invoice totaling \$6,617.44 that was paid in this fiscal year for publications of the prior fiscal year referred to in the prior paragraph.

The cash receipts journal was footed by us for the entire year. All cancelled checks returned by the bank during the year were examined by us and traced to the disbursement journal. The cash disbursements journal was also footed for the year. The source information of dues income was tested for a portion of the year.

The Association has on file a letter dated January 6, 1950 from the U.S. Treasury Department stating the Association has tax exempt status for Federal income tax purposes.

In our opinion, the accompanying statement of cash receipts and disbursements present fairly the cash transactions of the Industrial Relations Research Association for the fiscal year ended November 30, 1970 on a basis consistent with that of the preceding year.

December 14, 1970

HOUGHTON, TAPLICK & CO., Certified Public Accountants

INDUSTRIAL RELATIONS RESEARCH ASSOCIATION, Madison, Wisconsin  
COMPARATIVE STATEMENT OF CASH RECEIPTS AND DISBURSEMENTS  
Fiscal Years Ended November 30, 1970 and November 30, 1969

	Year Ended Nov. 30		Increase	Decrease
	1970	1969		
<b>Cash Receipts:</b>				
Membership Dues	\$27,747.01	\$25,873.05	\$ 1,873.96	\$
Subscriptions	5,821.00	3,490.41	2,330.59	
Sales	5,116.02	5,229.55		113.53
Royalties	569.06	1,028.45		459.39
Mailing List	1,335.65	931.25	404.40	
Travel, Conference & Meetings	3,867.21	5,155.34		1,288.13
Interest Income	320.38	584.51		264.13
Tennessee Chapter Receipts	—0—	242.86		242.86
Miscellaneous	31.92	161.30		129.38
<b>Totals</b>	<b>\$44,808.25</b>	<b>\$42,696.72</b>	<b>\$ 2,111.53</b>	
<b>Cash Disbursements:</b>				
Salaries and Social Security	\$ 8,347.65	\$ 7,499.01	\$ 848.64	\$
Retirement Plan	600.00	281.28	318.72	
Printing	1,400.41	1,314.35	86.06	
Postage	3,361.30	2,311.43	1,049.87	
Services and Supplies	3,255.97	1,767.80	1,488.17	
Publications	28,137.49	13,283.33	14,854.16	
Conference & Meeting Expense	4,223.16	3,978.51	244.65	
Miscellaneous	345.54	134.50	211.04	
Telephone and Telegraph	93.79	112.27		18.48
<b>Totals</b>	<b>\$49,765.31</b>	<b>\$30,682.48</b>	<b>\$19,082.83</b>	
<b>Excess of Receipts over Disbursements</b>	<b>\$(4,957.06)</b>	<b>\$12,014.24</b>		<b>\$16,971.30</b>
<b>Add: Beginning Bank Balances</b>	<b>5,766.52</b>	<b>3,550.86</b>	<b>\$ 2,215.66</b>	
	<b>\$ 809.46</b>	<b>\$15,565.10</b>		<b>\$14,755.64</b>
<b>Add (Deduct): Net Transfer of Funds</b>	<b>3,515.87</b>	<b>(9,798.58)</b>	<b>\$13,314.45</b>	
<b>Bank Balance, End of Year</b>	<b>\$ 4,325.33</b>	<b>\$ 5,766.52</b>		<b>\$ 1,441.19</b>
<b>Corporate Bonds</b>	<b>10,983.00</b>	<b>5,083.50</b>	<b>\$ 5,899.50</b>	
<b>Golden Passbook Savings</b>	<b>518.20</b>	<b>9,713.92</b>		<b>9,195.72</b>
<b>Savings Account</b>	<b>32.49</b>	<b>\$ 30.52</b>	<b>1.97</b>	
<b>Available Cash Resources</b>	<b>\$15,859.02</b>	<b>\$20,594.46</b>		<b>\$ 4,735.44</b>



