This monograph summarizes 20 recently completed dissertations representative of research being done in employment and training. Each summary has this format: description of the framework into which the study fits, explanation of its purpose, summary of methodology and type of data, and author's findings and conclusions. Six studies in section I on existing government programs and legislation examine ex-offender labor force programs, local economic development and employment creation, child support enforcement programs, business tax incentives, employee stock ownership, and impact of equal opportunity laws on labor unions. Two dissertations in section II on labor-management questions study the impact of guaranteed annual income on longshore workers and development of unionization among teachers. Three dissertations in section III focus on job search behavior, its determinants, and its effects on reemployment. Six dissertations in section IV focus on discrimination. Two examine women's work experience and earning. Others study Asian-Americans in the labor force, dual labor market theory, "dual career," and retirement decisions. Three dissertations in section V on impact of the business cycle study students' responsiveness to economic change in terms of school enrollments, impact on individual health of changes in the business cycle, and employers' responses to changes in demand. (YLB)
Contemporary Dissertation Research on Employment and Training

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Foreword

Since the mid-1930s, the Social Science Research Council has sought to support the development of the social and behavioral sciences through dissertation fellowships programs. Such programs contribute toward building (and eventually replenishing) a body of trained personnel, many of whom—long after the period of their fellowship—continue to work in and develop the field in which their dissertation was written.

Since 1980, the Council has administered a dissertation fellowship program in the field of employment and training. Formerly administered by the National Council on Employment Policy and prior to that by the Employment and Training Administration of the U.S. Department of Labor, the program has awarded more than 600 fellowships to graduate students in departments of anthropology, business, economics, industrial relations, political science, psychology, sociology, and others. In so doing, the program has contributed toward the understanding of such issues as the effectiveness of employment and training programs; the special employment and training needs of dislocated workers, unemployed black youth, and disadvantaged immigrants; and the dynamics of labor markets more generally.

The return on such an investment in young scholars, as well as in their research, is often difficult to measure. Although important, the benefits are often subtle and indirect, and the specific results of their research may not always come to the attention of those with responsibilities for administering and thinking about the employment and training policies of the United States. Moreover, barriers to interdisciplinary discourse are frequently made all the more difficult to scale by the tendency of scholars to
write in the magic codes that only their immediate peers can decipher.

In order to facilitate the transfer of the knowledge generated by dissertation research recently supported by this program, the Council commissioned Peter S. Barth, an economist at the University of Connecticut, to summarize (and occasionally translate) 20 of these dissertations and to make their findings accessible to individuals who may lack advanced technical training, or who may be uncomfortable with the particular disciplinary language in which many of them were written. Mr. Barth has admirably completed this assignment and provides in this book ample testimony to the importance and quality of the dissertation research in the field of employment and training supported by this program.

ROBERT W. PEARSON
Social Science Research Council
Introduction

The development of major employment and training programs in the 1960s necessarily carried with it a need to understand the environment in which such programs existed. Questions abounded about the potential program users, employer needs, regional issues, program delivery methods, labor union roles, the labor market, and so on. Although only a few of the more obvious questions could even be articulated at that time, two things were quite apparent. First, the loosely defined area of (then-called) manpower had little research on which to build. Second, very few researchers were actively engaged in such work. The doctoral dissertation grant program was instituted within the Manpower Administration as one of the means to overcome both obstacles. Its principal goal was to stimulate interest in employment and training research among young scholars. Aside from any immediate benefits from the research itself, the project hoped to channel these persons into a continuing research commitment to the employment and training field. The goals of the program remained intact until the program was terminated at the close of 1984.

Aside from its goal of augmenting the number of active researchers, the program has provided a large amount of scholarship, prepared under the direction and guidance of accomplished researchers. The purpose of this monograph is to inform government personnel, the research community, and employment and training practitioners of the availability of some of this recent research. It should serve to indicate what types of studies are being carried out currently by the newest researchers in the field. It will alert some readers to the availability of
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Finished studies that they may not be aware exist. Even when articles appear that are based on completed work, they may represent only a fragment of the original work. Further, dissertations in this field may be published in journals specializing in economics, sociology, psychology, industrial relations, health, business, history, regional science, or other fields that are not regularly seen by employment and training specialists. As such, this further limits the dissemination of this work.

In this monograph, 20 recently completed dissertations are summarized. My hope is that these brief descriptions will encourage those readers with specific interests in or needs for employment and training research to obtain copies of the dissertations.

The studies selected for inclusion here were all completed within the past few years and were chosen as being representative of the broad field of research being done in employment and training.

The monograph is arranged in five sections. The somewhat arbitrary division is meant simply to assist the reader. The first section focuses on existing government programs and legislation. To some extent, readers may view these as evaluation studies. They cover an area that is somewhat broader than more conventional employment and training evaluations. For example, one of the theses examines the use of Employee Stock Ownership Plans, while another reports on the impact of equal employment opportunity laws on labor unions. These studies are not limited to federal programs, and federal-local or federal-local relations are issues in several of these stud.

The second section deals with labor-management questions. One of the two dissertations explains the development of unionization among teachers. The other describes the impact of a significant agreement to respond to labor-saving technology in the longshore industry.

The third section deals with issues of job search. In two of the dissertations, the researchers use survey research methods to examine the process by persons who have recently lost their
INTRODUCTION

jobs. The third thesis employs an experimental approach using graduating college students as subjects.

The fourth section focuses on issues relating to discrimination in the labor market. Considerable attention is given to questions of occupational choice, labor force participation, and earnings. A wide range of techniques is used in these studies, including a twelve-nation comparison of the experiences of female workers. The dual labor market hypothesis is analyzed in one of these dissertations, while another examines circumstances surrounding the retirement decisions of older workers. Several of the studies are interested in the pattern of career development among women based on early experience in the labor market.

The final section deals with the impact of the business cycle. One dissertation examines the response by employers in union or nonunion industries to changes in demand in terms of layoffs, wages, or varying the hours worked. Another study considers the impact on individual health of movements in the cycle. A third study examines the responsiveness of students to economic change in terms of school enrollments.

Each summary is intentionally brief, since the interested reader is encouraged to go to the original source. In each case the same format is used: a description of the framework into which the study fits, an explanation of its purpose, a summary of the methodology used and type of data employed, and the author's findings and conclusions.

Despite the many obvious differences among these 20 dissertations in their subject matter, methodology, and the like, one cannot help being struck by certain common characteristics. Some of them may not be very surprising. For example, there is an extensive review of the related literature in all but one of these studies. Nor may the general absence of polemic be surprising. While the authors often will identify with one side or another on a research issue, the political and social orientation of the writer typically is not evident. In a field that is often marked by strong and explicitly political writings, the absence of such statements places many of these theses on a neutral ground. This
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is not to suggest a lack of interest in questions of public policy; many of these young researchers are exceptionally aware of the public policy issues that exist in their work. Their academic training does not appear to have left them insensitive to the important national questions with which they deal, directly or indirectly.

Another common feature of these dissertations is the willingness to cross traditional academic disciplinary lines. Not only are the 20 studies representative of a variety of fields; many of the individual studies draw from more than a single academic discipline. For example, a number of dissertations draw upon the theories and findings of economists, sociologists, and psychologists in addition to "conventional" employment and training research.

Many of the studies contain a large number of findings, which pose special difficulties for anyone seeking to summarize them. This was particularly true for, but not limited to, those studies based on survey research work. As such, readers from different subject areas might have emphasized some findings more than others, had they prepared the review. The reader is warned, herewith, that the descriptions of findings in some instances are necessarily brief and meant primarily to alert the reader to the (arguably) most essential findings as perceived by the original author.

Points of view or opinions stated in this document do not necessarily represent the official position or policy of the Social Science Research Council or the U.S. Department of Labor.

Peter S. Barth

University of Connecticut

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I. EVALUATING GOVERNMENT PROGRAMS

EX-OFFENDERS

DISSERTATION TITLE
An Examination of the Social Factors Determining Successful Training Performance of Participants in Ex-Offender Manpower Programs: A Model for Predicting Social Behavior

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The special problems of ex-offenders

Employment and training programs have been designed to assist individuals who have experienced labor market difficulties overcome a variety of handicaps that impede their transition into productive employment. Ex-offenders experience special barriers to employment resulting from their status as ex-convicts, probationers, or parolees. They can expect to be viewed with suspicion and even hostility by potential employers and fellow workers. The ex-offender may also have little schooling, training, experience, or demonstrated work habits that would allow him or her to find and hold a wide range of jobs.

Although the ex-offender represents an especially serious challenge to employment and training programs, such programs may be highly cost effective when compared with the costs of failing to keep an ex-offender from committing crime or the costs of possible subsequent incarceration.
Factors related to program success

The purpose of this study is to identify those factors that will allow one to predict who will be the successful graduates of employment and training programs for ex-offenders. At another level, the research attempts to test a predictive theory of social behavior propounded by Harry Triandis. That model relates behavior to measures used by behaviorists (that is, habits) and those employed by cognitive psychologists (that is, expressed intentions). As such, the study is of interest both to program operators and to psychologists.

There are several potential benefits of being able to successfully predict which program enrollees will meet with success. In theory, at least, one could accept for participation in such programs those persons who appear to be good bets to succeed. More likely, the programs might be modified to establish an environment wherein the probability of success is enlarged. Browne argues that enrollee behavior itself could be modified in the light of more knowledge about the factors related to success or failure.

Building on the Triandis model, Browne evaluated the comparative importance of three sets of variables. In an eclectic manner, he examined enrollee habits “H” (as a behavioral psychologist might), the stated intentions of the enrollee “I” (as a cognitive psychologist might), and the facilitating conditions “F” under which the enrollee lived. The latter focused on the environment and the degree of support received from family and friends.

A survey of program participant characteristics

Browne’s study was based primarily on an examination of a sample of the enrollees in ex-offender programs within the U.S. Department of Labor’s Region V. Most of the subjects were drawn from Illinois and all were participants in programs that indicated a willingness to participate in such a study. Pro-
grams that included youth or the currently incarcerated or that provided only employment and counseling services were excluded. The study was limited to male ex-offenders. Ultimately, usable information was available for 128 subjects who were enrolled in six programs at some time from October 1979 to April 1980. Data were taken from the enrollees' file at the time of admission to the program, during the first two weeks of training, and at the time training ended. The programs consisted of on-the-job training, work experience, or a combination of on-the-job training and classroom work.

It is important to note that Browne sought to predict program outcome and termination status. Thus, success was evaluated solely in terms of whether the trainee completed the entire course or left before finishing it to take a job. It did not seek to identify whether training outcomes were associated with subsequent recidivism.

To determine the effects of the "H," "I," and "F" factors, Browne administered a 59-item questionnaire to the program participants as well as obtaining data about the trainees from the program operators.

Predictors of participant behavior

A variety of findings emerged from this study, most of which appeared to be consistent with the literature that had preceded it. Browne found that the Triandis model provided accurate predictions of trainee behavioral intentions regarding effort, attendance, punctuality, and compliance. The model was not effective, however, in predicting the ratings given by program staff to trainees on these dimensions of program behavior. Browne listed a number of possible reasons for the apparent failure of behavioral intentions to explain the actual evaluation of trainees by staff. While the intentions of the trainee appeared to be ineffective as a predictor of outcomes, habits were quite powerful. The support received from family and friends combined with work habits such as punctuality or attendance were associ-
RESEARCH ON EMPLOYMENT AND TRAINING

ated with success in the program, while the professed intentions of enrollees to be punctual or attend regularly appeared not to be related to successful outcomes.

The support received from family and friends combined with work habits such as punctuality or attendance were associated with success in the program, while the professed intentions of enrollees to be punctual or attend regularly appeared not to be related to successful outcomes.

Habits were assessed through direct observation of the trainee during his first few weeks in the program. Browne argued that the individual's effort, attendance, punctuality, and compliance of the beginning of the program can be useful in identifying who will succeed. As a sort of early warning system, it can indicate which trainees would benefit from behavioral modification or other conditioning programs that may lead to better program outcomes. This research sought to identify potential program failures, but did not actually seek to modify any outcomes.

The study was limited to ex-offender programs. However, "habits" may also predict trainee success in other employment and training programs. The Browne thesis can be refined and applied to other types of programs, not simply those aimed at ex-offenders.
Job creation and local economic development

The modern era of manpower programs is generally accepted to have begun in 1961 at the time of passage of the Area Redevelopment Act. Unlike much of the legislation that followed this law, its goal was aimed at reviving and restoring economically depressed areas. By pumping resources for training and job creation into such areas, unemployed or underemployed residents were thought to benefit. Subsequent legislation was aimed more directly at specific groups of people—for example, veterans and minority group persons—than at regional development.

In recent years, increasing attention has been given again to developing support programs that are aimed at specific areas. The concept of the “enterprise zone,” for example, seeks to package various incentives for employers either to locate or to expand in a targeted territory and thus improve local labor market conditions.
Successfully generating employment in economically-depressed areas

The purpose of this study is to gain some insight into the processes of local economic development and employment creation. Specifically, Katz sought to identify and evaluate strategies that are used to induce businesses to invest in certain localities or areas and to create jobs there for the disadvantaged.

Numerous studies have sought to explain why businesses locate or relocate where they do, and what factors tend to influence different types of employers. A similarly large body of research has sought to explain the factors that make for successful employment and training programs. This study is one of the few to focus on the conjunction of the two sets of issues. The growing interest in enterprise zones suggests that other such studies can be expected to follow.

Katz identified three sets of specific questions to shed light on these issues. First, what are the most important elements in developing and carrying out a local development program? Second, which policies and incentives appear to be most effective in stimulating new private sector investment and job creation in the target area. Last, which manpower programs and practices are most successful in job creation for unemployed and underemployed residents of the area?

A comparative case study of three cities

This study used a comparative case study analysis to describe and evaluate approaches used by three cities to spur private job creation for target groups. Katz believed that such a research strategy would allow him to produce and use data that are rich in detail and insights. His evaluation was essentially a "process evaluation," a useful device for analyzing new, developing programs. Programs examined by Katz were still in experimental stages and were being run on a trial and error basis. The focus of the research was the evolution of the programs. At the time of
writing, few quantitative data on program outcomes were available for analysis.

This case study analysis relied upon intensive interviewing, observation, documentary analysis, and access to files of key actors from the public and private sectors. The primary source of information was open-ended interviews with persons involved in the development and manpower process. In each city at least 50 persons were interviewed, including local manpower and development staff, planners, businesspeople, bankers, private developers, lawyers, reporters, union officials, and academics.

The cities were selected from a pool of cities with a population of over 500,000 that had experienced economic distress in recent years as reflected by job losses. Based on census data, 20 cities qualified for inclusion. From this set, cities were selected for study that had an economic development strategy that stressed private job creation and included a specific linkage to existing employment and training programs. Katz gave preference to those cities farthest along in implementing these programs, ultimately selecting Boston, Chicago, and Philadelphia for study.

**Successful development strategies**

Katz relied upon the literature and analyses of research in economics, manpower, and political science to draw together his case studies. This allowed him to generate a variety of broadly based conclusions.

