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THE LABOR MARKET IMPACTS OF THE
PRIVATE RETIREMENT SYSTEM

A STUDY

PREPARED FOR THE USE OF THE
SUBCOMMITTEE ON FISCAL POLICY
OF THE
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LETTERS OF TRANSMITTAL

OCTOBER 25, 1973.

To the members of the Joint Economic Committee:

Transmitted herewith is a study entitled "The Labor Market Impacts of the Private Retirement System" by Robert Taggart. This study is Paper No. 11 in the series prepared for the Subcommittee on Fiscal Policy as part of a comprehensive review of income transfer programs under the general title *Studies in Public Welfare*.

The views expressed in this study are those of the author and do not necessarily represent the views of members of the Joint Economic Committee, the Subcommittee on Fiscal Policy, or the subcommittee staff.

WRIGHT PATMAN,
Chairman, Joint Economic Committee.

OCTOBER 23, 1973.

HON. WRIGHT PATMAN,
*Chairman, Joint Economic Committee,
U.S. Congress, Washington, D.C.*

DEAR MR. CHAIRMAN: Transmitted herewith is a study entitled "The Labor Market Impacts of the Private Retirement System" by Robert Taggart. This study is Paper No. 11 in the series *Studies in Public Welfare*, prepared for the Subcommittee on Fiscal Policy in its review of the Nation's income transfer programs.

The subcommittee demonstrated a major interest in the economic problems of the aged by publishing in 1967 a series of studies entitled *Old Age Income Assurance*. This study is in the tradition of the earlier studies in that it examines the broad implications of the private pension system. One cannot view the private pension system in isolation. It is important to address the effects of the system on early retirement, on labor mobility, and on income security. Private pensions are especially relevant to the current studies of the subcommittee because of linkages between pensions and such public transfer programs as social security and supplemental security income.

Congressional committees in the House and Senate that are developing pension reform legislation will also find this study of great interest. Taggart separates fact from fiction in his discussions of: Who is and who is not covered by private pensions? What types of age and service requirements are most common in pension plans? And how often are covered workers with long tenure the victims of unfair rules causing them to lose pension benefits?

Robert I. Lerman of the subcommittee staff helped prepare the study for publication. The views expressed in this study are exclusively those of the author and do not necessarily represent the views of the members of the Joint Economic Committee, the subcommittee, or the subcommittee staff.

MARTHA W. GRIFFITHS,
Chairman, Subcommittee on Fiscal Policy.

FOREWORD

Abuses of the pension system have angered many Americans. News accounts of bankrupt pension funds and of individuals who lose all pension rights after 20 years and more of faithful service, have helped to stimulate public concern. A good indication of the importance of the growing public interest is that the President and committee chairmen in the House and Senate have proposed legislation under the general heading of pension reform. If the President and Congress can achieve a compromise, new laws regulating pensions are likely to be on the books by the end of the 93d Congress. With legislation imminent but with final decisions unresolved on some issues, this study represents a timely addition to knowledge about the private pension system.

Most discussions of pension reform focus on equity issues. Some examples of these equity questions are the following: How long should an employee have to work at a firm before his pension rights become permanent? At what age should a worker be able to draw on his pension? Should a worker be allowed to retain his pension rights as he moves from one job to another? Less attention has been devoted to discussing an equally important set of issues: namely, the effects of the private pension system on the labor market. Robert Taggart provides a valuable service by addressing questions on the labor market effects of pensions. Dr. Taggart examines such questions as the following: To what extent do private pensions influence early retirement? Does the private retirement system reduce the job opportunities of older persons? Do lengthy job tenure requirements for attaining pension rights impede worker movements from one job to another?

The Taggart study is relevant to the Subcommittee on Fiscal Policy's longstanding interest in income sources of aged persons. In December 1967, the subcommittee published six comprehensive volumes of studies in the series *Old Age Income Assurance*. Many of these studies continue to provide sound analyses of such popular topics of pension reform as vesting, funding, and portability. In addition, the studies covered employment effects of private pensions and the relationship between the private retirement system and public programs for the aged. The Taggart study should again stimulate thinking about the broader aspects of the private retirement system instead of viewing the system in isolation.

Taggart's study is also relevant to the subcommittee's review of public income transfer programs. In considering ways to improve the current system of public transfers, one cannot ignore the interaction between the private retirement system and public transfer programs. By far the closest linkage is between the private retirement system and the social security retirement system. This linkage provides some excellent examples of the implications of Taggart's findings for policy.

First, Taggart's work weakens the case for across-the-board increases in social security benefits based on old formulas for computing base level benefits. Taggart points out that the large and continuing growth in total pension benefits represents substantial increases in per person benefits for about half the retirees but, after a certain point, there will be little increase in the share of retirees receiving a private pension. This means that, as current taxpayers continue to provide across-the-board social security benefit increases, a large share of these benefits will go to retirees with relatively high private pension income. Social security will become an increasingly inefficient instrument for putting money in the hands of the poor or near-poor aged.

Second, the fact that a large share of workers are likely to remain uncovered by private pensions strengthens the case for splitting social security's pension function from its antipoverty function.¹ Present formulas attempt to provide the most generous treatment (that is, the highest amount by which benefits exceed the actuarial value of contributions) to those who contributed least. As private pensions grow, this policy may yield increasingly haphazard results. Some lower earners benefiting from the redistributive aspects of the formula will add their social security benefits to their private pensions and end up better off than others with no private pension who paid more social security taxes and received less favorable treatment under the social security formula. Still others, who had low covered earnings and who have no private pension, will gain little from the redistributive aspects of the social security formulas. Since many of these most needy will receive payments from the supplemental security income program, they will gain only \$20 per month from their social security benefits.²

Finally, some of Taggart's findings demonstrate how unfair the social security retirement test is. A large share of aged workers receive no private pension benefits at all. As a result, their income from sources other than work is inadequate. It is these workers who must and who do work to achieve adequate incomes. Taggart points out that a higher share of social security recipients without private pensions work than do recipients with pensions. Thus, the aged worker unlucky in not receiving a pension is often doubly unlucky in that the retirement test makes difficult his attempt to use earnings rather than a private pension to supplement his social security benefits.

¹ Michael K. Taussig presents the case for splitting the functions of social security in "The Social Security Retirement Program and Welfare Reform," in *Issues in the Coordination of Public Welfare Programs*, Paper No. 7, Studies in Public Welfare, Subcommittee on Fiscal Policy, Washington, D.C.: U.S. Government Printing Office, July 2, 1973, pp. 14-39.

² See Robert I. Lerman "Incentive Effects in Public Income Transfer Programs," in *Income Transfer Programs: How They Tax the Poor*, Paper No. 4, Studies in Public Welfare, Subcommittee on Fiscal Policy, Washington, D.C.: U.S. Government Printing Office, Dec. 22, 1972, pp. 70-78.

PREFACE

The private retirement system consists of thousands of separate pension and profit-sharing plans, large and small, covering employers and employees of all types and providing retirement benefits which range from niggardly to princely. The variation in every dimension of these plans is so great that it is rather heroic to view them as a "system" and to try to assess their aggregate impacts. Yet, there is no doubt that taken together, the growth and development of these varied plans have had significant consequences. The welfare of those who are receiving or will receive benefits has been dramatically improved. The economy as a whole has been affected by the accumulation of large funds for the payment of future benefits. And the work patterns of the labor force, especially of older cohorts, have been altered.

The problem is to relate developments in the thousands of separate plans to measured aggregate changes in order to determine the direction and degree of impact. Unfortunately, there is limited data summarizing the characteristics of private retirement plans and measuring the extent of their development. There is even less information which can be used to link these characteristics and developments to their aggregate effects.

Data and descriptive information on how profit-sharing plans operate, both separately and in combination with pension plans, are particularly meager. As a result, the analysis deals almost exclusively with the impact of pension plans. Although it is not always possible to assess the effects of pension plans separately from those of profit-sharing plans partly because some employers have both, these linkages should not impart any significant bias to the findings reported here.

Given the diversity of the private retirement system, the dearth of descriptive data, and the inherent problems of separating institutional factors, especially over time, it is a difficult task to assess the manpower implications of private pension and profit-sharing plans. One must steer between the Scylla of false aggregation and the Charybdis of false attribution; in other words, there is a very real danger of missing important variations within the private retirement system or of miscalculating its overall impacts.

In order to steer this course, it is necessary to take chances. Data must often be used in makeshift ways where there are gaps. Inference is also required where no direct information is available. And usually one must tack between conceptualization, analysis of aggregate data, and generalization from limited case studies in order to gain the best perspective. This is the only way to deal with this subject, and hopefully the end justifies the means.

Many have contributed to this study. Financial support was provided by the Department of Labor's Manpower Administration, and

pension experts in the Department, particularly Dr. Donald M. Lunday and Harrey E. Davis, reviewed the manuscript for accuracy. Drs. Charles Stewart, Sheldon Haber, and Herman Miller of the George Washington University read and commented on the manuscript; Dr. Robert Lerman of the Joint Economic Committee provided many useful comments. But most important of all, Dr. Sar A. Levitan supervised the research and provided encouragement and assistance throughout.

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THE LABOR MARKET IMPACTS OF THE PRIVATE RETIREMENT SYSTEM

By ROBERT TAGGART*

1. THE INCREASING IMPACTS

Dramatic Expansion

Private employee retirement plans have grown at an incredible pace over the last two decades, developing into a massive and complex system with a variety of social and economic ramifications. According to the best available estimates, nearly 30 million or roughly half of all private wage and salary workers were covered by private retirement plans in 1970 (table 1).¹ These plans were financed chiefly by employer contributions, which totaled \$12.6 billion, supplemented by \$1.4 billion out of employees' salaries. Some 4.7 million individuals received benefits amounting to \$7.4 billion, or an average of \$1,580 each. More than \$137 billion had been accumulated as reserves to pay future benefits.

The levels of coverage, contributions, benefits, and asset accumulations, have been rising rapidly (chart 1). In 1950, only 9.8 million, or a fourth of all private wage and salary workers were covered.² The number and proportion roughly doubled by 1960, to 21.2 million and 45 percent, respectively.³ Over the sixties, increasing coverage barely kept ahead of the growing wage and salary work force; however, the expansion of retirement plan reserves was especially dramatic.

TABLE 1.—*Nearly 30,000,000 or roughly half of all private wage and salary workers were covered by private retirement plans in 1970*

Year	Coverage ¹ end of year (thousands)	Employer contributions (millions)	Employee contributions (millions)	Number of beneficiaries end of year (thousands)	Amount of benefit payments (millions)	Reserves end of year (billions)
1950----	9,800	\$1,750	\$330	450	\$370	\$12.1
1955----	15,400	3,280	560	980	850	27.5
1960----	21,200	4,710	780	1,780	1,720	52.0
1965----	25,300	7,370	990	2,750	3,520	86.5
1970----	29,700	12,580	1,420	4,720	7,360	137.1

¹ Data include all private pension and deferred profit-sharing plans other than those for the self-employed.

Source: Walter W. Kolodrubetz, "Two Decades of Employee-Benefit Plans, 1950-70: A Review," *Social Security Bulletin*, April 1972, vol. 35, No. 4, p. 20.

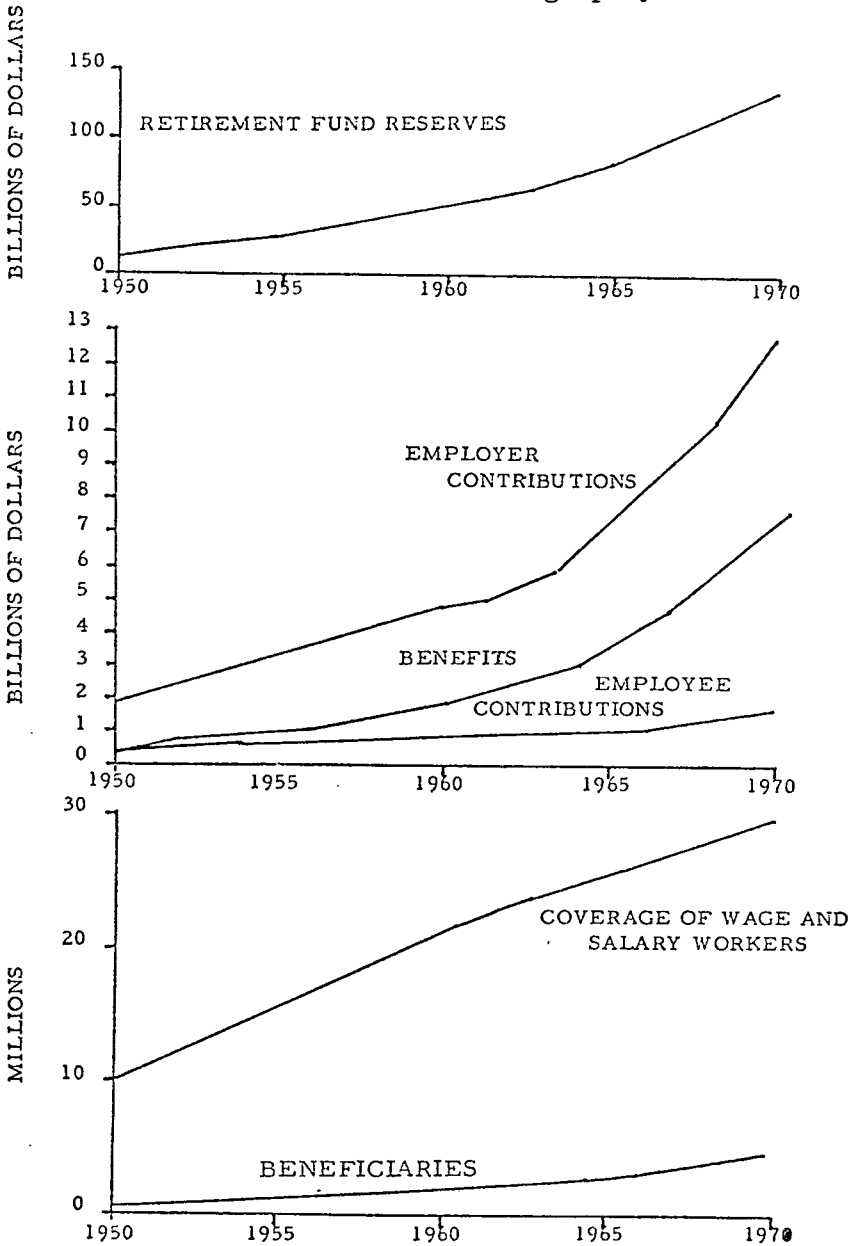
*Executive director, National Manpower Policy Task Force.

² Walter W. Kolodrubetz, "Two Decades of Employee-Benefit Plans, 1950-70: A Review," *Social Security Bulletin*, April 1972, Vol. 35, No. 4, p. 20, and *Manpower Report of the President, 1972* (Washington: U.S. Government Printing Office, 1972), p. 174.

³ *Ibid.*

⁴ *Ibid.*

CHART 1.—The levels of coverage, contributions, benefits, and asset accumulations have been rising rapidly.



Source: Walter W. Kolodrubetz, "Two Decades of Employee Benefit Plans, 1950-70: A Review," *Social Security Bulletin*, April 1972, vol. 35, No. 4, p. 20.

More recently, the number of beneficiaries has been increasing rapidly as many participants who were extended coverage in the fifties are reaching retirement age.

Though the private retirement system is secondary to the public old-age, survivors and disability insurance program (OASDI), its relative importance has increased over the last decade. In 1960, OASDI covered 59.0 million workers, with contributions of \$11.9 billion and benefits totaling \$11.2 billion paid to 14.8 million recipients. By 1970, coverage had been extended to 72.7 million workers, contributions had risen to \$34.7 billion, benefits to \$31.9 billion, and the number of recipients to 26.2 million.⁴ Though the private retirement system covered only 41 percent as many workers as OASDI in 1970, this was an increase from 38 percent as many in 1960. Private retirement plan contributions, benefits, and recipients rose from 38, 15, and 12 percent of those under OASDI in 1960 to 40, 23, and 18 percent, respectively, in 1970.

Because of the present scale of private employee retirement plans, their relatively recent development and their promise of continued (though perhaps slowing) growth, they are playing an ever more important social and economic role. Obviously, they have a major impact on the welfare of retirees. Roughly an eighth of all persons 65 and over in 1967 received private retirement benefits.⁵ The proportion is rising rapidly as workers made eligible by earlier coverage extensions and benefit liberalizations reach retirement age in greater numbers. In 1968, 17 percent of all 62- to 65-year-olds registering for early or regular social security retirement benefits or for medicare were already receiving a private pension, and 8 percent more expected to receive one from their most recent job.⁶ The adequacy and availability of these benefits and their effectiveness in supplementing other forms of retirement income, are vital concerns for the welfare of the aged.

The economy as a whole is affected by the money which is contributed to retirement plans each year, and by the massive funds which have been accumulated for future payments. The annual contributions which might otherwise be paid as wages or dividends or retained as profits are, instead, saved and diverted into investments. Retirement funds each year account for a large share of the purchases of corporate stocks and bonds, with significant consequences for the growth of the economy, as well as for financial markets.⁷

In addition to these welfare and aggregate economic implications, the private retirement system has a number of possible impacts on the labor market. Retirement plans are an important labor-related cost to employers, and are thus a factor in hiring and firing decisions as well as in collective bargaining and financial planning. Retirement plan

⁴ Institute of Life Insurance, *Life Insurance Fact Book 1972* (New York: Institute of Life Insurance, 1972), p. 44.

⁵ Walter W. Kolodrubetz "Private and Public Retirement Pensions: Findings From the 1968 Survey of the Aged," *Social Security Bulletin*, vol. 33, No. 9, September 1970, p. 3.

⁶ Lenore E. Bixby and Virginia Reno, "Second Pensions Among Newly Entitled Workers: Survey of New Beneficiaries," *Social Security Bulletin*, November 1971, vol. 34, No. 11, pp. 4-5.

⁷ United States Securities and Exchange Commission, "Stock Transactions of Financial Institutions," Release No. 2594, June 15, 1972. (Mimeographed.)

contributions are a concern to employees to the extent that they are a substitute for higher wages and a way of preparing for the future. Thus, the terms of the retirement plan can have an impact on work patterns, especially the timing of retirement.

Assessing the Impacts

The extent and implications of these various impacts are only vaguely understood. Growth and change in the private retirement system have been so rapid that it has been difficult to gain any perspective. There is sometimes a long lag between developments in retirement plans and their impact on workers, since current changes are often not felt until participants retire many years in the future. To a lesser degree, the financial consequences of retirement plan changes may also be delayed. Because retirement plans are so varied, it is a difficult task to assess and measure their impact. It is also difficult to disentangle the effects of developments in the private retirement system from other long-run institutional changes, especially those in the social security system.

Despite these difficulties, efforts are being mounted to better understand private retirement plans and their impacts. Welfare issues have been explored at great length by a number of congressional committees considering federal legislation. The financial issues have been investigated by Congress, by regulatory agencies, and by independent evaluators.⁸ A good deal of work has been done by the Department of Labor and various academicians to determine the labor market impacts.⁹ Unfortunately, this research is widely scattered and often inconclusive. Aggregate data on different aspects of private retirement plans are collected by the Department of Labor, the Social Security Administration of the Department of Health, Education, and Welfare, the Internal Revenue Service, the Securities and Exchange Commission, and a variety of special interest associations, but there is a great deal of overlap and of gaps in coverage. Because of the diversity of the system, case study data are often misleading. Research, therefore, must be built on rather undependable foundations. Conclusions can only be reached by a careful piecing together of evidence and information and there are no unequivocal answers.

Despite limitations in the research which has been completed to date, and in the data sources which underlie it, policymakers are faced with a number of critical issues which demand immediate answers. The private retirement system has evolved in the absence of any consistent public policy and with little governmental regulation. Legislative action is imminent to redirect and control the development of the system. This requires the best possible assessments of the welfare, aggregate economic, and manpower impacts of private retirement plans.

⁸ *Interim Report of Activities of the Private Welfare and Pension Plan Study, 1971*, Senate Committee on Labor and Public Welfare, 92d Cong., 1st sess. (Washington: U.S. Government Printing Office, 1972), pp. 4-5.

⁹ The bibliography which is included in the appendix references most of the research completed to date on the labor market impacts of private retirement plans.

The Labor Market Issues

The issues related to the labor market effects of private retirement plans are especially critical. Workers are retiring at a younger age, and one of the primary reasons is the income available from pension plans. If this trend continues among the large cohort now approaching retirement age, labor force participation among older workers may fall more rapidly and the output of the economy may be affected. These trends and their consequences have been labeled the "early retirement time bomb," and though this may exaggerate their significance, it correctly suggests that the issue is an important one.¹⁰

While pensions may reduce the supply of older workers through earlier retirement, they may also reduce the willingness of employers to hire older jobseekers. The longer the period over which contributions are made for retirement, the less costly it is to the employer. Under the benefit formulas found in most private retirement plans, it is more expensive to hire an older worker who will retire in a few years than a younger one who will stay for some time. Firms with high levels of retirement benefits might be increasingly reluctant to hire senior citizens, foreclosing the best work opportunities.

In general, the cost of retirement plans is a critical issue to both employers and employees. Workers have bargained for increased benefits and employer contributions have mounted both in dollar terms and as a percent of wages and salaries. Considering such contributions as deferred wages, workers are understandably concerned about their prospects for receiving benefits. Employers must worry about meeting financial commitments, both present and future. There is a growing conflict between the rising expectations of workers (and legislators) and employers' ability to pay.

Retirement plans may also have an effect on the mobility of the work force. An employee may lose his right to a later benefit if he changes jobs, and this may discourage him from taking advantage of better opportunities. As coverage has become more widespread and benefits more attractive, the mobility of the work force may have been affected.

A final issue which surfaced during the 1969-71 business recession was the use of private retirement plans and benefits as a way to phase out older workers and open jobs for younger ones. At any time, there are a large number of employees eligible for regular or early retirement under private plans. If the availability of a benefit is used or serves as an incentive for them to leave their jobs during a recession and if this results in their leaving the labor force, jobs can be opened for unemployed workers.

These actual or potential labor market impacts of private retirement plans, like their other impacts, are difficult to measure and assess. The plans are so diverse, the data are so inadequate, the connections between retirement plans and labor market developments are so tenuous, that rigorous statistical analysis is impossible. Nevertheless, much can be learned about the broad dimensions of impact and their implications by synthesizing aggregate labor force data, the information on

¹⁰ "The Early Retirement Time Bomb," *Nation's Business*, volume 59, No. 2, February 1971, p. 20.

retirement plans and coverage, the various case studies which are available, and some commonsense theory.

The five specific labor market issues outlined are particularly critical and need to be examined in depth :

1. The implications of retirement plan contributions as an added cost of labor to employers and as a deferred wage to employees ;
2. The impact of retirement plans on the mobility of the work force ;
3. Their influence on retirement patterns ;
4. Their use as a countercyclical device to open jobs through retirement in a slack economy ; and,
5. The effect of retirement plans on the availability of jobs for older workers.

Each of these issues has important policy implications. A number of specific legislative reforms are being weighed, and the labor market impacts of retirement plans are among the factors which must be considered. In a broader sense, their impacts may suggest whether or in what directions the development of retirement plans should be encouraged. Before specific issues or their policy implications can be discussed, however, it is necessary to gain a better understanding of the complex system of private employee retirement plans.

2. AN OVERVIEW OF THE PRIVATE RETIREMENT SYSTEM

Growth and Development Factors

A number of interrelated factors have contributed to the growth and development of the private retirement system. Over the last 20 years, there has been a dramatic expansion of all forms of nonwage compensation such as employer contributions to life insurance, hospitalization, disability benefits, supplemental unemployment insurance, and retirement plans. Whether this was due to the increasing social consciousness of employers, the increased employee preference for such nonwage payments as incomes increased, or any of a number of factors, contributions to employee-benefit plans increased ninefold between 1950 and 1970, rising from 3.1 to 7.4 percent of private sector wages and salaries. As part of this trend, contributions to retirement plans grew less rapidly but still increased severalfold over the two decades from 1.7 to 3.3 percent of wages and salaries.¹

Certainly, a prime factor in this overall growth of employee benefits has been the unions. They have pioneered in the bargaining for health and disability insurance, supplemental unemployment benefits, and a variety of other extras. But they have been especially important in developing retirement plans. In the mass production industries, union pressure converted pensions from the practice of a few of the "enlightened" employers into a mass phenomenon; in other industries, especially among small firms, the presence of the union made the difference between pensions and no pensions. Once coverage was established, the unions worked steadily to improve the terms of the plan, adding new types of benefits and raising the level of payments.²

Federal tax laws have also affected the growth of the private retirement system. Since 1920, qualified retirement plans have been given a variety of tax breaks. Employers are permitted to deduct their contributions for tax purposes as well as the earnings accruing from pension funds, while beneficiaries only pay taxes on their income after retirement. There is some debate over whether or not this tax treatment is "special," but the taxation of contributions and earnings on a current basis would raise costs by more than a third.³ This subsidy has been an incentive to the growth of private retirement plans. In order

¹ Walter W. Kolodrubetz, "Two Decades of Employee-Benefit Plans, 1950-70: A Review," *Social Security Bulletin*, April 1972, vol. 35, No. 4, p. 17.

² Jack Barbash, "The Structure and Evolution of Union Interests in Pensions," *Old Age Income Assurance, Part IV*, Subcommittee on Fiscal Policy, Joint Economic Committee (Washington: U.S. Government Printing Office, December 1967), p. 89.

³ Raymond Goetz, *Tax Treatment of Pension Plans, Preferential or Normal?* (Washington: American Enterprise Institute, 1969), p. 55.

to be eligible for these tax breaks, plans must meet certain requirements set by Congress and the Internal Revenue Service; the requirements, and changes in them, have had an impact on the evolution of the system. For instance the Life Insurance Company Income Tax Act of 1959 extended the deduction privilege for the first time to investment earnings of pension funds held by insurance companies, permitting them to maintain these funds in separate accounts, and this led to the vigorous expansion of insured plans. The Self-Employed Individuals' Retirement Act of 1962 (The Keogh Act) gave the self-employed the opportunity to deduct a proportion of their salary for a bona fide retirement plan, and this, along with subsequent amendments, contributed to the growth of small plans.⁴

A number of other laws have had an impact on retirement plans, but the most important are the National Labor Relations Act of 1935 (NLRA) and the Welfare and Pension Plans Disclosure Act of 1958 (WPPDA). In the Inland Steel decision of 1947, the U.S. Court of Appeals upheld a ruling by the National Labor Relations Board that retirement plan contributions were a remuneration for labor within the terms of the NLRA and were subject to the same rights and privileges as wages in collective bargaining.⁵ In the 5 years after this decision, coverage under collectively bargained plans increased significantly. The WPPDA was initiated to check abuses of pension funds, requiring reporting to the Department of Labor on a number of aspects of plan provisions and changes as well as on financial dealings.⁶ Though little oversight or control has been exercised by the Government, the WPPDA established the principle of supervision and has led to the gathering of some useful information.⁷

Economic conditions have also affected the growth of private retirement plans. During the boom times, wage and benefit settlements usually rise,⁸ but retirement benefits are especially dependent because the earnings of accumulated retirement funds are an important supplement to employer and employee contributions; when these earnings decline, contributions must usually rise to meet commitments and cannot be used to broaden benefits. For instance, in 1968, retirement reserves grew by \$11.6 billion. Employers and employees contributed \$11.2 billion, but \$5.5 billion was paid in benefits so that the other \$5.9 billion, or 50 percent of the growth was due to earnings and realized capital gains. In the bear market of 1970, less than 30 percent of the growth in reserves was accounted for by earnings or capital gains.⁹ Based on the

⁴ Institute of Life Insurance, *Private and Public Pension Plans in the United States* (New York: Institute of Life Insurance, 1966), p. 13.

⁵ *Interim Report of Activities of the Private Welfare and Pension Plan Study, 1971*, Senate Committee on Labor and Public Welfare, 92d Cong., first sess. (Washington: U. S. Government Printing Office, 1972), pp. 4-5.

⁶ U.S. Department of Labor, *Legislative History of the Welfare and Pension Plans Disclosure Act of 1962* Washington: U.S. Government Printing Office, 1965), p. 568.

⁷ *Interim Report*, op. cit., p. 25.

⁸ Joseph Talbot, "An Analysis of Changes in Wages and Benefits During 1969," *Monthly Labor Review*, June 1970, p. 46.

⁹ Data from Walter W. Kolodrubetz, "Two Decades of Employee-Benefit Plans, 1950-1970: A Review," op. cit., p. 20.

actuarial assumptions used in most funded plans, a $\frac{1}{4}$ of 1 percent improvement in the annual investment return enables a company to cut its contributions or increase benefits by 4 percent to 6 percent a year.¹⁰ The state of the investment market undoubtedly affects the employer's ability and probably his willingness to furnish extra benefits.