## ALPHABETICAL LIST OF PARTICIPANTS

Adie, Douglas K. ....	117	Levitan, Sar A. ....	318
Alonso, Ramon C. ....	207	MacRae, C. Duncan ....	87
Alutto, Joseph A. ....	207	Maki, Dennis R. ....	309
Anderson, Bernard E. ....	65	Marshall, F. Ray ....	45
Anderson, Stephen D. ....	232	McGlotten, Robert M. ....	369
Ashenfelter, Orley ....	67	Miles, Raymond E. ....	378
Asher, Lester ....	273	Mitchell, Daniel J. B. ....	198
Aspin, Les ....	264	Myers, Charles A. ....	219
Ballenger, Martha D. ....	153	Niland, John R. ....	296
Bawden, D. Lee ....	322	Nystrom, Paul C. ....	278
Bjorklund, Robert L. ....	286	Oswald, Rudolph A. ....	360
Brown, Douglass V. ....	2	Otsuki, Toshiyuki ....	70
Bryce, Herrington J. ....	21	Peabody, Gerald E. ....	331
Caldwell, Steven B. ....	331	Pepelassis, Adamantios ....	55
Chapin, Gene L. ....	117	Pohlman, Jerry E. ....	180
Chertkov, Boren ....	29	Rapping, Leonard A. ....	97
Christian, Virgil L. Jr. ....	55	Ritchie, J. B. ....	240
Erenburg, Mark E. ....	12	Rittenoure, R. Lynn ....	34
Fanning, John H. ....	244	Robbins, Anthony W. ....	146
Fearn, Robert M. ....	139	Ross, Philip ....	254
Gavett, Thomas W. ....	106	Schweitzer, Stuart O. ....	87
Gray, David A. ....	286	Seidman, Bert ....	352
Greenberg, David H. ....	341	Seidman, Joel ....	222
Hartman, Paul T. ....	375	Smith, Ralph E. ....	76
Hefner, James ....	45	Stromsdorfer, Ernst ....	101
Holt, Charles C. ....	76	Taussig, Michael K. ....	355
Hrebiniak, Lawrence G. ....	207	Thurber, James A. ....	226
Jordan, James H. ....	188	Vaughn, William M. III ....	173
Joseph, Myron L. ....	169	Weiss, Jeffrey H. ....	162
Katz, Arnold M. ....	136	Welch, Finis ....	143
Kosters, Marvin ....	341	Wortman, Max S., Jr. ....	286
Kruger, Daniel H. ....	128		

## **INDUSTRIAL RELATIONS RESEARCH ASSOCIATION PROGRAM**

### **IRRA Meetings**

ANNUAL SPRING MEETING, May 7-8, 1971, Cincinnati, Terrace Hilton Hotel. Program arranged by President George Hildebrand, USDL.

TWENTY-FOURTH ANNUAL WINTER MEETING, December 28-29, 1971, New Orleans, Hotel Monteleone, held in conjunction with the Allied Social Science Associations' meetings. The program, arranged by President George Hildebrand, will be announced in the IRRA Newsletter in September.

ANNUAL SPRING MEETING, May 5-6, 1972, Salt Lake City. President-Elect Benjamin Aaron will announce his program in the March Newsletter in 1972.

### **FUTURE DECEMBER IRRA MEETINGS (with ASSA):**

1972 Toronto	1975 Dallas
1973 New York	1976 Atlantic City
1974 San Francisco	

### **Industrial Relations Research Association Series**

Annual membership dues, which cover the calendar year January 1 through December 31, entitle members to the seven mailings each year of publications in the IRRA Series. These include the following for 1971:

PROCEEDINGS OF THE TWENTY-THIRD ANNUAL WINTER MEETING, December 28-29, 1970, Detroit (May 1971)

PROCEEDINGS OF THE 1971 ANNUAL SPRING MEETING, May 7-8, Cincinnati (Publication August 1971)

REVIEW OF INDUSTRIAL RELATIONS RESEARCH, Volume II (Publication October 1971)

IRRA NEWSLETTER, Issued Quarterly (March, June, September & December)

### **Future IRRA Special Volumes Include:**

IRRA MEMBERSHIP DIRECTORY (Fall 1972, Published at Six-Year Intervals) Biographic sketches of members (alphabetically) are given as well as occupational and geographic indexes. Also included are tabulations and/or listings of annual meetings, officers, local chapters and past publications.