One of his most important conclusions was that financial incentives, as a part of a locality's development process, were not a very important factor in the locational decision of firms. Instead, the key determinants of the location decision were the overall attractiveness of the land site and the access to sources of transportation. In some instances, firms made locational commitments without waiting for local development aid packages. In other cases where such aid was used, some businesses would have made the same decision, even if no support had been forthcoming. In Philadelphia, a revolving loan appears to have been very
important to some employers, particularly where they expanded an existing facility.

Katz observed that development agencies had some success in encouraging businesses to stay within an area or to expand their facilities there. These agencies had less success in attracting businesses from other areas to locate in the target zone. Further, the primary competition that these areas faced was the local suburbs and not other cities, states, or the sun-belt region.

One of the most successful programs Katz identified included a technical assistance program for businesses in the target area. Management consultants provided these firms with short-term support. Because of such assistance, several businesses were helped to survive while others were able to expand. In either case, the result was job retention and creation.

Most of the formalized access routes to jobs for the unemployed in these areas did not work well. For a variety of reasons the attempts to link area development with jobs for the hard-to-employ did not succeed. The suspicion and skepticism of employers toward some of the manpower agencies was a striking and recurring theme running throughout the analysis. Clearly, the success of development efforts led to job creation for some unskilled and unemployed residents of the development area. But some of these jobs were created without any formal placement program. Firms considering locating in depressed areas did not welcome the offers to place publicly subsidized workers in on-the-job training programs in their establishments. Where local residents found such work, it was through the recruiting efforts of the business.

Katz concluded that strong, continuous, executive support is needed for localities to successfully implement their development strategies. That type of strong support, identified with a
political official, may also lead to the undermining of programs. For example, if a project is a pet program of a mayor and a new mayor is elected, the program may have little chance to survive, at least in its original form.

Perhaps the strongest and clearest message that emerged from this study is that the development agency needs to define clearly what it can offer, to plan its outreach accordingly, to have the authority to make decisions, and to take action promptly where necessary. It is also useful to identify one or two individuals to serve as ombudsmen, operating between businesses and the city government to minimize red tape for businesses responding to the development program. In short, Katz argued that the development effort must be well managed and isolated as much as possible from the politics and bureaucracy that have hindered such programs in the past. It ought not to be so isolated, however, that it appears to lack the strong support of the local executive. Katz reported that there will be greater payoffs to the community from such steps than from such sweeteners as the financial incentives often offered in the form of temporary tax abatement programs.
Enforcing child support payments

Rapid increases in welfare costs in the 1960s and 1970s led to increasing public awareness and concern about the public support system in this country. An evolving concern focused on the appropriate role of parental financial support in low-income households headed by single parents. In most cases this issue involved fathers who had moved from the household and had left behind children. The evidence suggested that the states had not been aggressive in seeking to establish the responsibility of this parent for the financial support of his family.

In 1975 the passage of Public Law 93–647 created Title IV–D of the Social Security Act mandating more aggressive enforcement at state and local levels of child support programs. Nationally, it established a computerized Parent Locator Service, which permitted the IRS and Social Security Administration to use their information systems to assist the states in locating absent parents and in identifying their level of income. In response to this legislation states established their own programs as well.
Despite these efforts, nonsupport by absent parents remains a significant national problem, a major cause of poverty in female-headed families, and an increasing financial responsibility of government.

The causes of nonsupport appear to be poorly understood. Aside from certain economic causes and motives, the design of the welfare system itself may contribute to the problem. For example, the payments collected by the state under the enforcement program go to the state's treasury, and not to the dependent family. As such, there is no positive incentive for the father to contribute because of perceived family needs, since his own family does not directly benefit from his payments. Moreover, rigorous enforcement of child support may lead to or exacerbate poverty and deprivation in a second household. If the low-income father is now supporting a second family, forcing support payments from him may push that family into poverty.

Apparently, the amount to be paid under an enforcement scheme is based on the father's ability to pay, and not on the family's level of need. As such, welfare dependency is functionally related to an absent father's economic status and on his continued willingness to make support payments.

The enforcement system

The purpose of this study is to describe the consequences of child support enforcement programs. To what extent do such payments supplement Aid to Families with Dependent Children (AFDC) grant amounts? How many families are forced off the welfare roles because of it? Are such changes in status permanent or temporary?

Another set of issues concerns the size of the child support payments. To what extent do support payments meet the minimum levels recommended by (then) HEW? Are the courts ordering support levels that meet these guidelines? What factors
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explain why fathers meet or avoid such payments? Is the mode or level of enforcement important in this regard?

A profile of welfare cases

Lonergan sought to answer these questions by examining the data of a single Child Support Enforcement Office in 1977–78. She was able to obtain and merge data from two separate sources: the family record from the AFDC file and the support enforcement data from the IV-D file. These data were drawn from the New Bedford, Massachusetts area, a low-income, high-unemployment region in the southeastern part of the state, consisting of the city of New Bedford and several small surrounding towns. In 1977, about one family in eight in New Bedford was receiving assistance under the AFDC program.

An initial screening of a data file yielded approximately 2,800 child support cases. By eliminating records with substantial missing data, where the mother was filed absent, or where a relative or other applicant filed for AFDC on behalf of the family, the number of cases was reduced to 682.

The data allowed Lonergan to construct case files built around several clusters of information. First, she was able to establish a picture of the family status of both parents—that is, marriages, separations, reconciliations, and remarriages. A history of dependency on AFDC was constructed also, including any previous periods of dependence and the reasons for status changes. Employment data on the father were available, including his occupation, earnings level, and nonwage sources of income. Lonergan also reconstructed all efforts to support enforcement including the date, the type of enforcement order, and the amount of support required under the order. Data were also available on the extent of compliance. Records were analyzed from as early as the beginning of the 1960s until December 1977.

The principal method of analyzing these data was through cross-tabulations.
Outcomes of enforcement efforts

Few fathers in New Bedford were found to be able to pay child support amounts that equaled or exceeded levels of the family's welfare grant, thereby releasing them of welfare dependency. On average it took an income level of $200 per week for the father to be able to provide this much support to his family. Even if the father had the ability and willingness to pay, however, it was likely that the courts and IV-D enforcement officials would not force him to pay child support to the level recommended by HEW guidelines.

Lonergan found an enforcement pattern that was regressive (in a taxation sense), such that the lower-income fathers were forced to pay a higher proportion of their income than were higher-income fathers. She speculates that enforcement officials feared that pushing for higher support levels would result either in the father's fleeing the community or in a disincentive to work.

If the father's support was large enough to free the family from welfare, this did not guarantee long-term independence. In the eight cases where the father's payments were sufficient to eliminate welfare payments, five families later reapplied.

The research appears to demonstrate that enforcement efforts do yield some response from nonsupporting fathers. The highest levels of enforcement tended to be applied against men who showed the best record of compliance, initially, with their original support order or agreement. By contrast, delinquent cases tend to "get lost in the files" and involve little or no enforcement effort.
Lonergan suggested that strict enforcement is likely to create problems for any subsequent families of these men. Some of these later families are already dependent upon AFDC support. By pushing enforcement of support at high payment levels to the first family, the burden is simply shifted to the current family, or to the state to increase benefits for the existing family.

This research pointed to the linkages between welfare payments, support enforcement, and family status. For example, although 17 per cent of all these families experienced marital reconciliations at various times, no couples were reconciled after enforcement proceedings were brought against the father.

Finally, the study demonstrated that the welfare and enforcement systems should be evaluated in terms of long-term financial security and its impact on the family.
The growing importance of business tax incentives

For the past four decades or more, business tax incentives (BTIs) have been used as tools of macroeconomic policy. Over the last 20 years or so, the tendency has been for corporate profits tax rates to be reduced and for tax credits and allowable deductions to be increased, to stimulate business expansion and employment creation. The 1980s have witnessed a continuation of such tax policies.

Two of the more significant (federal) BTIs are the investment tax credit and the accelerated depreciation allowance. The annual "tax expenditures" from these programs (the direct loss to the U.S. Treasury in foregone taxes) was $1.2 billion in 1962 and rose to over $21 billion by 1982, prior to the effects of the Economic Recovery Tax Act. Even taking into account price changes, this represents more than a fivefold increase in real terms in 20 years. This growth rate will accelerate in the presence of the 1981 tax reductions. The cumulative tax expenditures associated with the investment tax credit and the
accelerated depreciation allowance between 1954 and 1981 are estimated to be about $150 billion.

Any study of BTIs must give some attention to their net impact on tax expenditures. By serving to reduce the costs of production for a business, BTIs may contribute to lower prices and to an increase in the quantity demanded of the firm's products. In the presence of any business expansion, the net revenue effect of BTIs is lower than the tax expenditure data taken alone suggest. This net effect has been the subject of considerable interest by macroeconomists and specialists in government finance.

Far less attention has been given to the microeconomic effects of BTIs. For example, businesses benefit differently from such tax provisions, depending, for example, on their rates of growth, profitability, and asset mixes. The geographic distribution of firms that are more or less favored by BTIs is not uniform; thus, some regions will benefit from them more than others.

Aside from the regional effects, BTIs need to be evaluated in terms of their impact on employment. As a BTI reduces the cost of capital such as machinery and equipment, two countervailing employment effects will occur. As the cost of capital declines relative to labor costs, firms may be expected to substitute capital for labor, thereby reducing the demand for labor and the level of employment (the substitution effect). Mitigating this effect, however, is the employment creation that may result as reduced prices lead to an increase in the quantity of product demanded, which in turn increases the demand for labor (the scale effect). Clearly, the relative importance of these effects is of interest to persons concerned with levels of employment and unemployment and with the desirability of various tax strategies.

Relating BTIs to other federal programs

This study has two major purposes. First, Luger sought to analyze the microeconomic consequences of BTIs, particularly the differing regional employment effects. This issue is purportedly the subject of some speculation but little systematic analysis.
Luger argued that these regional differences are important in the presence of other policies that are targeted at specific areas. To what extent, for example, do BTIs undermine or reinforce federal policies designed to assist depressed areas or regions?

Luger also sought to place BTIs into a much broader evaluative framework than had been used. For example, do other, more efficient methods exist for accomplishing the goals of BTIs?

This study fits neatly into a growing academic literature on the effects of various government programs used to stimulate private sector investment as a means of stimulating employment growth. Luger summarized this literature in an extensive table and outlined the research question, the evaluative criteria used, the methodology employed, and the major findings of these earlier studies of federal programs.

**Developing data on BTIs**

The study begins with a discussion of the development of and the rationales given for BTIs. Following this is a discussion of the previously proposed benefits of such measures both at the macroeconomic level and at the microeconomic level. Luger explains the kinds of arguments that have been made to support or to oppose these changes in tax laws.

The next stage is the development of a model of the impact of BTIs, measured primarily by employment changes. The data created by Luger to evaluate the BTIs are an important aspect of the study. Essentially, many of the data series that he needed contained fragmentary or inadequate information, thereby forcing him to develop usable estimates. For example, he needed to assemble data on investment by Standard Industrial Classification (SIC) and by Standard Metropolitan Statistical Area (SMSA), and to value the stock of capital available to them. His methodological contributions and the actual data series that he generated should prove useful to other researchers faced with similar data gaps.
Luger simulated the impact of changes in the BTIs, using the existing distribution of industry in Philadelphia and Los Angeles. His focus was on production worker employment in manufacturing businesses in selected years between 1962 and 1976.

**Employment effects of BTIs**

Luger found that liberalizing business taxes had both net scale effects (reduced costs lead to increased demand) and substitution effects (capital replaces labor) depending upon both industry and location. In the aggregate, business tax liberalization would have a much larger impact in Los Angeles than in Philadelphia. In most industries in both areas, the scale effect is likely to be larger than the substitution effect. As such, BTIs have led to employment growth.

*In terms of future tax expenditures, each new job created in Philadelphia would be twice as expensive as a job created in Los Angeles.*

The job creation of BTIs was far more significant in Los Angeles, relative to existing unemployment, than in Philadelphia. In terms of future tax expenditures, each new job created in Philadelphia would be twice as expensive as a job created in Los Angeles. According to Luger, this interregional difference in impact is not in tune with the national policy of aiming support at economically distressed areas. Employing that criterion, support would have been targeted more at Philadelphia than at the relatively better off Los Angeles.

Until this study, much of the debate over the suitability of BTIs focused on the trade-off between job creation and U.S. Treasury revenue loss. This study suggests a different sort of trade-off as well: overall job growth or more regionally balanced economic development. This consideration can only add to the quality of the debate over BTIs.
Encouraging employee ownership of business

The government of the United States has clearly expressed a policy of favoring businesses that are owned, in part at least, by their employees. One such indication of this preference is found in the treatment of Employee Stock Ownership Plans (ESOPs), which were first recognized in the law in 1973. In 1974, the Employee Retirement Income Security Act (ERISA) defined an ESOP as being "designed to invest primarily in qualifying securities" with the purpose of giving "the employee-participants an interest in the ownership and growth of the employer's business." A variety of businesses had provided such benefit programs to their workers even prior to 1973, and without qualifying for the preferred tax treatment of qualified plans. Other subsequent legislation has further extended the range of ESOPs.

The employer's financial contribution under a qualified ESOP is limited annually to 15 per cent of the total compensation paid to participating employees. Thus, a business buys shares of its own stock for its workers and receives favored tax treatment. Workers electing to participate may be subject to a required
contribution of up to 6 per cent of their earnings. If they choose to, however, they may contribute up to 10 per cent. Since income taxes are deferred on these contributions, there is an obvious incentive for workers to participate.

The goals of ESOPs envisioned by supporters of such legislation include benefits to employers, workers, and the U.S. Treasury. Employers can benefit directly from a variety of tax advantages that accrue to them if they have a qualified plan. Tax benefits for employees are quite direct as well. The primary benefit for all parties, including the U.S. government, is anticipated to be an increase in productivity that results when employees have a direct stake in the well-being and profitability of the businesses employing them. To the extent the ESOPs contribute to greater profitability, tax revenues of the government may ultimately be higher than they would have been. Though employers were able to provide portions of ownership to workers prior to these changes in the tax laws, the impact of the legislation is to enhance their attractiveness for businesses.

The economic implications of ESOPs

The purpose of this study is to analyze the impact of employee ownership of stock in the firm employing them. What are the advantages and disadvantages to firms considering using this scheme? In what form should the ownership be held? To what extent can such plans shield a company from a hostile takeover by another business? What are the macroeconomic implications of ESOPs? What differences can one expect to find in companies whose shares of stock are not publicly traded?

Taylor suggested that there are four sets of factors that are considered by firms and employees in judging whether to use employee stock ownership as an element in an optimal employment contract. In a microeconomic framework, he assessed the implications of ESOPs for:

- ownership in the employing firm by employees as part of the preferred compensation package
incentive effects on productivity and information flows in the firm

- the potential for participation in the oversight of the firm by stock-owning employees
- job and financial mobility considerations of employees

In addition, there are a variety of direct tax benefits to a firm adopting an ESOP. One of these is its potential as a substitute for alternative ways of providing employee pensions that may be potentially more expensive because of the requirements of ERISA.