Several other factors have influenced the development of retirement plans. Financial institutions played some role, initiating new types of plans and competing for a larger share of the growing pension market. For instance, insurance companies have been aggressive in selling specially packaged Keogh plans. The exclusion of retirement contributions from wage and price controls in World War II was a stimulus to the growth of benefits; their inclusion under controls in 1971 and 1972 was probably a damper to rising benefits and contributions.¹¹

Overall, the picture is one of older plans, expanding, maturing, and changing their form, newer ones being added in different industries and of different types, and the whole system surging forward in one direction or another in reaction to economic conditions and governmental actions, union pressure, and a whole host of other factors. It is not surprising to find, therefore, that the retirement system as it now stands is extremely varied as well as constantly changing.

The Haves and the Have Nots

Though coverage under retirement plans has risen continuously, most of the growth in the sixties was the result of increased employment in firms that already had pension plans.¹² Penetration into new industries and firms has been slow in the last decade, and the proportion of private wage and salary workers covered has leveled off, with half under pension or profit-sharing plans and half outside the private retirement system. In order to understand the labor market impacts of retirement plans, it is vital to know who is and who is not covered—both the haves and the have nots.

In 1968, 32 million workers were in firms with expenditures for employee retirement plans, but only 28 million of these were estimated to be covered.¹³ The probability of coverage varied significantly between industries and different types of workers (table 2). More than four-fifths of workers in mining were in firms with expenditures, compared with less than two-fifths of those in trade and service. Only a fifth of workers in firms with average wages less than \$2.50 per hour were covered, compared with four-fifths in those paying more than \$5. Over 80 percent of unionized, but less than half of the nonunionized workers are in establishments with pension plans. Nine out of 10 firms with more than 500 employees have private retirement expenditures

¹⁰ "The Pressure on Pension Funds to Perform," *Business Week*, September 11, 1972, p. 92.

¹¹ *Private and Public Pension Plans in the United States*, op. cit., pp. 13-15.

¹² Harry E. Davis and Arnold Strasser, "Private Pension Plans, 1960 to 1969—An Overview," *Monthly Labor Review*, July 1970, p. 40.

¹³ Emerson Beier, "Incidence of Private Retirement Plans," *Monthly Labor Review*, volume 94, No. 7, July 1971, p. 37.

compared with less than 3 in 10 of those with under 100 employees. Among these smaller establishments, 64 percent of the unionized ones spend money on retirement plans compared with only 19 percent of the nonunionized ones; and among workers earning less than \$2.50 per hour, 41 percent of those in unions compared with only 18 percent of nonmembers are covered. Obviously, the lower paid employee of a small firm must usually be unionized if he or she is to be pension covered.

TABLE 2.—*The probability of coverage varied significantly between industries and different types of workers*

[Percent of employees in establishments with and without expenditures]

Item	Total private nonfarm 1968		Manufacturing		All nonmanufacturing		Mining	
	Expenditures	No expenditures	Expenditures	No expenditures	Expenditures	No expenditures	Expenditures	No expenditures
Type of employee:								
All employees.....	55	45	73	27	47	53	82	18
Nonoffice.....	50	50	70	30	40	60	80	20
Office.....	67	33	83	17	62	38	92	8
Average hourly compensation:								
Less than \$2.50.....	20	80	28	72	18	82	-----	100
\$2.50 to \$3.49.....	51	49	59	41	47	53	-----	100
\$3.50 to \$4.99.....	74	26	86	14	66	34	85	15
\$5 and over.....	81	19	93	7	72	28	83	17
Average annual earnings:								
Under \$5,000.....	30	70	36	64	29	71	65	35
\$5,000 and under \$10,000.....	74	26	84	16	66	34	85	15
\$10,000 and over.....	78	22	90	10	67	33	98	2
Employee organization:								
Union.....	82	18	84	16	79	21	98	2
Nonunion.....	44	56	62	38	37	63	73	27
Number of employees in establishments:								
Under 100.....	27	73	32	68	26	74	-----	100
100 to 499.....	62	38	64	36	60	40	71	29
500 and over.....	93	7	93	7	93	7	98	2

TABLE 2.—The probability of coverage varied significantly between industries and different types of workers—Continued

Item	Construction		Transportation, Commu- cation, and utilities		Finance, insurance and real estate		Trade and service	
	Expenditures	No expend- itures	Expenditures	No expend- itures	Expenditures	No expend- itures	Expenditures	No expend- iture
Type of employee:								
All employees.....	52	48	77	23	61	39	38	62
Nonoffice.....	54	46	74	26	19	81	31	69
Office.....	28	72	84	16	70	30	56	44
Average hourly compensation:								
Less than \$2.50.....	13	87	16	84	23	77	18	82
\$2.50 to \$3.49.....	8	92	46	54	49	51	48	52
\$3.50 to \$4.99.....	49	51	81	19	79	21	59	41
\$5 and over.....	71	29	97	3	75	25	61	39
Average annual earnings:								
Under \$5,000.....	41	59	29	71	37	63	27	73
\$5,000 and under \$10,000.....	57	43	80	20	75	24	59	41
\$10,000 and over.....	70	30	96	4	53	47	56	44
Employee organization:								
Union.....	80	20	87	13	67	33	70	30
Nonunion.....	15	85	56	44	61	39	34	66
Number of employees in establishments:								
Under 100.....	42	58	44	56	29	71	20	80
100 to 499.....	72	28	75	25	85	15	52	48
500 and over.....	88	12	92	8	98	2	92	8

Source: Emerson Beier, "Incidence of Private Retirement Plans," *Monthly Labor Review*, vol. 94, No. 7, July 1971, p. 38.

Within these broad groups, there is a great deal of variation. A survey by the U.S. Chamber of Commerce found that while the average retirement expenditures as a percent of payroll varies markedly among industries, the variation within industries was even greater (table 3). For every industry, some establishments had no expenditures while others deferred an unusually large proportion of wages into retirement plan contributions. For instance, among firms in the transportation equipment industry, 10 percent had no outlays for private retirement plans, 69 percent spent up to 5.0 percent of payroll on plans, and 21 percent allocated an even larger proportion. On the average, the industries and the firms within these industries which pay higher wages defer the largest proportion of payroll into retirement plans, but there is obviously wide variation among firms.

TABLE 3.—A survey by the U.S. Chamber of Commerce found that while the average retirement expenditures as a percent of payroll varied markedly among industries, the variation within industries was even greater

	Distribution of companies paying specified percent of payroll			Average pension payment as percent of payroll in firms having payments	Average dollar pension expenditures
	0	0.1 to 5.9	6.0 and over		
Total, all industries.....	14	61	25	4.8	\$306
Total, all manufacturing.....	17	69	14	4.0	240
Food, beverage, and tobacco.....	10	73	17	4.8	309
Textile products and apparel.....	33	61	6	2.9	108
Pulp, paper, lumber and furniture.....	18	79	3	2.7	153
Printing and publishing.....	11	75	14	3.7	256
Chemicals and allied products.....	11	67	22	4.5	206
Petroleum industry.....	0	73	27	4.9	451
Rubber, leather, and plastic products.....	9	68	24	4.2	256
Stone, clay and glass products.....	14	68	18	4.5	271
Primary metal industries.....	7	65	28	4.9	349
Fabricated metal products.....	25	65	10	3.2	173
Machinery (except electrical).....	17	71	11	4.0	250
Electrical machinery.....	21	69	10	3.9	218
Transportation equipment.....	10	69	21	3.9	267
Instruments and miscellaneous.....	30	56	14	3.8	184
Other:					
Public utilities.....	2	41	57	7.0	574
Department stores.....	21	74	5	2.2	84
Wholesale and retail trade.....	33	67	0	2.3	92
Banks, finance and trust companies.....	10	40	50	6.8	390
Insurance companies.....	1	54	45	6.8	455

NOTE.—The 1,115 firms in the U.S. Chamber of Commerce survey are probably not representative of the universe. Evidence indicates that these establishments are more likely than average firms to have retirement plans. Bureau of Labor Statistics figures indicate that among manufacturing firms, 27 percent have no expenditures for retirement plans compared with 17 percent in the Chamber of Commerce survey. The above figures,

therefore, overstate average retirement contributions but understate the variation in these contributions.

Source: U.S. Chamber of Commerce, *Employee Benefits, 1969* (Washington: U.S. Chamber of Commerce, 1971), pp. 15-17.

Regression analysis of retirement plan contributions for individual establishments supports the conclusions suggested by the cross-sectional data: larger, unionized and high-wage firms are more likely to have retirement plans. For nonoffice workers, the incidence of coverage increases 10 percentage points for each dollar increase in average hourly earnings when establishment size, union status, region and industry are controlled. The incidence of coverage is 22 percent higher for unionized workers when all else is controlled.¹⁴ Unionization, size and wage level, are generally more predictive of the incidence of retirement plans than of the level of expenditures among establishments with plans; in fact, unionization explains very little of the variation among covered establishments in the "retirement ratio"—the hourly expenditures for private retirement plans divided by the average hourly wage. However, the average level of earnings has some impact. For nonoffice employees, each extra dollar of average earnings is associated with a 0.3 percent higher retirement ratio.¹⁵

The correlation between retirement plan coverage, unionization, and the level of wages has highly significant implications. Most workers outside of small, low-wage establishments are already covered, so that if the share of workers covered is to increase, these less affluent firms must be penetrated. Rising income among low-wage workers will be conducive to the growth of coverage; but unless unionization expands into new areas, which it is not doing at present, growth will be modest.

For now and the foreseeable future, private retirement plans will, therefore, continue to be concentrated among the larger, unionized, high-wage firms. The half of private wage and salary jobs which are not covered will probably remain that way as benefits continue to improve in those establishments with plans. This is what occurred over the sixties as the growth of the retirement system into new firms slowed, while total contributions rose at an accelerated pace. As a result, the attractiveness of jobs marginally increased in the covered sector and declined in the uncovered sector, although a number of other changes also occurred.

The bifurcated development of the private retirement system raises critical welfare issues. Income differentials between industries and worker groups are continued past the working years by the differential incidence and level of private retirement benefits: or alternatively, some of the differentials which would otherwise exist in the present are deferred until after retirement. Among new social security registrants aged 62 to 65 in the first half of fiscal 1970, only 5 percent of males who were covered by pension plans on their longest job earned under \$4,000 annually on this job, and only 16 percent between \$4,000 and \$6,000, compared with 39 and 24 percent, respectively, among workers not covered by plans on their longest jobs.¹⁶ The relative proportions of women earning under \$4,000 were 29 percent of those with coverage but 77 percent of those without. Even if low-wage workers are lucky

¹⁴ William R. Bailey and Albert E. Schwenk, "Employer Expenditures for Private Retirement and Insurance Plans," *Monthly Labor Review*, vol. 95, No. 7, July 1972, pp. 15-19.

¹⁵ *Ibid.*, p. 19.

¹⁶ Walter W. Kolodrubetz, "Characteristics of Workers With Pension Coverage on Longest Job: New Beneficiaries," *Social Security Bulletin*, vol. 34, No. 11, November 1971, p. 16.

enough to be covered by pensions, they can expect a much lower benefit in the future than the covered worker who earns more. One of the effects of the private retirement system is, therefore, to continue or postpone the effects of wage differentials into the retirement years.

The Diversity of Retirement Plans

Introduced and developed according to the special circumstances existing in particular industries, and adapted to the size of the establishment, the type of covered workers and other factors, private retirement plans have taken a number of different forms. Two general types can be identified: First, pension plans which provide for a definitely determinable benefit payable for life after retirement; and second, profit-sharing plans, under which a percent of the firm's profit is contributed annually with distribution of whatever funds have accumulated by the time of retirement. Profit sharing ties retirement income to the success of the firm, since the benefit depends on the level of profits as well as the proportion shared. Pension plans, on the other hand, provide a more certain and secure retirement income.

Though data on profit sharing retirement plans are not very dependable, it is estimated that there were between 7 million and 8 million workers covered in 1969,¹⁷ compared with over 21 million in private pension plans.¹⁸ In 1969, \$1.65 billion was contributed into profit-sharing funds with over 100 employees, compared with \$7.67 billion into pension funds of this size. Benefit payments were \$614 million and \$3,532 million, respectively, while assets were \$13.6 billion and \$69.4 billion, respectively.¹⁹ In some cases, however, workers are covered by both pension and profit-sharing plans. According to a survey of a limited number of profit-sharing plans, roughly a third are in companies which also have pension plans.²⁰ Whether this is valid for the universe of profit-sharing plans is unknown. Plans with 1 in 10 of the workers covered by profit sharing provide current distribution of the share; these plans and their participants are not included among retirement or "deferred" profit-sharing totals. But a number of the deferred plans covering perhaps a million workers also permit some cash payments before retirement though most is deferred. In many deferred plans also, the retirement benefit may be paid out as a lump sum at the election of the employee.²¹

Because more data are available on pension plans, and because these cover approximately three times as many workers as profit-sharing plans, analysis of the private retirement system must necessarily focus on private pensions. In most cases, this does not make a significant

¹⁷ Donald X. Murray, "Growth of Employee Benefit Plans," *Profit Sharing*, volume 18, No. 3, March 1970, p. 7.

¹⁸ Harry E. Davis and Arnold Strasser, "Private Pension Plans 1960 to 1969: An Overview," op. cit., p. 45.

¹⁹ U.S. Department of Labor, Labor-Management Services Administration, *Welfare and Pension plan Statistics* (Washington: U.S. Government Printing Office, 1971), pp. 12-15.

²⁰ Hewitt Associates, "Annual Survey of Employer P/S Contributions," *Profit Sharing*, volume 19, No. 10, October 1971, p. 21.

²¹ Gunnar Engen, "A New Direction and Growth in Profit Sharing," *Monthly Labor Review*, volume 90, No. 7, July 1967, p. 4.

difference, since the deferred profit-sharing plans have generally similar requirements for participation and qualification, and end up paying roughly comparable benefits. Where a distinction would be relevant, the needed data are seldom available so that crude estimates must be used.²² There is often no choice but to assume that the labor market impacts of profit-sharing plans are similar to those of pensions.

Pensions can be divided into a number of different types according to the method of funding, whether the plans are bargained or unilateral, whether they cover one or more employers, and whether they are contributory or noncontributory.

In terms of the funding method, pensions may be provided through the purchase of annuities from life insurance companies, through the accumulation of resources in a trust fund, through a combination of these two, or out of general assets of the employer. Roughly a fifth of all pension plans covering over 100 employees are insured; these account for 18 percent of all annual contributions. Two-thirds of plans and contributions involve trust funds. Eight percent of the plans and 15 percent of the contributions are combinations of the insured and trust fund methods. Only 2.5 percent of all plans covering over 100 employees are unfunded or "pay-as-you-go," that is, financed out of current revenues, and these account for less than 1 percent of annual contributions.²³ Pension plans with less than 100 participants account for only a small share of total coverage. "Keogh" plans for the self-employed and their workers have expanded rapidly, with over 130,000 small pension plans for the self-employed in 1970 (in addition to a smaller number in the self-employed profit-sharing plans), yet these had less than 200,000 participants. Most of these small plans are held with insurance companies.²⁴

The method of funding affects costs and benefit security somewhat. The employee in an insured plan probably has the most certainty of getting an earned benefit, since insurance companies make it their business to guarantee that funding schedules are met; the participant in an unfunded plan must depend on the continued profitability of its sponsor and there is little benefit security. On the other hand, the insurance approach usually costs more for plans of equal size and offers less flexibility to the employer than the trust fund approach, especially for larger plans. In terms of labor market impacts, however, there are few differences between insured and trustee plans.²⁵

There are some differences between single employer plans and those covering more than one firm. Roughly 3 out of 10 covered workers are in multiemployer plans which are usually union negotiated and especially important in mining, construction, wholesale and retail trade,

²² Under the terms of the Welfare and Pension Plans Disclosure Act, all deferred profit sharing and pension plans with more than 25 participants must file an initial plan description with the Department of Labor, and those with more than 100 participants must file annual reports. While the gathered information on pension plans has been extensively analyzed, little work has been done on the profit-sharing statistics.

²³ Welfare and Pension Plan Statistics, op cit., pp. 7-11.

²⁴ Donald X. Murray, "Growth of Employee Benefit Plans," op. cit., p. 7.

²⁵ Donald M. McGill, "Fundamentals of Private Pensions (Homewood, Ill.: Richard D. Irwin, Inc., 1964.)

transportation and service.²⁶ These have been the most rapidly growing plans over the last decade, and they are different in that they offer some degree of portability, permitting workers to move from one covered employer to another without losing accumulated credits towards a pension. Under a single employer plan with the same qualifying requirements as a multiemployer plan, there may be a disincentive to leave the firm for another job because of the potential loss of benefits.

There may also be differences between negotiated and unilateral pension plans. When the union goes to the bargaining table, it supposedly represents the desires of its members, and the terms of the settlement may differ from the unilateral situation where the employer's concerns are probably paramount. Since 82 percent of unionized employees are in firms with retirement plans, compared with only 44 percent of those who are not in the unions, and three-tenths of private wage and salary workers are under union contracts, members of collectively bargained plans account for roughly 45 percent of all pension-covered workers.²⁷

A participant in a union-negotiated plan may be more likely than one in a unilateral plan to be familiar with its terms, since they must be collectively bargained. This is especially true of an individual who must make contributions from his or her own pocket. A fifth of all single employer plans but only 1 percent of all multiemployer plans are contributory, and the trend is definitely towards noncontributory arrangements.²⁸

Benefit Formulas

Between and within these various types of retirement plans, there is a wide divergence in the benefit formulas and the level of benefits they provide, as well as in the requirements for qualification. These variations sometimes have important labor market implications.

A number of different formulas are used for calculating the retirement benefit. Some plans pay uniform amounts to all eligible retirees. For instance, the 1970 Bakery and Confectionery Workers national plan provided a monthly benefit based on negotiated employer contributions and not the participant's years of service (past vesting) or earnings. In such plans where the collective bargaining agreement requires a \$2.40 weekly contribution per employee, the benefit upon normal retirement would be \$50 monthly, whatever the income or years of service over 25.²⁹ Uniform benefit plans tend to aid the lower income workers; they are usually found in multiemployer plans, most often in low-wage industries where wage scales are compressed.

Most plans, however, take some account of the length of service, even if they do not vary the benefit by the level of earnings. As an example, the Melville Shoe Corp.'s 1970 plan paid a regular retire-

²⁶ Harry E. Davis and Arnold Strasser, "Private Pension Plans 1960 to 1969: An Overview," op. cit., p. 49.

²⁷ Estimate of private wage and salary workers under collectively bargained agreements provided by the Bureau of Labor Statistics, U.S. Department of Labor.

²⁸ Harry E. Davis and Arnold Strasser, "Private Pension Plans 1960 to 1969: An Overview," op. cit., p. 46.

²⁹ U.S. Department of Labor, *Digest of Selected Pension Plans, 1970 Edition* (Washington: U.S. Government Printing Office, 1971), p. 29.

ment benefit of \$2 per month times the years of service. Whatever the level of earnings, an employee with 25 years of service would receive \$50 monthly while one with 30 years of service would receive \$60.³⁰

A declining number of plans calculate the retirement benefit as a percentage of the average earnings over the worker's career, usually also considering years of service. The 1970 Union Carbide Corp. plan with the machinists paid the greater of 1.1 percent of average monthly earnings, times years of service, or \$4 times years of service plus 10 percent of average monthly earnings.³¹

A fourth type of benefit formula is based on average monthly earnings in the last 5 or 10 years or during some period of higher earnings (though length of service may also be considered). This "terminal earnings" formula will pay more to the worker whose income has risen rapidly, and it affords some protection against inflation, since the wage base for benefits will usually rise with living costs. The 1970 New York Times-Newspaper Guild noncontributory retirement plan had a formula of this sort which paid 0.85 percent of average monthly earnings in the 10 years prior to retirement, times the years of service. A worker with 25 years of service earning lifetime average income of \$4,800, which has been growing at 4 percent annually, would receive \$66, compared with \$120 for one with 30 years of service and the same average lifetime income.³²

In addition to these distinct types of formulas, there are many plans which combine these approaches, for instance, offering a minimum guaranteed benefit plus a payment based on earnings multiplied by the years of service. And, though profit-sharing plans have no definite payment formulas, they usually accumulate funds for each worker each year based on the length of service and sometimes on the level of employee earnings. The longer service worker and the higher paid employee usually receive larger shares of the accumulated fund.

These various benefit formulas might have different impacts on labor market behavior in addition to the fact that they produce widely varying average benefits. Profit-sharing may affect the level of productivity since the ultimate benefit depends on employer profits. Under pension plans, uniform benefits will be attractive to workers with lower earnings, perhaps providing them a greater inducement to stay with the company. To the extent that benefit formulas reward lengthy service, there will also be an incentive for employees to hang on as long as possible. This will be especially true in plans with terminal rather than career earnings formulas, since the worker will want to get the highest final income.

Because of these potentially varying impacts, it is worthwhile to get some idea of the frequency of these types of benefit formulas. In 1969, half of covered workers were eligible for benefits based on earnings, most often final earnings (table 4). Multiemployer plans were much more likely to be based on service or else to provide a flat-rate benefit. Salaried employees were usually covered by earnings-based formulas, which is perhaps related to their frequently wider variation in income than hourly employees.

³⁰ *Ibid.*, p. 137.

³¹ *Ibid.*, p. 201.

³² *Ibid.*, p. 151.

TABLE 4.—In 1969, half of covered workers were eligible for benefits based on earnings, most often final earnings

Type of plan	Percent distribution	Total (percent)	Not based on earnings (percent)	Based on earnings (percent)	Career earnings (percent)	Final earnings (percent)	Last year before retirement	Last 5 or high 5 years	Last 10 or high 10 years
All plans	100	100	52	48	21	27	1	22	4
Single employer plans	71	100	37	63	27	36	2	29	5
Multiemployer plans	29	100	92	8	5	3	-----	3	-----
Contributory plans	21	100	22	78	50	28	1	21	8
Noncontributory plans	79	100	61	39	13	26	1	22	3
Plans covering:									
Salaried employees only	14	100	16	84	33	51	2	43	6
Salaried and hourly employees	39	100	25	75	35	40	1	32	7
Hourly employees only	47	100	87	14	6	8	1	7	-----

NOTE.—Because of rounding, sums of individual items may not equal totals.

Source: Harry E. Davis and Arnold Strasser, "Private Pension Plans, 1960-1969: An Overview," *Monthly Labor Review*, Volume 93, Number 7, July 1970, p. 50.

Other data indicate that only a very small proportion of plans make no allowance for length of service. There is a continuing trend toward the elimination of any limits on the period of service which can be recognized in determining benefits.³³ Thus, there is usually a substantial reward for long tenure. This is heightened by terminal earnings benefit formulas, because each year of additional service not only increases the employee's length of service, but also usually increases his terminal earnings. As an average for all pension-covered workers in 1969, including the 27 percent under terminal earnings formulas, it is estimated that the individual with 10 years of service and career average earnings of \$4,800, would have a final salary of \$5,690 (on the assumption of a 4-percent annual salary growth) and would receive only \$27 monthly according to the terms of the average plan. A worker with 30 years of service and the same average career earnings would have terminal earnings of \$8,000, resulting in a benefit of \$140 monthly under formulas existing in 1969.³⁴

Actual data on new male social security beneficiaries receiving private pensions in 1969-70 testify to the benefits from longer tenure. Among those with final earnings on their last job of \$6,000 to \$7,999, the median monthly pension per year of service was \$4.60 for those with less than 20 years service, \$4.80 for those with between 20 and 24, \$4.95 for 25 to 29, and \$5.65 for those with 30 to 34.³⁵ In other words, the retirement benefit increased more than proportionately with each year of service.

While this benefit structure may provide an incentive for longer tenure, it is not without justification from an actuarial point of view. If contributions to retirement plans are viewed as a deferred wage, the longer service employee has more years of deferrals, and deferrals from early periods compound in the pension trust for a longer time. As a hypothetical example, a worker with career average earnings of \$6,000 over 25 years of service (assuming a 4-percent per year increase in salary) will have accumulated \$2,298 at the end of 25 years if 1 percent of his or her salary is saved each year and earns 3.5-percent interest. Another employee who is hired at the same salary level the above worker has achieved after 15 years, and who retires at the same time after 10 years service, will have accumulated \$893 if there is 1-percent deferral earning 3.5 percent annually. The long-service employee can be provided a benefit 2.57 times that of the shorter service one; or put in another way, the accumulation per year of service for the 25-year man is \$91.94 compared with \$89.31 for the 10-year worker. One must, therefore, be very careful in drawing inferences. Because benefit formulas reward long service does not mean that employers are consciously using these as a means to retain their work force; the decision in many cases may be simply based on equity considerations.

³³ Bankers Trust Co., *1970 Study of Industrial Retirement Plans* (New York: Bankers Trust Co., 1970), pp. 27-31.

³⁴ Arnold Strasser, "Pension Formulas Summarization: An Emerging Research Technique," *Monthly Labor Review*, April 1971, pp. 53-54.

³⁵ Walter W. Kolodrubetz, "Private Retirement Benefits and Relationship to Earnings: Survey of New Beneficiaries," *Social Security Bulletin*, vol. 36, No. 5, May 1973, p. 26.

The Level of Benefits

It is a reasonable assumption that—all else being equal—the larger the retirement benefit, the more influence it will have on the work-related decisions of employees. There is incredible variation in the level of benefits under pension and profit-sharing plans. For instance, the 1970 Boilermakers' national plan provided \$379 monthly to a worker with 25 years of service and a career average income of only \$4,800; for 30 years of service it was \$455, though, of course, most workers with this tenure would have higher average annual earnings.³⁶ At the opposite extreme, the Bigelow-Sanford, Inc., plan negotiated with the Textile Workers Union provided only \$40 after 25 years of service, and \$45 after 30.³⁷ In the first case, the private pension benefit combined with social security would provide a comfortable living and a meaningful option to continued work into the later years; in the second case, the pension would provide only the barest supplement to social security alone, certainly not something to look forward to with great anticipation at the end of a long work career.

As indicated, estimates based on 1969 pension plan provisions suggested that the "typical" worker with 30 years of service and career average earnings of \$4,800, could expect to receive \$140 monthly under the average pension plan (table 5).³⁷ There were, however, significant differences among industries, with the average for mining industry plans being only \$116, while in finance, insurance and real estate, it was \$178. Since average earnings also vary markedly between these industries, and since half of all workers have benefits based on earnings, the actual benefits paid under the plans of different industries are even more widely dispersed than the estimates for a "typical" worker. Not only because the pension benefits are more liberal, but also because the earnings on which they are based are likely to be higher, the individual who is employed in durable manufacturing, where the average weekly earnings were \$140 in 1969, could expect a larger pension than the worker in the wholesale and retail trades where the average wages were \$91.³⁸

³⁶ *Digest of Selected Pension Plans*, op. cit., p. 57.

³⁷ *Ibid.*, p. 33.

³⁸ *Employment and Earnings*, vol. 16, No. 7, January 1970, p. 125.

TABLE 5.—*Estimates based on 1969 pension plan provisions suggested that the "typical" worker with 30 years of service and career average earnings of \$4,800 could expect to receive \$140 monthly under the average pension plan*

Industry	Mean monthly benefit without social security
Mining.....	\$116
Contract construction.....	132
Manufacturing.....	128
Nondurable goods.....	118
Durable goods.....	134
Transportation.....	186
Communication and public utilities.....	196
Wholesale and retail trade.....	133
Wholesale.....	133
Retail.....	134
Finance, insurance and real estate.....	178
Services.....	118
Average.....	140

Source: Arnold Strasser, "Pension Formula Summarization: An Emerging Technique," *Monthly Labor Review*, vol. 94, No. 4, April 1971, p. 53.

But there are equally wide variations among plans within these broad industry groupings. For instance, in the nonelectrical machinery industry, the 1970 Caterpillar Tractor-Automobile Workers plan paid an estimated \$178 monthly to the worker with 30 years of service and career average earnings of \$4,800. More typical is the 1970 International Harvester-Automobile Workers plan paying \$141 to a similar worker; while at the lower end, the Metal Working and Repair Service Industries-Machinists national plan paid only \$110.³⁹ Among plans in the food and kindred products industry, the Brewers Board of Trade, New York City-Teamsters 1970 pension provided \$175 for the worker with 30 years service and career average earnings of \$4,800; the Armour & Co.-Meat Cutters plan provided \$125, the Campbell Soup-Meat Cutters \$100, and the Bakery & Confectionery Workers national plan only \$50.⁴⁰

Among profit-sharing plans, there is also a wide dispersion in benefits. There are stories of low-income, long-service employees who have retired with accounts valued in the hundreds of thousands of dollars providing life annuities of more than \$10,000.⁴¹ Data from a sample of profit-sharing plans in 1969 indicate that the older ones pay more

³⁹ *Digest of Selected Pension Plans, 1970 edition, op. cit.*

⁴⁰ *Ibid.*

⁴¹ "Family Firm Expands," *Profit Sharing*, vol. 19, No. 6, June 1971, p. 14.

lucrative benefits than most pension plans, but the new ones rarely do (table 6).