THE NEXT TWENTY-FIVE YEARS OF INDUSTRIAL RELATIONS (Fall, 1973)

*Prices and order forms for single copies of past IRRA publications are available on request.*

## LOCAL CHAPTERS OF IRRA 1970-1971

Meetings are held periodically by the twenty-eight local chapters.  
For information, please contact the chapter presidents listed below:

- ARIZONA, John Zancanaro, FMCS, 3455 New Federal Office Bldg., Phoenix, 85025  
BOSTON, Mortimer H. Gavin, S.J., Institute of Industrial Relations, 761 Harrison Ave., 02118  
CENTRAL CALIFORNIA (Fresno), John Loeprich, Sun Maid Raisin Growers, Kingsburg, 93631  
CENTRAL OHIO, Howard D. Hughes, FMCS, Columbus, 43215  
CHICAGO, Tom Holman, Commonwealth Edison, 72 W. Adams, 60611  
CONNECTICUT VALLEY, David Pinsky, Labor Education, U of Connecticut, Storrs, 06268  
DETROIT, Thomas H. Patten, Jr., School of Labor & IR, MSU, East Lansing, 48823  
GREATER CINCINNATI, William P. Sheehan, AFL-CIO Labor Council, 1015 Vine Street, 45202  
GREATER KANSAS CITY, Jerry Irving, Central Labor Council, AFL-CIO, 3 East Armour, KC, MO 64111  
HAMILTON & DISTRICT, Fraser Isbester, Business Admin., McMaster U, Hamilton, Ontario  
HAWAII, Edward McMahon, USDL, 1833 Kalakaua Ave., Honolulu, 96815  
IOWA, Edgar Czarnecki, Center for Labor & Mgmt., U I, Iowa City, 52240  
LABOR & INDUSTRIAL RELATIONS ASSOCIATION (Student Chapter), Ian McAndrew, ILIR, U of Illinois, Champaign, 61820  
MICHIGAN STATE UNIVERSITY, (Student Chapter), John Fossum, ILR, MSU, East Lansing, 48823  
MONTREAL, Bernard Brody, IR Dept., U of Montreal, Montreal, P.Q.  
NEW YORK CAPITAL DISTRICT, John Garvey, FMCS, 432 Federal Bldg., Albany, 12201  
NEW YORK CITY, Paul F. Shaw, Chase Manhattan Bank, 1 Chase Manhattan Plaza, 10015  
NORTH TEXAS, Merle Rider, Labor Mgmt. Services Admin., USDL, Rm. 1005-6, 1416 Commerce St., Dallas, 75201  
PHILADELPHIA, Wayne E. Howard, Wharton School, U of PA, 19104  
SAN DIEGO, Josiah L. Neeper, Attorney, 2100 Union Bank Bldg., 92101  
SAN FRANCISCO BAY, Donald Vial, Center for Labor Research & Education, U of California, Berkeley, 94720  
SOUTHERN CALIFORNIA, Julius N. Draznin, NLRB, Reg. 31, 11000 Wilshire Blvd., LA, 90024  
SOUTHWESTERN MICHIGAN, Albert Davia, Allied Industrial Workers Union, 611 Wheaton, Kalamazoo, 49001  
UTAH, J. Kenneth Davies, Brigham Young U, Provo 84601  
WASHINGTON, DC, Benson Soffer, US Dept. of Commerce, Business & Defense Ser. Admin., 300 M St., SW, 20024  
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