**Employee stock ownership in theory and practice**

Taylor's study consists of four parts. In the first, he spells out the details of the law regarding ESOPs. For those persons unfamiliar with the legislation, this portion of the study is useful in understanding the law's non-tax, non-financial aspects. For example, Taylor explains voting by shareholders, stock distribution eligibility, vesting, and trust responsibilities.

The second part is the microeconomic analysis of ESOPs. This section gives very broad coverage to the theoretical considerations that are offered by the parties in initiating such a program.

The third part summarizes four separate studies that have been completed on the effects of ESOPs. Specifically, he reports the findings of surveys done on ESOPs by UCLA's Graduate School of Management in 1977 (180 firms responded); the U.S. General Accounting Office in 1980 (16 firms studied); the University of Michigan's Survey Research Center study (date not given) of 98 firms, 68 of which had stock ownership plans and 30 had direct ownership; and an older study of worker-owned plywood plants in the Pacific Northwest. While the reviews are uncritical, those interested in ESOPs will find this section to be a useful, brief compendium of earlier studies.

In the final part, two case studies are used to compare the experiences of two employee-owned newspapers, the *Milwaukee...*
Journal and the Kansas City Star. The former appears to be a successful enterprise while the latter was sold to a major communications conglomerate after encountering some significant economic difficulties. The sale ended the employee-ownership status of the paper. Both of these papers had employee ownership for over 40 years. As such, these firms did not need ESOP legislation to develop their programs. An analysis of their financial and operating track records, however, is instructive in terms of the implications of employee stock ownership.

Case studies of two employee-owned newspapers

At the present time, over 90 per cent of the Milwaukee Journal is owned by employees; the stock is not publicly traded. The implications of employee stock ownership on the valuation of the shares is explored at length. The ownership percentage by Kansas City Star employees was also very high prior to its sale.

Taylor found that mechanisms can exist for transmitting information about job performance and firm oversight in employee-owned firms. These mechanisms may be present, however, in firms that are not employee-owned. Further, an employee-owned business is as capable of being mismanaged as any other business, although the owners are more likely to know about it in employee-owned firms. The Kansas City Star appears to have been inefficient and significantly overstaffed. The lack of serious competition permitted it to continue to exist this way for a long time.

... An employee-owned business is as capable of being mismanaged as any other business, although the owners are more likely to know about it in employee-owned firms.

At the Milwaukee Journal, employee stock ownership made a contribution to the success of the paper. Taylor noted especially the usefulness of the information that flowed to management from workers.
EMPLOYEE STOCK OWNERSHIP

Employee stock ownership appears to have little direct impact on turnover by employees. The deferred compensation plan, however, appears to have reduced worker mobility. (Such a plan, however, need not be linked to employee ownership of the firm.) At the Milwaukee paper, absenteeism may have been reduced because of employee ownership, but only marginally.

Finally, the researcher observed that several large companies have cited regulatory constraints and uncertainties as the sources of delay in their implementing ESOPs. The programs operate under the direction of the Department of Labor and the Treasury.
Labor unions and Title VII of the Civil Rights Act

Passage of the Civil Rights Act of 1964 left few areas of the labor market unaffected. Not surprisingly, considerable research has been done to observe, measure, and evaluate these effects. The bulk of this work, however, has tended to focus only on the response by employers to the act. Very little attention has been given to the pattern of response by labor unions, although this law clearly forbade unions from discriminating against persons on the grounds of their race, color, religion, sex, or national origin.

The 1964 law was not the first law or ruling to limit a union's ability to engage in discriminatory practices. For example, the U.S. Supreme Court held in Steele v. Louisville & Nashville Railroad (1944) that the legal right to exclusively represent employees imposed a corresponding responsibility on the union to represent all employees without discrimination. The Labor Management Relations Act (1947) outlawed certain discriminatory
practices by labor unions. Yet in 1958 the sixth U.S. Circuit Court of Appeals ruled that unions were private organizations "whose membership policies were their own affairs, and therefore might exclude Blacks" (Oliphant v. Brotherhood of Locomotive Firemen and Enginemen).

Many unions and the AFL-CIO supported the Civil Rights Act although they were concerned with the impact of the law on existing conditions resulting from past practices. Specifically, what impact would this law have on prevailing seniority rules? To allay the concerns of those otherwise supportive union officials and members, Congress declared lawful bona fide seniority or merit systems that were not the product of an intention to discriminate. It has been left to the courts to give meaning to this provision and it has been a source of both controversy and uncertainty.

Changing union practices since 1964

This study investigates the effect of equal employment opportunity legislation on unions. To what extent have changes in law affected the ways in which unions behave in terms of their members, other workers, and collective bargaining practices? What factors explain why some unions have been more affected than others? Do union members perceive changes in union practices that are a product of this civil rights legislation?

These questions and related ones could be posed by several types of researchers using different kinds of frameworks—for example, the economic impacts, legal developments, national political responses, union growth, changes in the composition of membership. Given a wide range of methodological alternatives, Wesman opted to employ an existing model of organization behavior theory from which she drew a number of hypotheses. She also drew upon the literature of industrial relations and the work of legal experts.
An analysis of the brotherhood of railway, airline, and steamship clerks

Data were gathered in three ways for this study. Union officials, company EEO officers, attorneys, and union members were interviewed. The focus of these interviews was the impact of EEO pressures on their organizations. Special attention was given to the experience of a single union, the Brotherhood of Railway, Airline, and Steamship Clerks (BRAC). This union had a history of racially segregated locals. As late as 1947 full membership in BRAC was restricted by its constitution to whites only. Women appear to have received relatively equal treatment within the union for many decades before the 1964 law was enacted. That legislation was the first effective source of pressure on the union to provide equal treatment by race to workers.

Second, Wesman analyzed documentary literature including court cases, union publications, and transcripts of the union's national conventions.

Third, a questionnaire was mailed to a sample of 330 union members employed by the Chicago and North Western Railway in Chicago and Minneapolis-St. Paul. They belonged to four lodges (union locals) that were selected on the basis of their racial and gender mix and the job classes represented. Approximately one-third of those surveyed provided usable responses.

The main body of the questionnaire contained 130 one-sentence items. The respondents indicated their agreement or disagreement using a 5-measure scale. From the 130 items, 21 scales were developed. These clusters included, for example, perceived union effectiveness, perceived achievement of EEO goals, perceived union-member conflict, perceived equity of grievance handling, perceived union-member communication, discontent with union representation, perceived change in union goals, along with 14 other scales. Based on an analysis of the responses, several of these scales were discarded and a number were revised. Wesman also used stepwise regression analysis. Results from the quantitative analysis were compared with the findings based on her interview and documentary research.
Equal Employment Opportunity

Organizational change

Overall, 27 hypotheses and subhypotheses were tested in the data analysis; 13 were supported. Clusters of questions asked about:

- discontent with union representation—for example, has the union treated all members fairly?
- intent to use voice option—for example, does the worker want more say in what the union does?
- intent to use exit option—for example, does the worker wish to leave the union?
- perceived union effectiveness—for example, in negotiations, does management usually win over the union?

In general the effects of EEO were moderate and localized to a few specific areas of union activity. Some unions conducted business as usual. Other unions began educational efforts. Several added an EEO officer. Where rank and file acceptance of EEO goals was relatively strong, as with the United Steelworkers of America, the EEO-stimulated union response seems to have been stronger than in those unions where member acceptance was low.

Analysis of the responses to the questionnaire provided no support for the view that organization responses led to member reactions. Interviews indicated, however, that EEO led to an increase in grievances and a heightened concern about union representation and intramembership conflicts.

Interviews indicated... that EEO led to an increase in grievances and a heightened concern about union representation and intramembership conflicts.

Some union members perceived the union to be increasingly sensitive to grievances filed by minority or female members. The membership perceived no increase in communications from the union in response to EEO. None of the data sources provided
any indication that EEO had led to any change in the quality of the labor-management relationship. No link at all was perceived by union members surveyed between EEO-related environmental change and union effectiveness. The interviews and documentary evidence, however, pointed to the "force of law" arguments that stood behind the equal pay goals of the union. Some saw the law as weakening the union's effectiveness in some areas. For example, EEO was also seen as providing an alternative to the grievance machinery for some members who would then not need the union for assistance. Wesman concluded that the union's ability to represent its members and its base of power have been unaffected by EEO pressures and ensuing responses by the union or its members.
II. LABOR-MANAGEMENT ISSUES

GUARANTEED ANNUAL INCOME

DISSERTATION TITLE
The Effects of the Guaranteed Annual Income on the Occupational Careers of Longshoremen: A Pilot Study

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The response by labor to technological change

For some industries, significant technological change has led directly to the displacement of workers. Resistance by workers potentially affected by such changes has taken many forms. Unionized workers appear to have been especially effective at slowing this process, particularly in certain sectors of the economy. For several reasons, this situation has received considerable attention in recent years. For one, aggregate data on labor productivity has shown that there was very little growth and even periods of decline in the late 1970s and early 1980s. This, in conjunction with a growing imbalance in the nation's international trading position, gave rise to increased private and public concern regarding labor productivity.

For another, the rapidly changing character of labor-management relations has led to dramatic departures from the practices and norms of only a few years ago. Many current responses by unions and employers to changing technology would have been unthinkable only a few years ago.
Labor-management accommodation in the New York longshore industry

The focus of this study is the experience of a single industry that developed a unique approach to change. In the mid 1960s, East Coast shippers and stevedores reached agreement with the International Longshoreman's Association (ILA), whereby the former were permitted to introduce or widen the usage of containerized cargo. By allowing employers the right to use this labor-saving technology—a major change in existing work rules—the ILA was granted a significant and innovative wage benefit in return. A class of high-seniority workers was given the assurance of a guaranteed annual number of hours of paid employment regardless of the actual number of hours worked.

The system now assures that these workers receive a guaranteed income for 2,080 hours of work a year, though most are required to work only a few days a year, if at all. Each day these men report to a hiring hall and spend one to two hours there, before being told that their services are not needed. Income for a day of actual work is only slightly more than their compensation under the program.

Changes in the need for manpower in this industry are dramatic. In the 1950s, according to DiFazio, 48,000 persons worked on the New York-New Jersey docks. At the time of this study about 12,000 longshoremen regularly worked on these docks.

The purpose of this study is to examine the impact of the guaranteed annual income on the lives of these workers. All the men involved were at least in their late 40s. Therefore, the study is somewhat similar to those that have examined the consequences for individuals of early retirement programs. DiFazio posed three questions to be examined in his work. First, what are the sociological and organizational implications of a job where issues regarding working conditions no longer matter? Second, what happened to these men in terms of their attitudes or of finding other work when the threat of income and job loss no
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longer exist? Finally, how is a working-class community life affected by a scheme providing guaranteed income and a minimal amount of time spent at work?

Living with the longshoremen

DiFazio integrated himself into the daily routine of the longshoremen that he studied. He selected a relatively close-knit group of 35 men between the ages of 45 and 60 who "worked" out of the hiring hall at 60th Street in Brooklyn. Most of the men were of Italian extraction, and they began working on the docks when they were 16 or 17 years old. Nearly all the men were married with children or grandchildren. Four members of DiFazio's immediate family have been longshoremen with characteristics similar to the group under study here. It allowed him to gain these workers' confidence and observe their life accommodation to the guaranteed annual income. This group of men "only worked a few days in the last three years."

DiFazio was with the group from 7:00 A.M. when the hiring hall windows opened until they were through for the day at 8:50 to 9:00 A.M. At that point, the men scattered, though DiFazio spent additional time with individual workers.

The human consequences of the guaranteed annual income

The study sheds light on a variety of issues. For example, attention was devoted to how the union obtained the guaranteed income program; how the men viewed their union and on their political views. Also, it used this case study as a means to observe much broader matters such as issues of class, exploitation, sources of social change, and the role of labor in contemporary American society.

For persons concerned with employment and training, several issues and findings will be of interest. First, despite the men's obvious pride in their former accomplishments as longshoremen,
they apparently went to considerable lengths to avoid working when given an opportunity to do so. Clearly, there was very little incremental financial incentive for them to take the work. Yet this strongly consistent pattern appears surprising in the light of statements by workers indicating that they missed the camaraderie of the work. It is similar to the nostalgia expressed by military veterans who were pleased to leave the service and would not return of their own volition. What may set apart longshore work (and the military) from much other work in our society is its inherent physical risks. Most of DiFazio's sample consisted of survivors, that is, men who had worked for 30 or more years and who retained no permanent physical disability because of it. In that light, their demonstrated avoidance of actual work is easier to reconcile with the pleasures they had in reliving past workplace experiences.

Of the group of 35 men, the only ones to take second "jobs" were those who had moonlighted while still working (actively) as longshoremen. The majority of the men did not work at other jobs—on or off the books—and instead used their considerable amounts of free time in activities related to their families (babysitting or cooking and cleaning), sports (primarily as spectators and in gambling), civic or community activities, or union affairs. These men were effectively precluded from availing themselves of retraining or from seeking other full-time work.

The men seemed quite content with their situations, and there is no sense that they were frustrated by their lack of productive work as longshoremen.

These men believed that they had earned this privileged position of drawing pay for no actual work. Strikingly, nothing in DiFazio's study suggests that this led to a loss of any self-esteem. The men seemed quite content with their situations, and there is no sense that they were frustrated by their lack of productive work as longshoremen.
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Their daily activities away from the hiring hall appear to have provided adequate outlet and reinforcement of their self-esteem. Lurking behind the study is the question of the most humane way to deal with permanent job displacement of the sort encountered in New York longshore work. The union's willingness to accept containerization was bought with the guaranteed annual income provision of the contract. Many will see this as a victory for the workers involved. Yet by having the men uselessly tied to the hiring hall for the very rare instances when they are needed to work, the agreement effectively blocks these men from using their skills in the workplace.
BARGAINING BY TEACHERS

DISSERTATION TITLE
The Growth of Teacher Bargaining and the Enactment of Teacher Bargaining Legislation

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The size of labor union membership

Three decades ago, a debate broke out over the future course of unionism in the United States. On one side was a group known as "saturationists," who argued that American trade unions had hit their peak in membership and organization and that their size would decline relative to the overall labor force. On the other side were those who suggested that American unions were on a plateau and that a future surge in membership could be expected. According to this view, the history of trade union growth was not one of steady, long-term growth, but instead a series of spurts each followed by periods of consolidation. This group argued that the early 1950s was a temporary lull before renewed growth.

The issue of union membership is more than a matter of academic curiosity. It is widely acknowledged that union growth or decline serves not only as an indicator of the strength or weakness of trade unions; it is also a source of that strength. For example, a larger labor movement is seen as the source of more money, campaign workers, and voters for politicians that are sympathetic with the aims of the union.
Most of the past research in the field of trade union membership has pointed to four sources of union membership change. First, a variety of economic determinants affect union size. Aside from changing price levels and business profitability, a consistent finding is the positive association between the business cycle (or labor market tightness) and union growth.

Second, the political and social climate in which labor and management find themselves affects union strength. For example, some theorists have argued that during periods of social crisis, workers turn to unions, and membership grows. Third, the public policy or legal context affect membership. According to this view, the surge in union membership in the 1930s was largely a product of the Norris-LaGuardia Act, the National Labor Relations Act, and other legislation viewed as highly supportive of trade unions.