TABLE 6.—Data from a sample of profit-sharing plans in 1969 indicate that the older ones pay out more lucrative benefits than most pension plans, but the new ones rarely do

Year plan started	Number of companies	Average annual life annuity could be provided from the accumulated profit share
1965 to 1968.....	15	\$201
1960 to 1964.....	25	394
1955 to 1959.....	48	1, 313
1950 to 1954.....	52	2, 202
1945 to 1949.....	7	5, 246
1940 to 1944.....	29	4, 144
Before 1940.....	4	9, 672

Source: "Profit Sharing Distributions at Retirement—1969 Survey," *Profit Sharing*, vol. 19, No. 2, February 1971, p. 7.

More comprehensive social security data are available on actual pension and profit-sharing annuity payments to OASDI beneficiaries; almost all workers covered by private retirement plans are also covered by social security so that the data are inclusive. The 1968 survey of the aged indicated that married couples receiving private pensions got a median annual benefit of \$972, compared with \$864 for nonmarried women. Over a fifth of all beneficiaries received less than \$500 annually, and an equal percentage more than \$2,000.⁴² These figures apply to all aged beneficiaries, but those who are retiring currently are getting much more. Among new social security registrants, who are almost all aged 62 through 65, male private pension beneficiaries received a median of \$2,080 from this source in 1969–70, and females \$970. The level for each recipient is of course dependent on previous earnings and years of service. For the new male beneficiaries with less than 20 years of service, the median annual benefit was only \$960 compared with \$1,470 for those with 20 to 24, \$1,840 for those with 25 to 29, \$2,490 for those with 30 to 34, and \$2,870 for those with 35 to 39 years. Alternatively, the median benefit among workers with 25 to 29 years of service was \$1,490 for those with a final income of under \$6,000, \$1,590 for those earning \$6,000 to \$7,999, \$1,750 for those with \$8,000 to \$9,999, and \$2,480 for those with \$10,000 or more earnings.⁴³

⁴² Patience Lauriat and William Rabin, "Men Who Claim Benefits Before Age 65; Findings From the Survey of New Beneficiaries," 1968, *Social Security Bulletin*, November 1970, p. 20.

⁴³ Walter W. Kolodrubetz, "Private Retirement Benefits and Relationship to Earnings: Survey of New Beneficiaries," *op cit.*, pp. 20–27.

Conditions for Qualification

The conditions which must be met to qualify for a retirement benefit to a large extent determine the plan's labor market impact. Often, a new employee must work for a trial period or must attain some minimum age before beginning to participate in a plan; the pension or profit-sharing plan could have no effect during this period, and perhaps even a negative one if wages in the firm were below what they would be without a plan. To receive a full pension, most plans require some stated number of years of participation. A worker who is close to attaining the required tenure may be reluctant to change jobs and lose his or her benefit. Most plans have "vesting" provisions which guarantee a worker with a given length of service a pension when he reaches early or normal retirement age, even if he leaves the plan before that time. The presence of an early vesting provision may also nullify some of the negative impact the pension may have on labor mobility. Because of these possible consequences, participation, service, and vesting provisions are an important aspect of private retirement plans. There is wide diversity in these provisions. In some plans, a worker may have to be 30 years old and have 5 years' service before he can participate. He may not be eligible for a pension unless he works until age 65 with the same employer. Overall, however, there has been a very significant trend toward the elimination of participation requirements, a liberalization of the service requirements for normal retirement, and the adoption of earlier vesting provisions, so that workers now covered by the private retirement system are much more likely to receive a pension or profit-sharing annuity in the future than covered workers in the past.

In 1969, 45 percent of private pension plans accounting for 22 percent of all covered workers, had participation requirements. More than half of these required some minimum age and service combination, most frequently, age 25 with 1 year of service or age 30 with 1, 3, or 5 years of service.⁴⁴ The important point, however, is that roughly four-fifths of all covered workers in 1969 were in plans where coverage became effective immediately, with credits accumulated toward a retirement benefit from the first day of work.

According to the 1969 plans, 8 out of 10 workers had to achieve some minimum level of service before they could qualify for retirement benefits, and 94 percent had to attain some specified normal retirement age. An estimated 72 percent of covered workers were in plans that permitted participants to retire after 15 years of service or less, provided they also met the age test; 60 percent could retire with only 10 years of service, and a fourth with fewer than 5 years. Only 6 percent of all workers were covered by plans with service requirements alone, which permitted retirement at any age with full benefits once the stipulated tenure had been achieved.⁴⁵

⁴⁴ *Ibid.*, pp. 48-50.

⁴⁵ Harry E. Davis and Arnold Strasser, "Private Pension Plans, 1960-69: An Overview," *op. cit.*, p. 48.

Vesting provisions which are found in plans covering 77 percent of all workers, are generally of two types: full or *graded*. Under full vesting, the worker is guaranteed a full benefit upon reaching normal retirement age based on the formula in existence at the time he or she severs employment and the service and earnings level he or she achieved at the time of termination. Under *graded vesting*, the participant is promised only a percentage of the full benefit, for instance, 50 percent after 15 years and 10 percent more each year thereafter up to full vesting after 20 years. Graded vesting formulas cover only 1 in 10 workers with vesting, but this approach is contained in most congressional pension reform proposals as a minimum vesting requirements. At present, however, a worker must usually have between 5 and 15 years of service and have attained some stated age before leaving a plan in order to qualify for any benefit; after this time, he or she qualifies for the full benefit based on accumulated years of service and earnings, payable at the normal retirement age. In 1969, 46 percent of all workers in plans with vesting provisions were guaranteed accrued benefits after 10 years or less service; 39 percent were vested with between 11 and 15 years of service (table 7).

TABLE 7.—*In 1969, 46 percent of all workers in plans with vesting provisions were guaranteed accrued benefits after 10 years or less service; 39 percent were vested with between 11 and 15 years service*

Minimum service requirement	Percent distribution of all vested workers	Total	No age requirement	Percent of active workers in plans with minimum age requirement				
				Total	40 or less	Over 40 and under 50	50 and under 55	55 and over
All plans with vesting-----	100	100	51	49	25	5	11	8
Less than 5 years-----	1	100	82	18	12	-----	6	-----
5 to 10 years-----	45	100	74	26	17	5	3	2
11 to 15 years-----	39	100	26	74	44	5	19	7
16 to 20 years-----	12	100	43	57	2	9	16	29
More than 20 years-----	3	100	66	34	1	2	13	19

Source: Harry E. Davis and Arnold Strasser, "Private Pension Plans, 1960 to 1969: An Overview," *Monthly Labor Review*, vol. 93, No. 7, July 1970, p. 54.

Data for the largest and usually trend-setting plans suggest that service requirements are being reduced for vesting, and age requirements are being eliminated. Among the plans bargained nationally by unions, 82 percent had service and age requirements in 1965, but only 53 percent in 1970. The proportion without age requirements and only a 10-year service requirement increased from 10 percent of the total in 1965 to 34 percent in 1969. Similar trends occurred among plans established unilaterally by individual employers.⁴⁶ These changes mean that today's covered worker does not have to stay with a single employer as long as in the past in order to qualify for future benefits.

Profit-sharing plans usually have more stringent participation requirements but more liberal vesting provisions than pension plans. According to a 1968 survey by the Council of Profit Sharing Industries, only a fifth of plans had service requirements of less than 1 year, with most requiring 1 to 10 years employment before participation. On the other hand, 75 percent of all plans vested fully after 10 years participation or less.⁴⁷

The Timing of Retirement

To the degree the availability of a pension or profit-sharing annuity influences the retirement decision of the older worker, the provisions of pension plans governing the time benefits will become available are among their most important features. All plans have a "normal retirement age" when full benefits can be received provided service and other requirements are met. In 1969, two-thirds of all covered workers were in plans that had a normal retirement age of 65, a fourth were in plans permitting normal retirement at age 64 or less, and 6 percent had no age requirement at all (table 8).

⁴⁶ Bankers Trust Company, *1970 Study of Industrial Retirement Plans*, op. cit., p. 11.

⁴⁷ Donald X. Murray, "Latest Trends—Eligibility and Vesting," mimeographed, 1970.

TABLE 8.—In 1969, $\frac{2}{3}$ of all covered workers were in plans that had a normal retirement age of 65, $\frac{1}{4}$ were in plans permitting normal retirement at 64 or less, and 6 percent had no age requirement at all

Service	Percent distribution of all covered workers	No age requirement	Percent distribution by earliest age for normal retirement					
			40 to 49	50 to 54	55 to 59	60 to 61	62 to 64	65 and over
Normal retirement.....	100	6			3	8	14	69
Less than 5.....	21					3	2	95
5 to 10.....	35					1	33	66
11 to 15.....	16					3	5	92
16 to 20.....	18	1			12	30	2	55
More than 20.....	11	50			7	16	10	18

Source: Harry E. Davis and Arnold Strasser, "Private Pension Plans, 1960 to 1969—An Overview," *Monthly Labor Review*, vol. 93, No. 7, July 1970, p. 49.

Three-fifths of all covered workers are subject to provisions which require retirement at or after the normal retirement age. In 1970, 34 percent of covered workers were in plans with "compulsory" retirement provisions which required the employer's approval for continued work past a stipulated age, usually 65; 17 percent were in plans with automatic retirement provisions which prohibited work past a stipulated age, usually several years after the normal retirement age; and 7 percent were in plans with both compulsory and automatic provisions.⁴⁸

A majority of plans permit retirement before the normal age with an immediate but usually reduced lifetime benefit. In 1969, 87 percent of all pension-covered workers were in plans with some type of early retirement provision (table 9). Three-fifths of these workers could choose to defer their monthly benefit until the normal retirement age, but the remainder were in plans only paying the benefit immediately. For all but 6 percent of the covered workers, the early retirement benefit was less than a normal retirement benefit for the same service and earnings, reflecting the fact that it would have to be paid for more years with fewer in which contributions could be made and could earn interest, thus increasing costs to the employer. In half the cases where the benefit was reduced, the reduction roughly equaled the "actuarial equivalent," i.e., the reduction was such that employer's contributions and costs would be the same as for normal retirement; but in the other half the reduction was less than this amount, making it more attractive for the employee to retire early but also making it more expensive for the employer.⁴⁹ There is apparently a trend toward the latter type of early retirement formulas. In 1970, 47 percent of the unilaterally established company pension plans surveyed by the Bankers Trust Company paid more than the actuarial equivalent compared with only 16 percent in 1965.⁵⁰

⁴⁸ Special tabulation of pension plan data, Bureau of Labor Statistics, U.S. Department of Labor.

⁴⁹ Harry E. Davis and Arnold Strasser, "Private Pension Plans, 1960 to 1969: An Overview," op. cit., pp. 52-53.

⁵⁰ Bankers Trust Company, *1970 Study of Industrial Retirement Plans*, op. cit., p. 17.

TABLE 9.—*In 1969, 87 percent of all pension-covered workers were in plans with some type of early retirement provisions*

Service	Percent distribution of all covered workers	No age requirement	Percent distribution by earliest age for normal retirement					
			40 to 49	50 to 54	55 to 59	60 to 61	62 to 64	65 and over
Early retirement.....	87	9		3	63	20	4	
Less than 5.....	9	1	2	4	71	22		
5 to 10.....	25			1	69	27	2	
11 to 15.....	23		1	2	73	17	7	
16 to 20.....	12	1		3	67	19	13	
More than 20.....	18	43		7	37	11	1	

Source: Harry E. Davis and Arnold Strasser, "Private Pension Plans, 1960 to 1969—An Overview," *Monthly Labor Review*, vol. 93, No. 7, July 1970, p. 49.

About 17 percent of all covered workers were in plans with special early retirement provisions in 1969. These are particularly prevalent in the plans negotiated by the steelworkers, automobile workers and rubber workers.⁵¹ Initiated to protect workers from technological change and layoffs generally, special early retirement provisions offer benefits to older workers who are permanently laid off by the employer before reaching normal retirement age. These provisions usually provide more than the normal retirement benefit, at least until normal retirement age or the time of qualification for social security. In the 1970 Ford Motor Company—Automobile Workers plan, for example, the worker who is laid off at age 55 with 10 years of service will get his normal benefit plus \$6 monthly per year of service until eligible for unreduced social security benefits or at least \$400 per month until age 65.⁵² Retiring a worker in this way is expensive, and neither the special provisions nor their use have expanded much over the last decade (see table 34).

Service requirements connected with early and special early retirement provisions also affect the age at which workers can retire. For instance, the worker who is hired at age 48 is not eligible for early retirement at age 62 in a plan with a 15-year service requirement. The most frequent service requirement for special and early retirement is 10 years, with 15 years almost as common (see table 9).

The age and service requirements which determine the availability of retirement benefit payments have an obviously significant impact on the timing of retirement. As these change, so does the impact of pension and profit-sharing plans on retirement patterns. To the extent that early retirement benefits are improved and terms liberalized, more workers may choose this route. Where there are a number of workers who are eligible for normal, early, or special retirement, jobs may be opened in slack labor markets by easing these workers into retirement. Compulsory and automatic retirement provisions to a large extent determine how long employees can continue on the job. These and other retirement plan impacts are a significant factor in determining the labor force behavior of older workers.

The Maturation of Retirement Plans

The private retirement system is constantly changing, with increasing benefit levels, liberalizing eligibility criteria, and consequently rising costs. It is vital to understand the past and present trends in development in order to predict future impacts.

Over the last decade, approximately nine-tenths of the growth in coverage has come from the expansion of existing plans.⁵³ The changes in the system therefore reflect the maturation and development of individual plans. Most of them go through the same aging process. At the outset, modest benefits are promised to the work force, usually including some proportion who are nearing retirement age and who

⁵¹ Harry E. Davis and Arnold Strasser, "Private Pension Plans, 1960-69: An Overview," *op. cit.*, p. 53.

⁵² Digest of Selected Pension Plans, 1970 Edition, *op. cit.*, p. 85.

⁵³ Harry F. Davis, "The Growth of Benefits in a Cohort of Pension Plans," *Monthly Labor Review*, vol. 94, No. 5.

will participate for only a short while. Annual contributions are made into a fund from which retirement benefits are paid. Ideally, these contributions will be adequate to meet all accruing liabilities, i.e., to cover the cost of providing stipulated benefits in the future for all workers currently accumulating credits toward a pension, as well as to meet past service liabilities, i.e., benefits for years of work before the initiation of the plan. All but 2 percent of private pension plans with 25 or more participants are "funded," that is, contributions are made each year to accumulate reserves rather than to merely pay current benefits. But firms vary in their funding goals, with some aiming to accumulate enough money over a 25 year period to meet all past service as well as currently accruing liabilities, while other firms just meet the Internal Revenue Service requirement of paying interest on past service liabilities while covering all those currently accruing. The general pattern, however, is to accumulate substantial reserves in the early years of the plan when only a few eligible workers are retiring and benefit payments are low.

As the years pass, more and more of the workers who were with the plan at its inception reach retirement age, and benefit payments increase relative to contributions. But a reserve has usually been accumulated, and its earnings supplement employer payments so that the fund continues to grow. At some point, as past service liabilities are reduced, the benefits of the plan are usually liberalized to keep pace with the rising cost of living and benefit increases of competing plans; the costs are, therefore, increased. The higher benefits are usually extended to workers nearing retirement age, and sometimes even to retirees, and this increases the past service liability since contributions have not yet been made to meet these extra costs. There may be a continuing trend of benefit increases, so that past service liabilities never disappear, but generally, the percentage of liabilities which are funded grows over time. Eventually, an equilibrium may be reached where contributions and the earnings of the accumulated fund balance benefit payment outflows, and where the reserve is large enough to meet all accrued liabilities. Evidence indicates that most plans over 10 years of age are fully funded, and that younger ones are moving in that direction.⁵⁴

In some cases, however, most often in "mature" plans in declining industries, benefits are increased and past service liabilities are incurred where the employers do not or are not able to raise current contributions enough to cover the costs. The classic example is the railroad industry, whose pension plan is somewhat unique in that it is circumscribed by Federal legislation, but whose underlying conditions typify those in other declining industries. Though the Railroad Retirement Fund has over \$5 billion in accumulated reserves, it is expected to run out of money by 1988.⁵⁵ This will occur because promised benefits exceed projected contributions and earnings plus the reserves. Between 1959 and 1971, railroad employment declined from 1.4 million to 611,000, while the number of pension beneficiaries rose from 461,000 to

⁵⁴ Frank L. Griffin and Charles L. Trowbridge, *Status of Funding Under Private Pension Plans* (Homewood, Illinois: Richard D. Irwin, Inc., 1969), p. 50.

⁵⁵ Robert J. Samuelson, "Railroad Retirement System In Trouble," the *Washington Post*, Aug. 19, 1972, p. D7.

nearly 1 million. Increases in benefits of 10 percent in 1970 and 15 percent in 1971 were adopted for all beneficiaries, but there was no change in the contribution level, since railroads could not afford it and since the number of workers per retiree had declined to the point where the work force was unable to pay for the added benefit through deferred wages. Unless changes are made in the system, the Railroad Retirement Commission estimates that (even if there are no further benefit increases) receipts into the fund will be less than disbursements in 1973, and the difference will increase rapidly as more workers retire. Eventually, the fund will be drawn down.⁵⁶

In most cases where there is a precipitous decline in an industry's work force, a reduction in the number of firms, a rise in its average age, and an increase in the number of beneficiaries, pension plans are put under stress which is aggravated by pressure for more adequate benefits to keep up with the rising cost of living. Wherever such conditions prevail, as in the Studebaker shutdown in 1954,⁵⁷ and the coal miners and railroad retirement funds today, pension problems can be expected.⁵⁸

On the whole, however, most pension plans have more healthy maturation. Over the sixties, the system as a whole moved toward fuller funding and greater benefit security, coverage grew rapidly, benefits increased even more, and the terms and conditions of plans were significantly liberalized.

Among private pension plans in existence in both 1962 and 1969, there have been a number of substantial changes:

(1) The proportion of covered workers in plans with age or service requirements for participation declined from 29 to 22 percent.

(2) In 1962, only 1 out of 10 workers could retire with a full benefit before age 65. By 1969, 3 out of 10 covered workers were in plans with a normal retirement age below 65.

(3) Over this period, the number of plans with terminal earnings formulas for calculating benefits increased, covering a fourth of all workers in 1962, but roughly a third in 1969.

(4) Three out of four workers were in plans with some type of vesting provision in the latter year, compared with three out of five in the former.

(5) Early retirement provisions covered 87 percent of workers in 1969 compared with 77 percent in 1962.

(6) There was some liberalization of special early retirement benefits, generally raising the payment up to the level which would be received at normal retirement with social security.⁵⁹

There is no assurance that these trends will continue at the same pace over the 1970's. Special early retirement provisions, which were added to many plans in the late fifties and early sixties, accounted for the same percentage of covered workers in 1969 as in 1962. Other types of benefits, such as cost-of-living escalators, may catch on and become

⁵⁶ *Ibid.*

⁵⁷ *Federal Reinsurance of Private Pension Plans*. Hearings before Senate Committee on Finance, 89th Congress, 2d sess. (Washington: U.S. Govt. Print Off., 1966), pp. 112-115.

⁵⁸ "Pension Squeeze," *Business Week*, September 16, 1972, p. 41.

⁵⁹ Harry E. Davis, "The Growth of Benefits in a Cohort of Pension Plans," *op. cit.*, pp. 46-50.

more important than terminal earnings formulas. But the thrust will undoubtedly be toward providing a larger retirement benefit with greater certainty to a larger percentage of covered workers at an earlier age.

Social Security and the Private Retirement System

The private retirement system is built on the foundation of the much more comprehensive retirement system—social security. The present and future aggregate impact of pension and profit-sharing plans is to a large extent interrelated with social security.

With few if any exceptions, employers contributing to private plans must also pay social security payroll taxes and withhold an equal tax from the employee's paycheck. Almost every worker who receives a private pension is also eligible for social security payments, and the level of benefits under private retirement plans are established, either consciously or unconsciously, as a supplement to anticipated OASDI benefits. In the forties and fifties, many private pension plans simply promised to make up the difference between social security and the stated level of retirement income. In 1949, for instance, the steelworkers negotiated plans providing a minimum of \$100 per month including social security.⁶⁰ The reasoning was that social security payments were not being upgraded enough to meet the basic needs of workers. Beginning in 1950, however, and continuing to the present, periodic increases were made in social security benefits. Private pension plans with social security offsets, therefore, contributed less to the welfare of workers than plans providing stipulated benefits. Unions, including the steelworkers, were therefore generally successful in negotiating benefit formulas without direct offsets.⁶¹

Many plans, however, still have formulas which pay higher benefits for earnings above the social security tax maximum. The idea is that OASDI benefits will provide a floor of retirement income, guaranteeing the replacement of a fixed percentage of income below the maximum; plan benefits are intended to insure the same replacement for incomes above the maximum, or to raise the "replacement ratio" for those both above and below. As an example, the 1970 Dravo Corp. pension plan with the Marine and Shipbuilding Workers promised an annual benefit (for those retiring with less than 15 years of service) of 1 percent of average earnings subject to social security tax during the 10 years prior to retirement, but 1.5 percent of average earnings above the maximum.⁶² Other plans provide for some percentage of earnings up to a fixed amount, often social security maximums existing at some point in time, and a higher percentage for earnings above that level. The Internal Revenue Service issues "integration rules" insuring that the percentage of income replaced by social security and the pension is no larger for employees with higher earnings; this is

⁶⁰ Statement of Joseph Swire in *Reduction of Retirement Benefits Due to Social Security Increases*, hearings before Subcommittee on Employment and Retirement Increases, Special Committee on Aging, U.S. Senate, 90th Cong., 1st sess. (Washington: U.S. Government Printing Office, 1967), pp. 61-72.

⁶¹ *Ibid.*

⁶² *Digest of Selected Pension Plans, 1970 Edition*, op. cit., p. 73.

to protect against the use of pension plans chiefly for rewarding the higher paid employees.

Data indicate that in the aggregate, there is no widespread problem with a skewing of benefits toward higher income employees, at least in terms of the percentage of income replaced. A study of 28 large, liberal private plans in 1969 estimated that the pension alone would replace as a median, 28 percent of the income of low-wage earners (with income two-thirds of the average in their industry) with 20 years of service, compared with 15 percent for those with high earnings (80 percent above the average).⁶³ Actual data on the private pensions of new male social security beneficiaries indicate much less redistribution. For those earning \$6,000–\$7,999 in their longest job with 20 to 24 years of service, median private pensions replaced 18 percent of final income, the same percentage as for those earning \$10,000 or more. Among those with 30 to 34 years of service, however, 31 percent of the income of the less affluent group was replaced by their pensions, compared with only 28 percent among the \$10,000 and over group.⁶⁴ The fact remains, however, that private retirement benefits do not give relatively more to the upper income employees. Since replacement rates under OASDI are skewed to the low earners, the combined effect is to provide the 65-year-old low-income worker, who also receives a private pension, with almost three-fourths of his or her preretirement income on the average.⁶⁵

Whether or not the comparative replacement rates of high and low income workers are considered equitable, the significant point is that pension benefits are planned as a layer on top of the social security floor. The median pension replacement rate for the typical 20-year-service worker in the 28-plan 1969 sample was 21 percent (though it is probably closer to 23 percent now). The average social security replacement rate for all private industry was estimated to be 23 percent for a 65-year-old single male retiring as of January 1, 1972, and 48 percent for the married male (though these figures, too, have increased substantially).⁶⁶ It is only by combining the two payments that a significant replacement rate is achieved which permits the worker to live in retirement at something near his or her previous standard.

The layering of the private retirement system on top of the social security system creates some public policy dilemmas. Those without private retirement benefits must, of course, rely on social security alone. In order to raise the retirement income of these "have nots," the whole social security floor must be lifted, which tends also to raise the replacement rate for pension covered workers. At the same time, if there is some degree of inelasticity in the ability to pay for and the demand for future retirement benefits, increases in social security

⁶³ Peter Henle, "Recent Trends in Retirement Benefits Related to Earnings," *Monthly Labor Review*, volume 95, No. 6, June 1972, p. 16.

⁶⁴ Walter W. Kolodrubetz, "Private Retirement Benefits and Relationship to Earnings: Survey of New Beneficiaries," *op. cit.*, p. 27.

⁶⁵ Peter Henle, "Recent Trends in Retirement Benefits Related to Earnings," *op. cit.*, p. 15.

⁶⁶ *Ibid.* pp. 14–16.

contributions and payments might stunt the growth of the private retirement system. Put in another way, employers who have to pay a larger OASDI payroll tax may be unable to afford increased pension benefits, and they may not feel obligated to provide these since their workers are protected by a more adequate social security floor. Workers who see their social security payroll deductions increasing may press for cash compensation rather than greater deferrals into pension or profit-sharing plans.

The extent of such impacts cannot be quantified in any exact way, but it is fairly certain that a doubling or tripling of social security taxes and benefits over several years would squeeze the private retirement system. There are those who argue for such a course of action. Social security has advantages such as almost complete portability, very early vesting, and a guaranteed benefit security. On the other hand, defenders of the private retirement system argue that it provides needed funds for investment and that its adaptability to individual situations is an asset which can never be matched by a homogeneous system. Also, as the social security system takes on increasing redistributive functions, the private retirement system is the best way workers can rise above the social security floor of adequacy to a higher replacement rate.⁶⁷

Arguments are likely to continue over the relative balance of the public and private retirement systems. The relative "effectiveness" of the systems depends on the goals for which they are intended, and there is no way to decide on any single set of goals. A variety of normative and philosophical, as well as pragmatic, issues are involved. Whether or not the arguments are resolved, however, it is vital to recognize the interplay of social security and the private retirement system.

The Future of the Private Retirement System

The future of the private retirement system is clearly dependent upon changes in social security, the trends of development in pension and profit-sharing plans, the economic climate, and a variety of other factors. Continued growth and change are relatively certain, but the pace and direction can only be guessed.

Mere extrapolations of past trends can be misleading. For instance, the President's Committee on Corporate Pension Funds and Other Retirement and Welfare Programs estimated in 1965 that by 1980, plans would cover 42.7, or nearly three-fifths, of all wage and salary workers, with 6.6 million beneficiaries receiving \$9.0 billion, employer contributions of \$10.9 billion, and reserves of \$225 billion.⁶⁸ These estimates are suspect, however, since the interim projections for 1970 were grossly wide of the mark. Coverage was predicted to be 34.0 million, instead, it was 29.7 million. Contributions and reserves were predicted to be \$8.7 billion, and \$125 billion, respectively; instead they

⁶⁷ Robert J. Myers, "Government and Pensions," *Private Pensions and the Public Interest* (Washington: American Enterprise Institute for Public Policy Research, 1970), pp. 29-50.

⁶⁸ President's Committee on Corporate Pension Funds and Private Retirement and Welfare Programs, *Public Policy and Private Welfare Programs* (Washington: U.S. Government Printing Office, 1965), appendix table 1.

were \$14.0 billion and \$137 billion, respectively.⁶⁹ Obviously, it is difficult to know what the future will bring.

There are, however, a number of clouds on the horizon that do not bode well for the private retirement system. Where the 1950's were a decade of rapidly expanding coverage, and the 1960's of dramatically improving benefits, the 1970's may well be a decade of relative stagnation, with newer plans catching up to the older ones, but developments overall coming much more slowly than in the recent past. The following factors support this conclusion:

First, as plans mature, more and more workers will be retiring and receiving recently improved retirement benefits. Fully funded plans should have little trouble meeting these demands but those which are underfunded may have to run just to stay in place. Their problems will be compounded by demographic factors. In the first half of the decade, the 60- to 64-year-old age cohort will grow more rapidly than the total population; in the latter half of the decade, the 65- to 69-year-old cohort will expand dramatically relative to its slow growth of the last decade.⁷⁰ This means that a large proportion of workers in the labor force will be reaching retirement age, putting pressure on the retirement system. As the experience of the railroad and coal industries suggests, this can create problems when an aging work force presses for benefits which have not been paid for by previous contributions and which cannot be met by deferring wages from the current work force. Over the next decade, workers in the 20- to 29-year-old cohort will be the most rapidly expanding segment of the labor force, while the "buffer cohort" aged 45 to 54 which might be expected to side with older workers, will actually decline.⁷¹

Second, the favorable financial conditions which provided funds for improving retirement benefits over the sixties will not be available in the coming decade. Whether or not a bull market will exist which can provide a high level of earnings on reserves, the rate of increase in retirement fund earnings cannot continue to rise. There has been a dramatic shift in retirement fund investment patterns over the last decade from Government securities and corporate bonds to common stock. The result was a significant increase in the yield of retirement funds allowing firms to use their contributions for improving benefits. The rate of return on corporate pension funds rose from an estimated 3½ percent in 1965 to 5 percent in 1970,⁷² though this includes only realized capital gains and not those accruing which will be utilized in the future. As a rule of thumb, each one-fourth of 1 percent increase permitted employers to reduce contributions or raise benefits by between 4 and 6 percent.⁷³ Now, however, the portfolios of funds are much more "balanced," that is, much closer to yielding their potential. The rate of return has probably stabilized, providing little impetus for expansion.

⁶⁹ *Ibid.*, and Walter W. Kolodrubetz, "Two Decades of Employee Benefit Plans, 1950-70: A Review," *op. cit.* p. 20.

⁷⁰ Sophie C. Travis, "The U.S. labor force: projections to 1985," *Monthly Labor Review*, Vol. 93, No. 5, May 1970, p. 4.