Fourth, strategy and organization of the unions and of management determine union strength. The quality of the leadership of a union or the trade union movement helps explain union membership expansion or contraction.

With the advantage of three decades of hindsight, it is appropriate to ask which prognosis of the unions' future has proven to be correct. If one applies a strict yardstick, both those who predicted decline and those who predicted resurgence were less than prescient. Trade union membership as a proportion of the nonagricultural labor force reached a peak in 1956 and has fallen since then. At the same time, however, unionism has grown considerably among white-collar and public sector employees since 1961. This growth has kept total union membership from declining at a precipitous rate over the past two decades.

The growth of unionism in the public schools

The general purpose of this study is to refine the existing theories of union growth and union character, with a view toward enabling researchers to better predict future changes. The more specific goal is to explain the growth of unionization.
among public school teachers in the United States in the past 20 years.

Saltzman examined the economic, political, legal, and organizational context in which teachers unions have mushroomed. He argued that there are several reasons for studying the experience of this occupational group. First, teachers share many of the same characteristics of workers who are currently not unionized, and thus may provide more informed projections of future union growth. Second, union growth has been stimulated by the competition of two large organizations that have sought to represent teachers. Saltzman believes that a study of this sector will contribute to an appreciation of the relative effectiveness of alternative union strategies. It can also shed light on the impact of rival unionism on union growth.

Analyzing state differences

Saltzman used several different approaches to analyze the questions he raised. First, using published materials he examined the spread of teachers unions since the early 1960s. When were laws enacted by the states that contributed to union growth? What did these laws provide? Aside from an analysis of the laws, he examined historical documents.

Second, much of the study was shaped by the product of extensive and loosely structured interviews of 70 people, 22 of whom were associated with the American Federation of Teachers, 24 with the rival National Education Association, 13 with school management, and 11 others, including academic researchers, with experience in this field.

Third, this review of the historic record and the personal interviews allowed Saltzman to specify five separate models of bargaining coverage and teacher bargaining laws. Each model was estimated using multiple regression techniques. Aggregate, statewide data from 1959 to 1978 were used to estimate the regression coefficients. In some cases, cross-sectional data were pooled with time series data.
Saltzman's first model focused on the extent of interstate variation in collective bargaining for teachers. This model attempted to explain the annual change in the proportion of teachers in a state covered by bargaining contracts. The second model sought to explain the level of (not the changes in) the proportion of teachers in a state covered by a union contract.

A third model asked why the "market share" of the AFT was larger in some states than in others. The fraction of teachers covered by collective bargaining whose contracts were negotiated by the AFT was the variable that Saltzman analyzed.

The fourth model dealt with the reasons that states change their collective bargaining laws. As such, what variables were related to the probability that the state's bargaining law for teachers became more pro-union during a particular biennium.

The last model focused on the character of the law enacted by a state that changed its law. Saltzman sought to find correlates of these categories of state practices:

- explicit prohibition of collective bargaining by teachers
- no existing statute or applicable court ruling regarding the right to collective bargaining
- school boards expressly authorized to bargain
- school boards required to bargain with unions representing a majority of teachers
- administrative agencies that determine bargaining units and enforce unfair labor practice prohibitions
- compulsory arbitration or a right to strike

Sources of union success

Teachers unions can exist even where a state's collective bargaining law is not conducive to collective bargaining. It is also possible that state laws encourage unionism even in the absence of widespread teacher representation. Industrial relations specialists have debated whether supportive legislation leads to growing unionism or if it is the consequence of it. Contrary to
what many earlier researchers have reported, this study found that the enactment of mandatory bargaining laws is more important than other factors in explaining the growth of teacher bargaining coverage. Other factors that are important in explaining the extent of teacher unionism in a state are the proportion of teachers in the state that are male, the degree to which the state is industrialized, and the state's unemployment rate.

The most important factor associated with the share of unionized teachers belonging to an AFT affiliate was the fraction of the labor force in that state belonging to all unions. The AFT tended to best the NEA in states where private sector unionism was more pervasive.

The most important factor associated with the share of unionized teachers belonging to an AFT affiliate was the fraction of the labor force in that state belonging to all unions.

In seeking to explain why a state might make a pro-union change in its bargaining law during a biennium, Saltzman found several statistically significant relationships including the bargaining law pattern set by contiguous states. Other variables that were associated with pro-union legislation were recent gains for the state's Democratic party; the elimination of patronage in government employment; higher levels of industrialization; greater strength in the state for the American Federation of State, County and Municipal Employees (AFSCME); and previous increases in bargaining coverage. Do permissive laws account for the growth in union coverage or is it that growing unionism leads to more laws that are more favorable to bargaining? He concluded that the impact of legal changes on the extent of bargaining was more important than the impact of growing bargaining was on the type of law in effect.

Laws tended to be permissive or positive toward teachers unionism in those states with relatively high real per capita in-
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come, AFSCME membership, total union membership, and urbanization and where a large proportion of neighboring states had mandatory bargaining laws.

Saltzman argued that teacher bargaining spread in part because school boards and superintendents have accepted white-collar unionism more readily than did private-sector employers when they were first confronted with laws giving rights to collective bargaining. Also, competition from the AFT helped spur the transformation of the NEA into a trade union. Saltzman found that in some large school systems, collective bargaining preceded the enactment of laws requiring the recognition of majority representatives. In conjunction with his finding that the enactment of supportive legislation is a major determinant of bargaining coverage, the primary impact of legal changes are likely to be felt in small and medium-size school systems. The unionization of very large school systems appears to be less dependent on supportive legislation.
III. THE JOB SEARCH PROCESS

UNEMPLOYMENT DURATION AND REEMPLOYMENT

DISSERTATION TITLE
Unemployment: Duration and the Quality of Reemployment After Layoff as a Function of Individual Differences in Labor Market Behavior

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Structural unemployment and duration of joblessness

Unemployment rates for the decade of the 1970s reached the highest level since the 1930s. For that reason alone, it is hardly surprising that many researchers have examined both the sources and consequences of these high rates. One area of analysis that has received considerable attention is the duration of unemployment for the individual worker. A substantial reduction in the average worker’s duration of unemployment can reduce the unemployment rate considerably. Alternatively, the increase in unemployment rates over the past 20 years may be attributable to certain changes that have increased the length of time that unemployed workers spend between jobs.

Almost 60 per cent of the sample felt that their previous work in the public sector hindered their employment search.
Changes in the duration of unemployment may have considerable consequences for public policy. Put simply, very short-term, frictional unemployment is unlikely to respond to public policy measures, nor may it be an especially significant problem that needs such attention. Longer-term unemployment may be primarily a phenomenon of the business cycle, and as such is thought to be most appropriately dealt with through monetary and fiscal policy. Unemployment that is resistant to such policy is seen as structural in nature. Structural unemployment has been the primary focus of employment and training programs. Not surprisingly then, issues relating to the length of the spell of unemployment have received considerable attention from manpower research specialists.

Measuring the success of job search efforts

Braswell's study has two broad goals. First, it seeks to identify those variables that can explain the duration of one's unemployment. What personal characteristics of the worker, including his financial status and his behavior, explain the duration of the period of unemployment? To what extent do local labor market characteristics also explain such differences in success in finding work? Second, it seeks to explain those factors that relate to the quality of the employment found by the worker. Braswell sought to identify those factors that explain the success that unemployed job seekers have in terms of the nature of the work eventually taken. Indeed, she also sought to predict who will remain at the newly found job and who will become unemployed again.

Sources of prolonged job search in unemployed public sector workers

Braswell's study relied upon data derived from interviews with 185 professional New York State government and New York City municipal employees who lost their jobs in 1970–78. The sample was drawn from three occupations—high school teachers, city
probation officers, and former state workers residing in New York City. Trained interviewers used a survey instrument containing 143 questions, many of which were divided into item-level subparts. These questions along with 13 open-ended questions, provided Braswell with the data base that became the core of the analysis.

The group studied was characterized as primarily professional/technical workers (87 per cent), very well educated (the average respondent had over 17 years of education, and white (90 per cent). The sample was expressly limited to individuals who received, or were eligible to receive, at least three weeks of unemployment insurance benefits subsequent to their layoff.

Using the theoretical constructs and empirical findings of earlier researchers, predictor variables were grouped into eight conceptual constructs:

- **Worker qualifications**: these variables were represented by age, educational attainment level, total years of work experience, pre-layoff occupation, and unemployment experience prior to this spell.
- **The labor market**: the extent of unemployment in the area prior to the worker's layoff was used to measure conditions in the market.
- **Financial incentives**: these variables sought to capture the financial condition of the unemployed worker and included the number of dependents, the degree of income loss, and changes in consumption patterns following loss of work.
- **Psychological incentives**: included here were measures of the respondent's work ethic and the extent to which he or she was committed to the goals of economic and occupational achievement.
- **Job aspirations**: this was an attempt to evaluate the clarity or specificity of the job preferences held by the unemployed person.
- **Wage aspirations**: this variable measured the percentage change in wages from the city or state job that was lost to the one earned after the layoff.
job search: a set of variables was used including the numbers of methods used to look for work, the types of jobs applied for, and the hours each week spent in search.

job offers: this variable was the number of job offers received, adjusted for the length of time unemployed.

These clusters of variables were used to explain the duration of unemployment. Braswell used a path analytic model to sort out the predictor variables and to assess the direct and indirect contribution of each of the predictor variables.

The same set of predictor variables was also used to evaluate the quality of the job eventually taken. Six separate variables were used to measure quality, including socioeconomic status or prestige, expressed satisfaction by the worker, and attitude toward turnover as well as actual turnover in the new job.

**Predicting outcomes of job search**

The study has too many findings to allow more than a cursory summary here of the more important ones. Braswell was not able to predict very well the qualitative outcome of the search process but did fare better in answering the duration question. Major findings of the study were:

- job search efforts were the major factor explaining the duration of unemployment: the more extensive and varied the means of search used, the shorter was the period of unemployment.
- the extent of job search efforts had little impact on the quality of the job found.
- the greatest influence on search behavior was the respondent's initial job aspirations: rigid adherence to these aspirations extended the duration of unemployment, especially for non-wage job aspirations.
- the larger one's level of financial resources (assets), the less active and extensive was the job search.
- wage declines did not vary with length of time unemployed.

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almost 60 per cent of the sample felt that their previous work in the public sector hindered their employment search. Three reasons were given: about half thought that employers believed that they would work only temporarily and return upon recall to their previous jobs; a quarter believed that employers were prejudiced against them, thinking that public sector workers were lazy, incompetent, etc.; the balance found that public sector backgrounds were harmful in search because employers viewed them as overqualified or too specialized in their skills.

- workers who experienced the greatest cutbacks in consumption and who had the largest number of financial dependents experienced the largest wage decline in jobs found.
- the greater the job satisfaction, the greater one's qualifications fit a job as assessed by the respondent; and the smaller the downward occupational change, the smaller the probability of a subsequent job change.
Explaining occupational choice

Over 200 years ago the father of modern economics, Adam Smith, suggested that job seekers evaluate the attractiveness of job alternatives on the basis of their comparative wages, agreeableness, amount of training required, responsibility entailed, and likelihood of future success. No order of priority among these five was suggested. With several different factors of importance to a job seeker, some scholars have argued that trade-offs could occur such that a higher ranking on one of these values could compensate for a lower ranking on another. Since Smith's time the preponderance of views regarding job choices has been consistent with his general proposition, that is, that the choice of an occupation or a job is made within a framework of maximizing one's overall expected advantage.

For the past few decades, however, the use of this framework has come under attack. Challenges to this point of view have come from several sources. Some scholars argued that the process of job choice was nonmaximizing because evidence demonstrated that some individuals accepted the very first offer that
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met or exceeded some baseline, acceptable wage level (the reservation wage). Others pointed to certain human cognitive limitations as the basis of suboptimizing behavior.

One recent argument is that there are widespread individual differences in choice strategy. Accordingly, it may make little sense to argue that a single, general model of choice is appropriate.

The exploding volume of research and literature on job search demonstrates that it is not simply the characteristics of a job that determine what a person will find and take. Both the knowledge of labor market conditions and the intensity of job search affect the type of choices that will be available to the individual.

Expectancy theory proposes that the decision to pursue an alternative job depends not simply on its characteristics, but on the perception that the pursuit will result in success. While not inconsistent with the maximizing behavior modeled by economists, expectancy theory emphasizes the importance of the belief that the search and screening processes will meet with success in the form of a job offer.

The factors that explain occupational or job choice are of immense importance to a wide variety of individuals. Employment recruiters, personnel specialists, school counselors, administrators of employment and training programs, and private and public sector job placement officials, to name but a few, must regularly deal with such issues. How do individuals make career choices? What factors seem to play the most prominent role in these decisions? Is behavior consistent with individual expressions of preferences?

Factors related to individual job choice

The purpose of this study is to evaluate how individuals make choices among alternative job opportunities. Ryans specific objectives included the determination of the relative importance of pay, type of work, geographic location, and the likelihood of rapid promotion in the job preferences of undergraduate stu-
dents who were soon to graduate and who were given information about hypothetical job opportunities.

Several of the basic questions analyzed were:

- Is the range of potential salaries among alternative hypothetical jobs important in explaining individual responses?
- What differences exist between individual expressions of generally desirable job attributes and their own responses to various hypothetical jobs with specific clusters of work characteristics?
- In assessing trade-offs among the characteristics of hypothetical job opportunities, does the salary variable move in a smooth, incremental manner or in terms of larger, discrete blocks?

Experiments on business and education students

Rynes used two distinct studies or experiments to test various issues relating to occupational or job choice. In her first study, 10 management-marketing students at a major midwestern university were asked to evaluate hypothetical job descriptions, appropriate to their educational training. Since job placement statistics showed that starting salary options for such students at that time varied by $8,000, this group was thought to be an ideal one for a study of reactions to pay differentials. Aside from salary, job descriptions provided information on geographical location, type of work, and opportunities for advancement. The subjects were asked to apply the same standards that they intended to use in their job searches. They were asked to assess both the attractiveness of the hypothetical jobs being described and whether they would want to interview for any of these jobs. Each subject saw a card containing one of two types of work (sales trainee or management trainee), one of three possible locations, one of five to ten possible salaries, and one of two lengths of time before first promotion.

Subjects participated individually in two experimental sessions where they were shown descriptions of the hypothetical jobs.
Aside from the assessments of the jobs, the subjects provided self-reports on those job attributes they considered to be important and self-perceptions of evaluative strategies. These data were designed to determine the degree to which the self-report provided equivalent results with the data on whether they wished to interview various firms with specific characteristics.

The second study focused on the impact of expectations on judgments of job attractiveness and the willingness to interview for the position. In this experiment, 10 elementary education students were selected to participate as subjects because of the very poor labor market demand for students from this field for several years prior to the research. For this reason it was thought that information pertaining to the likelihood of obtaining a job offer would be of greater meaning to these students.