⁷¹ *Ibid.*, p. 4.

⁷² Louis Harris and Associates, *Large Corporations and Their Pension Funds: 1970* (New York: Louis Harris and Associates, Inc., 1971), p. 85.

⁷³ "The Pressure of Pension Funds to Perform," *op. cit.*, p. 95.

Third, continued increases in social security benefits and contributions may have an impact on the growth and development of the private retirement system. Some businessmen and some social security experts have asserted that the 1972 amendments which increased all benefits 20 percent and improved them in other ways, consequently raising the tax rate from 5.2 percent of the first \$9,000 of earning to 5.85 percent of the first \$12,000 in 1974, will have a significant impact on the private retirement system.⁷⁴

There is no clear-cut evidence, but some reason to believe, that this will retard the growth of private plans. From 1960 to 1965, contributions to social security rose 45 percent, while from 1965 to 1970, they more than doubled; private retirement plan contributions rose 53 percent from 1960 to 1965, but 67 percent from 1965 to 1970, despite the faster growth of social security.⁷⁵ In comparison, however, the 1972 amendments will increase social security contributions even faster, by almost 50 percent within 2 years. If total retirement contributions rise at their previous rate, private retirement plans may have somewhat less room to expand. And this assumes that there will be no further increases in social security before 1974, which may be an unrealistic assumption in view of the benefit escalator in the 1972 law.

Higher levels of social security may reduce pressure for expanded benefits in industries covered by private retirement plans, but the more significant impact will likely be to discourage the formation of new plans in the now uncovered areas. Social security is probably a more effective retirement system for such industries. They are characterized by small firms, high turnover, and low wages; and social security obviates the need for separate plans, has complete portability, and is in part an income transfer mechanism to those with low wages. Whether this is the case, increasing social security taxes will affect both employers and employees who usually do not have private plans because they cannot afford them.

Fourth, increasing governmental regulation of the private retirement system is inevitable. Minimum standards will be set for vesting and funding, and plans falling below these standards will be forced to change. Costs are involved, and the immediate impact of new legislation will be to increase contributions in the aggregate. However, it is also possible that the further growth of the system will be forestalled. Because they have to meet minimum standards, some firms without plans may be discouraged from establishing them; others with plans may simply drop, or at best not improve them. Though it is doubtful that any legislation passed by Congress will be so severe as to cause an immediate disruption of the system, there is the possibility of a longrun impact.

In light of these factors, simple extrapolation of past trends is questionable. Yet, it is probably not wrong to assume that the directions of change will continue even if the pace slows. Three major trends emerge from studies of "lead" retirement plans by the Bankers Trust Company: First, there has been a significant trend toward the elimi-

⁷⁴ "The Forces Reshaping Social Security," *Business Week*, July 15, 1972, pp. 54-60.

⁷⁵ Walter W. Kolodrubetz, "Two Decades of Employee-Benefit Plans, 1950-1970: A Review," op. cit., p. 20.

nation of age requirements and the reduction of service requirements for vesting; second, terminal earnings formulas have become more widespread as a hedge against inflation, and benefits have increased to replace a greater share of final salary; and, third, early retirement provisions have proliferated, they have been changed to permit exit at an earlier age, and benefits have been increased.⁷⁷ Experts generally agree that these trends will continue to be predominant over the next decade. Many feel that portability provisions will also expand as multiemployer plans continue to grow in importance, as stable and established plans work out greater coordination, with reciprocity agreements, and perhaps as Federal legislation is passed to encourage portability. But to the extent that earlier vesting is a partial substitute for portability provisions and that only vested rights can be transferred anyway, vesting changes will probably affect more workers.

To finance further improvements, most experts believe that contributions will continue to expand at a rapid rate.⁷⁸ As suggested, however, there are reasons to believe that the pace of growth and change will slow. Whatever the future may bring, the fact remains that the private retirement system now covers half of all private wage and salary workers, and it is providing benefits to an ever increasing proportion of new retirees. Pension and profit-sharing plans have undergone significant changes in the last decade, and the impact will be increasingly felt in the coming years as more and more participants reach retirement age. Because of the lag between lead plan changes, their widespread replication and their full impact, it is the past rather than future developments which will largely determine the labor market impacts of the private retirement system in the next few years. It is, therefore, vital to look at the provisions of pension and profit-sharing plans, as well as the trends in these provisions, to determine their likely effects.

⁷⁶ "The Forces Reshaping Social Security," *op cit.*, and Garnett Horner and Philip Shandler, "Nixon Will OK Benefits Rise," *The Evening Star and The Washington Daily News*, October 30, 1972, p. A-8.

⁷⁷ *1970 Study of Industrial Retirement Plans*, *op cit.*, pp. 1-17.

⁷⁸ T. J. Gordon and R. E. LaBleau, "Employee Benefits, 1970-1985," *Harvard Business Review*, No. 1, January 1970, pp. 26-28.

3. DEFERRED WAGES AND LABOR COSTS

The Deferred Wage Concept

Up until the last several decades, pension and profit-sharing benefits were generally regarded as awards or gratuities rather than contracted obligations between employers and employees. Often, they were paid out of operating expenses rather than reserves, with the employer having the right to deny payments to any employee. As an example, one of the earliest plans contained the following disclaimer:

This pension plan is a voluntary act on the part of the company and is not to be deemed or construed to be a part of any contract of employment, or as giving any employee an enforceable right against the company. The board of directors of the company reserves the right to alter, amend, or annul or cancel the plan or any part of it at any time. The right of the company to discharge any employee at any time shall not be affected by this plan, nor shall such employee have any interest in any pension after discharge.¹

As retirement plans became more firmly established, particularly where they were part of collective-bargaining agreements, conceptions began to change. The Inland Steel decision in 1947 was a landmark, with the National Labor Relations Board ruling that:

Realistically viewed, this type of wage enhancement or increase, no less than any other, becomes an integral part of the entire wage structure and the character of the employee representative's interest in it and the terms of its grants, is no different than any other case where a change in the wage is affected.²

Today, it is generally accepted that retirement plan contributions are a form of "deferred compensation" rather than a gratuity, at least where these outlays cover current as opposed to past service liabilities. According to income tax regulations, payments into funds are set aside for use only for the benefit of employees. The level of payments under collectively bargained plans is usually determined along with other noncash benefits as part of the total compensation package. Employers, therefore, generally view contributions as a cost of labor, while workers view them as a deferral of wages for the future.

Despite this general agreement that pension and profit-sharing contributions are a deferred wage and a labor cost, there are many unresolved issues. Where benefits are extended for past service when wages were not deferred, the employer may feel that his obligation is not the same as in meeting current service liabilities. Some firms make very slow progress in funding these past liabilities, to the detriment of currently employed workers who might find that there is not enough money to pay promised benefits if the employer goes out of business.

¹ Cornelius Justin and Mario Impellizeri, "The Mirage of Private Pensions," *Private Welfare and Pension Plan Legislation*, Hearings before General Subcommittee on Labor, House Committee on Education and Labor, 91st Congress, 1st and 2d Sessions (Washington: U.S. Government Printing Office, 1970), p. 388.

² *Ibid.*, p. 390.

Another issue is whether the individual as opposed to the covered work force as a whole has claim to wages deferred into retirement funds. If contributions come from everyone's potential paycheck, then it might be argued that everyone should get a benefit. Though all retirement plan contributions are supposed to go to workers as a group, many who work under a plan never meet the qualifying requirements.

Whether retirement contributions are considered "group deferred wages" or "individual deferred wages," and whatever the contractual interpretation given to past service liabilities, it is clear that contributions are labor-related costs and part of the compensation package for the employee.

Increasing Deferrals

Expenditures for retirement programs are rising rapidly and account for an increasing share of all private employee compensation. In 1959, 4.2 percent of the \$2.61 hourly average compensation of production and related workers in manufacturing industries went for retirement programs: 2 percent for social security, and 2.2 percent for private retirement plans. In 1970, 6.5 percent of the \$4.24 average went for retirement programs, including 3.7 percent for social security and 2.9 percent for private retirement or profit-sharing plans. Contributions for private manufacturing plans, therefore, doubled from 6 cents per hour in 1959 to 12 cents per hour in 1970. For all industries and all workers, private retirement plans absorbed 3 percent of payroll or 14 cents per hour in 1970.³

These costs are unevenly distributed. Manufacturing firms paid 3 percent of all compensation in 1968, or 12 cents per hour for private plans compared with 2.5 percent and 9 cents per hour for nonmanufacturing industries. Establishments with over 500 employees paid 4 percent or 18 cents per hour compared with 2.4 percent and 9 cents for firms with 100 to 499 employees, and 1.5 percent and 5 cents for those with under 100. In establishments covered by collective bargaining, 3.1 percent of compensation or 13 cents went to private retirement plans while in noncovered establishments it was only 1.2 percent or 3 cents per hour. More was spent for office employees (3.4 percent of compensation or 16 cents per hour) than for non-office employees (2.3 percent of compensation or 7 cents per hour).⁴ Generally, the proportion of compensation deferred for private retirement plans in 1968 was larger in establishments with higher average earnings (table 10).

³ "Employee Compensation Reached \$4.54 an Hour in 1970," News Release by Bureau of Labor Statistics, November 23, 1971.

⁴ *Employee compensation in the Private Nonfarm Economy*, 1968, U.S. Department of Labor Bulletin 1722 (Washington: U.S. Govt. Print. Off., 1971).

TABLE 10.—*The proportion of compensation deferred for private retirement plans in 1968 was larger in establishments with higher average earnings*

Average hourly compensation	Nonoffice employees		Office employees	
	Percent in establishments with expenditures	Expenditures as percent of compensation in establishments with expenditures	Percent in establishments with expenditures	Expenditures as percent of compensation in establishments with expenditures
Total.....	50	3.5	67	4.7
Under \$2.50.....	19	2.4	33	3.8
\$2.50 and under \$3.50.....	52	3.0	46	3.6
\$3.50 and under \$4.75.....	72	3.3	70	4.2
\$4.75 and over.....	87	4.1	77	4.9

Source: Bureau of Labor Statistics, *Employee Compensation in the Private Nonfarm Economy, 1968*, U.S. Department of Labor Bulletin 1722 (Washington, D.C.: U.S. Government Printing Office, 1971) p. 36.

As indicated previously, there is wide variation among all sizes and types of establishments in the incidence and level of private pension plan contributions (table 11). In 1968, 41 percent of employees were in establishments with no expenditures, another 17 percent were in ones which contributed less than 2 percent of the payroll, and 18 percent were in those with outlays of less than 8 cents per hour. At the other extreme, 5 percent of workers were in plans where private pension expenditures were 8 percent or more of payroll, and 12 percent are covered by plans with contributions of 25 cents or more per hour.

Advantages and Disadvantages for the Employer

The fact that the share of total compensation allocated to retirement plans has increased, while the proportion in cash payments has declined, suggests that the employer, the employee, or both, find advantages in deferring wages. For the employer, contributions to retirement plans may be preferable to equal wage payments because they offer some degree of short-run flexibility in that they can sometimes be delayed, because they might help to discourage turnover and retain skilled workers, and because they can be used to phase out older and less productive workers in a humane way. The welfare dimensions are probably a major factor in the employer's mind, whether for altruistic reasons or self-interest because of employees' demands: Pension and profit-sharing contributions purchase more future benefits than an equal increment to wages and salaries. Every dollar contributed to a tax-qualified pension fund is deductible as an expense by the employer. If the contribution were included in the earnings of the firm, that is, considered as profit distributed to employees, it would be taxed at the maximum corporate rate of 48 percent. Moreover, there is no tax on the annual investment income of the pension

TABLE 11.—*There is wide variation among all sizes and types of establishments in the incidence and level of private pension plan contributions*

1968	All with private pension plans	Manufacturing	Nonmanufacturing
Contribution as percent of compensation:			
All establishments (percent).....	2.7	3.0	2.5
Establishments with expenditures (percent).....	3.8	3.6	4.0
Total (percent).....	100	100	100
No expenditures.....	41	24	50
Under 1 percent.....	7	8	7
1 to 2.....	10	11	9
2 to 3.....	10	15	8
3 to 4.....	11	16	9
4 to 5.....	8	11	6
5 to 6.....	4	7	3
6 to 7.....	3	4	3
7 to 8.....	1	1	2
8 to 9.....	2	2	2
9 to 10.....	1	1	1
10 to 11.....			1
11 to 12.....			
12 and over.....	1	1	1
Contribution per payroll hour:			
All establishments (cents).....	11	13	9
Establishments with expenditures.....	17	17	17
Total (percent).....	100	100	100
No expenditures.....	21	24	50
Under 1 cent.....	3	5	3
2 to 4.....	5	6	5
4 to 6.....	5	5	6
6 to 8.....	5	6	4
8 to 10.....	4	6	3
10 to 12.....	3	5	2
12 to 14.....	4	6	3
14 to 16.....	3	4	2
16 to 18.....	5	4	5
18 to 20.....	3	3	3
20 to 25.....	6	12	3
25 to 30.....	4	6	3
30 to 35.....	2	3	2
35 to 40.....	2	2	3
40 to 50.....	2	2	3
50 to 60.....	1	1	1
60 and over.....	1	4	1

Source: Bureau of Labor Statistics, *Employee Compensation in the Private Nonfarm Economy, 1968*, U.S. Department of Labor, bulletin 1722 (Washington: U.S. Government Printing Office, 1971) pp. 28-29.

funds, making it advantageous to the employer to operate on a funded rather than a pay-as-you-go basis since most other uses of the funds would be taxable. As a further benefit to the employee, contributions and earnings are not taxed until the year they are received, when the individual's income and tax rate are usually lower. The Treasury Department estimated that this tax treatment resulted in between \$1.4 and \$3.9 billion in subsidies in 1966 (table 12). This is very important when it is considered that in 1966 employer contributions

totaled only \$8.2 billion.⁵ The President's Committee on Corporate Pension Funds estimated in 1965 that if an employer paid corporate income tax on his contribution as well as on the earnings of the funds, a \$100 a month pension under a "typical" plan for a "typical" worker would cost \$101 a year as opposed to \$71 under existing tax rules.⁶ There is some debate among tax experts whether the rules applying to retirement contributions are "preferential" or "normal" under the conventions applying elsewhere.⁷ It is certain, however, that if contributions or the income of funds were taxed, this form of compensation would be much less attractive to both employers and employees.

In order to get tax breaks, a pension or deferred profit-sharing plan must meet several Internal Revenue Service regulations. It must have written terms providing benefits exclusively for employees and their beneficiaries. It must be permanent and all contributions must be reserved for participants. It must be nondiscriminatory relative to

TABLE 12.—*The Treasury Department estimated that this tax treatment resulted in between \$1,400,000,000 and \$3,900,000,000 in subsidies in 1966*

Item	Based on individual income tax	Based on corporate income tax
1. Revenue gain from benefits subject to individual income tax.....	+ \$325	+ \$325
2. Revenue loss from tax-free income of pension and annuity funds.....	- 550	- 1, 350
3. Revenue loss from present tax treatment of employer's contributions.....	- 1, 150	- 2, 850
4. Net revenue loss.....	- 1, 375	- 3, 875

NOTES

Item 1: Under present law, benefits taxed to the extent they exceed the employee's contributions. Of an estimated \$3,300,000,000 in private pension benefits in 1966, it is estimated that 36 percent appear on nontaxable returns or are excluded as a return of contributions. The remainder would be taxed, under the Revenue Act of 1964, at a marginal rate of about 20 percent (based on the income distribution of pension and annuity income), but about ¼ of the tax would be offset by the retirement income credit. Thus, approximately \$325 million is now obtained by taxing benefits.

Item 2: Total investment income of private pension funds and annuity plans is estimated at \$3,000,000,000 in calendar year 1966. This would yield tax revenue of \$550,000,000 at individual rates and about \$1,350,000,000 if taxed at corporate rates.

Item 3: At 1966 income levels, corporate contributions to private pension and profit sharing plans are estimated at about \$6,300,000,000. Under the Revenue Act of 1964, the marginal rate on salaries and wages is estimated at 18.4 percent, including nontaxable returns. If corporate contributions were treated as being vested in the employees and taxed to them, their liabilities would rise by \$1,150,000,000.

The marginal tax rate on corporation deductions under the 1964 act is about 45 percent. Therefore, if in lieu of employer's contributions these amounts were included in corporate profits and were made taxable to the employer, corporate tax liabilities would rise \$2,850,000,000.

Source: Raymond Goetz, *Tax Treatment of Pension Plans, Preferential or Normal?* (Washington: American Enterprise Institute for Public Policy Research, 1969), p. 55.

⁵ Walter W. Kolodrubetz, "Two Decades of Employee-Benefit Plans, 1950-70: A Review," *Social Security Bulletin*, April 1972, vol. 35, No. 4, p. 20.

⁶ President's Committee on Corporate Pension Funds and Private Retirement and Welfare Programs, *Public Policy and Private Welfare Programs* (Washington: U.S. Government Printing Office, 1965), p. 16.

⁷ Robert J. Myers, "Government and Pensions," *Private Pensions and the Public Interest* (Washington: American Enterprise Institute for Public Policy Research, 1970), pp. 29-50.

different classes of employees. And annual contributions, at a minimum, must meet currently accruing liabilities and the interest on any unfunded liabilities.⁸

The employer, therefore, has some flexibility in contributing to pension funds, and a greater degree of flexibility under profit-sharing plans, which he would not have in paying wages. In a bad year, the single employer with a trustee fund might forgo contributions or reduce them somewhat, making them up when profits are higher. As an example, the Aluminum Company of America made pension plan contributions of \$11.3 million in 1967 when its net income was \$107.4 million; contributions fell the next year to \$9.8 million when net income fell to \$104.7 million. They rose again the next year to \$12.7 million as net income increased to \$122.4 million then fell to \$11.4 million when income declined to \$95.5 million.⁹

Not all employers have this flexibility under their retirement plans. In multiemployer plans, for example, contributions are frequently set as some amount per hour independent of ability of a given firm to pay. Likewise, in many insured plans, contributions have to be made on an actuarial basis each year. Overall, there is some reason to doubt the flexibility of contributions since they rose by 10 percent in 1967 and 1968, but still increased 10 percent in 1970, despite the recession.¹⁰ The cutbacks by employers with financial difficulties were apparently balanced by increases elsewhere. It was probably only the plans which were already overfunded or those firms with special difficulties which chose to reduce their contributions. However, there was some degree of extra flexibility for some firms.

Another dimension is the flexibility retirement plans provide relative to wage and price controls. During World War II, private retirement contributions were not controlled, and many employers who could not raise wages increased or initiated retirement plans to attract and hold workers.¹¹ While pension and profit-sharing payments were included under the controls initiated in 1971, there is some evidence that at least a few firms increased their contributions toward agreed upon benefits in order to stay below profit margin ceilings. For instance, the Ford Motor Co., which applied to the Price Commission for price increases citing low third-quarter 1972 earnings, had increased its pension fund contributions from \$60 million in the third quarter of 1971 to \$73 million in the third quarter of 1972.¹² Whether this was a conscious attempt to hold down profits and to stockpile reserves for future pension payments after controls would presumably be lifted cannot be known; certainly, this would be a rational course.

⁸ *Interim Report of Activities of the Private Welfare and Pension Plan Study, 1971*, Senate Committee on Labor and Public Welfare, 92d Cong., first sess. (Washington: U.S. Government Printing Office, 1972), p. 23.

⁹ Pensions data from the Alcoa annual Welfare and Pensions Plans Disclosure Act reports and net income data from the Fortune 500 series, 1968, 1969, 1970, 1971, and 1972.

¹⁰ Walter W. Kolodrubetz, "Two Decades of Employee Benefit Plans," op. cit., p. 20.

¹¹ Institute for Life Insurance, *Private and Public Pension Plans in the United States* (New York: Institute of Life Insurance, 1966), p. 5.

¹² "Automakers Argue for a 3 Percent Boost," *Business Week*, Nov. 4, 1972, p. 23.

Perhaps an even greater advantage in the eyes of some employers is that current settlements do not necessarily increase current costs. The employer may, for instance, provide only the interest accumulations on his unfunded liabilities though the cents-per-hour cost attributed to retirement plan changes would include the funding of past service liabilities. More generally, management has been able to provide rapidly increasing benefits without paying the full cost because of increasing earning rates on funds over the last 10 years. Many employers count on such savings in bargaining over retirement benefits. For instance, a 1970 survey of large pension fund managers found that 90 percent expected their costs to double over the next 5 years, yet they estimated a rise of only 10 percent in contributions on the assumption that the rate of return of the pension funds would continue to rise.¹³ Whether the employer expectations are realistic, it is clear that they are promising benefits on the assumption that their current contributions will have to meet less than full cost.

The retirement plan contribution may have other advantages and disadvantages to the employer which an equal wage payment would not. It is undoubtedly true that middle-aged and older workers who are looking forward to retirement and have long employment will favor greater contributions, while younger workers, usually short term, will favor the extra dollars in the pay envelope. The extent of contributions and types of benefits may affect the work attitudes and patterns of these segments of the work force, as is true of the whole package of employee benefits. For instance, under multiemployer plans, contributions may have less impact on the commitment of the workers toward a particular employer than contributions to company trustee plans which are identified with the sponsor. Plans with high benefits but lengthy service requirements may have a positive impact on older workers near qualification but a negative impact on younger workers whose wages are being deferred for a far distant possibility. These impacts cannot be documented, and they probably affect work patterns only marginally, concentrating in establishments with plans that are significantly better or worse than the average, but any factor influencing the attitudes of the work force is not unimportant.

One of the longstanding controversies of economic and business theory is whether profit-sharing motivates the individual worker. In the present context, the issue is whether deferred profit-sharing plans would have more impact on worker performance than regular pension plans, if both offered equal benefits.

There are some indications that in some industries, profit-sharing may increase productivity. For instance, two studies of large department store chains from 1952 to 1958 and from 1958 to 1969 found that the profit-sharing companies, such as Sears & Roebuck, J. C. Penney, and R. H. Macy, had better performance by almost all financial indicators than the non-profit-sharers such as Marshall Fields and Allied Stores Corp.¹⁴ The department store chains with profit-sharing claimed that their plans had some favorable impact on employees and that this, in turn, contributed to the financial success of the company (table 13).

¹³ Louis Harris and Associates, *Large Corporations and Their Pension Funds: 1970*, op. cit., pp. 82-83.

¹⁴ Bert Metzger and Jerome A. Colletti, *Does Profit Sharing Pay?* (Evanston, Ill., Profit Sharing Research Foundation, 1971).

TABLE 13.—*The department store chains with profit sharing claimed that their plans had some favorable impact on employees and that this, in turn, contributed to the financial success of the company*

Objective	Response			
	Very effective	Moderately effective	Doubtful effect	No effect
1. In improving security for employees (e.g., adequate benefits at retirement, severance, etc.).	Broadway-Hale; Bullock's; Sears.	Federated		
2. Attracting and holding good employees	Sears	Bullock's; Broadway-Hale; Federated.		
3. In improving morale, teamwork and cooperation among employees.	do	Broadway-Hale	Bullock's; Federated.	
4. Increasing sales personnel's courtesy and assistance to the customer.	do	do	Federated	Bullock's.
5. In creating a feeling of partnership between employees and management.	do	Broadway-Hale; Bullock's; Federated.		

Source: Bert Metzger and Jerome A. Colletti, *Does Profit Sharing Pay?* (Evanston, Ill.: Profit Sharing Research Foundation, 1971), p. 81.

There is no way to know whether the profit-sharing plans really had an impact, or, if so, whether it was the impact dependent on the profit-sharing aspects of these plans. For instance, in the Sears plan in 1969, the average employee retiring with 15 to 19 years of service had an account of \$24,000, while those with 40 years of service or more had an accumulation of \$338,000; these accounts would provide the average 65-year-old retiree an annuity of roughly \$180 and \$2,500 a month, respectively.¹⁵ This high level of benefits, rather than the fact that they were related to the level of profits, could have accounted for greater worker satisfaction and productivity.

A much more comprehensive study of 175 companies compared the financial performance of 65 profit sharers in 9 industries to the other firms without profit sharing.¹⁶ Judging from the level of operating income, the net income margin, the return on assets, investment, and common stock equity, and the earnings per employee, profit sharers performed better in eight of nine industries; measuring the trend in these six variables, plus the trend in sales, earnings per share, dividends per share, and market price per share, profit sharers outperformed other firms in seven of nine industries (table 14). To the extent that the selected companies were characteristic of the universe, the better performance of the profit sharers may have resulted from better management and not increased worker productivity, and profit-sharing plans might have been one of the things which could be afforded out of high profits. It still remains to be established that workers whose retirement incomes depend on the annual level of profits will work harder than those whose benefits are fixed by the plan prior to retirement. Nevertheless, the evidence should not be dismissed totally. There is a reasonable possibility that profit-sharing plans will have some impact on productivity. For instance, if 10 percent of the work force of a company is 45 and over and retirement conscious, and they increase their output 10 percent each, total company productivity rises by 1 percent, which is not at all insignificant. A liberal profit-sharing plan might have an effect of this magnitude, especially in service and retail industries where personnel productivity is hard to measure and largely dependent on the individual worker attitudes.

¹⁵ *Ibid.*, p. 69.

¹⁶ Bion Howard and Peter Dietz, *A Study of the Financial Significance of Profit Sharing* (Chicago, Ill.: Council of Profit Sharing Industries, 1969).

TABLE 14.—*Judging from the level of operating income, the net income margin, the return on assets, investment and common stock equity and the earnings per employee, profit sharers performed better in 8 of 9 industries; measuring the trend in these 6 variables plus the trend in sales, earnings per share, dividends per share, and market price per share, profit sharers outperformed other firms in 7 of 9 industries*

Industry	Profit sharing companies compared with average of nonprofit sharers					
	Level 1966, number indicators			Trend 1948 to 1966, number indicators		
	Higher	Same	Lower	Up	Change	Down
Chemicals.....	5	1	0	10	0	0
Drugs.....	0	1	5	4	0	6
Electronics.....	6	0	0	7	2	1
Machinery and metal fabricators.....	6	0	0	2	8	0
Oil-integrated domestic.....	1	2	3	7	3	0
Publishing.....	3	2	1	3	3	4
Retail department stores and mail order.....	1	2	3	9	0	1
Retail department stores.....	(1)	(0)	(5)	(8)	(1)	(1)
Retail food chains.....	1	4	1	7	3	0
Tobacco, cigarettes.....	4	2	0	6	2	2
Total.....	27	14	13	55	21	14

Source: Bion Howard and Peter Dietz, *A Study of the Financial Significance of Profit Sharing* (Chicago, Ill.: Council of Profit Sharing Industries, 1969), p. 3.

Advantages and Disadvantages for the Employee

The worker is not so concerned with how much the employer must contribute to pension plans as he is with the retirement income he is promised and his chance of receiving it. The \$1,800 median benefit to newly retiring males may replace only a proportion of preretirement income, but to provide this amount commencing at age 65, roughly \$20,000 has to be accumulated.¹⁷ The average worker earned about \$150 per week in 1971¹⁸ or roughly \$7,500 per year, out of which there would be nearly \$850 in social security and income taxes for the head of a family of four.¹⁹ To save \$20,000 over 20 years would require the worker to set aside a tenth of his take-home pay each year. The chances of doing this are very slim even if all deferred wages instead went into the pay envelope. Not only is savings relatively painless when done through the deferred wage approach (and the limited available evidence indicates that it is not offset by cutbacks in individual savings), but it is also encouraged by favorable tax treatment; that is, the worker does not pay the 14 cents-on-the-dollar income taxes.

¹⁷ Estimated by the Franklin Life Insurance Co.

¹⁸ *Manpower Report of the President, 1972* (Washington: U.S. Government Printing Office, 1972), p. 217.

¹⁹ Statement of Andrew Biemiller before House Ways and Means Committee on H.R. 12272, The Administration Pension Proposal, May 11, 1972 (mimeographed).

For those who receive benefits under private retirement plans, it is also true that the deferrals from their own wages provide only a portion of their benefit. Employers contribute on the assumption that only a minority of the employees will eventually qualify for benefits either because of death before retirement, turnover before qualification, or some other reason. All else being equal, the smaller the proportion of workers eventually qualifying for benefits, the more they can be given from any level of annual contributions to those who do qualify. Restrictive pension provisions facilitate a higher payment to beneficiaries by denying them to those leaving the plan. Provisions which would increase the proportion of covered workers ultimately qualifying for a benefit would reduce the level of benefits which could be provided to each retiree out of given contributions. In considering the attractions of private retirement plans, one of the concerns of the worker, therefore, is his chance of being among the beneficiaries rather than among those who are excluded.

These chances are determined by the interaction of age, service, and preparticipation provisions of retirement plans. For instance, in the 1970 Plumbers Local 130 plan with the Plumbing Contractors Association of Chicago, the normal retirement age was 65 with a 15-year service requirement. In order to receive full benefits, the worker had to be on the job at age 65 and have had the requisite service. But a worker who retired at a minimum of 62 with 15 years of service could also receive a benefit, calculated by reducing the normal benefit five-ninths of 1 percent for each month under age 65. In addition, a worker any age with 10 years of service qualified under the vesting provision for 5 percent of a normal benefit upon reaching age 65, and for each year of service beyond this he would get another 5-percent share. Conceivably, after 30 years of service and age of, say, 48, he would be qualified for a full benefit at age 65. Under this plan, then, the worker who stayed at least 10 years would get something, while after 15 years of service he or she would qualify for normal or early retirement.²⁰ This contrasts with provisions such as in the Clothing Workers 1970 national plan, which also had a normal retirement age of 65 but a longer service requirement of 20 years. While there could be early retirement at 62, the worker also had to have 20 years of service, since there was no vesting.²¹ Obviously, the worker's chances of obtaining any benefit from this plan were much smaller than under the Plumber's Local plan if the probability of leaving the scope of coverage were the same.

In 1969, 77 percent of all private pension plans had vesting provisions which entitled a worker leaving his job before normal or early retirement ages to still receive some benefit at a later date, with most requiring 5 to 15 years of service and attainment of a stated minimum age. Eighty-seven percent of plans had early retirement provisions providing immediate benefits to long-term workers leaving before normal retirement age. Though vesting and early retirement provisions have grown more widespread over the last decade, with shorter service periods, a worker still has to stay on the job for many years to qualify under most plans (table 15).

²⁰ U.S. Department of Labor, *Digest of Selected Pension Plans, 1970 Edition* (Washington: U.S. Government Printing Office, 1971), p. 55.

²¹ *Ibid.*, p. 125.

TABLE 15.—*Though vesting and early retirement provisions have grown more widespread over the last decade, with shorter service periods, a worker still has to stay on the job for many years to qualify under most plans*

Plan provision and minimum service requirement	Percent distribution	Total	No age requirement	Total	Percent of active workers in plans with age requirement						
					40 or less	Over 40 and under 50	60 and under 55	55 and under 60	60 and under 62	62 and under 65	65 and over
Early retirement or vesting	91	100	46	54	21	5	10	11	5	2	
Less than 5 years	1	100	43	57	5		4	36	11		
5 to 10	36	100	68	32	16	4	3	5	3	1	
11 to 15	34	100	21	79	28	5	16	12	3	3	
16 to 20	11	100	43	57	2	8	15	20	9	3	
More than 20 years	7	100	61	37		1	8	10	17	2	
Early retirement	87	100	9	9			3	63	20	4	
Less than 5 years	9	100	1	91		2	4	71	22		
5 to 10	25	100		100			1	69	27	2	
11 to 15	23	100		100		1	2	73	17	7	
16 to 20	12	100	1	99		1	3	64	19	13	
More than 20	18	100	43	57			7	37	11	1	
Vesting	77	100	51	49	25	5	8	10			
Less than 5 years	1	100	82	18	12		6				
5 to 10	34	100	74	26	17	5	3	2			
11 to 15	30	100	26	74	44	5	19	6			
16 to 20	9	100	43	57	2	9	16	29			
More than 20	2	100	66	34	1	2	13	19			

Source: Harry E. Davis and Arnold Strasser, "Private Pension Plans, 1960 to 1969: An Overview," op. cit., p. 49.

As a consequence of these standards, many workers who hold jobs with retirement plan coverage never qualify for benefits. Critics of the private retirement system have pictured it as a massive crap game, in which only a few winners take all.²² This perhaps exaggerates the element of chance which is involved, and ignores the fact that workers who leave one plan without qualifying for benefits may move on to another where they will. Nevertheless, it does rightly suggest that retirement plans introduce an element of uncertainty which individual saving from higher wages and salaries would avoid.

The probabilities of qualifying for and receiving a benefit vary from plan to plan and from one set of workers to another. In the aggregate, it is necessary to make a number of assumptions in order to estimate the average likelihood of pension receipt. A highly publicized study of the experience of 51 large plans with lengthy vesting requirements (11 or more years of service) and 36 plans with less stringent requirements (10 years or less) found that in the long-vesting plans, which had 5.2 million participants who left their plans since 1950, only 253,000 received any benefits or rights to benefits. In other words, for every one beneficiary, there were roughly 20 who participated in the plan but received nothing. Among those without benefits, 116,000 had 15 or more years of service before leaving their plan, 280,000 had 10 or more, and 720,000 had more than 5 years of service. In the sampled plans with a vesting requirement of 10 years of service or less, only 243,000 of the 1.5 million who left the plan since 1950 received a benefit or vested right.²³ The probabilities of receiving a benefit were much higher for workers terminating in the last 5 years, reflecting the changes which had been made liberalizing vesting and retirement requirements. Still, there were 79 participants terminating without any vested rights for each one who qualified in the long-service plans and nine for each one in the short-service plans (table 16). This suggests that the odds are not very good for covered workers to receive a benefit.

However, the basic fact is that most young workers go through a period of job search before they settle down to more stable work patterns; that is, before they stake their futures on their work. They may hold a job for a year or two in covered employment, and then move on to another covered job for a year or two before finding a permanent position to their liking. Though they do not qualify in their shorter term jobs, they still have time to do so in the longer term ones.

Most workers do eventually settle down, accumulating long tenure. A survey of 62- to 65-year-old new social security registrants found that 46 percent of males had worked 25 years or more on their longest job, and that 30 percent more had worked between 15 and 25 years with one employer. For women, 44 percent worked 15 or more years. Among these new social security registrants, those with long service in

²² Statement of Merton Bernstein, Private Welfare and Pension Plan Legislation, op. cit., pp. 245-290.

²³ Interim Report of Activities for the Private Welfare and Pension Plan Study, 1971, op. cit., pp. 129-134.

TABLE 16.—*There were 79 participants terminating without any vested rights for each 1 who qualified in the long-service plans, and 9 for each 1 in the short-service plans*

Participants vested rights and forfeitures	51 plans with no vesting or vesting with 11 years of service or more	36 plans with vesting after 10 years of service or less
1. Participants in last 5 years.....	2, 900, 000	1, 800, 000
2. Active participants in last 5 years who left scope of plan.....	1, 200, 000	400, 000
3. Participants in last 5 years who received vested rights on termination of employment prior to retirement.....	12, 535	38, 037
4. Participants who forfeited in last 5 years regardless of length of service.....	991, 111	332, 760
5. Participants who forfeited in last 5 years with more than 15 years of service.....	27, 335	470
6. Participants who forfeited in last 5 years with more than 10 years of service.....	63, 894	1, 451
7. Participants who forfeited in last 5 years with more than 5 years of service.....	155, 522	65, 177
8. Participants who forfeited in last 5 years with 5 years of service or less.....	835, 589	267, 583

Source: U.S. Senate Committee on Labor and Public Welfare, *Interim Report of Activities for the Private Welfare and Pension Plan Study, 1971* (Washington: U.S. Government Printing Office, 1971), pp. 130-133.

a single job were more likely than others to have been covered and if covered, to receive a benefit (table 17). For instance, 70 percent of all males with 25 or more years of service were covered in their longest job, and 92 percent of these were receiving or expected to receive a benefit. Overall, the average 62- to 65-year-old male who worked primarily in the private sector had an 88 percent chance of holding a single job more than 10 years and 50 percent of the time this job was in covered employment. All but 6 percent of such covered workers received or expected to receive a benefit. For women, all these probabilities were much lower.

The data about the past experience of employees and employers understate the probability that current workers will receive benefits. There has been no radical change in work patterns over the last several decades, and workers in most cohorts are just as likely to accumulate long tenure on a job as those in past.²⁴ Given these same patterns, the growth of pension coverage and liberalization in qualifying requirements have increased everyone's chances of getting a pension. Thus, for instance, 67 percent of the plans in the Bankers Trust survey in 1952 had no vesting provision, but this declined to 18 percent in 1959 and 1 percent in 1970.²⁵ The worker whose longest tenure job was during the fifties had much less chance of being vested than the average worker under current plan provisions. It is to be expected, therefore, that the proportion of workers who are covered and receive a benefit for jobs of 15 years or less duration will rise significantly.

²⁴ See table 19.

²⁵ Bankers Trust Company, *1970 Study of Industrial Retirement Plans* (New York: Bankers Trust Co., 1970), p. 11.

TABLE 17.—Among new social security registrants, those with long service in a single job were more likely than others to have been covered, and if covered, to receive a benefit

Private employees on longest job	Percent of total	Percent covered	Percent covered receiving or expecting to receive benefit
Males.....	100	52	92
Less than 10 years.....	10	27	67
10 to 14 years.....	12	28	73
15 to 19 years.....	15	44	83
20 to 24 years.....	15	54	91
25 or more.....	46	70	97
No response.....	3	30	92
Females.....	100	23	83
Less than 10 years.....	31	11	40
10 to 14 years.....	21	17	70
15 to 19 years.....	16	28	81
20 to 24 years.....	11	38	87
25 or more.....	17	52	87
No response.....	4	8	-----

Source: Walter W. Kolodrubetz, "Characteristics of Workers With Pension Coverage on Longest Job: New Beneficiaries," *Social Security Bulletin*, Vol. 34, Nov. 11, November 1971, pp. 14, 20.

If the probability of receiving a benefit is estimated from the current provisions of retirement plans and assumptions based on the current work experience of covered employees, the chances of being among the beneficiaries are much higher. A study of 864 pension plans covering 867,000 employees found that 31 percent were already vested and 37 percent could expect to be vested based on reasonable turnover projections (table 18). For workers under 35, only 2 percent were already vested, but 28 percent could expect to be vested and four-fifths of the remainder had time to qualify for a pension with another employer. A fourth of workers aged 35 to 45 were already vested, but given expected turnover, another half would vest in the future, while 17 percent of those not expected to vest in their current jobs could probably find employment which would qualify them for later pensions. Thus, it is estimated that two-thirds of currently covered employees will receive a pension from their current plan, with an additional 20 percent having a good chance to qualify under another plan in the future. These estimates may exaggerate the overall probabilities of receiving pension benefits because the sample was drawn from more liberal pension plans, but they illustrate that currently covered workers are much more likely to get a pension than those in the past.

The fact remains, however, that most individuals who work less than 10 years on a single job in covered employment will not get a benefit from that particular plan, and some of those who work even longer than this will miss out. Legislation requiring earlier vesting may be needed to reform the plans which have lagged in providing greater security to workers. And whether or not such legislation is passed, the

TABLE 18.—A study of 864 pension plans covering 867,000 employees found that 31 percent were already vested, and that 37 percent could expect to be vested under the current provisions based on reasonable turnover projections

Age group	Total covered	Now vested	Not yet vested		
			All	Expected to vest	Expected not to vest
Under 25.....	107, 899	430	107, 469	14, 661	¹ 92, 808
25 to 35.....	198, 694	5, 101	194, 593	67, 404	¹ 126, 189
35 to 45.....	208, 585	53, 524	155, 061	107, 065	² 47, 996
45 to 55.....	208, 183	103, 255	104, 928	90, 484	³ 14, 444
55 to 65.....	128, 978	93, 410	35, 568	35, 233	335
65 and over.....	14, 562	10, 097	4, 465	4, 465	-----
Total.....	866, 901	265, 817	601, 084	319, 312	281, 772
Percent of total.....	100	31	69	37	32

¹ 78 percent young enough for a substantial majority to qualify for pension with other employer.

² 17 percent young enough for a significant percent to qualify with other employer.

³ 5 percent of questionable eligibility with subsequent employer.

Source: A. S. Hansen Associates, *Survey of Private Pension Plans* (New York: A. S. Hansen Associates, December 1970), p. 43.

deferral of wages for retirement will still involve risks. The young worker, especially in a high turnover industry without multiemployer plans, has a very low probability of ever receiving benefits from the retirement contributions of his current employer. Understandably, he or she might be reluctant to defer present wages for the small chance of a benefit (from this particular contribution) in the distant future, especially where there is a time preference for present over future income. On the other hand, the older worker with long tenure and seniority has a very good chance of getting a pension; he or she will probably be much more willing to have wages deferred since these will be supplemented by the deferrals from others who will not qualify and since retirement is in sight.

The Wage Implications of Retirement Contributions

Despite the slowing growth of coverage under private retirement plans over the last decade, contributions have been increasing at an accelerated rate. Between 1960 and 1965, coverage rose by a fifth while employer contributions increased by 55 percent; between 1965 and 1970, coverage expanded by 17 percent while contributions grew more than 70 percent.²⁸ Though there are a number of factors which may forestall further expansion of coverage, there is every indication that the proportion of the compensation package going to private retirement plans in covered industries will continue to expand unless there are drastic changes in social security costs and benefits or in the tax treatment of private plans.

²⁸ Walter W. Kolodrubetz, "Two Decades of Employee-Benefit Plans," *op cit.*, p. 20.

The basis for this projection is the evidence that the proportion of compensation which employers and employees are willing to set aside for retirement plans rises with income. Only 19 percent of nonfarm workers in establishments with average earnings under \$2.50 per hour were covered in 1968, and these covered establishments contributed only 2.4 percent of compensation to their private plans. Among workers in establishments with average earnings over \$4.75 per hour, 87 percent were covered, and employer expenditures amounted to 4.1 percent of payroll.²⁷ When other factors affecting this differential are held constant, there is, as noted previously, a 0.3 percent increase in the percent of compensation going to retirement plans for each extra dollar of average earnings.²⁸ As wages and salaries rise, one might, therefore, expect contributions to private retirement plans to rise more than proportionately if the cross-sectional relationships have some long-run significance. Apparently, this is the case, since as the average hourly compensation of nonoffice workers in manufacturing rose from \$2.61 in 1959 to \$4.24 (or by \$1.22 in real terms), the proportion allocated to private retirement plans rose from 2.2 percent to 2.9 percent.²⁹ Thus, if the relationship between earnings and deferrals continues in the future, and if real wages continue to rise at the same rate, the average hourly compensation in manufacturing will be between \$7 and \$8 per hour in 1980, with between 3.4 percent and 3.5 percent deferred into private retirement plans. In absolute terms, this would imply a doubling of the cents-per-hour contribution.

If this occurs, the impact of private retirement plans on employers, employees, and the economy as a whole will increase. Other factors discussed previously may retard the further growth in coverage and the rate of increase in contributions, but costs and benefits are still likely to rise substantially. As more and more dollars are channeled into pension plans, managers can be expected to become much more concerned with their provisions and impacts. Since they are funded over a number of years, retirement agreements have longer-range effects than wage agreements and other benefits. Employers will have to be much more conscious of the goals of their plans, and will have to initiate more careful planning, for instance, in determining whether to seek a younger work force through early retirement provisions. At the same time, it is likely that employers will be increasingly conscious of pension costs and will seek ways to minimize these by getting better performance from funds and perhaps by initiating policies such as hiring younger workers in order to cut down on the expense.

Employers are also going to have much less flexibility than they have had in the past. Funding procedures have sometimes been haphazard, and retirement plan provisions have often been poorly explained to workers. As the stakes rise, unions can be expected to demand more control over retirement funds and plans. More significantly, the role of the Federal Government will continue to expand.

²⁷ Employee compensation in the Private Nonfarm Economy, 1968, op. cit.

²⁸ William R. Bailey and Albert E. Schwenk, "Employer Expenditures for Private Retirement and Insurance Plans," *Monthly Labor Review*, Vol. 95, No. 7, July 1972, p. 19.

²⁹ "Employee compensation reached \$4.24 an hour in 1970," op. cit.

Regulation of funding procedures, financial management, plan termination, vesting, and perhaps portability provisions is likely. To some extent, these controls will detract from the adaptability of plans to individual employer needs.

In meeting the increasing costs and legislative requirements, employers will not have as easy a time as they did in the past. Changing investment patterns of pension funds led to rapidly increasing rates of return and contributed to the provision of rising benefits. Some improvements may still be made in investment patterns, but rarely in the largest employer trust funds which are already trying to earn the maximum return possible.

As the stakes increase, employees can also be expected to show more concern with the adequacy and the security of the benefits, and they will want more control over the provisions of their plans. Like employers, they will find out that the "free ride" of the sixties is over and they can only get more benefits by giving up something else in the compensation package. Union leadership will have to make difficult decisions as to how much compensation should go to retirement plans as opposed to cash or other welfare benefits. They must also decide the mix of provisions within retirement plans, balancing the interests of work force groups. For example, younger workers clearly have less to gain from retirement contributions as opposed to cash, and certainly they have less interest in them than older workers, except insofar as retirements create job opportunities. Where the former may be interested in earlier vesting and portability, the latter will be more concerned with early retirement or the level and security of benefits. As a general rule, the balance of power in the sixties lay with the older workers, and most of the increasing pension costs resulted from earlier retirement provisions and increased benefits rather than earlier vesting. But, as noted earlier, the demographic basis of this balance is shifting. In 1968, 33.4 percent of the U.S. labor force was 45 to 64 years of age, and 33.4 percent was 20 to 34.

By 1980, labor force projections indicate that only 29.1 percent of the labor force will be 45 to 64, and 40.7 percent will be 20 to 34.³⁰ To the extent the younger cohort prefers present to deferred compensation, its increasing representation may have a depressing effect on the growth of pension contributions. More likely, it will result in demand for still earlier vesting and for portability. These trends will also be augmented by the increasing number of women in the labor force who tend to have less tenure and probably less interest in retirement plans.

The growth of the private retirement system will have several impacts on the labor market as a whole. One indirect but possibly significant effect of rising contributions and relatively stable coverage is a further bifurcation of the job market into a primary sector characterized by high wages, low turnover, unionization, a rich array of employee benefits, and a number of opportunities for job advancement, and a secondary sector characterized by low wages, high turnover, few organized workers, a dearth of career opportunities, and meager employee benefits. The "secondary sector" is usually defined

³⁰ Sophia C. Travis, "The U.S. Labor Force: Projections to 1985," *Monthly Labor Review*, vol. 93, No. 5, May 1970, p. 4.

to include retail trade, personal services, much of nondurable manufacturing, and these are also industries with relatively low pension coverage and contributions.³¹ To the extent pension plans have an impact on worker commitment, turnover and satisfaction, this correlation is causal to some degree. The "haves and have nots" among retirees are usually drawn from the primary and secondary labor markets, respectively. As retirement benefits get better and better, but are restricted to those lucky enough to have pension coverage, the equity as well as economic implications of any labor market bifurcation will grow more apparent.

By far, the most important impacts of private retirement plans on employers and employees remain to be examined in the subsequent chapters. These will seek to determine the system's influence on employees' job-changing behavior and retirement patterns as well as on employers' willingness to hire older workers and their layoff policies during recessions. The preceding discussion should suggest that whatever the directions of influence of these variables, the impact is liable to increase in the future as retirement contributions rise absolutely and as a proportion of compensation while more covered workers become affected by the provisions of the plans.

³¹ Bennett Harrison, *Education, Training, and the Urban Ghetto* (Baltimore: The Johns Hopkins Press, 1972), ch. 5.

4. LABOR MOBILITY AND PRIVATE RETIREMENT PLANS

The Hypothetical Impact

The private retirement system has some impact on labor mobility. A worker who leaves the coverage of a pension or profit-sharing plan before attaining the age and service requirements for vesting, early or normal retirement, loses the wage deferrals which have accumulated during the period of covered employment as well as the potential benefit these could provide upon qualification. The retirement plan losses will be considered by the rational worker in weighing the costs and benefits of any change of jobs which will result in a break in coverage. The importance of this factor depends on the level of contributions and promised benefits, the proximity of the qualifying date, and the individual's degree of concern over future retirement status. In a plan with no vesting and no early retirement, the workers stand to lose all the employer contributions accumulated during the years of previous service. For instance, a male employee aged 60 under a plan with a normal retirement at 65, no vesting, and a flat benefit of \$100 monthly, stands to lose \$13,500 in terms of the cost of an annuity at age 65 which would pay him the same income, or a present value of \$10,500 if he or she left the plan because of dissatisfaction or an alternative opportunity.¹ Few workers would be able to increase their income enough by a job change at age 60 to compensate for this loss, especially since they would be unlikely to qualify for a benefit elsewhere.

Rarely, however, are pension plan provisions so totally immobilizing. Nine out of ten covered workers are in plans with early retirement provisions, 77 percent have vesting, and 30 percent are in multi-employer plans which permit a worker to change employers within the scope of the plans and remain eligible for benefits.² All of these provisions tend to reduce the immobilizing effect of retirement plans.

Vesting is the key factor affecting labor mobility. Once vested, the worker will still get some benefit if he leaves for another job, and each year of service after vesting is likely to increase his later benefit only incrementally. For instance, in the 1970 Uniroyal, Inc., pension plan bargained with the Rubber Workers, the standard monthly benefit was \$5.50 times the years of service.³ But there was deferred full vesting commencing at age 40 and 10 years of service. For the worker who is approaching these vesting requirements, a change in jobs before qualifying would mean the loss of \$55 per month at age 65 which could

¹ Estimates made by the Franklin Life Insurance Co. A discount rate of 5 percent is assumed.

² Harry E. Davis and Arnold Strasser, "Private Pension Plans, 1960 to 1969: An Overview," *Monthly Labor Review*, July 1970, p. 49.

³ U.S. Department of Labor, *Digest of Selected Pension Plans, 1970 Edition* (Washington: U.S. Government Printing Office, 1971), p. 203.

be purchased for \$7,500 upon retirement with a present value at age 49 of \$2,200.⁴ This loss, if rationally considered, would provide some impediment to job changing. Only a third of all workers are in plans permitting vesting with 10 years or less service and 40 years or less age. The more strict the age and service requirements for vesting, the more a worker has to lose who is approaching qualification. For instance, if the standard for vesting under Uniroyal were age 50 with 20 years of service, the 49-year-old with 19 years of service would stand to lose a \$110 monthly benefit at age 65, an annuity with a present value of \$6,700.⁵ To offset this loss, the worker would have to increase his earnings considerably more or have other much better reasons for leaving than the worker aged 39 with nine years of service under the Uniroyal plan as it existed in 1970.

Once an employee is vested, however, the losses resulting from a change in employers is reduced significantly. In the Uniroyal plan, again, the worker would get \$5.50 extra a month for each year of service past vesting, and if he or she could find another covered job under which there was time to qualify for an equal benefit, there would be no complete loss of past service credits or of a chance to add to the retirement benefit. Thus, the immobilizing impact of retirement plans is a discontinuous function of age and service, rising as the worker approaches vesting qualifications and declining to a much lower level after vestment.

While the vested worker has less to lose than the nonvested one, the benefit he or she would attain by moving between and vesting in equal plans is usually less than the benefit received by staying in a single plan. Pension benefits are consistently rising and vested workers who have left employment are usually only eligible under the terms which existed when they left. Thus, if a worker age 50 with 20 years of service left the Uniroyal plan for another offering the same benefit of \$5.50 times years of service, and if after 10 years the benefit went up to \$7.50 times years of service under both plans, he or she would get only \$185 monthly (\$110 from Uniroyal and \$75 from the second plan) after 20 years of work instead of the \$225 for 30 years service with Uniroyal. In plans with formulas multiplying some percent of final earnings times years of service, this effect is even greater since the worker who moves between plans usually has a lower final income multiplied by his years of service under the first job. For instance, the 1970 United States Steel Corp. plan with the steelworkers paid 1 percent of average earnings during the 10 years prior to retirement, multiplied by the years of service.⁶ If income is assumed to rise 4 percent a year, the worker who split 30 years of service between this plan and another with similar provisions would get only \$142 in benefits assuming an average career earnings of \$4,800, while the participant in only one plan would get \$195.⁷ The differential would be even more if benefits were increased equally in both plans. However, it is doubtful

⁴ Estimates by the Franklin Life Insurance Co. A discount rate of 5 percent is assumed.

⁵ Estimates by the Franklin Life Insurance Co. A discount rate of 5 percent is assumed.

⁶ *Digest of Selected Pension Plans, 1970 Edition*, op. cit., p. 207.

⁷ Arnold Strasser, "Pension Formulas Summarization: An Emerging Research Technique," *Monthly Labor Review*, April 1971, p. 52.

whether the average worker weighing a job change carries his calculations as to potential benefits and losses to this extent. Most likely, if he or she is vested, and is moving into a job with equal pension terms under which there is time to accumulate a benefit, the worker dismisses this as an issue.

In summary, vesting provisions reduce, but do not eliminate, the immobilizing impact of retirement plans on the rational worker. Even in a fairly liberal plan such as Uniroyal's, with a 40-10 age-service requirement, the worker aged 39 with 9 years of service would stand to gain the equivalent of \$2,200 in present annuity value by sticking on the job another year. After this point, however, the worker only has to worry about the loss of future service credits and not those accumulated for past service; the losses are significantly less and also much less obvious.

The proliferation of vesting provisions over the last decade has undoubtedly reduced the immobilizing impact of retirement plans. The substantial changes in age and service requirements for vesting have also had an impact. Where vesting is earlier, the worker approaching qualification has less to lose by job changing than the worker who is near to qualifying under more lengthy vesting requirements. The immobilizing effect on individual workers in plans with liberalized vesting provisions is reduced. On the other hand, liberalizations reduce the age at which the loss of benefits becomes a consideration. Younger workers tend to change employers more frequently, both voluntarily and involuntarily, and if the vesting age is reduced, a larger number of potential job changers will be affected. The liberalization of vesting provisions over the last decade has reduced the immobilizing impact on each worker, but has increased the number of potential job changers who are affected.

Early retirement provisions may also have some influence on the labor market impact of private retirement plans. Like vesting provisions, they permit the worker to leave the employer without loss of benefits if he or she has attained a certain age and service. In general, however, the age requirements for early retirement are stricter than for vesting; and most plans that have early retirement also have vesting so that the worker eligible for early retirement is usually already vested.⁸ The only difference is that he or she can thereby receive a pension immediately rather than waiting until normal retirement age to receive the vested benefit. It is only in the plans without vesting and with early retirement that the latter has a major impact. Between 10 and 15 percent of all covered workers are in such plans.⁹ As early retirement benefits are increased and the ages lowered, it is entirely possible that some eligible workers would find it advantageous to leave their job, receive a benefit, and then find another job somewhere else. Most likely, this would be limited to skilled or highly educated workers who could easily find secondary employment at high wages and who would be eligible for substantial early retirement benefits. The example of white-collar Government workers and military personnel who retire at an early age to other jobs may be duplicated

⁸ Harry E. Davis and Arnold Strasser, "Private Pension Plans, 1960 to 1969: An Overview," *op. cit.*, p. 49.

⁹ *Ibid.*

more often in the private sector as retirement is permitted at an earlier age with substantial benefits. To date, however (as is discussed in the next chapter), only a small minority of workers purposely retire under private pension plans in order to increase their income through second jobs combined with benefits.

Portability provisions which allow a worker to carry accumulated pension credits from one employer to another within the scope of coverage may also reduce the immobilizing impact of retirement plans. A few single employer plans have reciprocity provisions, usually for transferring to subsidiary companies, but for the most part, portability is a feature of multiemployer plans. Workers belonging to multi-employer plans can change jobs and employers as frequently as they wish, and get full credit for their service as long as their new employer is a participant in the plan. The scope of the plan, therefore, determines the degree of mobility it permits.

Multiemployer plans are concentrated in mining, construction, food and apparel manufacturing, services, transportation and trade.¹⁰ These plans vary widely in size. The largest plans, such as Central States, Southeast and Southwest Areas (Teamsters) pension fund, the Western Conference of Teamsters pension fund, the United Mine Workers bituminous retirement fund, and the International Brotherhood of Electrical Workers and the International Garment Workers Union plans each cover more than 100,000 workers.¹¹ These usually permit mobility within broad regions or over the entire Nation, and covered jobs may include a wide range of skills and occupations. But the vast majority of multiemployer plans are much smaller, covering a single occupation in a limited geographic area. They offer less opportunity for interarea and interoccupational mobility than the large multiemployer plans, and, in fact, than many single employer plans where a firm may have many plants. Among workers with a heavy investment in training for a specified skill and with roots in a specific area only a small proportion might consider job changes outside the scope of the small multiemployer plan. But among less skilled workers, or those with little attachment to an area or specific occupation, portability may not really mean much. Also, balancing the portability features of multiemployer plans is the fact that they usually have more stringent or no vesting provisions, and are less likely to have early retirement provisions. In 1969, 96 percent of workers in single employer plans were covered by either vesting or early retirement provisions compared with only 78 percent of those in multiemployer plans; for vesting alone, the percentages were 87 and 51 percent, respectively.¹²

Despite the widespread and increasing incidence of vesting, early retirement, and portability provisions, the fact remains that workers considering a job change may still be impeded by the substantial retirement accumulations they might lose. Unless pension and profit-sharing plans have immediate full vesting and complete portability, they will reduce, to some degree, interfirm (and sometimes interarea and interoccupational) mobility.

¹⁰ *Ibid.*, p. 46

¹¹ *Labor Mobility and Private Pension Plans*, Bureau of Labor Statistics, Bulletin No. 1407 (Washington: U.S. Government Printing Office, 1964).

¹² Harry E. Davis and Arnold Strasser, "Private Pension Plans, 1960 to 1969: An Overview," *op. cit.*, p. 46.