Data from the education placement office at the university had shown very little spread in starting wages offered to this type of student. For this reason salary was not one of the variables included in the various job descriptions for these students (subjects were aware of the uniformity of low wages in this field). The students were shown jobs that varied by geographic location, type of school, and the grade level to be taught. Each of these characteristics was assigned three levels of expectancy, that is, the probability that the individual would receive a job offer if he or she were to interview for it. No explanation was given to the subject as to the source of these probabilities.

The importance of alternative job attributes

One of the most significant results of the first study was the consistency with which salary was the most important factor in the subjects' assessments of job alternatives. For all 10 subjects in the first study, no other attribute of a job surpassed salary in contributing to a subject's preferred job choice. While no one can doubt that pay levels matter, some scholars have placed other job attributes above it in importance to job seekers. Rynes speculates about several reasons for her findings. She cites the expressed
view of one subject who observed, "After all, what do you really know about a job before taking it, other than what is is going to pay you." Rynes suggests that students in the business area may be more motivated by pecuniary considerations than persons in other fields.

Rynes found nonlinear responses to pay differences, that is, most subjects responded to equal (absolute) salary increments in an "unequal" way. Patterns consistent with a reservation wage behavior were clear. Seven of 10 subjects indicated an unwillingness to interview for any of 24 alternatives at a salary of $8,000 (the lowest hypothetical wage). Additionally, in the post-experiment questionnaire, each subject expressed an intention to exclude jobs from the interviewing process if the wage was below a particular level.

In about half the cases, self-reported rankings of pay importance were lower than those inferred from the respondent's reported willingness to interview for a given job. The two methodologies also tended to provide inconsistent results in terms of minimally acceptable wage levels. For example, six of the 10 subjects reported reservation wages that were higher than pay levels at jobs for which they indicated previously a willingness to interview. This may suggest—and serves as a warning to survey researchers—that acceptable minimum wages reported by respondents may be higher than the actual wages a worker will take if offered a job.

The second study provided only mixed support for expectancy theory. Typically, job attainability did not influence evaluations of job attractiveness, but the majority of the subjects' expectations regarding the probable success of their job search was important. However, high probabilities of obtaining a job offer did little to overcome the basic unattractiveness of certain attributes in decisions to seek job interviews.
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Subjects in this second study also reported reservation levels for certain job attributes in postexperiment interviews that they nevertheless disregarded when deciding whether to interview for the position. In those cases they expressed an interest in interviewing for the job in question, even though it did not meet self-reported reservation levels for location or type of employer.

Finally, Rynes reported that significant individual differences emerged in terms of several important issues such as the relative importance of the various job characteristics, tendencies to set minimal attribute constraints, and reactions to differential levels of expectancy of receiving a job offer. This finding lends some support to the theory that a single, general model of job choice may not be appropriate.
ADAPTATION AND JOB SEARCHES

DISSERTATION TITLE
Psychological and Economic Determinants of Job Search Behavior: A Longitudinal Study of Adaptation to Job Loss

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Responding to the loss of a job

The study of the job search process has received a considerable amount of attention from researchers over the past decade. Job loss creates a variety of economic and psychological consequences for the worker, which are thought to affect the process of job search. The responses of workers are known to vary according to a number of conditions. Temporary layoffs lead to different responses by the workers than do permanent plant closings. The type of search that follows the job loss is related to the location of the shut-down facility. Differences of race, gender, age, education, and marital status are also thought to influence the job search process.

Much of the previous research on job search has tended to be drawn from one of the traditional academic disciplines—for example, economics and psychology. There have been relatively few efforts to use the tools of several of these fields to more fully capture the kinds of responses that occur in the face of job loss. Moreover, the existing studies tend to focus on the responses of workers at a single, discrete point in time, thereby providing no
insight into the changes in attitudes and behaviors that can occur in workers with extended periods of unemployment.

Adaptation and job search

This study addresses two sets of issues. The first focuses on adaptation to job loss. Are workers able to maintain stable emotional and family behaviors in the presence of prolonged unemployment? To what extent are older workers better able to cope with such loss?

The second set of issues involves the psychological and economic factors that help explain the process of job search. Indeed, Lenz argues that one indicator of adaptation to job loss is one's subsequent job search behavior. Is the process of search the result of a conscious, planned, long-term strategy, or is it more haphazard than that? To what do workers attribute success or failure in the search process?

A permanent plant closing in a rural community

The principal data used in this study were taken from the personal interviews of 96 employees—about 10 per cent of the total work force—who lost their jobs in a permanent plant closing. The plant was located in a rural community of about 5,000 people, 70 miles northwest of Chicago. As a manufacturer in the television and electronics field, the firm operated in this town for 30 years, closing its doors in 1978 in the face of competition from Japanese firms. At one time, employment in the plant reached almost 6,000 falling off to about 3,000 in the early 1970s. When the plant was closed in 1978, it employed 936 persons. The plant was the largest single employer in the area and had the reputation of paying wages above those prevailing in other shops in the area. Labor-management relations in the plant, historically, had been highly cooperative.

Lenz conducted her study in three waves of interviews. The first survey was taken soon after termination. Wave 2 data were
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collected from 56 of the wave 1 employees about 3 months later, by which time severance payments and vacation benefits had been exhausted. The third wave of interviews was collected 6 months after unemployment began, when unemployment insurance benefits had ceased for most workers. Forty interviews were conducted in wave 3.

The correlates of adaptation and job search behavior were clustered into four categories. First, a group of demographic characteristics was used to measure the deterrents of reemployment. These variables were age, sex, race, marital status, and educational attainment.

A second cluster of variables was termed "net advantage" and sought to measure the trade-offs among the different factors associated with job alternatives. This concept was operationalized in terms of three specific dimensions: the importance to the worker of job attributes, the desired commuting distance, and the worker's reservation wage (the lowest acceptable wage for the worker).

A third cluster was termed "economic viability" and represented a measure of the degree of an individual's needs. Lenz sorted this into two elements: one's flow of income and one's expenses.

Unlike the first three clusters of variables, the fourth was a psychological construct. According to Lenz, "personal control" can be measured in terms of three indicators: attributions of control, self-esteem, and expectations of success. The first indicator—attributions of control—refers to whether people assign internal or external attributions to performance outcomes, that is, Is success thought to be likely a matter of luck or of skill and effort? What reasons did a worker give for job loss and for job search failure? Self-esteem was measured in terms of one's sense of self-worth and competence. The expectation of success was operationalized as one's confidence in the likelihood of finding an attractive job.

These four sets of measures were used to explain two dependent variables. The effort expended in job search was measured
by the hours devoted to search, and the number of interviews the worker had. Job search skill was measured by the number of sources of information about jobs and a self-assessment of the helpfulness of each. The researcher employed correlation analysis and multiple regression to analyze the interview data.

**Effort and skill in job search**

One of the findings of this research was that patterns of behavior emerging from an analysis of one round of interviews were not necessarily repeated in subsequent rounds. This can serve as a warning to those in this field who must interpret survey research data based on single rounds of interviews.

Lenz found that the personal control measure (and its components) were statistically significantly related to job search effort for the wave 1 interviews. The more one felt in control of himself or herself and the more optimistic about the chances for success, the greater were one’s efforts to secure work shortly after being laid off.

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*The more one felt in control of himself or herself and the more optimistic about the chances for success, the greater were one’s efforts to secure work shortly after being laid off.*

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The effect of the sense of personal efficacy on job search efforts waned with time. By three months after job loss, people with high self-esteem were no more likely to devote considerable effort to job search than persons ranked low in the personal control variable.

The measure of “economic viability” was found not to vary systematically with either job search effort or skill. Even taking account of the worker’s age and level of educational attainment, job search effort or skill was not correlated with the measure of one’s income flow and expenses.
The "net advantage" measure(s) showed differing degrees of strength across the three waves of interviews. Generally, the importance of the reservation wage and commuting preference increased with time. For example, in wives 2 and 3, the higher the acceptable wage required by someone, the lower was the range of sources of information used by respondents to learn about jobs. The reservation wage was positively correlated, however, with job search effort in both waves 2 and 3. Typically, those who had reduced their reservation wage found work.

The importance of the demographic variables grew with time, so that by wave 3 this cluster was the major predictor of both job search skill and job search effort. Generally, men reported more job search activity than women. Marital status was significant in several instances as were educational attainment level and age.

Many of the study participants appeared to believe that job search success was random. Most felt that reemployment success was outside of their control. According to the researcher, most "lived one day at a time, refusing to make plans or even to speculate about the future."

The location of the research was one of high unemployment and few prospects for finding new jobs. Nonetheless, only 4 percent of the sample considered relocating as a way to find new employment.

Finally, Lent found that Trade Adjustment Assistance benefits were considered an unreliable source of income for respondents, who reported never knowing when checks would be available or what amounts would be paid to them.
IV. DISCRIMINATION AND LABOR MARKETS

YOUNG WOMEN

Dissertation Title
Job Investment, Actual Investment and Expected Labor Supply, and the Earnings of Young Women

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The importance of human capital theory

For as long as economics has existed a central concern has been to explain the source of the value that a given commodity possesses. For much of its history, labor economics represented a branch of economics concerned with the analysis of how labor, specifically, commanded the value that it did. Interest in the value or price of labor mounted in the early 1960s when economists such as Gary Becker and Theodore Schultz introduced the concept of human capital. The theory fundamentally recast the established framework for explaining the value that labor held. Additionally, it enabled economists to better understand many of the decisions made by individuals or employers with regard to such matters as training, schooling, and health.

One of the essential elements of the human capital theory is to view decision-making in terms of its impact over periods of time, including an individual's (working) lifetime. Just as a rational business person assesses a potential investment decision in terms of all its costs and eventual benefits, appropriately discounted,
so, too, are decisions made by or for individuals regarding those expenditures that will enhance their present or future productivity. Since it is precisely one's productivity that is thought to best explain one's level of earnings, it is clear why human capital theory became so significant an element of modern labor economics.

Earnings determinants of younger workers

The purpose of this study is to analyze and explain the relationship between patterns of work experience, both planned and actual, and the earnings of young women. By using and testing the human capital analysis, Garvey explored issues of immense social concern. While her work did not deal directly with public policy, it may have substantial implications for Title VII of the Civil Rights Act, school counseling, and education policy at all levels of government.

Garvey's study can be summarized in terms of the central questions she examined:

- what are the differences, if any, between the determinants of young women's earnings on their first job after completing their formal education and their earnings over the subsequent years?
- do young women who intend to work continuously over the life cycle invest more in themselves in on-the-job training than do women who interrupt their labor force attachment when they marry or have children?
- what is the impact of such withdrawals from the labor force on the future earnings of these women when they return to the labor force? Is such impact felt only at the time of reentry to the labor force, or do they have a sustained impact on women's earnings over the long run?
- do young women who withdraw from the labor force when they have their first child invest less in on-the-job training at the start of their working lives than do young women who participate continuously?
YOUNG WOMEN

- will postschool experience increase an individual's wages at a decreasing rate as human capital theory predicts?
- are there important differences in the determinants of the wages of young men and young women? To what extent does the human capital formulation capture these differences?
- how much of the male-female wage gap can be explained by differences in work experience and investment decisions of young men and young women and how much is unexplained?

Estimating earnings functions using longitudinal data

Garvey drew on the National Longitudinal Surveys of Work Experience sample of women, aged 14 to 24 as of January 1, 1968, to statistically estimate her earnings functions. At the time of her study, seven years of data were available on this cohort, consisting of six years of personal interviews conducted annually from 1968 to 1973 and a telephone survey made in 1975. Garvey's sample was reduced to 2,336 individuals after identifying and selecting those women who had been on their first job after leaving school for no more than one year and who reported a wage rate for this job.

One of the critical variables in this study was based on the question "What would you like to be doing when you are 35 years old?" The significance of the question was that individual expectations about the future can be expected to shape many of the shorter-run labor market and schooling decisions of these young women. For example, it is hypothesized by human capital theorists that persons planning to work more years over their life cycle will likely invest more in the acquisition of human capital.

The bulk of the study focused on the earnings patterns of young women. Garvey used the National Longitudinal Survey for young males to observe any differences in patterns between sexes. She drew from eight surveys of young men that were completed at the time of her work. Multiple regressions were
estimated on the earnings of younger females and males using the available longitudinal data.

Explaining earnings patterns in a human capital framework

Much of this analysis focused on investment in the training of people. It is necessary to distinguish two types of training received. Specific training will enhance the productivity of an individual in that particular employment. The acquired skills, however, are not transferable to other employment. By contrast, general training enhances a worker's productivity beyond her current employment; the worker would be able to change jobs and employers without having to work at a diminished level of productivity. Empirically, it is not possible to precisely sort out whether training is specific or general, so that some rough proxies for these forms of training must be employed.

Young women with a strong attachment to the labor force were more likely to invest in general training than were those with a more casual attachment; it was not surprising that the former were found to earn more. Even the initial earnings of more attached women were found to be greater. The earnings profile of the more attached women, therefore, began higher and rose more rapidly over time.

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Investment in specific training was found to be inversely related to young women’s future work plans. Young women who reported that they planned to work at age 35 were found to invest more in general than in specific training. Those young women planning to be homemakers at age 35 seemed to prefer specific to general training.
Young men tended to invest more in both general and specific training than did young women. For those young women with stronger lifetime labor force attachments, investment in either form of training closely matched that of the young men.

The withdrawal from the labor force that was associated with the birth of a first child significantly decreased earnings. The size of this effect diminished after women returned to work and, presumably, restored and embellished their previous skills.

Very little of the gap in starting wages between young women and young men was explained either by average differences in work experience or by differences in training. The same unexplained differences existed in the early life cycle earnings gap between young men and women.

Generally, Garvey found that the human capital framework was useful for analyzing earnings patterns and investment decisions although it could not help explain some differences in male-female earnings patterns. While obvious limits exist in any effort to explain individual earnings patterns that cannot measure differences in ability, motivation, and personal attractiveness, for example, the measured human capital variables were useful and found to be consistent with hypothesized expectations.
Explaining male–female earnings differences

There is no need to document the intense nature of the interest in sex-based earnings differentials. Government officials, employers, women's groups, labor unions, and others have had to deal with the reality of earnings levels for women that are systematically lower than for men, even controlling for certain factors that conventionally are used to explain earnings.

One of the theories that has received some substantial attention in this regard places considerable emphasis on the intermittent nature of the labor force attachment of females. It is argued that there is a considerable loss of human capital for females who leave the labor market at the time of marriage or child-rearing. That time spent out of the labor force is believed to affect the subsequent earnings profile of the person.

Another theory, not necessarily at odds with the intermittency argument noted above, focuses on the tendency of certain occupations to be heavily dominated by one sex or the other. Since certain occupations appropriately can be labeled as female-typed jobs, some have proposed that this clustering tends to increase
the supply of labor there, which serves to push or hold down wage levels in that sector. This argument suggests that employment discrimination in the predominately male-typed jobs forces women to group themselves in the traditional, nondiscriminating sectors, and that this results in the observed sex-based earnings differential.