Labor Mobility Patterns

The critical issue is the extent to which pension and profit-sharing plans have affected labor mobility. Based on the analysis of retirement plan provisions alone, one might expect a significant influence. Even in a plan such as Uniroyal's with vesting after only 10 years of service and age 40, the worker leaving the plan in the ninth year, assuming the age requirement has been met, stands to lose a future benefit which is currently worth some \$2,200. If a worker were offered this amount in cash to stay on the job for a year or two more, most would give it serious consideration.

If the private retirement system has, in fact, a major impact on the propensity of the covered work force to change jobs, there should be some evidence of declining quit rates and increasing tenure concentrated in the highly covered industries and among older employees who are most likely to be near the age and service requirements for vesting or early retirement. Since nine-tenths of the growth in coverage over the last decade came from expansion of existing plans, it is a safe assumption that the impacts of expanding coverage are greatest in the already most intensively covered industries; in other words, there is a reason for expecting some differential changes between industries if private retirement plans have had an impact.

Looking first at the job tenure data, the evidence indicates that over the sixties, there has been no increase in the median tenure of the work force, even for workers 45 years and older (table 19). In 1963,

TABLE 19.—*Over the sixties, there has been no increase in the median tenure of the work force, even for workers 45 years and older*

Total	Median years on the current job		
	1963	1966	1968
All workers.....	4.6	4.2	3.8
14 to 17.....	.7	.6	.6
18 and 19.....	.5	.5	.6
20 to 24.....	1.1	1.0	1.0
25 to 34.....	3.0	2.7	2.5
35 to 44.....	6.0	6.0	5.2
45 to 54.....	9.0	8.8	8.6
55 to 64.....	11.8	13.0	12.3
65 and over.....	13.8	13.7	12.1
Males.....	5.7	5.2	4.8
14 to 17.....	.7	.6	.5
18 and 19.....	.5	.5	.5
20 to 24.....	1.0	1.0	.8
25 to 34.....	3.5	3.2	2.8
35 to 44.....	7.6	7.8	6.9
45 to 54.....	11.4	11.5	11.3
55 to 64.....	14.7	15.8	14.8
65 and over.....	16.6	15.5	13.5

Source: Harvey R. Hamel, "Job Tenure of American Workers, January 1963," *Special Labor Force Report, No. 36* (Washington, U.S. Government Printing Office, 1963); Harvey R. Hamel, "Job Tenure of American Workers, January 1966," Bureau of Labor Statistics, *Special Labor Force Report, No. 77* (Washington, U.S. Government Printing Office, 1967); Edward O'Boyle, "Job Tenure of Workers, January 1968," Bureau of Labor Statistics, *Special Labor Force Report, No. 112* (Washington, U.S. Government Printing Office, 1970).

the typical worker had been on his current job for 4.6 years; in 1966 it was 4.2, and in 1968 it was 3.8. Among 45- to 54-year-old males, the decline was less, from 11.4 years in 1963 to 11.3 years in 1968, but there was no increase; while among 55- to 64-year-old males, there was a very slight rise in tenure, from 14.7 to 14.8 years. If private retirement plans contributed to an increase in job tenure, their impact, even among the older cohorts which could be expected to be more affected, was balanced in the sixties by other factors operating in the opposite directions, for instance, the tight labor market which facilitated more frequent job changing or the Vietnam war which may have lowered tenure by withdrawing younger workers from the labor force.

Breaking down the job tenure data by industry, and focusing only on males 45 years old and over, there is no evidence of a correlation between pension coverage and tenure changes (table 20). Tenure increased significantly between 1963 and 1968 in the highly covered transportation and utilities industries; but it rose even more in wholesale and retail trade where coverage is low, and it actually declined in durable manufacturing which is highly covered.

TABLE 20.—*Breaking down the job tenure data by industry, and focusing only on males 45 years old and over, there is no evidence of correlation between pension coverage and tenure changes*

Industry	1963	1966	1968	1963-1968
Agriculture.....	21.0	18.7	21.4	+0.4
Nonagriculture.....	12.1	12.5	12.1	0
Mining.....	14.4	12.9	13.1	-1.3
Construction.....	4.2	4.2	5.4	+1.2
Manufacturing.....	14.8	15.7	14.7	-1
Durable.....	14.5	14.9	14.3	-0.2
Nondurable.....	15.3	16.9	15.4	+1
Transportation and utilities.....	17.1	17.2	18.4	+1.3
Wholesale and retail trade.....	7.4	7.6	8.8	+1.4
Finance, insurance, real estate.....	10.6	8.5	9.9	-1.7
Other services.....	6.6	5.9	7.2	+0.6
Public administration.....	13.5	13.1	12.1	-1.4
Self-employed.....	13.9	15.9	12.1	-1.8
Total.....	12.8	13.1	12.7	-0.1

Source: Harvey R. Hamel, "Job Tenure of American Workers, January 1963," Bureau of Labor Statistics, *Special Labor Force Report, No. 36* (Washington: U.S. Government Printing Office, 1963). Harvey R. Hamel, "Job Tenure of American Workers, January 1966," *Special Labor Force Report, No. 77*, Bureau of Labor Statistics (Washington: U.S. Government Printing Office, 1967). Edward O'Boyle, "Job Tenure of Workers, January 1968," *Special Labor Force Report, No. 112* (Washington: U.S. Government Printing Office, 1970).

Quit rate data also show little evidence of the impact of retirement plans on labor mobility. In manufacturing, for example, the quit rate per 100 employees was 1.5 in 1959; in 1962 it fell slightly to 1.4, but then it rose to 1.9 in 1965 and 2.6 in 1969.¹³ Over the same time, contributions per worker for private retirement plans in manufacturing establishments doubled.¹⁴ Looking on an industry-by-industry basis,

¹³ *Monthly Labor Review*, vol. 93, No. 7, July 1970, p. 105.

¹⁴ "Employee Compensation Reached \$4.54 An Hour In 1971." News Release by Bureau of Labor Statistics, November 23, 1971.

there is no apparent relationship between changes in quit rates over the sixties and either the incidence of coverage or the extent of contributions to private retirement plans (table 21). When selected industries are classified into high, medium, and low coverage groups according to the percent of workers covered and the percent of payroll contributed where there is coverage, the quit rate rose by an average of 152 percent in the high coverage industries between 1960 and 1969, while it rose by only 110 percent in the low coverage industries. Put in another way, voluntary labor mobility increased most in those industries with the greatest incidence and largest expenditures for private retirement plans.

TABLE 21.—*On an industry-by-industry basis, there is no apparent relationship between changes in quit rates over the sixties and either the incidence of coverage or the extent of contributions to private retirement plans*

Industry and coverage	Percent workers covered, 1969	Percent payroll where covered, 1969	Quit rate, 1960	Quit rate, 1969	Percent change
All manufacturing-----	83	4.0	1.3	2.7	108
High coverage:					
Food and tobacco-----	90	4.8	1.8	3.7	106
Chemical-----	98	4.5	.8	1.6	100
Petroleum-----	100	4.9	.5	1.3	160
Primary metals-----	93	4.9	.6	2.0	233
Stone, glass, clay-----	86	4.5	1.1	3.0	173
Rubber, leather, plastics-----	91	4.2	1.6	3.8	138
Average-----	92	4.6	1.1	2.6	152
Medium coverage:					
Printing and publishing-----	89	3.7	1.5	2.4	60
Machinery (except electrical)-----	93	4.0	.9	1.9	111
Transportation equipment-----	90	3.9	.9	1.8	100
Average-----	87	3.9	1.2	2.0	90
Low coverage:					
Textile and apparel-----	69	2.9	2.0	3.4	70
Paper, lumber, furniture-----	82	2.7	1.7	3.8	124
Fabricated metals-----	74	3.2	1.1	3.1	181
Electrical machinery-----	79	3.9	1.2	2.3	92
Instruments and miscellaneous-----	70	3.3	1.5	2.8	87
Average-----	75	3.3	1.5	3.1	110

Source: U.S. Chamber of Commerce, *Employee Benefits 1969*, Bureau of Labor Statistics, *Employment and Earnings, 1969-70* (Washington: U.S. Government Printing Office, 1971).

A Selective Effect

Although the impact of private retirement plans on labor mobility does not show up in aggregate job tenure and quit rate statistics during the 1963 to 1968 period, there is some evidence of an interaction when pension-covered establishments are compared to those without plans, and when the behavior of covered workers is compared to those without coverage. A 1965 seven-city survey of establishments with 50 or more employees found in the aggregate, for most industries, and for most age groups, that the number of quits per 100 employees were usually lower in establishments with pension plans (table 22). In particular, covered workers 45 to 64 were three times less likely to quit than those without coverage; among workers under 45, those outside plans were half again as likely to leave. It must be noted, however, that several characteristics of covered establishments other than coverage, per se, probably also affect the mobility of workers: pension covered firms are more frequently unionized and may have more "attached" employees because of seniority or other provisions; employers with high quit rates rarely have pension plans; and high wage firms are usually those which can afford retirement contributions. In other words, the firms with the lowest quit rates are likely to have the higher wages, better working conditions, and greater job security, as well as pension coverage.

Other more recent data support the finding of lower voluntary mobility rates in covered employment. A longitudinal survey of male workers initially aged 45 to 59, found that between 1966 and 1967, 13.0 percent of all whites who were not eligible for pension benefits changed employers, compared with only 8.4 percent of those who were eligible (table 23). The differential was especially noticeable in manufacturing, where 16.7 percent of the noneligibles changed employment voluntarily, compared with only 6 percent of the eligibles. These differentials occurred for workers with both long and short tenure.

Though older male workers not eligible for pensions were half again as likely to change employers between 1966 and 1967 as those who were eligible, the pension itself was only one of the reasons. To some extent, the highly mobile workers might have been more likely to be ineligible for pensions because of past job changes. Higher paid workers who were more likely to be covered were also less likely to change jobs voluntarily. For instance, 26.5 percent of white males initially aged 45 to 59 who earned less than \$2 per hour changed employers voluntarily between 1966 and 1967, compared with 9.7 percent of those earning between \$2 and \$2.99, and 9.0 percent of those earning \$3 or more.¹⁵ Thus, for males in their preretirement years, eligibility for a pension alone undoubtedly had an impact, but it explained only a part

¹⁵ Special tabulations were made from a 5-year longitudinal study of males initially aged 45 to 59 being conducted by the Center for Human Resources Research under a grant from the Manpower Administration.

TABLE 22.—*A 1965 7-city survey of establishments with 50 or more employees found in the aggregate, for most industries and for most age groups, that the number of annual quits per hundred employees was usually lower in establishments with pension plans*

Industry division and pension class	Under 25 years	25 to 34 years	35 to 44 years	45 to 54 years	55 to 64 years	65 years and older	All ages
All industries: ¹							
Pension.....	41	22	14	6	3	9	17
No pension.....	47	34	22	16	12	11	24
Construction:							
Pension.....	38	36	23	11	5	11	27
No pension.....	21	24	21	21	18	9	20
Manufacturing:							
Pension.....	38	21	12	5	2	8	14
No pension.....	43	34	19	11	9	10	23
Transportation, communication, and public utilities:							
Pension.....	31	16	15	2	8	6	13
No pension.....	7	24	12	5	2	-----	9
Wholesale and Retail Trade:							
Pension.....	51	30	20	10	4	6	25
No pension.....	60	47	30	21	17	12	35
Finance, insurance, and real estate:							
Pension.....	37	24	26	4	3	22	21
No pension.....	90	59	48	22	19	16	49
Service:							
Pension.....	70	19	15	6	6	18	18
No pension.....	46	29	22	28	13	16	26

¹ Detroit, Los Angeles, Minneapolis-St. Paul, Philadelphia, Seattle, and Worcester.

Source: *Old Age Income Assurance*, a compendium of papers published by the Joint Economic Committee, 90th Cong., 1st sess. (Washington: U.S. Government Printing Office, 1967), part IV, p. 149.

TABLE 23.—A longitudinal survey of male workers initially aged 45 to 59 found that between 1966 and 1967, 13.0 percent of all whites who were not eligible for pension benefits changed employers, compared with only 8.4 percent of those who were eligible

Industry	Years of service and pension eligibility									
	5		5 to 9		10 to 19		20 plus		Total	
	Eligible	Not eligible	Eligible	Not eligible	Eligible	Not eligible	Eligible	Not eligible	Eligible	Not eligible
Construction.....	14.4	40.7	NA	NA	NA	NA	NA	NA	14.6	23.6
Manufacturing.....	18.5	29.9	NA	NA	2.7	4.6	2.2	3.4	6.0	16.7
Trades.....	38.6	26.1	6.3	14.1	5.9	1.7	3.9	1.9	12.8	11.1
Services.....	21.7	17.8	25.6	13.8	9.4	3.7	13.0	0	17.7	9.6
Total.....	21.2	29.9	13.2	13.6	5.0	5.8	2.9	3.3	8.4	13.0

Source: Special tabulations from a longitudinal study of males aged 45 to 59 in 1966, by the Center for Human Resources Research, Ohio State University.

of the 50-percent differential in voluntary turnover between workers in covered and uncovered jobs. Aggregate data on quit rates which lump together covered and uncovered workers, plus females (who are less likely to be covered or long tenured) and younger workers who are far less likely to be covered in or affected by retirement plans and far more likely to change jobs, obviously swamp any retirement plan impact affecting mainly the older male worker with over 10 years tenure.

Why the Impact Has Not Been Greater

Based on the estimated costs of job changing indicated by the provisions of retirement plans, one might expect that their growth and enrichment over the last decade would have had a much more noticeable impact on labor mobility than is revealed by the aggregate data. To some extent it is undoubtedly true that the effect was disguised because tight labor markets increased job opportunities and stimulated job changing. But there are other factors related to the retirement system alone which may explain its limited impact. For one thing, any immobilizing effect of increased and more widespread benefits could have been balanced by the trend toward earlier vesting and retirement, and by the growth of multiemployer plans with their portability. In 1962 to 1963, only 59 percent of covered workers were in pension plans with vesting provisions, compared with 77 percent in 1969; the percentage covered by early retirement provisions increased from 75 to 87 percent.¹⁶ For plans with vesting, there was some easing of age and service requirements.¹⁷ Over the same time, multiemployer plans with portability rose from 25 to 30 percent of covered workers.¹⁸ All of these changes could have offset some of the negative impact of higher pension on labor mobility. Of course, if this is accepted as an explanation, continuing trends toward earlier vesting and retirement and increased portability may also affect to some extent any further impact due to rising benefits over the next decade.

The evidence is tenuous, but supportive. During the fifties, when coverage under pension plans was growing most rapidly, the proportion of workers whose decisions could be affected by these plans also rose. Over the decade, there was a noticeable decline in labor mobility. During the sixties, on the other hand, the major thrust was toward development of existing plans rather than growth in coverage; and job tenure fell while quit rates increased. Job changing may have been discouraged by the increasing stakes involved, but facilitated by earlier vesting.

Another important reason why retirement plans may have had little impact on mobility patterns is that the average worker contemplating a job change may not be entirely rational. In some cases, he or she may be highly dissatisfied and emotional, ready to leave his job "come hell or high water." More often, he or she may simply fail to realize

¹⁶ Harry E. Davis and Arnold Strasser, "Private Pension Plans 1960 to 1969: An Overview," *op. cit.*, p. 46.

¹⁷ Bankers Trust Co., *1970 Study of Industrial Retirement Plans*. (New York: Bankers Trust Co., 1970), pp. 11-12.

¹⁸ Harry E. Davis and Arnold Strasser, "Private Pension Plans 1960 to 1969: An Overview," *op. cit.*, p. 46.

the potential loss. There are no good statistics available on the knowledge covered workers may have of pension provisions, but many may not realize they are covered or that they will lose pension rights by moving to another job. Those who do realize that they will lose a future benefit may have an extremely high personal discount rate on future income, not caring much whether they get \$50 or \$100 more a month 20 or 30 years away.

For the rational worker contemplating a job change, it is also true that possible pension losses are only one of the factors which must be considered. Evidence indicates that most voluntary job changers leave for jobs which they find more satisfactory and more remunerative.¹⁹ In many cases, these greater satisfactions and income increments may exceed the pension losses. A few cents an hour more pay spread over a number of years can more than make up for the past deferrals of a few cents an hour which are given up. The important point is that job changing decisions involve many factors, and any increase in potential pension losses will only affect some marginal number of all possible job changers where it raises their costs over benefits.

Moreover, pension loss possibilities are an important factor for only a small proportion of all covered workers who might be considering job changes. Workers who are already vested have (or at least they probably feel they have) little to gain by staying with their present plan if they can transfer into a job with equal benefits. Young workers nearing vesting age are not too affected because the promised benefits which have accrued are usually small and are payable so far in the future that they have a very low present value. It is probably only the workers who are one or two years from reaching the age and service requirements for early retirement, or else those near qualifying for vesting after many years of work, who are significantly influenced by their retirement plans. To the extent that pension considerations only affect workers close to qualification for benefits, they may postpone rather than deter job changing.

When all these factors are considered, it is understandable why private retirement plans have not "indentured" the work force. Many workers are affected to some degree during some periods of their work lives, but in the aggregate, the impact on labor mobility rates has been only marginal.

The future is uncertain. There is no way of knowing whether workers have yet become fully aware of the implications of their retirement plans, or, if not, how soon or whether this will occur. Trends toward earlier vesting, portability, and early retirement are likely to continue with or without Federal legislation, and these developments will act to balance the increasing immobilization which will result from higher stakes in the retirement package. In general terms, there is little reason to think that retirement plans will have any dramatically increasing impact on this front. They will augment other factors reducing labor mobility, but they should continue to be only a minor determinant of whether the economy has an adequate amount of flexibility to continue its growth.

¹⁹ Herbert Parnes, et al., *The Pre-Retirement Years*, Manpower Research Monograph No. 15 (Washington: U.S. Government Printing Office, 1968).

5. RETIREMENT PLANS AND RETIREMENT PATTERNS

An Earlier Exit

The major purpose of a pension or deferred profit-sharing plan is to provide for retirement. It is to be expected, therefore, that the major labor market impact will be on the retirement patterns of covered workers. The normal retirement age which determines when full benefits are available usually serves as the benchmark of both employers and employees. The level of benefits, to some extent, influences the relative attractiveness of continued work at the same job, retirement from this job with reemployment elsewhere, or complete withdrawal from the labor force. *Ceteris paribus*, a higher benefit increases the attractiveness of the latter two options and encourages retirement from the covered job at the normal retirement age. With the growth of early retirement provisions, however, and the increased benefits which they provide, it becomes increasingly feasible for a minority of workers to leave before normal retirement. The money may provide a cushion if retirement is necessary for health or other reasons, or it may actually provide the incentive or wherewithal to leave a job for leisure or another pursuit. Retirement plans may also have an impact on workers at or beyond the normal retirement age who want to continue on the job, since many plans contain mandatory retirement provisions requiring the worker to take the pension immediately, forcing an earlier retirement than might be desired by the employee. In all these ways, the presence of the pension or deferred profit-sharing plans tend to lower the age of retirement from covered jobs.

Changes in the provisions of pension and profit-sharing plans should have augmented this impact. First, early retirement provisions have spread and become more liberal. Nearly 9 out of 10 workers were in plans with early retirement provisions in 1969, compared with 3 out of 4 in 1962 and 1963. In 1969, 75 percent of these workers could qualify for early retirement at less than age 60, compared with 60 percent in 1962 to 1963.¹ According to a survey of the most progressive plans, there has also been a marked trend toward higher early retirement benefits, both absolutely and relative to the benefits at normal retirement. In 1965, only 17 percent of all collectively bargained national plans in the Bankers Trust survey paid an early retirement benefit which was reduced from the normal benefit by less than the actuarial equivalent; that is, the amount needed to make up for the higher cost of providing the benefit sooner. By 1970, three-fourths of these plans paid early retirement benefits with less than the actuarial equivalent reduction.² In other words, these plans had been changed

¹ Harry E. Davis and Arnold Strasser, "Private Pension Plans, 1960 to 1969: An Overview," *Monthly Labor Review*, July 1970, p. 40.

² Bankers Trust Company, *1971 Study of Industrial Retirement Plans* (New York: Bankers Trust Co., 1970), p. 14.

to make early retirement somewhat more attractive to the employee relative to normal retirement.

Normal retirement ages under pension plans have also been lowered significantly (table 24). In 1962 to 1963, only 12 percent of all covered workers were in plans with a normal retirement age less than 65. By 1969, the proportion had increased to 31 percent. While 65 is still the most frequent retirement age, 62 has become much more important, since this is also the qualifying point for reduced social security benefits. An important trend is the increasing proportion of plans with service only rather than age and service requirements for retirement. While in many cases the requisite period of service is so long that most qualifying workers are 65, there are other cases where much younger workers can retire and receive a full pension immediately.

TABLE 24.—*Normal retirement ages under pension plans have also been lowered significantly*

Retirement age	1962-63	1969
No age requirement.....		6
55 and under 60.....	1	3
60 to 62.....	10	8
62 to 64.....	1	14
65.....	88	68
Over 65.....		

Source: Harry E. Davis and Arnold Strasser, "Private Pension Plans, 1960-69: An Overview," *Monthly Labor Review*, Volume 93, No. 7, July 1970, p. 46.

Mandatory retirement provisions under pension plans have also changed, making it somewhat less feasible for covered workers to continue on their jobs past the normal retirement age. Automatic retirement provisions under which workers have to retire at a stipulated age have to some extent replaced compulsory provisions which permit the worker to continue with the employer's permission. In 1963, half of all covered workers were under compulsory provisions, compared with only 42 percent in 1970. On the other hand, only 19 percent were in plans with automatic retirement provisions in 1963, compared with 24 percent in 1970. Put in another way, 11 percent of covered workers had to retire without option at age 68 or earlier in 1963, compared with 16 percent in 1970.³ Overall, the impact of these changes is not highly significant. The slight shift from compulsory to automatic retirement provisions may reflect the greater difficulty of administering the former more than the attempt to phase out workers at an earlier age.

Private retirement plans, and changes in their provisions over the last decade, have undoubtedly been a factor in the earlier retirement patterns of older workers and their consequently declining labor force participation rates. A worker can retire from a job under a pension or deferred profit-sharing plan without retiring from the labor force, but only a minority of retirees in fact seek other work and not all find it, so that earlier retirement often means earlier withdrawal from the

³ *The Older American Worker*, op. cit., p. 37; and special tabulations by the Bureau of Labor Statistics.

labor force. Though a number of other factors are involved, and are undoubtedly of more importance than pension or profit-sharing plans alone, the private retirement system has contributed to the declining labor force participation rates of older cohorts in the population (table 25). This has been especially noticeable for males, where the rate for those 65 and over declined from 40 percent in 1955 to 26 percent in 1970. For 55- to 64-year-old males there has been a modest but still significant decline, from 88 to 82 percent. Among females, the trend toward earlier withdrawal is not apparent because of rising labor force participation among women of all ages, though there has been a modest decline in the rate for women 65 and older. Since males are most likely to be covered by pension plans, more likely to work at one job long enough to qualify, and are thus more than twice as likely to eventually receive a benefit, retirement plans have a greater impact on their retirement patterns.⁴ The impact is easier to discern since most men work or look for work most of their lives until they retire, while women more frequently enter and leave the labor force. To isolate the influence of retirement plans, it is therefore necessary and probably justified to concentrate attention on the behavior of older males, and to assume that generally the same holds for a smaller proportion of older females.

TABLE 25.—*The private retirement system has contributed to the declining labor force participation rates of older cohorts in the population*

Labor force participation rates	1955	1960	1965	1971
Males:				
45 to 54.....	96.5	95.8	95.6	93.9
55 to 64.....	87.9	86.8	84.7	82.2
65 and over.....	39.6	33.1	27.9	25.5
Females:				
45 to 54.....	43.8	49.8	50.9	54.3
55 to 64.....	32.5	37.2	41.1	42.9
65 and over.....	10.6	10.8	10.0	9.5

Source: *Manpower Report of the President, 1972* (Washington: U.S. Government Printing Office, 1962).

For men, retirement usually becomes a consideration in the late fifties or early sixties. Among those aged 45 to 54, 94 percent were labor force participants in 1971, compared with 89 percent among 55 to 59-year-olds and 74 percent among 60- to 64-year-olds, with a reduction at 62 when reduced social security benefits become available.⁵ At age 65, there is a dramatic decline as workers become qualified for full social security benefits; the participation rate drops to 50 percent among 65-year-olds.⁶ It then continues to fall more slowly to 39 percent for those aged 65 to 69, and 17 percent for those aged 70 and over.

⁴ Lenore E. Bixby and Virginia Reno, "Second Pensions Among Newly Entitled Workers: Survey of New Beneficiaries," *Social Security Bulletin*, vol. 33, No. 11, p. 5.

⁵ *Employment and Earnings*, Vol. 18, No. 7, January 1972, p. 118.

⁶ *The Employment Problems of Older Workers*, U.S. Department of Labor, Bureau of Labor Statistics, Bulletin 1721 (Washington: U.S. Government Printing Office, 1971), p. 3.

Since more than three-fourths of covered workers are in plans with early retirement minimums under age 62, these provisions may have an impact on retirement patterns of workers 55 to 62, though not a major one since full benefits would be reduced and service would be limited, providing only a portion of the benefit which would be received by remaining on the job until normal retirement age or until age 62, when social security benefits are available to supplement private retirement plan payments.

For workers, age 62 to 64, early retirement becomes a much more realistic alternative. The loss in monthly benefits from accepting a pension immediately rather than waiting until normal retirement age may be small, especially where less than the actuarial equivalent is subtracted from the normal retirement benefit. During this period, some long-service workers may also qualify for benefits under normal retirement provisions, since 25 percent of covered workers are in plans with a normal retirement age less than 65, and 6 percent have no age requirement.⁷

The marked decline in labor force participation at age 65 is certainly influenced by the fact that this is the most frequent normal retirement age in private plans. Roughly 7 out of 10 pension-covered workers qualify for the normal benefits at this age.⁸ Some of these will voluntarily retire, but others will be forced out of their jobs, since 37 percent are covered by compulsory retirement provisions, and 8 percent by automatic retirement provisions which take effect at this time.⁹

For still older workers, compulsory and automatic retirement provisions will have an impact on the continued labor force participation rates in covered employment. But in the aggregate, other factors will probably predominate since 35 percent of the working males age 65 and over are in part-time jobs,¹⁰ 36 percent are self-employed,¹¹ and many have moved into the types of jobs available to older workers which are usually not covered by pension plans.

Private retirement plans and other provisions are only one of the factors governing the retirement decision at each of these junctures. Obviously, the qualification for reduced social security benefits at age 62 and full benefits at age 65 are even more important, since these affect more workers and since even for covered workers social security benefits are often larger than the available pension or profit-sharing annuity.¹² Health, job discontinuance, family responsibilities, and a number of other factors are also important at different stages.¹³ The difficulty is to isolate the separate influence of private retirement plans.

⁷ Harry E. Davis and Arnold Strasser, "Private Pension Plans, 1960 to 1969: An Overview," *op. cit.*, p. 49.

⁸ *Ibid.*

⁹ Data provided through a special tabulation by the Bureau of Labor Statistics.

¹⁰ *Manpower Report of the President, 1972* (Washington: U.S. Government Printing Office, p. 191.

¹¹ Patience Lauriat and William Rabin, "Men Who Claim Benefits Before Age 65," *Social Security Bulletin*, Nov. 1970, p. 20.

¹² Walter W. Kolodrubetz, "Private and Public Retirement Pensions: Findings From the 1968 Survey of the Aged," *Social Security Bulletin*, vol. 33, No. 9, Sept. 1970, p. 15.

¹³ A. J. Jaffe, "The Retirement Dilemma," *Industrial Gerontology*, No. 14, summer 1972, pp. 15-25.

The "Early Retirement Time Bomb"

The impact of early retirement provisions is a controversial issue. In negotiations with General Motors in 1971, the United Auto Workers demanded full retirement benefits at any age after 30 years of service. Its existing plan, negotiated in 1964, provided \$400 a month for workers retiring at age 60 with 30 years of service. In that year, the number of retirees went up threefold, including many skilled craftsmen. The company was, therefore, reluctant to liberalize its benefits further. In 1971, it had 16,820 hourly employees with 30 years of service or more (out of some 370,000 in the collective bargaining unit) and there were 24,235 with between 25 and 29 years of service. Based on earlier experience, GM estimated that 8,000 of those immediately eligible would retire early, raising pension payments immediately from \$192 million to \$240 million. In addition, a large number of highly skilled workers would be lost, involving a substantial cost for training replacements.¹⁴

The final agreement between GM and UAW did not provide for "30 and out," but it did allow for a worker to retire at 58 with a full pension as of October 1, 1971, and 56 as of October 1, 1972. The early retirement benefit was raised to \$500 monthly until age 65 and qualification for full social security at which time it would become \$7.50 a month for each year of service. Workers with 30 years of service could retire even before the early retirement age with an 8-percent reduction in benefits for each year. Thus, a 50-year-old with 30 years of service could retire as of October 1, 1972, with \$260 a month, and a 55-year-old with \$460. It was estimated that these changes would cost the company between 7 and 13 cents more per man-hour. More importantly, it set a precedent for early retirement based on service alone. As UAW President Leonard Woodcock put it, "It is now clearly established that a worker with 30 years of seniority has the right to retire with a pension."¹⁵

The UAW and other large industrial unions such as the United Steel Workers, are likely to continue to press for early retirement on full benefits without age restrictions. The costs will be significant. Projecting these trends into the future, business spokesmen have claimed that the Nation is living with an "early retirement time bomb," where pensions will lead to earlier and earlier retirement, putting increasing burdens on business, having questionable long-run benefits to retirees, and a negative impact on the economy.¹⁶

These claims have some basis in fact. All evidence indicates that the availability and magnitude of early retirement pensions are a major determinant of voluntary early retirement, especially after age 62 when social security is available or in plans with a level earnings option which pay more until qualification for social security so that retirement income is constant.