If the earnings gap between men and women derives from job clustering by sex, the implications for public policy are enormous. For example, if such clustering is declining, as appears to be the case, earnings differences between males and females should narrow, even without government pressures to achieve this. It also provides a clue as to which of the forms of sex discrimination in the labor market warrant greatest attention by those responsible for enforcement of antidiscrimination programs. By contrast, if earnings differences are substantially due to the intermittency of employment associated with childbirth and child-rearing, other (or no) measures would seem more appropriate to deal with earnings differences.

Occupational crowding, intermittent attachment, job history, and earnings

This study seeks to explore the significance of both occupational segregation and the intermittency of women's work experience in terms of female earnings levels. Earlier studies were somewhat handicapped by having limited or no data on individual lifetime work histories. This study also sought to shed light on the movement by women into and out of jobs in the segregated occupational sectors. What impact, if any, did such movement have on later earnings levels?

Gwartney-Gibbs argued that there are four major characteristics of a job history that can help explain earnings levels. These are:

- the "intensity of past work" (as represented by the full-time or part-time nature of the work)
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- the duration of work with an employer
- the degree of interemployer mobility
- the intermittency of past labor force attachment

A survey of married couples in the Detroit metropolitan area

Gwartney-Gibbs used familiar statistical tools to explain existing levels of earnings and type of employment, if any, for a relatively small number of females. While her own analysis does not appear oriented toward the human capital theories of earnings, much of her empirical work was devoted to replicating and testing the findings of that school's advocates.

The empirical analysis was based on a small but rich set of data, the Survey of Family Life, obtained in 1978 by interviews through the Survey Research Center of the Institute for Social Research at the University of Michigan. Detailed, usable interviews were conducted with 299 married couples in the Detroit metropolitan area. The sample was stratified into three groups: Type Is are dual-career couples with no children, Type IIs are dual-career couples with children, and Type IIIIs are single-career couples (husband working) with children. The sample was limited to couples with the following characteristics: white, English-speaking, married at least 5 years, wife aged 30–45 with at least one year of high school education in the United States, husband employed 20 hours or more per week in the prior year, and (if dual career) wife employed 20 hours or more per week for pay in the prior year.

A detailed employment history was obtained from all persons. It contained the respondent's industry and occupation, the reasons for leaving a job, the hours of work, and the length of job tenure. Occupational prestige scores were assigned to jobs. Earnings, however, were obtained only for the year prior to the interview. The lengthy job histories covered a period from when the respondent was age 18 to the time of interview.
Careers, children, and earnings history

One of the important and controversial findings by Gwartney-Gibbs was her rejection of the depreciation hypothesis, that is, that human capital depreciated with time spent out of the labor force. Some economists have argued that the time women spend out of the labor force in child bearing and rearing is associated with a deterioration of their marketable skills. She also found that people in a certain sex-typed occupation tended to remain in jobs so classified, especially women in female-typed occupations. There was no evidence in these data to support the hypothesis that women with discontinuous work histories chose female-typed jobs. She reported that women in female-typed occupations tended to earn less than those in other occupations, but rarely was it significantly less.

The quality and quantity of work experience of Type II and Type III women was markedly less than that of childless women, who generally were found to work more hours per month, more months per employer, and more continuously than women with children.

The work experience of working and nonworking mothers was virtually the same until the time their first children were born. At that time their work experience diverged. Currently-working mothers were much more likely to work when their children were very young than were Type III women. Also, Type II mothers spent more months reinvesting in education when their children were very young than did Type III women.

Intensity, duration, employer mobility, and intermittency were found to be useful constructs to explain differing work experience of the three groups of women. They were not useful, however, in explaining earnings differences.

A somewhat puzzling finding emerged in evaluating the importance of experience and tenure. Past work experience did not explain the current earnings level for childless women, but months of job tenure did. By contrast, tenure was not significantly related to earnings of working women with children, but
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Prior work experience was. Gwartney-Gibbs speculates that women's work experience in the period when the family was most demanding was discounted in quality by employers.

Over 85 per cent of all women in the sample worked in female-typed occupations at some point in their lives. Among this group, over half of their working lives were spent in such segregated occupations.

Women's work experience in female-typed jobs tended to be characterized by shorter duration of work per employer and by having more employers than women experienced in the other occupations, though the intensity of work was not different. Childless women in female-typed occupations earned significantly less than other Type I women in mixed-sex occupations, but not significantly less than those in male-segregated occupations. The earnings of women with children were not significantly different across sex types of occupations. The overall results suggest that occupational segregation in the Detroit labor market is not associated with male-female earnings differences.

According to Gwartney-Gibbs, the most fundamental finding in her study was the "vast" earnings difference between women with children and those with none. The difference appeared to be due to childless women's higher returns to tenure, education, and the promotions they received with their current employer. These, in turn, were associated with the apparent fact that Type I women followed "a male model of human capital investment and lifetime work experience."
On theories of racial discrimination in labor markets

For over two decades social scientists and others have devoted a considerable amount of research to questions of discrimination. Employment and training researchers have tended to focus specifically on the labor market problems of minorities and its consequences on income. One of the fastest growing demographic groups in this country, and one that clearly has been victimized by discrimination for a very long time, are Asian-Americans, yet they have not received very much attention from the research community. This study's central focus is on the labor market experience of this group.

Studies of Asian-Americans are of interest beyond what they tell us about the circumstances of members of this minority group. Additionally, such studies allow one to test various elements of more general theories of discrimination that may have been developed, initially, with reference to only one group. A study of Asian-Americans is of interest also because it may be that important differences exist for separate subgroupings within this minority.
Any study of the economic status of minorities must come to grips with creating an appropriate framework for assessing their comparative position. A variety of possible measures has been developed and employed by researchers. While income and unemployment rates are the two most commonly employed variables, for certain groups, such as Asian-Americans, alternative measures may be more revealing.

Employment problems of Asian-Americans

The basic purpose of this study is to evaluate the utilization of Asian-Americans in the labor force. Li aimed to present a variety of data that would provide a richer understanding of the conditions of Asian-Americans in the labor force. Drawing somewhat on human capital theory and theories of dual labor markets, a number of research questions emerged:

- Since a disproportionate share of employed Asian-Americans are employed in very small, family-operated enterprises, is underemployment a widely shared difficulty of these persons?
- In larger-scale enterprises, public and private, are Asian-Americans subject to lower quality employment? If Asian-Americans do tend to hold lower-status, low-paying jobs, is this related to their education and skill levels?
- Does this minority's pattern of employment suggest that skills are well matched with the type of work held?

According to Li, patterns of discrimination may reinforce problems that Asian-Americans have in learning and accepting the norms of this Western culture. As such, she explored the process whereby acculturation occurs. To what extent are foreign-born Asian-Americans employed differently from those who were born in the United States? What role does language play in intragroup differences? Do recent immigrants who are professionals fare differently from second- or third-generation members who are also professionals?
The labor force utilization index

The study depended primarily on data from the 1970 Census of Population and Housing. Detailed information was obtained using the public use samples on four groupings of Asian-Americans: Japanese, Chinese, Filipinos, and Koreans. Aside from a variety of information on a respondent's economic condition, data were available on nativity and parentage, mother language, citizenship, and year of immigration. Information was tabulated only for persons aged 16 years and older and in the labor force.

These data were supplemented by information from two other sources. The March 1970 Current Population Survey was used to sort out voluntary from involuntary part-time workers. Li also used the data originally developed by another researcher in a 1978 study of marginal workers.

The data were analyzed through the use of cross-tabulations, either as measured directly by the Census Bureau or as ratios calculated by Li. Typically, each table was sorted across the four separate groups of Asian-Americans.

Li argued that labor force participation rates and unemployment rates are inadequate as indicators of the economic and labor market difficulties of Asian-Americans. Neither measure reflects the limited upward mobility and the mismatch of occupation and education faced by some of these workers owing to language barriers, discrimination, licensing restrictions, and non-citizen status. As such, Li depended heavily on a framework developed by Philip Hauser—the Labor Force Utilization Index—to evaluate the utilization of these workers. Persons in the labor force were characterized as "adequately utilized" or "inadequately utilized" based on their status as unemployed, an hours of work measure, an income measure, and a matching of occupation vis-a-vis skills or educational attainment levels. The four elements were arranged in the order listed here, with the greatest degree of underutilization occurring in the case of unemployment.
The mixed pattern of labor market success

Asian-Americans and white Americans differed little in labor force participation and employment. Asian women and Asian men, 35 years and older, had higher labor force participation rates than their white counterparts. Asian men under the age of 35 had lower rates of labor force participation than their American counterparts; this difference was probably due to the Asians' tendency toward more years of education. And Asians in every age group except that of 65 years and older had lower unemployment rates than did whites: these differences in unemployment rates were especially pronounced for teenagers.

In most age groups, except for persons 55 and over, there was less involuntary part-time employment among Asians than among whites. The differences, according to Li were not large.

Although Asians in all groups were more likely to be employed, with few exceptions (primarily teenagers) they were likely to have lower incomes. These differences appeared to grow for higher age levels. The mismatch of occupation and skills or education also is consistent with whites having an advantage over Asian-Americans.

Holding constant the level of education, the largest degree of underutilization existed for Asian females relative to white females. Some evidence suggests that the problem is not simply an inability to command English language skills.

Asian-Americans have used a very heavy investment in education and training to overcome the barriers created by discrimination as well as language and acculturation problems.

Among Asians, the degree of utilization was greatest for persons of Japanese origin and somewhat less for those of Chinese origin. The least adequately utilized were Koreans and Filipinos. Some of these differences are due to the length of time spent in this country. Most of the Japanese-Americans were born in the
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United States. Li reported that after about twenty years of residence in this country, immigrants attained parity in terms of utilization with U.S.-born Asian-Americans.

There is little doubt that Asian immigrants to the United States have been discriminated against in the labor market. Unlike other minority members in this country, however, Asian-Americans have used a very heavy investment in education and training to overcome the barriers created by discrimination as well as language and acculturation problems. The evidence of disadvantage for Asian-Americans is not found in higher unemployment or lower labor force participation rates. Instead, some elements of underemployment serve to signal these persistent difficulties.
The dual labor market theory

In the 1960s a group of economists introduced a new theory of the labor market. Their approach, the dual labor market theory, was developed partially as an attempt to explain the data that showed that women and minority group persons experienced disproportionate amounts of poverty and dislocation in labor markets. Unhappy with the explanations provided by neoclassical economic analysis, the dual labor market proponents sought to provide an alternative theory that, they argued, was better grounded in reality. In some respects, dual labor market theory was not inconsistent with the traditional labor economics. Its focus, however, was not on how a perfect market operating without frictional elements might function but rather on the nature of the imperfections and the existing institutions that affected classes of workers in the labor market.

The dual market theorist argued that the market is divided into two very broad categories. In one segment, the primary sector, firms are characterized as having high labor productivity, high profit levels, high degrees of capital intensity, oligopolistic product markets, and significant union penetration. Workers in
such industries are relatively well paid, enjoy good working conditions, have relatively stable employment, and have considerable opportunities for training that may be transferable across employers.

By contrast, firms in secondary labor markets lack these strengths and are more vulnerable to adverse economic conditions. These firms are the oft-cited marginal firms that may disappear when the market becomes a bit unfavorable for them. Wages are low, training opportunities are minimal, worker conditions are poor, and workers operate in a generally precarious environment.

The essence of the dual labor market theory is that there is very little mobility between these segments. Moreover, once a worker begins in the secondary sector, the probability is low that he or she can move into better employment in the primary sector. If blacks or women are systematically channelled into the secondary sector, it follows that this will assure them, on average, lower income and poorer employment opportunities.

Opponents of the dual labor market theory have attacked it on several fronts. They question the dichotomization of the labor market. Instead, they find that jobs are more accurately arrayed along a continuum in terms of pay, working conditions, training opportunities, and the like. Further, critics challenge the charge that significant immobilities exist for workers in moving in or out of a sector.

**The mobility of workers between primary and secondary sectors**

The purpose of this study is to explore certain issues raised by the theory of dual labor markets. One of the major questions Parrow sought to answer was whether workers can move out of secondary markets, particularly if their work experience began in that sector. Can one predict that a person will be in the secondary or the primary sector if she began working in that particular sector when she was younger?
Parrow identified a number of specific questions whose answers would allow him to support or reject the dual labor market theory:

- Does the sector of employment at a specific time affect one's occupational status at that time?
- Does the sector of employment at a specific time affect earnings at that time, aside from any effects of occupation?
- Are race-sex groups differentially distributed across sectors of the industrial economy?
- Can the sector of employment early in a person's career be predicted by the standard human capital model variables?
- Does the addition of such factors as structural characteristics of the labor market of residence and knowledge of the occupational structure add to an understanding of the process of occupational and earnings attainment?
- Does the sector of early employment have a long-term impact on a worker's earnings and socioeconomic status?
- Does early employment in the secondary sector reduce the probability of finding a job later in the primary sector?

**Economic, sociological, and psychological analyses of the longitudinal experience of young men and women**

This study was based on data from the National Longitudinal Surveys of Labor Market Experience. Interviews with the young male cohort occurred initially in 1966 and were followed annually through 1973. No data were collected in 1974. The young female cohort was first interviewed in 1968, annually thereafter through 1973, and by telephone in 1975. Parrow limited his analysis to those persons who had been in the labor force for a considerable period of time. This was necessary to allow him to trace the effects of one's sector of employment on one's ultimate attainment. For each subject, he had observations based on seven points in time.
His analysis was based on measures such as IQ, the socioeconomic conditions of the parents, educational aspirations at time 0 (1967 for males and 1969 for females), sector of employment at time 1 (that is, the second interview), and the outcome variables (that is, earnings and occupational attainment) at time 6 (1973 for males, 1975 for females). Parrow found that 3,249 males from this cohort were in the labor force and had held full-time employment during or prior to 1967. For females, 1984 had experienced full-time work in or before 1969.

The variables used in the analysis were a mix of economic, sociological, and psychological ones. Included in his analysis, for example, were the Duncan socioeconomic index as a measure of occupational attainment, a five-item index to represent the socioeconomic status of the parental family, a measure of intelligence, a value for one's locus of control (based on the respondent's score on the Rotter test), a measure of one's human capital, a factor analytic construct of the structural characteristics of the labor market, and a variable to represent an assessment of one's knowledge of characteristics of occupations.

**Sector mobility and earnings**

The study contains a large number of quantitative findings. Only a few of the more significant ones are noted here.

Contrary to the findings of some other analysts, Parrow found that the industry in which one worked was more important than one's occupation in explaining earnings levels.

Primary and secondary labor markets operated differently for males and females. Within the primary sector, female workers clustered in the lower-paying industries. Many were employed in lower-paying clerical jobs. Many of the women classified as professionals were nurses or teachers, jobs that have tended to be toward the bottom of the professional scale.

None of the conventional human capital variables were good predictors of the sector of employment of women at time 1. By
contrast, human capital variables did serve as predictors of the sector in which a male worked at time 1. For example, high educational aspirations for white males were positively correlated with being in a primary sector job at time 1. This finding did not apply for black males, however.