If benefits are expanded, more workers will retire at an earlier age. Among 62- to 64-year-old males who left the labor force in the latter

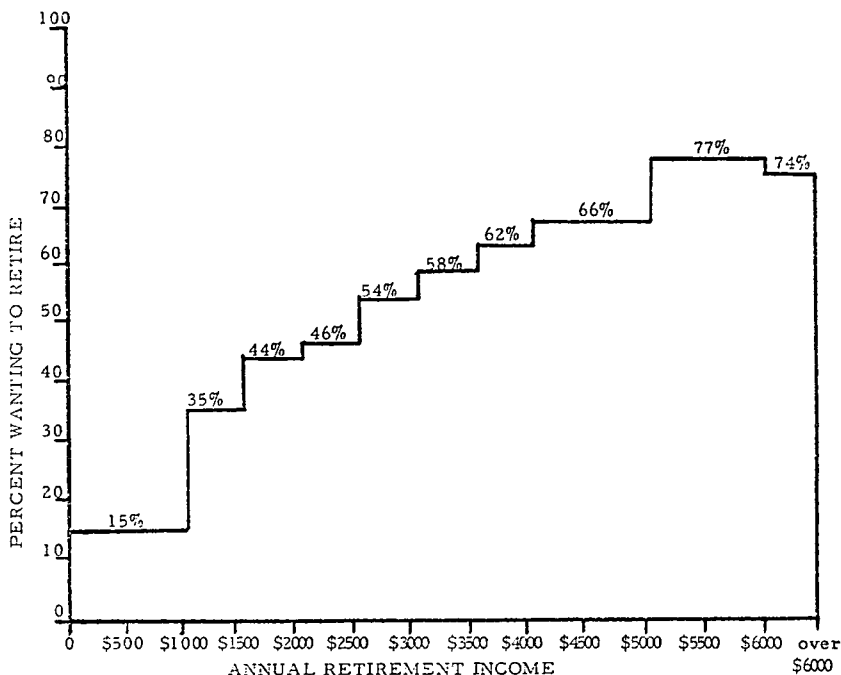
¹⁴ "The Early Retirement Time Bomb," *Nation's Business*, vol. 59, No. 2, Feb. 1971, pp. 20-24.

¹⁵ *Ibid.*, p. 24.

¹⁶ *Ibid.*, pp. 20-24.

half of 1968 and registered for social security, the percentage who had wanted to retire was directly proportionate to the level of retirement income (chart 2). As pension and deferred profit-sharing annuities raise potential retirement incomes, it is therefore likely that the proportion of workers who want to and do retire early will increase.

CHART 2.—Among 62- to 64-year-old males who left the labor force in the latter half of 1968 and registered for social security, the percentage who had wanted to retire was directly proportionate to the level of retirement income.



SOURCE: Virginia Reno, "Why Men Stop Working At or Before Age 65," *Report Number 3*, Social Security Administration, U.S. Department of Health, Education, and Welfare, May 1971, p. 27.

Studies of workers' plans for early retirement also reveal the importance of expected income. Barfield and Morgan's study in 1966-67 found that "financial factors—primarily expected retirement income—are of principal importance in the retirement decision, with attitudinal variables having less influence, though operating in expected directions."¹⁷ A 1969 followup of automobile manufacturing workers who were 58 to 61 in the 1966-67 survey found that over two-thirds had already retired. Most of those who had planned early retirement had retired within a year of the anticipated time, with the majority retir-

¹⁷ Richard Barfield and James Morgan, "Early Retirement: The Decision and the Experience," abstract in *Industrial Gerontology*, vol. 4, winter 1970, pp. 34-35.

ing at precisely the expected age. Most of those planning later retirement had also retired before age 65.¹⁸ This suggests that when early retirement benefits are lucrative, many of those who think they will continue working change their minds as health deteriorates or problems occur on the job. Retirement expectation studies may, therefore, understate the influence of early retirement income.

A comprehensive longitudinal survey of males in their "pre-retirement years," initially 45 to 59, considered a variety of factors which might influence the expectation to retire early.¹⁹ These included: financial need, resources in the absence of work, health, occupation, education, commitment to work, attitudes toward work, race, and coverage by a pension plan. A stepwise regression of these variables found that the single most important factor governing early retirement expectations was pension coverage. Overall, 33 percent of the covered males expected to retire early, compared with only 17 percent of those not covered by pension plans. Length of service under covered plans, which usually determines qualification for early retirement, was also a significant variable, with 39 percent of covered workers with 15 or more years of service planning to retire early compared with 26 percent of those with less. A final significant variable was whether the worker was in the public or private sector; under more lucrative government retirement plans, 52 percent of long-tenure workers expected to retire early compared with 36 percent of those in the private sector.²⁰ Clearly, the availability of an early retirement pension, especially the lucrative one which usually covers government workers, is a major factor in the voluntary decision to retire early.

The critical issue, however, is the extent to which present and future trends in private pension and profit-sharing plans permitting or encouraging earlier retirement will incrementally affect retirement patterns. It must first be determined how changes have affected covered workers, and then their impact must be estimated on the retirement patterns of the entire work force.

Ideally, one would like to know how much each dollar in retirement income increases the propensity and ability to retire early. No time series data are available to get even a crude estimate of this relationship, and there are staggering conceptual problems since only real income gains should be considered, and perhaps only in relation to pre-retirement income, and since the marginal relationship may be different at varying income levels. To get a sense of magnitude, however, some estimates can be made from the cross-sectional data in chart 2.

Median social security benefits for male retirees and registrants for social security aged 62 to 64 in 1969 were \$1,300.²¹ At this level, only 35 percent of those leaving the work force had done so voluntarily. An additional \$1,000 provided by a private retirement benefit would raise

¹⁸ Richard Barfield, *The Automobile Workers and Retirement: A Second Look* (Ann Arbor: Institute for Social Research, University of Michigan, 1970), p. 49.
¹⁹ Herbert S. Parnes and Gilbert Nestel, *Retirement Expectations of Middle-Aged Men* (Columbus, Ohio: Ohio State University, 1972).

²⁰ *Ibid.*, p. 30.

²¹ Patience Lauriat and William Rabin, "Men Who Claim Benefits Before Age 65," *op. cit.*, p. 17.

income to \$2,300, and at this level, 46 percent of those retiring had chosen to do so. If it is assumed that the likelihood of leaving the labor force for health reasons or job discontinuance is the same among those with \$2,300 retirement benefit for those with \$1,300, the rising proportion of voluntary retirees would mean that the number of early retirees increased by two-thirds with the \$1,000 extra income. This is, obviously, an extremely crude estimate; there is no assurance that the likelihood of health problems or job discontinuance is constant over this range, or that cross-sectional data can be applied to predict responses over time. Nevertheless, this gives some idea of scale. Even if pension plans expand to provide workers with an extra \$1,000 in annual retirement income, there will be something in the magnitude of a two-thirds increase in early retirement. Since the average private retirement benefit in 1970 was only \$1,500, since the early retirement benefit is usually less than the normal retirement benefit, and since improvements over time must be reduced to the extent of rising costs, the aggregate impact of rising early retirement benefit levels over the last decade on the early retirement patterns of covered workers cannot have been massive.

Despite these rising benefit levels, there is still a long way to go before the average early retirement provisions in pension or deferred profit-sharing plans provide a realistic income alternative to work. Estimates for a sample of 10 plans with early retirement provisions suggest that the monthly early retirement benefit is significantly less than the normal retirement benefit, and it replaces only a small percentage of earnings (table 26). Among the 10 plans, three do not permit early retirement at 56, two at 58, and one at 60. For a worker who would have 25 years of service and \$6,600 career average earnings if continuing work to age 65, the benefit available (in those plans permitting retirement) at 56, 58, and 60, is only \$61, \$89, and \$108, respectively. Put in another way, the worker retiring at age 56 gets only 11 percent of his average monthly earnings over the previous 5 years, or 30 percent of the benefit which would be received by remaining until regular retirement. Even at age 62, the replacement rate of average earnings is only 18 percent, and the monthly benefit is less than three-fourths of what would be received by remaining on the job another 3 years.

TABLE 26.—*Estimates for a sample of 10 plans with retirement provisions suggests that the monthly early retirement benefit is significantly less than the normal retirement benefit, and it replaces only a small percentage of earnings*

Plan	Normal retirement provisions	Early retirement provisions	Dollar benefits by age ¹					
			56	58	60	62	64	65
1. Anaconda American Brass Co.—Steelworkers.	Age: 65; service: 15; benefit: \$5 times years of service.	Age: 60; service: 15; benefit: normal less .33 percent for each month under age 65.	-----	-----	\$80	\$98	\$116	\$125
2. Detroit Edison Co.—IBEW.	Age: 65; benefit: 1.2 percent average monthly earnings 5 highest years.	Age: 45; service: 15; benefit: normal less 5 percent for each year under 65.	\$58	\$84	116	156	206	235
3. Furniture Workers (National Plan).	Age: 65; service: 15; benefit: 2 percent of career average earnings times years of service.	Age: 62; service: 15; benefit: normal less .56 percent for each month under 65.	-----	-----	-----	48	61	68
4. Milk Dealers (Chicago)—Teamsters Local 753.	Age: 65; service: 25 years union membership; benefit: scheduled.	Age: 57; service: 25 years union membership, benefit: scheduled.	-----	140	150	160	200	210
5. Monsanto Co.—Chemical Workers.	Age: 65; service: 10; benefit: \$5 times years of service.	Age: 50; service 10; benefit: normal less .25 percent each month under 65.	58	71	85	100	116	125

6. Retail, Wholesale Industries, New York City—Retail, Wholesale, Department Store Union, District 65.	Age: 65; service: 10; benefit: 1.2 percent average monthly earnings times years of service up to 10, 1.3 percent times years up to 20, 1.4 percent times years up to 30.	Age: 55; service: 10; benefit: normal less 6 percent each year under 65.	60	93	135	191	260	301
7. Scovill Manufacturing Co.—Autoworkers.	Age: 65; service: 10; benefit: \$6 times years of service.	Age: 55; service: 10; benefit: reduction schedule.	51	65	83	108	137	150
8. Borden, Inc. (Noncontributory).	Age: 65; service: 15; benefit: \$3.50 times years of service.	Age: 55; service: 5; benefit: normal less 6 percent for each year under 65.	26	37	49	63	79	88
9. Kroehler Manufacturing Co.	Age: 65; service: 15; benefit: 1.7 percent times average last 10 years earnings times years of service up to 20, plus .5 percent times average earnings times years of service over 20, less 30 percent social security.	Age: 50; service: 15; benefit: normal less 5/9 of 1 percent each month under 65.	10	30	60	89	128	158
10. Pacific Gas & Electric.	Age: 65; benefit: 40 percent of average monthly earnings in last 5 years.	Age: 55; benefit: normal less 3 percent for each year under 65.	161	188	218	263	292	313
Average: Those providing benefit at each age.	-----	-----	61	89	108	127	160	177

Footnotes at end of table.

TABLE 26.—*Estimates for a sample of 10 plans with retirement provisions suggests that the monthly early retirement benefit is significantly less than the normal retirement benefit, and it replaces only a small percentage of earnings—Continued*

Plan	Dollar benefits as a percent of estimated average earnings in previous 5 years						Percent of normal retirement benefit at 65					
	56	58	60	62	64	65	56	58	60	62	64	65
1. Anaconda American Brass Co.—Steelworkers			12	14	15	16			64	78	93	100
2. Detroit Edison Co.—IBEW	10	14	18	22	27	30	25	36	49	66	88	100
3. Furniture Workers (National Plan)				7	8	9				71	90	100
4. Milk Dealers (Chicago)—Teamsters local 753		23	23	23	27	27		67	71	76	95	100
5. Monsanto Co.—Chemical Workers	11	12	13	14	15	16	46	57	68	80	93	100
6. Retail, Wholesale Industries, New York City—Retail, Wholesale, Department Store Union, District 65	11	16	21	27	34	38	20	31	45	63	86	100
7. Scovill Manufacturing Co.—Autoworkers	9	11	14	15	18	19	34	43	55	79	91	100
8. Borden, Inc. (Noncontributory)	5	6	8	9	10	11	30	42	56	72	90	100
9. Kroehler Manufacturing Co.	2	5	9	13	17	20	6	19	38	56	81	100
10. Pacific Gas & Electric	29	32	34	36	39	40	51	60	70	81	93	100
Average: Those providing benefit at each age	11	15	17	18	21	23	30	44	57	72	90	100

¹ The benefits are estimated from the formulas on the assumption that the worker will have \$6,600 career average earnings with a 4 percent increase each year. The technique is the one developed by Arnold Strasser in "Pension Formula Summarization: An Emerging Research Technique," *Monthly Labor Review*, April 1971.

Source: *Digest of Selected Pension Plans, 1970 Edition*, op. cit.

The autoworkers' retirement plans and their early retirement patterns are obviously atypical, and it is misleading to draw any aggregate conclusions from their experience. For one thing, the propensity to retire from assembly-line jobs is higher than in white collar employment.²² The same anomie which is manifest in excessive absenteeism, rising quit rates, and sometimes shoddy workmanship among blue collar workers, is also reflected in the desire to get out as quickly as possible.²³ In particular, the study of early retirees under the auto plans suggests that problems in the industry arising from intergenerational and interracial conflicts may have induced some workers to retire.²⁴

Another reason for the high rate of retirement noted under the General Motors plan is that changes in 1965 and 1971 not only raised the early retirement benefit, but they extended it to workers at a younger age. For instance, in 1971, workers with 30 years of service who were 58 rather than 60, were allowed to retire and receive an unreduced benefit. There were a number of workers with qualifying service aged 58 to 60 who might have wanted to retire but could not previously; once they retired under the new provisions, the proportion of workers with the requisite service choosing early retirement could be expected to level off. Put in another way, the short-run reaction to retirement plan changes probably overstates the long-run impact.

But this does not deny that if workers in other industries were offered the same \$500 monthly pension available to automobile workers, those with 30 years of service and age 58 would be much more likely to retire early. The fact is that there are few workers this age with such extensive service, and little likelihood that such lucrative benefits for early retirement will become widespread. The estimated cost of pension plan premiums and payments in all manufacturing industries in 1970 was 12 cents per payroll-hour.²⁵ The UAW estimates that the extra costs of its 1971 settlement were 7 cents per payroll-hour, with some analysts projecting a 12- to 13-cent-per-hour increase.²⁶ Put in another way, the cents per hour increase in contributions under General Motors' plan was nearly as much as the average paid under all other manufacturing plans. In the coming years, other industries may improve their early retirement provisions, but they also have a lot of catching up to do in their normal retirement, disability, vesting, and other provisions, so that improvements will not be concentrated solely in the early retirement area.

Even if the 30-and-out provisions became universal in private pension plans, it could affect only the minority of all workers who are long-tenured. According to social security data covering new registrants in 1969-70, 46 percent of males aged 62 to 65 had worked 25 years or more at a single private sector job, and only 32 percent in one

²² A. J. Jaffe, "The Retirement Dilemma," op. cit., p. 30.

²³ Herbert S. Parnes, et al., *The Pre-Retirement Years*, vol. 1, Manpower Research Monograph No. 15 (Washington: U.S. Government Printing Office, 1970), pp. 203-230.

²⁴ Richard E. Barfield, *The Automobile Workers and Retirement: A Second Look*, op. cit.

²⁵ "Employee Compensation Reached \$4.54 an Hour in 1970," news release by Bureau of Labor Statistics, Nov. 23, 1971.

²⁶ "The Early Retirement Time Bomb," op. cit., p. 22.

with a retirement plan. Only 17 percent of women the same age had worked in a single job this long, and only 9 percent in one which was covered. Among this minority of all older workers who might be affected by a 30-and-out provision, some proportion would retire early anyway, because of health problems, layoffs, or personal desires; others would not want to retire early even if they could.²⁷ Hence, even if all pension and profit-sharing plans had liberal early retirement paralleling those in the automotive industry, only a minority of 62- to 64-year-old workers would be able or would want to retire early because of available benefits. There is, however, a long way to go before the average pension plan matches those in the automobile industry.

Normal and Mandatory Retirement

The major impact of pension plans is among workers reaching the normal retirement age, usually 65, and among the somewhat older workers who continue on their jobs until reaching the mandatory retirement age. The income from the private retirement plan, combined with social security, alleviates the stark choice between penury and continued work, giving the individual more freedom of choice. On the other hand, the pension may also provide an excuse or means for the employer to phase out older workers, even though these individuals may want to continue working.

Among 65-year-olds registering for social security between July 1968 and June 1970, 72 percent of the men who were receiving a private pension were not employed, compared with 17 percent of those not receiving a pension. Among women, the 80 percent of recipients compared with the 25 percent of nonrecipients were not employed.²⁸ Pensioners were less likely to have been driven by economic necessity to find part-time work after retirement, but they were also more likely to have been involuntarily retired from their last job. For instance, among 65-year-old male pension beneficiaries who were not employed in July–December 1968, the major reason for leaving the last job was mandatory retirement; nonrecipients more often left because of health or job discontinuance (table 27). And though two-fifths of all mandatory retirees reported that they wanted to quit working, three-fifths would have liked to continue.²⁹ The uncovered worker who has no choice but to continue working is not likely to feel sorry for the pension recipient who was involuntarily retired from his or her job but who had enough income to stay out of the labor force. Nevertheless, mandatory retirement is a concern to the older worker who would like to continue working on the covered job.

Though some establishments without retirement plans may have compulsory or automatic retirement provisions, and establishments may also have strictly enforced age policies even if these are not articulated, formal requirements are usually a part of the pension or profit-

²⁷ Walter W. Kolodrubetz, "Characteristics of Workers With Pension Coverage in Longest Job: New Beneficiaries," *Social Security Bulletin*, Volume 34, Number 11, November 1971, p. 14.

²⁸ Lenore E. Bixby and Virginia Reno, "Second Pensions Among Newly Entitled Workers: Survey of New Beneficiaries," *Social Security Bulletin*, Volume 34, Number 11, November 1971, p. 7.

²⁹ Virginia Reno, "Why Men Stop Working At or Before Age 65, *op. cit.*, p. 26.

TABLE 27—Among 65-year-old male pension beneficiaries who were not employed in July–December 1968, the major reason for leaving the last job was mandatory retirement; nonrecipients more often left because of ill health job discontinuance

Reason for leaving last job	Pension recipient	Nonrecipients
Health.....	14	35
Job discontinuation.....	2	13
Mandatory retirement.....	62	29
Employee initiated.....	22	23

Source: Virginia Reno, "Why Men Stop Working At or Before Age 65," Report No. 3. Preliminary Findings From the Survey of New Beneficiaries, May 1971, p. 26 (mimeographed).

sharing plan. The Age Discrimination in Employment Act of 1967 made it unlawful for any employer to discharge an employee aged 40 to 64 solely on the basis of age, unless such provisions were part of a bona fide employee-benefit plan. The law accepts 65 as the age at which mandatory retirement is not unlawful age discrimination. But still, most 65 and over age limits are instituted as part of pension plans since employers are reluctant to fire workers without any benefits. Four out of five new social security registrants during July–December 1969 who reported mandatory provisions on their most recent jobs said that they were also covered by pension plans; three out of five of those covered by pension plans reported a mandatory provision.³⁰

Despite this correlation between pension and mandatory retirement provision coverage, the private retirement system is not basically responsible for the growing number of older workers who must leave their jobs involuntarily. There is nothing in pension plans, per se, which makes it more costly to continue employing older workers. For instance, in plans covering a third of all workers, the normal retirement benefit does not increase, that is, service credits are not earned, even if the employee continues working past the normal retirement age; in this case, it actually costs less under the plan to continue employing the older worker rather than hiring a younger one. In plans covering another half of all workers, the employee may receive credit for extra service, but none for the actuarial gains accruing to the plan from the fact that the number of years of expected payout will be less the later the retirement.³¹ For instance, a \$100 a month life annuity at age 65 costs \$13,200 in 1972 from a typical insurance company while one at age 67 cost only \$12,600.³² It is, therefore, less expensive to employ a worker over the retirement age in a plan with this type of provision than it is to replace him with a younger employee who is earning equal service credits toward a pension. If employers write in compulsory and automatic retirement provisions, it is rarely because of differential pension costs. The reason for such provisions is simply the desire to phase out older workers for one reason or another. In

³⁰ Virginia P. Reno, "Compulsory Retirement Among Newly Entitled Workers: Survey of New Beneficiaries," *Social Security Bulletin*, Vol. 35, No. 2, March 1972, pp. 3–15.

³¹ *The Older American Worker, op. cit.*, p. 30.

³² Calculated by the Franklin Life Insurance Co.

this sense, the availability of the pension or profit-sharing plan may permit employers to do what they want, but it is only the *dux ex machina*. At little or no cost to employers, flexible retirement provisions could be added to private retirement plans. On the other hand, this might be antithetical to the basic purpose of the plan, that is, to help ease out older workers.

Retiring From Work and Not Just a Job

The labor market impact of the trends toward earlier retirement from jobs covered by pension and profit-sharing plans depends on whether the early retirees leave the labor force or look for other jobs to supplement their retirement incomes. Assuming that the willingness to work is a function, among other factors, of the wage or salary which could be earned by continuing work and the retirement income which would be received by retiring, and also assuming that leisure is preferred to work, labor force participation can be expected to fall with increasing retirement benefits and involuntary termination from jobs which provide a higher wage or salary than can be earned elsewhere.

Data on military retirees who can leave after 20 years of service reveal the importance of the level of retirement income in determining the probability of reemployment (table 28). The elasticity of labor force participation (that is, the percent the labor force participation rate falls with each percent increase in retirement income) is especially high among less educated older workers, as might be expected from the fact that what they can earn from reemployment, that is, what they must forego if they opt for leisure, is less. As an example, there is a .4 percent decline in the labor force participation of 55 to 64-year-old ex-servicemen with a high school education for each 1 percent increase in retirement income. If retirement benefits are doubled, the labor force participation rate of recipients can be expected to fall by two-fifths. For the less than high school graduates in the same age group, there is a three-fifths decline in participation rates when benefits are doubled. With increasing age, the elasticity of labor force participation increases, which indicates a decline in both the desire and ability to work and the level of income which can be earned. For the 65 and over cohort with just a high school education, the rate of labor force participation would fall to zero; in other words, nobody would seek work, if the elasticities held up over this income range.

There is no reason to believe that military retirees are any different than other individuals with the same age, education, and retirement benefits, so that as retirement benefits increase, the proportion of recipients who seek reemployment will fall. The impact will be greatest in cases of unskilled or selectively skilled workers who cannot find well-paying jobs, and the impact will also be greater among the older cohorts.

Whatever the exact relationship between increased benefits and falling labor force participation, it is clear that those who receive a private retirement annuity are much less likely to work than those who do not.

TABLE 28.—*Data on military retirees who can leave any time after 20 years of active service reveal the importance of the level of retirement income in determining the probability of reemployment*

Level of school completed and age	Estimated elasticity
Less than 8 years:	
35 to 44 years	-0.036
45 to 54 years	-.112
55 to 64 years	-.579
65 years or more	-1.691
9 to 11 years:	
35 to 44 years	-.038
45 to 54 years	-.074
55 to 64 years	-.493
65 years or more	-1.616
12 years:	
35 to 44 years	-.025
45 to 54 years	-.063
55 to 64 years	-.390
65 years or more	-1.456
13 to 15 years:	
35 to 44 years	-.043
45 to 54 years	-.065
55 to 64 years	-.385
65 years or more	-1.420
16 years:	
35 to 44 years	-.081
45 to 54 years	-.108
55 to 64 years	-.531
65 years or more	-1.477
17 years or more:	
35 to 44 years	-.087
45 to 54 years	-.083
55 to 64 years	-.404
65 years or more	-1.223

Source: Bette S. Mahoney and Alan E. Fechter, "The Economics of Military Retirement," in *Old Age Income Assurance, Part IV*, papers submitted to Subcommittee on Fiscal Policy, Joint Economic Committee (Washington: U.S. Government Printing Office, 1967), p. 183.

Among 62- to 65-year-old social security registrants between July 1968 and June 1970, only 20 percent of males who were receiving private pensions were employed currently, compared with 66 percent of non-recipients. For females, 44 percent of nonrecipients, but only 16 percent of recipients were working.³³ In part, this differential reflects the fact that low-wage workers usually not covered by private pension plans register for early social security benefits to supplement low wages, and in part it reflects the fact that the self-employed who are most likely to continue working are the least likely to be covered by pensions. More important, however, is the fact that the income private plans provide in addition to social security reduces the necessity to work.

The same holds true for older persons. The 1968 survey of the aged (i.e., all persons 65 and over) found that among married couples who received both OASDI and private pensions, 31 percent reported some

³³ Lenore E. Bixby and Virginia Reno, "Second Pensions Among Newly Entitled Workers: Survey of New Beneficiaries," *op. cit.*, p. 6.

earnings in the previous year, compared with 46 percent of those receiving social security alone and 80 percent of those receiving no retirement benefits. Among nonmarried males, the proportions were 13, 30, and 21 percent, respectively; among nonmarried females they were 7, 16, and 14 percent, respectively. Where 19 percent of the income of male recipients of both OASDI and private pensions comes from other sources including wages and salaries, these sources account for 48 percent of the income of older persons receiving OASDI alone. Clearly then, as an increasing proportion of all workers qualify for normal retirement benefits, the labor force participation rate will fall.³⁴

An important question is whether the small but growing proportion of workers in their late fifties and early sixties who choose voluntarily to retire early will seek reemployment. Here, the evidence indicates that only a minority will move into other jobs. For instance, among 943 automobile workers who were followed up between 1966-67 and 1969-70 and were aged 58 to 61 in the initial survey, two-thirds had taken the option of early retirement. Of these, only two had returned to other jobs.³⁵ Similarly, a study of 450 voluntarily early retirees from a petroleum refinery, who ranged from age 50 to 64, found that less than one-third sought to return to the labor force.³⁶ A more comprehensive 1968 survey of over a thousand early retirees in a variety of industries found that only 26 percent of them worked full or part-time compared with 17 percent of older, regular retirees.³⁷ A longitudinal survey of workers aged 45 to 59 revealed that those who planned to retire early from their current job were no more likely to want to return to work than those who planned to retire later.³⁸

In some cases early retirees may be deterred from future jobseeking by reemployment restrictions. This was certainly the case in the automotive plants: workers are prohibited from finding another job with a competitor, and their pension benefits are subject to the same earnings test and incremental reduction as under social security. This undoubtedly accounts for the small proportion who return to work. Overall, however, reemployment restrictions affect only a minority of early retirees, usually limiting jobs only in the same industry (table 29). The more likely explanation of the low rates of labor force participation is that workers either retire early because of health or other problems which rule out further work, or they want to retire because the benefit is attractive enough to support them in leisure. Few who qualify for early retirement benefits are apparently willing to give up their seniority and pay to get a benefit if they then have to seek work to maintain a reasonable standard of living and few can exceed their pay by adding their benefit to earnings from secondary jobs.

³⁴ Walter W. Kolodrubetz, "Private and Public Retirement Pensions: Findings From the 1968 Survey of the Aged," op. cit., pp. 16-18.

³⁵ Richard E. Barfield, *The Automobile Workers and Retirement: A Second Look*, op. cit.

³⁶ John P. Owen and L. D. Belzuni, "Consequences of Voluntary Early Retirement: A Case Study of a New Labour Force Phenomenon," abstract in *Industrial Gerontology*, Issue No. 4, Winter 1970, p. 39.

³⁷ Mark R. Greene, et al., *Early Retirement: A Survey of Company Policies and Retirees' Experience* (Eugene, Oregon: University of Oregon, 1969), p. 39.

³⁸ Herbert S. Parnes and Gilbert Nestel, *Retirement Expectations of Middle-Aged Men*, op. cit., p. 6.

TABLE 29.—*Reemployment restrictions affect only a minority of early retirees, usually limiting jobs only in the same industry*

Reemployment restriction	Percent of workers in survey subject to reemployment restrictions on early retirement	
	Salaried	Hourly
Employer has some type of reemployment restriction.....	45	44
Types of reemployment restrictions (some use more than one):		
Reemployment by company prohibited.....	60	54
Reemployment by competition prohibited.....	36	22
Reemployment prohibited by union rules.....	2	7
Other reemployment restrictions.....	20	21

Source: Mark R. Greene, et al., *Early Retirement: A Survey of Company Policies and Retirees' Experience* (Eugene, Oregon: University of Oregon, 1969), p. 48.