The more knowledge persons had about occupations, the more likely they were to have subsequent success in the labor market. This was true only for whites, however. Even where black workers had such knowledge, it did not appear to benefit them. Economic conditions at time 0 were shown to affect both the later acquisition of occupational training (among white males and black females) and earnings in later periods (except for white females). High unemployment rates in a locality tended to be associated with greater usage of training programs. High unemployment rates initially were correlated with lower earnings levels in later periods.

... the bulk of the evidence suggested that sectoral differences in training or in employment stability were far less important than dual labor market theorists have argued.

The sector of early employment appeared to have long-term effects on the later socioeconomic status of males. While it had no impact statistically on the income of males, the data revealed that primary sector employment of women at time 1 was related to lower earnings for women at time 6.

The bulk of the evidence suggested that sectoral differences in training or in employment stability were far less important than dual labor market theorists have argued. Parrow also reported that early employment in one sector was not a significant factor in identifying one's later sector of employment. Although movement from the secondary to the primary sector was substantially less likely than movement from primary to secondary employment, and blacks in the secondary sector were much less
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likely than white workers to move to primary sector employment, Parrow found considerable mobility between sectors.

The study provides scant corroboration for the dual labor market view. There is almost no support for sorting the market conceptually into a strict, bimodal division of primary and secondary sectors. Moreover, the earnings structure did not support such a view. And the data also revealed an absence of any long-term effects on occupational training or employment stability within careers.

Some limited support for the dualist position came from the finding that there is lesser intersectoral mobility for black workers and from the finding that the connection between educational attainment and sector is much less important for black youths than for white youths.
Research on labor market experience by gender

The intense interest in the differences in the experience of males and females in the labor market has led to a considerable amount of research in this area. This research is typically conducted by economists, psychologists, sociologists, and others who are unaware of the research in other disciplines. This lack of communication has created a "Balkanization" of interests by researchers such that the research questions, the techniques, the analytical methods, and the data bases all tend to differ significantly across the subject fields. Yet the central focus of these separate activities is the same: to explain the reasons for the systematic differences experienced by males and females in the labor market.

Evidence over the past decade or two may not have incontrovertibly established these reasons for the gender-based differences, but it has demonstrated that males and females fare differently in the labor market. Typically, women have lower earnings than men; they are clustered into a limited set of occupations; their career development path looks very different from
that of men; they occupy less prestigious occupations; and the financial rewards of their education and training differ.

Explaining the source of these gender differences is important for several reasons. It can help to provide a perspective for civil rights policies and to indicate what steps may be most effective in pursuing equal employment opportunity programs. It can also help shape education and employment and training policies so as to develop more effective long-term remedies for existing inequalities.

The impact of marital status and children on earnings

This study examines the propositions of the “dual career” theorists. According to them, a major reason for male-female differences in labor market experience is that many women are employed while they continue to have the primary responsibility for the maintenance of the household.

Roos also sought to test whether male-female differences derived from circumstances peculiar to cultural and historical aspects of American life. Were that the case, other countries would not be expected to have comparable gender differences in their labor markets.

The study has two primary purposes. First, Roos set out to explore the processes that create and maintain occupational segregation by sex. Second, she examined the occupational distribution and attainment patterns of ever-married and never-married women to test whether differences in marital status and child-bearing or child-rearing responsibilities can explain the concentration of women in lower-paying employment.

A twelve-nation comparative analysis

In order to test the various hypotheses regarding the sources and outcomes of male-female differences in the labor market, Roos used three separate levels of comparison: gender, marital status, and international differences in occupational behavior.
To better understand this behavior, a comparative analysis was undertaken based on data taken from 12 industrialized countries: Austria (1974), Denmark (1972), Finland (1972), West Germany (1976), Great Britain (1974), Israel (1974), Japan (1967), the Netherlands (1974), Northern Ireland (1968), Norway (1972), Sweden (1972), and the United States (1974–77). All data originated within each country from sample surveys. Unweighted samples ranged from approximately 1,000 persons (males and females) in each of the four Scandinavian countries to over 15,000 respondents in Israel and 6,000 in the United States.

Using these comparative data, Roos probed four distinct sets of issues. First, she examined the gender differences in labor force participation rates and occupational distribution patterns in the 12 countries. She asked whether sex-typing of jobs was common across countries, and, if so, whether broad areas of similarity exist. Second, she asked if there appear to be international differences in the intergenerational occupational mobility of men and women. Third, employing regression analyses, she tested whether gender differences existed in intergenerational occupational attainment. Finally, Roos examined if marital differences among women were related to labor force behavior and occupational attainment. To explore each of these issues in the framework of the comparative analysis, bivariate and multivariate analyses were employed within each country.

**Occupational achievement levels and clustering**

Roos found convincing evidence that the pattern of occupational concentration of females in the United States was also present in the other industrialized countries. The same occupations tended to be held mainly by men or mainly by women in all of the 12 countries studied. For example, males were concentrated in high- and medium-prestige production jobs while females dominated the high-prestige clerical, low-prestige sales, and low-prestige service occupations. Incumbents of predomi-
nantly female occupations in all countries were underpaid on the basis of their average educational achievement. Despite extensive international differences in age patterns of labor force participation, and in the extent to which women are in paid, full-time employment, Roos observed a clear pattern across countries of women being concentrated in occupations that were heavily female and poorly paid.

For both men and women in the seven countries for which data were available, one's occupational position was correlated significantly with one's father's occupation. More importantly, a person's occupational destination also depended substantially on gender. Country variations existed in the process of occupational mobility, but these international differences were small relative to the class and gender mobility differences existing within countries. For each sex within each country, however, educational attainment was consistently the most important predictor of occupational achievement. For females only the education variable proved to be an effective predictor of achievement. Occupational achievement for males was also correlated with social origins, age, and marital status.

To what extent are the differences in the process of occupational attainment, as well as the occupational distributions of males and females, attributable solely to women's marital responsibilities? Roos compared the labor force behavior, occupational composition, and attainment patterns of ever- and never-married women. To approximate a more career-committed group, she also presented results for those ever- and never-married women older than the average age of women at first marriage in the particular country. In that way, she sought to take into account those never-married (younger) women who may anticipate marrying. According to Roos, if the dual career hypothesis is correct, the labor force behavior, occupational position, and attainment patterns of older, never-married women should be closer to those of men than to married women. If the patterns of the never-married females instead were closer to those of married women, the dual career hypothesis would be
rejected and an alternative explanation would be necessary, such as an institutional theory of sex segregation.

The findings were somewhat mixed. Never-married women were more similar to men than to ever-married women in their labor force participation and the probability of being employed full-time. However, the occupational distribution of never-married women was actually more dissimilar to men's than that of ever-married women. Roos suggests that women with uninterrupted work careers are more likely found in female-typed occupations than in male-dominated, higher-prestige ones.

...women with uninterrupted work careers are more likely to be found in female-typed occupations than in male-dominated, higher-prestige ones.

In most countries never-married women were in more prestigious and higher paid jobs than were the ever-married women, but in only a few cases were these differences significant. In the United States the never-married group was employed in higher-prestige occupations, but not in higher-paying jobs.

In conclusion, Roos found little to support the dual career hypothesis. While some support for it came from examining the labor force participation rate and hours worked data, the hypothesis received no support in terms of occupational attainment patterns.
PUBLIC POLICY AND THE RETIREMENT DECISION

In recent years, aging and retirement have been a subject of intense interest. Legislation has had a decided impact on business and employer practices (Age Discrimination in Employment Act, 1978 amendments) and pension benefits (Employee Retirement Income Security Act), as have a variety of federal court decisions regarding hiring practices. Dwarfing this is the continuing national debate about the long-run viability of the Social Security program and options for modifying the scheme. A set of issues has been raised about changing certain existing practices:

- does the retirement age of 65, chosen in the era of the great depression, continue to make any sense?
- do the improved conditions of health among those aged 60 and over suggest that policy changes regarding retirement practices are desirable?
- does "early" availability of retirement benefits at age 62 serve public policy well?
at what age and to what extent do we cease to penalize the working aged in terms of reduced Social Security benefits?

Since the 1930s public policy toward retirement practices has been shaped by three major factors, often working at odds with each other. One factor which tends to operate as a constraint, has been the costs of funding retirement programs. This has been manifested in several ways including questions of appropriate benefit levels, retirement ages, and other issues of eligibility.

A second factor has been a concern for the humane treatment of older persons in our society. This has led to antidiscrimination laws, practices to delay forced retirement, and protection of the pension rights and funds of workers.

The third factor has been anxiety about job scarcity, which is largely a product of the economic misfortunes experienced from 1929 to 1941. It was thought that retirement would open up a scarce position for a younger worker; thus, practices that delayed retirement would create more unemployment among the young or at least thwart their opportunities for advancement. As a result, the reluctance of an older person to retire could be considered as jeopardizing the economic security of younger workers.

Whatever the merits of this job scarcity argument, it is probably appropriate that it be reappraised at this time. With the baby boom generation now largely in the labor market, the U.S. labor force can expect to grow at a slower pace (absolutely and proportionately) during the remainder of this century. Some analysts have forecast a period of labor shortages in the future. Were this to develop, it would represent a significant, if unfamiliar, problem for us. Labor shortages would almost inevitably focus attention on retirement practices and the need to encourage workers to delay permanently their leaving the labor force. A few firms in this country have already begun to face such needs and are examining options to deal with their problems.
Hypothetically changing work activity or scheduling

Shkop sought to gauge the attitudes and decisions of managerial and blue-collar employees regarding their retirement if multiple options for continuing employment were available to them. What types of modifications in their work activity or scheduling would affect their retirement decisions? Were there significant differences in the attitudes toward such modifications between managerial and blue-collar workers? Did employees believe that firms could adapt their working conditions in such a way as to induce them to remain on the job for more years? These questions will be of increasing importance as the proportion of U.S. workers who are older continues to grow.

A four-firm survey of older workers

Shkop mailed a questionnaire to 713 workers at four (unidentified) industrial establishments in the Northeast. The smallest of the four had over 5,000 employees. Three hundred and ninety-three (55 per cent) valid responses were received. Persons sampled were aged 50 to 69 and were overwhelmingly male (94 per cent), white (99 per cent), and married (92 per cent). Thus, this group studied is not wholly representative of the U.S. aging population. It should be noted that the average tenure with the same organization of the respondents was about 30 years. Clearly, as a group they had built up substantial pension rights.

The employees were asked about their retirement plans. Then they were given a hypothetical situation in which their employer showed an interest in having them delay their retirement. Suppose that the firm would allow them to make any changes in their jobs or time schedules, so long as these resulted in a contribution to the organization. Would this affect the worker's planned age of retirement?

The study also included an analysis of demographic, attitudinal, and job characteristics that other researchers had found

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might affect the retirement decision. These data were analyzed in bivariate tabulations or three-variable tables employing tests of significance. Shkop believes that studies of this type are useful for organizations seeking to develop or reexamine the comprehensiveness of their retirement programs.

The desirability of job or work schedule changes for older workers

Workers were asked what they planned to do upon reaching the earliest age when they could collect some pension. Respondents were given three choices: they could continue to work in the organization, they could leave and work elsewhere, or they could stop working. Then they were asked the hypothetical question about modifying their job responsibilities or working hours. Indeed, this opportunity significantly altered retirement plans. The proportion expressing a willingness to remain in the firm rose from 68 per cent to 83 per cent, the proportion who expressed an interest in changing employers fell from 10 per cent to 3 per cent, and those preferring to stop working entirely dropped from 21 per cent to 14 per cent.

The availability of these options significantly affected the retirement plans of both blue-collar and managerial workers, but the impact was not uniform. For example, managerial workers planning to stop work altogether at the earliest possible retirement age declined from 13 per cent to 5 per cent, while similar plans for blue-collar workers declined from 30 to 22 per cent.

Originally, blue-collar workers planned to retire, on average at age 62.5, but the availability of options would have raised this to 63.9 years. For managerial workers, available options for job changes raised the preferred retirement age from 64.0 to 66.4 years.

The perceived adequacy of postretirement income had an important impact on the retirement decision. When workers considered it as inadequate for their needs, there were no sig-
significant differences in retirement plans of the two groups. However, where respondents perceived this income to be adequate, 76 per cent of the managerial workers planned to remain beyond the minimum age of pension eligibility, while only 56 per cent of the blue-collar workers anticipated remaining on the job. According to Shkop, these findings confirm the view that it is largely the economic inducements that cause blue-collar workers to remain in the organization, while managers have additional, less tangible reasons for doing so.

Shkop found that job modifications were almost irrelevant for workers committed to leaving the organization with perceived inadequate anticipated retirement income. This commitment seemed to be unswerving and intensely emotional. For blue-collar workers with perceived adequate retirement income, and for managerial workers regardless of their perception of adequacy, job modifications would have significantly altered retirement plans. They did not affect blue-collar workers with perceived inadequate retirement income.

What kinds of modifications mattered to workers? Most of the blue-collar workers did not ask for changes in their job content. Shkop speculates that many of these respondents might have been skeptical that their employers would make such options available, or they did not consider them realistic given the nature of their work. Their preferred modifications focused on reduced working time, mainly through longer vacation periods.

In contrast to the blue-collar workers, the majority of managerial personnel preferred changes in the content of their jobs, above and beyond any changes in time scheduling. Strikingly, over 36 per cent of these managers were willing to accept lower level positions and concomitant lower salaries as compared with remaining in their current jobs without modifications.

The study found that positive attitudes toward leisure and retirement were correlated with plans for earlier retirement. Some social variables—for example, relationships with people at the workplace or the felt pressure to retire—were associated with the retirement decision as were educational attainment
levels. The association, however, between retirement plans and the level of job satisfaction was not strongly evident.

A finding that emerged indirectly may be especially important for policy purposes. Unlike managerial workers, many blue-collar workers were unaware of their rights to stay on the job beyond age 62 or 65. That is, these employees were planning for retirement based on the erroneous view that they would be forced to retire at ages below the firm's actual mandatory retirement age. Information about the law was simply missing these workers entirely. The ADEA makes little sense if workers are unaware of the rights conveyed to them and act as if the law did not exist.

Unlike managerial workers, many blue-collar workers were unaware of their rights to stay on the job beyond age 62 or 65. That is, these employees were planning for retirement based on the erroneous view that they would be forced to retire at ages below the firm’s actual mandatory retirement age.

Shkop reported that over 65 per cent of the blue-collar workers in his survey believed that they must retire by age 65. Yet each of the companies had repeatedly announced their policies, which are in compliance with the law making 70 years the earliest mandatory age for retirement. He found that the workers’ misperception stemmed from the common practice of blue-collar workers to retire by or at age 65. Some blue-collar workers perceived Shkop’s hypothetical options to be permission to work beyond age 65.
V. THE LABOR MARKET AND THE BUSINESS CYCLE

SCHOOL ENROLLMENTS

DISSERTATION TITLE

The Effect of Cyclic Variation in the Distribution of Income on the Measured Value of Education

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Economic change and school enrollments

It has become increasingly well understood that movements in the business cycle can have wide-ranging consequences. Aside from the impact on obvious economic variables such as profits, government revenues, and labor force participation rates, a variety of social outcomes—divorce, child abuse, and health—appear to change in rhythm with the business cycle. Another important factor that may be related to economic change is the oscillation of school attendance, although its possible link to the economy has hardly been studied. Declining student enrollments have led to school closings, teacher dismissals, curriculum modifications, and other major educational changes. In this sort of environment anything that enables school administrators and other public officials to better predict or to explain changing enrollments can be immensely useful. To the extent that changing enrollments immediately or eventually affect the need for avail-
able slots in employment and training programs, the matter is of potential significance to those responsible for shaping such programs.

Countervailing effects on enrollments

Economic theory suggests that movements in the economy can affect school enrollments, although offsetting forces may lead to rising or falling enrollment for a given phase of the business cycle. Cunningham demonstrates this as he builds on a traditional model of labor supply and on Gary Becker's theory of the allocation of time to show how the business cycle can affect what he calls the demand for schooling. As labor market conditions deteriorate and as the wages that a person could be earning are effectively reduced, the opportunity cost of attending school declines. This is consistent with the observation that many educators have made; that is, when few good job opportunities exist, some recent college graduates will apply for admission to graduate schools who would otherwise not have done so.

Working against this sort of response to an economic downturn is the "income effect." Simply stated, as household income declines in an economic downturn, the demand for education will decline as does the demand for any other "normal" good. Some individuals feel compelled to end their schooling, at least temporarily, as economic conditions make education unaffordable. The issue that Cunningham explores is the relative importance of these two countervailing effects. The net dominance of one effect over the other is as much an issue in periods of economic expansion as in periods of decline.

According to Cunningham, only two other studies had previously analyzed the cyclical sensitivity of student enrollments. One of these was based on Canadian high school retention rates, which reported a generally countercyclical response (as economic conditions improved, retention rates fell). The other study examined high school enrollments in the United States and found no net response for males, but a procyclical response for females.
SCHOOL ENROLLMENTS

(as economic conditions improved, retention rates for females increased).

Multiple sources of data on enrollments

The study drew its empirical content from a variety of data sources. Using data from the University of California system, simple year-to-year changes were evaluated for the years 1967–76. The October Current Population Survey (CPS) from 1967 to 1978 provided another set of data on enrollments. Another aggregated source was the Higher Education General Information Surveys (HEGIS) for 1969–78, which appeared to show a countercyclical response of enrollments to economic activity. These data were then disaggregated to show the differing enrollment patterns by type of institution (public or private, four-year or two-year), by sex of the student, and by whether the student was a new or continuing enrollee. The Vietnam war and the draft of younger men is thought to have had some impact for most of the years analyzed.

The core of Cunningham's empirical analysis was his use of microdata files drawn from the March 1968–78 CPS. To the data record of each CPS respondent, he attached a local unemployment rate, the prevailing national minimum wage, the enrollment capacity of institutions of higher education, and a measure of the pressure of military draft.

He also used the 1960 and 1979 Censuses of Population for persons aged 25 to 60 in 1960 to determine the relationship of their educational attainment to labor market conditions (when the individual was young). This enabled him to analyze the relationship of the business cycle to high school completion rates as far back as 1918.

A countercyclical response

While this study had numerous findings, the most fundamental conclusion of the research was that school enrollments tended to move countercyclically; that is, enrollments moved up during
periods of economic recession. The data revealed that high school completion rates for males rose when unemployment rates were high during 1918–55. In recent years, the recessions of 1971 and 1975 were years of high levels of enrollments. The countercyclical relationship did not have a very large, quantitative impact on the total size of school attendance.

School enrollments tended to move countercyclically; that is, enrollments moved up during periods of economic recession.

Cunningham found that enrollments of male college freshman rose significantly during the recessions in the 1968–78 period. For those already in college, however, the business cycle seemed to have very little impact on their continuing in school in that 10-year span. By contrast, in earlier years, 1918 to 1955, college attendance and graduation rates declined as unemployment rates rose. Apparently, this dominance of the “income effect” has changed in recent years, possibly owing to the increasing availability of student financial aid programs.

Cunningham found similar effects for females and for males at the high school level; that is, as business conditions worsen, fewer young females drop out of school. Unlike males, however, the business cycle appears to have no impact on their enrollments as college freshmen. And like males, there is no significant impact for female students of the business cycle on remaining in college once they have begun to matriculate.

In several respects the military appeared to have an impact on school enrollments. He found a positive impact on schooling among veterans of World War II and during the Vietnam era.

A variety of public policy proposals emerge from this analysis. An intriguing suggestion based on the findings of the study is that certain student aid programs be made countercyclical.
HEALTH AND ABSENTEEISM

DISSERTATION TITLE
The Effect of Economic Change on Employees' Health and Absenteeism

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Health and the business cycle

The costs of business cycles are a significant factor in the process of setting macroeconomic policy. If the costs of unemployment are not considered to be very high, public policymakers may be more willing to tolerate joblessness. If the costs are estimated to be very high, society must be prepared to trade off something (possibly stable prices) to reduce unemployment. The conventional way that economists have calculated the costs of unemployment is to estimate the value of foregone output, that is, the product that our society is denied because of idle resources.

Some social scientists would fault such estimates on the grounds that they neglect to consider certain other, established costs. Some of these include elevated rates of suicide, crime, child abuse, and family dissolution. Aside from these, considerable attention has been given to the impact of job loss or deteriorating economic conditions on the health of individuals. Where illness and disability are associated with economic insecurity, their direct and indirect costs must also be considered by economic policy-makers. Individual health may be affected by un-
employment or by the threat of unemployment. But ill health may also be associated with improved economic environment, depending upon such things as the pace of the work and the number of hours employed.

Another possible cost of unemployment is the associated decline in the productivity of persons who are employed. Specifically, rates of employee absenteeism may be sensitive to the movements of the business cycle.

Direct and indirect effects of unemployment

Much of the research seeking to link the business cycle with health outcomes has been carried out either at highly aggregated levels or at the individual level. This study attempts to join these separate categories of research by linking the micro and macro levels of data.

In this study Frank proposes that there are three pathways by which economic change may affect individual workers. First, and most direct, a change in the work or economic environment may affect a worker's behavior or health. For example, a change in business conditions can be expected to affect one's average workload and one's hours of work. A less direct affect of economic change is produced through the action of local economic conditions on "social supports" and the person's state of mind. The third path is through the interaction between economic changes in the community and changes in the work environment. These pathways formed the theoretical basis for the model developed.

Frank's study was organized around three major hypotheses:

- that various economic indicators would be correlated with measures of individual health after a period of time of up to four months
- that there is a separate, community-based economic effect,
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aside from the national economic environment, on worker health

that the economy would differentially affect separate classes of workers—that is, by age, sex, marital status, and occupation level

A three-year study of employees in a manufacturing firm

Data were gathered on a monthly basis for three years on 64 men and 109 women who were employees of an electronics manufacturing firm. Frank sought to explain the movement of three different monthly measures of health condition: time from work lost due to absence, the frequency of claims for health insurance, and payments made under health insurance. These measures were thought to be better indicators of health than subjective, individual worker responses to questions about their condition.

Variables that were used to try to explain these health measures were clustered into four groups. At the national level, the researcher used monthly data on overtime hours worked in that industry's Standard Industrial Classification (SIC) and on the change in employment of production workers in the SIC. At the local level, Frank used the unemployment rate and the absolute change in the size of the labor force in the Standard Metropolitan Statistical Area (SMSA) as indicators of community conditions. As a separate measure of conditions in the company, the variable used was total hours of work. For the individual, she included a measure of overtime hours employed that month.

The empirical analysis consisted of bivariate analyses of aggregate data and individual observations grouped by sex, age, and occupation status (the proxy here was pay level in the firm). Many of the correlations were measured using alternative lags or leads in the variables; for example, what relationship existed between community conditions three months ago and absenteeism this month?
Absenteeism, health insurance, and business conditions

According to Frank, her most striking result was the responsiveness of male absenteeism to the national economic conditions, operating with a very short time lag. For all the male groups except the youngest workers in the sample, absenteeism fell as national conditions improved. Female absenteeism was not associated with national economic conditions.

For all the male groups except the youngest workers in the sample, absenteeism fell as national conditions improved. Female absenteeism was not associated with national economic conditions.

At the community level, male absenteecism rose when unemployment fell. Possibly this meant that locally low unemployment rates gave men more confidence in the security of their jobs. Alternatively, it may have been that low unemployment locally was associated with a fatigue factor that led to absenteeism. For all women, by contrast, absenteeism in the current period tended to be associated with local unemployment as measured two months earlier. Indeed, for many of Frank’s statistically significant findings, male and female responses were in the opposite direction.

For several of the groups analyzed, whenever overtime hours were increased absenteeism would eventually grow. This finding applied for younger males and older females. The relationship was essentially reversed, however, for female workers in highly paid occupations.

As with the absenteeism variable, Frank found different patterns of response to the health insurance claims for males and females. For both sexes, local economic conditions were more likely to vary with health insurance claims than were the national economic variables. For older males and males in the middle wage-level occupations, changes in the use of health insurance claims tended to swing with changes in the unemployment rates.
in the community. High-wage female workers responded in a similar way. These findings for high-wage female employees and older male workers existed at the individual level and in the aggregated data.

The third measure analyzed was health insurance payments, a reflection presumably of both frequency and severity of health incidents. At the aggregated level of the data, Frank found that health insurance payments for females tended to rise during economic expansion. Workers in higher-status positions, and the older male workers specifically, had lower health insurance payments during periods of economic expansion. Frank suggests that times of economic expansion may be associated with deleterious effects on the health of female employees possibly due to the strain arising from a more hectic pace of work.

The study is filled with correlations between health variables (or proxies) and economic variables. The many specific relationships are of a second order of interest. Most compelling in Frank's work is her confirmation that the economic environment does have measurable associations with the health and behavior of employed persons.
The labor market in the face of changing demand for product

Traditional labor market theory leaves unexplained why the observed behavior of workers and their employers takes so many forms. Such theory, for example, sheds little light on the phenomenon that plays so central a role in the Keynesian analysis, the observed rigidity or inflexibility of money wage rates in the face of declining demand for labor. It also sheds little light on why certain employers regularly and quickly respond to diminished demand for their product by using layoffs, while others might initially shift the hours of work of their employees, and others may cut wages.

In recent years a number of theories have been proposed to resolve some of these questions. One such theory, the transactions cost model, is based on the view that workers and their employers may both benefit from a continuous, long-term association with each other. This view holds that an investment
in specialized information or knowledge facilitates the employment relationship. First, if there is labor turnover, both groups derive less benefit from this investment. Yet if the result of the investment is a reduction in the potential for mobility by one of the groups, it weakens their bargaining position vis-à-vis the other. This could discourage investment from taking place. To allow the investment(s) to be made, it follows that practices will develop that limit the possibility of exploitation by one group of the other. It will also stimulate the development of institutions that regulate the behavior of the groups, for example, collective bargaining.

Suppose that product market conditions change and that there is a decline in the demand for a firm’s product. Employers are reluctant to lay off workers in whose skills they have invested, especially where there is little likelihood of being able to rehire these same persons. These workers are reluctant also to be laid off because the wages they would command in other establishments would be lower since their specialized skills are of less use to the new employers.

Wage cutting is an even more unlikely response than are layoffs to declining demand. Employees have little information on which to base an assessment of the employer’s assertion that such steps are needed. Historically, it has been observed that wage cuts are vigorously resisted by workers and unions until they are firmly convinced that product market conditions warrant them.

An alternative to this transactions cost model is the risk shifting theory of contracting. It rests on the view that businesses are more willing to take risks than are workers. Employers can benefit from this by contracting with specific workers, assuring them that they will be shielded from the risks to which they would be exposed in an auction-like market, and accordingly, paying them less to the extent that workers prefer such protection. It is the transfer of risk that leads to the long-term relationship established between certain employers and their employees.
Implications of alternative labor market models

Pearce sought to test how firms have responded, in terms of worker usage and pay, to changing conditions of demand brought about by cyclical and seasonal changes. He argued that the risk shifting contract theory predicts stabilized real wages, while the transactions cost model implies sticky nominal wages. Risk shifting theory also suggests, according to Pearce, that contracting reduces the variation both in wages and in employment, while the transactions cost theory implies that employment adjustments can be large and frequent, relative to wage changes. The risk shifting theory would predict workers in the more cyclically sensitive industries to be attracted to unions. The transactions cost model suggests that those workers facing higher costs of mobility are more likely to find unionism attractive. The transactions cost theory also implies the wage inflexibility that unions may foster will be associated with less continuity of employment for unionized workers than for nonunionized workers.

Seasonal and cyclical changes—union and nonunion workers

The framework developed by Pearce was based on the argument that the cost of job changing to employers and workers is the major reason for labor services to be exchanged under contracts. The primary source of these costs is assumed to be the investment in skills that are specific to the firm.

He developed a model of a firm that is subjected to cyclical and seasonal changes in demand for its products. His model assumed that the seasonal effects are predictable for the firm, but that the cyclical variations are not. He further assumed that workers prefer a stable workweek and that a contract with a union exists that is shaped to reflect the firm's anticipated response to seasonal variations in demand. Pearce demonstrated through this formal model that a smaller wage adjustment to a cyclical change will lead to a larger cyclical adjustment in the firm's utilization of its labor. A key assumption of the model was that union workers would be more strongly attached to the firm.
during layoffs than would nonunion workers. Among other reasons, union workers would retain their seniority, obtained through the collective bargaining contract.

To test his model, Pearce relied heavily on data from the Current Population Surveys (CPS) taken in May of 1973, 1974, and 1975. These contained information on each worker's hourly wage, employment status, hours worked, as well as some demographic characteristics. The sample he used was limited to white male production workers, aged 20 to 60, who were employed full time in manufacturing industries.

Pearce measured the shock to demand in the industry in which the person worked at the time of the survey. Two sets of regressions were estimated to evaluate the response of labor utilization to shifts in labor demand. In the first, employment variations were estimated. In the second, regressions were used to estimate the probability that the worker was employed for a usual or unusual number of hours in the week of interview.

A final set of analyses estimated the wage rates of these workers to determine the responsiveness of earnings to changes in demand.

Wages, hours, and employment changes

In any given week, unionized workers were more likely than nonunionized workers either to be laid off or to work overtime. By contrast union worker wages were less sensitive to movements in the business cycle than were those of nonunion workers. Yet, even union members' wages showed some decline during periods of economic weakness, according to Pearce.

In any given week, unionized workers were more likely than nonunionized workers either to be laid off or to work overtime.

Pearce estimated the responses to cyclical shocks of labor demand using time series data for 73 industries. He used regression analysis to estimate the response to such changes in terms of wage rates, layoffs, and hours of work. He found that:
Pearce found no statistically significant relationship between an industry's wage level and its history of employment stability, as is suggested by the risk-shifting theory of contracting described above.

- Larger establishments were more likely to vary employment than to vary hours in the face of changing demand.
- Smaller establishments tended to have greater wage flexibility.
- Wages were higher for nonunion workers in large establishments than in smaller ones; no such relationship was observed for union workers.
- Union members did not appear to be concentrated in more cyclically sensitive industries.

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