The private retirement system, therefore, has a definite impact on participation patterns. For workers aged 65 and over, pension and profit-sharing plans will contribute to some further reduction in labor force participation as benefits become more attractive, but more significantly, as a larger proportion of workers become eligible for normal retirement benefits. As noted previously, the proportion of new retirees receiving private benefits is increasing. It is, therefore, to be expected that the trend of declining labor force participation among those over the normal retirement age will continue. The total depends on changes in the demand for older workers and on other factors such as social security levels. The Bureau of Labor Statistics projects a substantial decline over the decade in the labor force participation rate of the 65- to 69-year-old cohort; this is certainly not overstated in light of retirement plan developments (table 30).

TABLE 30.—*The Bureau of Labor Statistics projects a substantial decline over the decade in the labor force participation rate of the 65 to 69 age cohort*

Sex and age of worker	1960	1968	1975	1980	1985
Men:					
55 to 59.....	89.9	88.5	87.5	87.1	86.8
60 to 64.....	79.5	75.8	72.6	72.8	72.5
65 and over.....	32.2	26.3	23.1	22.0	21.1
65 to 69.....	45.8	42.1	37.6	36.0	35.2
70 and over.....	23.5	17.1	14.3	13.3	12.7
Women:					
55 to 59.....	41.7	47.4	50.6	51.6	51.8
60 to 64.....	31.0	35.6	37.2	38.0	38.2
65 and over.....	10.5	9.1	8.8	8.7	8.5
65 to 69.....	17.3	16.7	16.4	16.1	16.0
70 and over.....	6.5	5.4	5.0	4.9	4.8

Source: Sophie C. Travis, "The U.S. labor force: projections to 1985," *Monthly Labor Review*, vol. 93, No. 5, May 1971, p. 4.

The expansion and liberalization of early retirement provisions will contribute to declining labor force participation among workers in their early sixties. As a larger percentage become eligible for early retirement provisions, more will choose to retire not only from the job but from the work force. The process of change will not be abrupt, since few plans now offer options attractive enough to stimulate early retirement and since their development in this direction is gradual in most cases. However, the cumulative impact will be noticeable. The Bureau of Labor Statistics projects that the participation rates for males aged 55 to 59 and 60 to 64 will continue to fall at their past rates, or by two to three percentage points over the next 15 years. Considering the decline in normal retirement ages and the impact of early retirement benefits, this projection may understate the decline among the 60- to 64-year-old cohort and may also be on the low side for 55- to 59-year-olds. On the other hand, private retirement plans are likely to augment this decline by no more than three to 5 percentage points as a rough estimate. Therefore, if there is any ticking of an "early retirement time bomb," it has an extremely long fuse.

6. OPENING JOBS THROUGH RETIREMENT

Increasing Retirements To Open Jobs

Since pension and profit-sharing plans affect the timing of retirement, they could, conceivably, be used to increase the rate of retirement during periods of high unemployment in order to open jobs for younger workers. By providing retirement income to older employees who are laid off, they may forestall reentry into the labor force. Management might enforce mandatory retirement provisions more rigidly in slack markets in order to reduce their work forces. Employers and other employees may pressure those workers who are eligible for early or normal retirement to take this option immediately, leaving an opening for someone else. Special early retirement provisions might also be used as a lay-off mechanism.

The extent that private retirement plans could be used to increase the rate of retirement would theoretically depend on their provisions and on the economic situation. The rate of retirement might be expected to rise most after an extended period of low unemployment when labor shortages and limited layoffs had resulted in a pool of older workers staying with their jobs; the larger the number of active workers eligible for early, normal or special early retirement, the larger the potential impact. After the tight labor markets of the sixties, one might have expected a significant rise in retirement when unemployment rates increased dramatically in late 1969, 1970, and 1971.

The trends in pension and profit-sharing plans over the sixties also enlarged the pool of workers eligible for retirement with benefits. The conditional retirement range in which workers are protected against layoff or else have a reasonable amount of choice as to whether to continue to work or to retire was clearly expanded by the lowering of retirement ages and the rising of benefit levels. Under a growing number of plans, the 60-year-old, long-service employee can give serious consideration to early or normal retirement, and may be responsive to outside pressures, whereas 10 years ago 65 was the almost universal threshold for voluntary retirement.

The Conditional Retirement Range

There is no way to estimate in anything but the crudest fashion the number of older, pension-covered workers in the conditional retirement range. In 1971, there were 2.8 million male workers age 60 to 64 and 1.6 million females; there were also 2 million working males and 1 million working women aged 65 and over.¹ But only a minority of these were in covered employment where they could be affected by plan provisions. Among 62 to 65-year-old new social security

¹ *Employment and Earnings*, Vol. 18, No. 7, January 1972, p. 118.

registrants in 1968 and 1969, 20 percent of males and 14 percent of females had just retired from covered jobs which were their longest, and an additional 11 and 7 percent, respectively, were still employed in such jobs.² As indicated previously, almost all of these workers qualified for a benefit, and the timing of their retirement was influenced by the provisions of their plans and the application of these provisions. If it is assumed that 31 percent of all 60 to 64-year-old working males and 21 percent of all working females are employed in covered jobs, there would be at least a million 60 to 64-year-old workers in the conditional retirement range. If the percentages still employed in covered jobs were applied to the 65 and over working population, another 300,000 older workers would be included. These estimates can only be suggestive, since there may be many older workers who are covered by pensions who are not currently in their longest jobs; but they do indicate that the pool of potential retirees is not insignificant in size.

Another way to estimate the total number of workers who are eligible for early or normal retirement is to look at the actuarial reports of pension plans. Since the level of contributions depends on the age and service characteristics of the covered work force, reports usually contain data on these characteristics. Unfortunately, few of these are available publicly because they are not required under the terms of the Welfare and Pension Plans Disclosure Act. But analysis of seven large plans which voluntarily included 1970-71 actuarial reports suggests that there is wide variation in the percentage of covered workers eligible for early retirement, while the proportion of those who have passed normal retirement age is small in most cases (table 31). If all workers qualifying for early retirement were included in the conditional retirement range, the total number would be larger than if, as previously estimated, only workers 60 and over were included. On the assumption that 15 percent of covered workers are eligible for early or normal retirement as in the seven plans, there would be more than 4 million workers in the conditional retirement range. However, there may be some doubt whether the minimum early retirement age provides any meaningful option for employees, since, as indicated previously, early retirement benefits are usually limited. As an illustration, a worker under the 1970 McDonnell-Douglas/Machinists plan could retire at age 55 with 10 years of service with benefits reduced actuarially from age 62. The benefit effective December 1970 was \$6.25 per month for each year of service.³ Retiring at the minimum early retirement age and service would yield an income of only \$40.00 monthly. Unless laid off or under extreme pressure from the employer, the 55-year-old worker would be unlikely to choose this early retirement option. On the other hand, the 60-year-old worker with 15 years of service would get a benefit of roughly \$85.00 immediately; he or she might be willing to retire on this amount if employer or union pressure made continued work unpleasant.

² Lenore E. Bixby and Virginia Reno, "Second Pensions Among Newly Entitled Workers," *Social Security Bulletin*, November 1971, Vol. 34, No. 11, pp. 10, 21.

³ *Digest of Selected Pension Plans, 1970 Edition*, U.S. Department of Labor (Washington: Government Printing Office, 1971), p. 135.

TABLE 31.—*There is wide variation in the percent of covered workers eligible for early retirement, while the proportion who have passed normal retirement age is small in most cases*

Retirement plan	Percent eligible for—		
	Early retirement	Normal retirement	Early or normal retirement
Alcoa Plan I.....	7	1	8
Alcoa Plan II.....	16	1	17
Firestone Tire and Rubber.....	12	1	13
IBEW—hourly.....	7	2	9
Dow Chemical.....	24	-----	24
Machinists Pattern Plans.....	19	2	21
Johns Manville Corp.....	17	1	18
Average.....	14	1	15

Source: Actuarial reports on file along with Welfare and Pension Plan Disclosure Act reports.

Though there is no exact definition of the conditional retirement range, and though it is difficult to measure the number of workers included in any arbitrary definition, it remains a fact that there is a large and growing number of workers for whom retirement is a viable option, and for whom the timing is dependent, in part, on economic conditions as they affect attitudes of employers, coworkers, and the worker himself. Estimates vary, but there are probably a million workers who could retire from their current job cushioned by private pensions and social security, and who would lose only a small percentage of potential monthly retirement benefits. There are some millions more who could turn to their pension for economic relief if they were laid off from their job in a slack labor market.

Pressure to Retire

When and why these workers will choose to retire, or more exactly, whether the aggregate employment situation affects their decision, is difficult to answer in any exact way. There is some evidence that pressure from within the work force can push older employees into earlier retirement. A study of the retirement rates of workers in 55 industries (i.e., the proportion of men aged 45 to 64 in these industries in 1950 who retired by 1960), found that one of the major explanations of variance was the ratio of 45- through 54-year-olds to 55- through 64-year-olds: the larger the proportion of middle-aged men in an industry's work force, the more likely that its older workers would retire. After age 40 to 45, subsequent promotions and increased earnings depend to a large extent upon the number of job vacancies opened by retirement; middle-aged workers, therefore, apparently pressure those above them to retire earlier.⁴

It is less clear that the threat of layoff generates the same pressure on older workers. A survey of 200 firms in 1968 found that employers rarely considered or used their retirement plans as management tools,

⁴ A. J. Jaffe, "The Retirement Dilemma," *Industrial Gerontology*, No. 14, summer 1972, p. 27.

neither encouraging nor discouraging early retirement. A sister survey of workers who had chosen early retirement suggested that neither employers, unions, nor coworkers exerted much pressure (table 32). Of course, this neutrality might be expected in the tight labor market of 1968 when employers experienced labor shortages and could not easily find younger workers to replace older employees, and when unions and coworkers felt no threat of job loss.

TABLE 32.—A 1968 survey of workers who had chosen to retire early suggested that neither employers, unions, nor coworkers exerted much pressure

[In percent]			
Question for employee	Encouraged	Discouraged	Neither or no response
"How did the union feel about your decision to retire?"-----	14	4	82
"How did your coworkers feel about your decision to retire?"-----	28	18	44
"How did the company feel about your decision to retire?"-----	15	20	65

Source: Mark Greene, et al., *Early Retirement: A Survey of Company Policies and Retirees' Experience* (Eugene, Oregon: University of Oregon, 1969), pp. 32-33.

A followup survey of 12 executives of large retail firms, 26 of banks, and 20 of manufacturing companies attempted to determine the impact of the recession on employer policies vis-a-vis older workers. For these firms 12 percent reported that some older employees had been laid off or retired early. One company reported tougher screening of older employees who were not productive, two reported raising benefits so that workers could retire earlier, and two wanted to but were unable to afford raising benefits. When asked specifically if they would try to get rid of as many older employees as possible if they had to reduce their work force by 10 percent in a severe recession, only one firm specifically declared that it would but only one declared that it definitely would not.⁵ While it may be true that manpower policies are determined below the executive level, with pressure from supervisors or from coworkers, management's acceptance of retirement plans as a work force reducing mechanism is apparently not widespread.

The Experience Under Pension Plans

If older workers are pushed into retirement when jobs become scarce, the number of retirees in covered firms should rise when employment falls. One way to test the actual experience of firms over the last few years is to look at their annual financial reports filed under the Welfare and Pension Plans Disclosure Act which indicate the number of active and retired workers. Using active covered workers as a proxy

⁵ Unpublished survey data provided by Charles Pyron and Vincent Marion, College of Business Administration, University of Oregon.

for employment in 21 of the largest plans which experienced fluctuations in employment over the last 6 years, there is evidence that in some cases the number of retirees increased most rapidly in periods when employment was stagnant or declining (table 33). As an example, the number of workers in the Alcoa hourly plan declined by 4.3 percent between 1966 and 1967, while the number of retired workers rose by 11.3 percent; similarly, between 1969 and 1970, active workers fell by 3 percent and retirees increased by 6.6 percent. In the 1967 to 1968 period when employment fell only slightly, and in the 1968 to 1969 period when it rose, the increase in retirees was much less. There are some plans such as Youngstown Sheet and Tube where the exact opposite pattern emerges, and in most cases the correlations between the changes are weak or inconclusive. Nevertheless, it does appear that to some limited extent the retirement of older workers may be used to absorb a portion of any cutbacks in employment.

TABLE 33.—Using the covered workers as a proxy for employment, there is evidence that in some cases the number of retirees increases most rapidly in periods when employment is stagnant or declining

Retirement pattern by type of worker	1966	1967	1966-67	1968	1967-68	1969	1968-69	1970	1969-70
			Percent		Percent		Percent		Percent
Consistent with expected pattern:									
1. Alcoa—Hourly employees:									
Active-----	33, 409	31, 969	-4. 3	31, 859	-0. 3	32, 501	-2. 0	31, 332	-3. 0
Retired-----	5, 375	3, 983	+11. 3	5, 985	+ . 0	6, 232	+4. 1	6, 641	+6. 6
2. International Brotherhood of Electrical Workers:									
Active-----		298, 773		281, 374	-2. 9	284, 405	+1. 1	292, 714	+2. 9
Retired-----		28, 571		33, 653	+17. 0	36, 729	+9. 1	39, 528	+7. 6
3. Shell Oil:									
Active-----	36, 168	37, 207	+2. 9	38, 183	+2. 6	38, 112	- . 0	36, 125	-5. 2
Retired-----	8, 365	8, 749	+4. 6	9, 159	+4. 7	9, 503	+3. 8	10, 244	+7. 8
4. International Paper:									
Active-----	21, 642	21, 671	- . 0	20, 729	-4. 3	20, 986	+1. 2	24, 251	+15. 6
Retired-----	2, 636	2, 638	+ . 0	3, 274	+24. 1	3, 506	+7. 1	3, 792	+8. 2
5. Union Carbide:									
Active-----	63, 417	61, 603	-2. 9	63, 043	+2. 3	64, 391	+2. 1	61, 065	-5. 2
Retired-----	5, 349	5, 865	+9. 6	6, 431	+9. 6	7, 051	+9. 6	9, 181	+30. 2
Generally consistent with expected pattern:									
6. Crown Zellerbach:									
Active-----	12, 482	12, 406	- . 6	12, 863	+3. 7	12, 212	-5. 1	12, 318	+8. 7
Retired-----	2, 267	2, 440	+7. 6	2, 622	+7. 5	2, 773	+5. 8	2, 931	5. 7
7. DuPont:									
Active-----	109, 940	105, 553	-4. 0	107, 713	+2. 0	109, 074	+2. 1	102, 873	-6. 5
Retired-----	11, 392	13, 149	+15. 4	15, 048	+14. 4	16, 710	+11. 0	18, 818	12. 6
8. General Electric:									
Active-----	249, 783	278, 850	+11. 6	275, 936	-1. 0	289, 235	+4. 8	283, 616	-1. 9
Retired-----	32, 905	34, 912	+6. 1	37, 338	+6. 9	39, 339	+5. 4	41, 479	+5. 5
9. Consolidated Edison:									
Active-----	23, 535	24, 544	+4. 3	24, 113	- . 2	22, 752	-5. 6	23, 006	+11. 2
Retired-----	6, 028	6, 425	+6. 6	6, 838	+6. 4	7, 342	+7. 4	7, 814	+6. 4
10. Mobil Oil Corp.:									
Active-----	29, 847	30, 724	+2. 9	29, 540	-3. 9	30, 503	+3. 3	26, 756	+12. 3
Retired-----	11, 385	11, 780	+3. 5	12, 065	+2. 4	12, 404	+2. 8	13, 077	+5. 4

11. United States Steel:										
Active	197, 253	190, 352	-3. 5	187, 537	-1. 5	192, 665	+2. 7	187, 687	-2. 6	
Retired	49, 954	52, 444	+5. 0	53, 895	+2. 8	56, 249	±4. 3	59, 821	+6. 4	
12. Curtiss-Wright:										
Active		6, 730		6, 966	+3. 5	6, 680	-4. 1	6, 182	-7. 5	
Retired		2, 168		2, 226	+2. 7	2, 406	+8. 1	2, 542	+5. 7	
13. RCA:										
Active	58, 698	60, 681	+3. 4	73, 609	+21. 3	72, 957	- . 9	69, 470	-4. 8	
Retired	4, 185	4, 543	+8. 6	5, 090	+12. 0	5, 631	+10. 6	6, 189	+9. 9	
Inconclusive relative to expected pattern:										
14. Swift & Co.:										
Active	43, 688	40, 060	-8. 3	40, 366	+ . 8	34, 093	-15. 5	32, 172	-5. 6	
Retired	16, 246	16, 437	+7. 3	18, 655	+7. 0	19, 809	+6. 2	21, 198	+7. 0	
15. Republic Steel:										
Active	55, 522	53, 957	-2. 8	54, 167	+3. 9	53, 256	-1. 7	53, 404	+ . 3	
Retired	9, 648	10, 348	+7. 3	11, 030	+6. 6	11, 552	4. 8	12, 333	+6. 7	
16. McDonnell-Douglas:										
Active	19, 800	21, 994	+11. 1	23, 681	+7. 7	37, 000	+56. 2	18, 000	-51. 0	
Retired	627	719	+14. 7	863	+20. 0	1, 110	+28. 6	1, 429	+28. 7	
17. General Dynamics—Hourly:										
Active		33, 690		33, 466	- . 7	35, 558	+6. 3	26, 161	-17. 0	
Retired		3, 252		3, 599	+10. 7	3, 942	+9. 5	4, 287	+8. 8	
Inconsistent with expected pattern:										
18. National Maritime Union:										
Active	29, 040	29, 000	- . 0	40, 000	+37. 9	31, 000	-22. 5	25, 000	-19. 3	
Retired	4, 492	7, 000	+55. 8	9, 150	+30. 7	11, 000	+20. 2	12, 000	+9. 0	
19. General Motors—Hourly:										
Active	435, 000	419, 000	-3. 7	430, 000	+2. 6	446, 000	+3. 7	367, 000	-17. 7	
Retired	50, 000	56, 000	+12. 0	61, 000	+8. 9	69, 000	+13. 1	72, 000	4. 3	
20. Youngstown Sheet & Tube:										
Active	19, 238	19, 851	+3. 2	19, 495	-1. 8	18, 791	-3. 6	19, 248	+2. 4	
Retired	3, 567	3, 652	+2. 4	3, 833	+5. 0	3, 897	+1. 7	4, 158	+6. 7	
21. Westinghouse Electric:										
Active	125, 853	133, 509	+6. 1	138, 299	+3. 6	139, 527	+ . 9	138, 935	- . 4	
Retired	13, 013	14, 454	+11. 1	15, 532	+7. 4	16, 563	+6. 7	17, 479	+5. 5	

NOTE.—Changes in the number of active workers reflect changes in the scope of the plan as well as changes in the employment of plan members. If coverage is extended, the number of active workers may increase with no increase in the number of retirees. On the other

hand, a decline does reflect a decline in employment. There is no unequivocal interpretation of the patterns of change.

Source: Welfare and Pension Plans Disclosures Act reports on files with the U.S. Department of Labor.

The Special Case of Special Early Retirement

Of particular interest is the use of special early retirement provisions. Roughly 17 percent of all covered workers are subject to such provisions which offer immediate benefits to those who are laid off. The age and service requirements are usually less stringent than for early retirement. Among workers under such provisions in 1969, 95 percent were eligible at age 55 or earlier, 37 percent needing 10 years service or less, 24 percent needing 15, and 34 percent needing 20.⁶ As an example, the Ford Motor Company plan in effect in 1970, required 10 years of service and age 60 for early retirement at the employee's option; but in the case of employer initiated layoffs, workers aged 55 with 10 years of service were eligible. The special early retirement benefit would usually exceed that for regular early retirement; it equalled the normal benefit plus \$6 for each year of service, paid until qualification for full social security.⁷

While a primary purpose of the special early retirement benefit is to protect the long-service employee against layoffs, there is a very good reason why employers might be reluctant to use this mechanism to reduce the size of their work force: special early retirement is very costly. A benefit usually larger than the normal retirement amount must be provided for more years, while contributions or wage deferrals to pay for it must be made over fewer years of work life for each special early retiree. In individual cases where unproductive older employees can be replaced by more productive younger ones, the cost may be justified. But the approach is less effective as a tool to cushion large-scale layoffs, when productive as well as unproductive older workers are terminated, and when financial conditions are usually strained.

Experience with special early retirement provisions in the "Big Three" automotive companies suggests that this mechanism is used sparingly, and, if anything, the number of special early retirees declines rather than increases when employment is cut back (table 34). Between 1969 and 1970, total employment in the Big Three fell from 1,465,000 to 1,356,000; the number of special early retirees also declined from 1,375 to 1,017. In 1971, employment increased to 1,434,000 and so did the number of special early retirees, to 1,472. In general, the automotive companies were more likely to lay off workers through special early retirement when business was good and they could afford it. Whether other industries with special early retirement provisions act in the same way is unknown, but it is doubtful that these provisions play an important countercyclical function.

⁶ Harry E. Davis and Arnold Strasser, "Private Pension Plans 1960 to 1969: An Overview," *Monthly Labor Review*, July 1970, p. 46, and table 21.

⁷ *Digest of Selected Pension Plans, 1970 Edition*, op. cit., p. 85.

TABLE 34.—*Experience with special early retirement provisions in the "Big Three" automotive companies suggests that this mechanism is used sparingly and, if anything, the number of special early retirees declines rather than increases when employment is cut back*

Year	General Motors		Ford		Chrysler		Total	
	Employment	Special early retirees	Employment	Special early retirees	Employment	Special early retirees	Employment	Special early retirees
	<i>Thousands</i>		<i>Thousands</i>		<i>Thousands</i>		<i>Thousands</i>	
1962.....	604	678	303	300	77	416	984	1,394
1963.....	640	741	317	300	120	274	1,077	1,315
1964.....	661	437	337	135	142	274	1,140	846
1965.....	735	1,341	364	100	167	307	1,266	1,748
1966.....	745	784	388	106	183	98	1,317	988
1967.....	728	509	394	33	215	50	1,338	592
1968.....	757	789	415	64	231	77	1,403	930
1969.....	794	1,018	436	58	235	299	1,465	1,375
1970.....	965	588	432	180	228	249	1,356	1,017
1971.....	773	798	433	227	227	447	1,434	1,472

Source: Special early retirement data—International Union, United Automobile, Aerospace and Agriculture Implement Workers of America; employment data—*Fortune* 500 series.

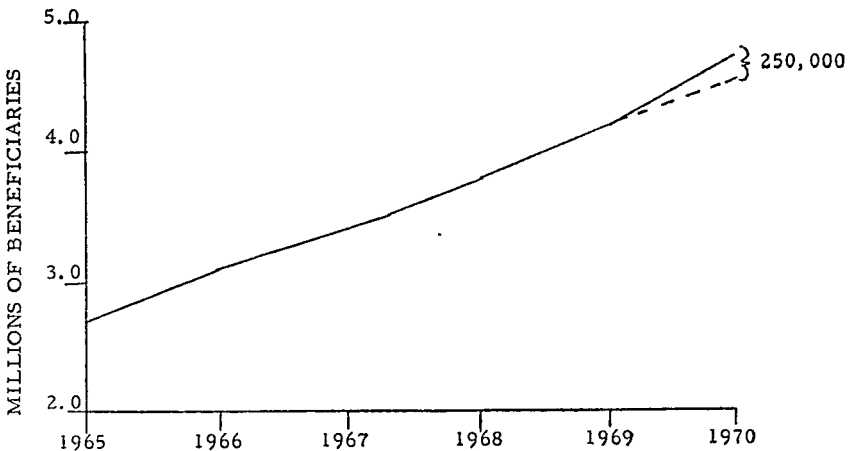
The Aggregate Impacts

While normal and early retirement provisions are used, in some cases, to cushion layoffs and in other cases to stimulate retirement, the aggregate impact was apparently modest during the 1969 to 1971 recession. The average number of workers 60 and over who left the labor force in the previous year because of retirement increased from 540,000 in 1968 to 568,000 in 1969, 615,000 in 1970, and 674,000 in 1971. The rise between 1968 and 1969 was 5 percent; between 1970 and 1971 it was 10 percent.⁸

Looking only at covered workers, there was an apparent acceleration in the growth of beneficiaries in 1970: if the number had increased at the same rate as during the 1965 to 1969 period, there would have been only 4.5 million beneficiaries at the end of 1970 instead of 4.75 million (chart 3). Changes in the trend also occurred in 1954 and 1964, years of slack demand, but there is no way to know whether pressure from other workers or employers causing earlier retirements was the reason for the jump in 1970.

From this limited aggregate data, it seems that the counter-cyclical impact of retirement plans is minor. As a best guess, perhaps 50,000 to 100,000 workers retired under pension and profit-sharing plans during the 1969 to 1971 recession who would have normally continued longer in their jobs, and a portion of these left the work force altogether.

CHART 3.—There was an apparent acceleration in the growth of beneficiaries in 1970: if the number had increased at the same rate as during the 1965–69 period, there would have been only 4.5 million at the end of 1970 instead of 4.75 million.



Source: Walter W. Kolodrubetz, "Two Decades of Employee Benefit Plans, 1950-70: A Review," *Social Security Bulletin*, vol. 35, No. 4, April 1972, p. 20.

⁸ *Employment and Earnings*, vols. 16-18, No. 7, Table A-33.

7. THE IMPACT ON JOB OPPORTUNITIES FOR OLDER WORKERS

Retirement Plans and Hiring Decisions

In a number of indirect as well as direct ways, retirement plans may discourage employers from hiring older workers. Employers who are making substantial contributions each year, as well as bargaining over plan provisions, may be much more conscious of age factors than those who do no more than pay social security payroll taxes. If covered firms have initiated the pensions or profit-sharing plan as a way of phasing out older workers, they are unlikely to be hiring those in their pre-retirement years. If they look at the pension as a reward for long service, they may be unwilling to hire those who can work only a short period before they retire. If they have been pushed into establishing lower early and normal retirement dates, they may be reluctant to hire any but the youngest workers who will have long periods of service before qualifying for benefits. These business outlooks and attitudes are difficult to measure, since they are indirect and amorphous. Two factors, however, can be more directly quantified: First, the service and other conditions of a retirement plan may mean that if older workers are hired, they will not be able to qualify for a pension by the time of retirement; the prevalence of such limits can be determined by the examination of plan provisions. Second, it is usually more costly to provide a given benefit for a new older employee, since contributions must be made over a shorter period; the extent of cost differentials can also be estimated from plan provisions.

Effective Age Limits

The interaction of compulsory and automatic retirement provisions, service requirements for normal retirement, and service crediting limits may effectively set a maximum age for participation in a retirement plan. As an example, the 1970 International Harvester Co.-Automobile Workers plan had a normal retirement age of 65; 10 years of service was required for a full benefit but a smaller one was available for the worker with 5 years or more of service. There was a compulsory retirement age of 68 and service was credited up to but not beyond the compulsory age.¹ Thus, if a worker age 63 were hired, he or she would be able to qualify for a minimum benefit, while a 64-year-old worker would not. In the Ford Motor Co.-Automobile Workers plan, however, there is a strict 10-year service requirement for the normal benefit, with service credited to age 68.² There, a worker hired at age 59 could not qualify for a benefit.

¹ U.S. Department of Labor, *Digest of Selected Pension Plans, 1970 Edition* (Washington: U.S. Government Printing Office, 1971), pp. 115-116.

² *Ibid.*, p. 86.

The effective age limits obviously vary from plan to plan, depending on their age and service provisions. Reflecting the normal retirement age of 65 and typical service requirements of 10 and 15 years, 55 and 60 are frequent maximum participation ages (tables 35). Overall, plans with almost a fifth of all covered workers have a maximum participation age limit of less than 55, and another fourth are in those with a limit between 55 and 59. There has been a trend toward shorter service periods over the last few years, but normal and mandatory retirement ages have been reduced more so that overall, the effective age limits have been lowered.

TABLE 35.—*The effective age limits vary from plan to plan depending on their age and service provisions; reflecting the normal retirement age of 65 and typical service requirements of 10 and 15 years, 55 and 50 are frequent maximum participation ages*

Effective age limits	Percent covered workers under plan	
	1965	1969
Without maximum participation age-----	37. 8	35. 3
With maximum participation age-----	62. 2	64. 7
Under 50-----	2. 9	7. 7
50-----	9. 6	8. 2
51 to 54-----	3. 8	2. 2
55-----	9. 6	15. 9
56 to 59-----	12. 3	8. 6
60-----	5. 6	4. 0
61 to 64-----	11. 6	11. 2
65-----	6. 1	6. 2
Over 65-----	. 7	. 6

Source: U.S. Department of Labor, *The Older American Worker* (Washington: U.S. Government Printing Office, 1965), p. 37; and special tabulations by the Bureau of Labor Statistics.

It is uncertain, however, whether and how much the existence of effective age limits affects the hiring of older workers in covered establishments. Some employers may be sensitive to hiring workers who will retire without a pension, but this might be only one of the reasons, and the effective age limits may be the result rather than the cause of discrimination against older workers. In other cases, employers might conceivably hire those beyond the maximum participation age in order to avoid the costs of pensions. There are no *a priori* grounds for assuming that the financial incentive of hiring older workers in plans with effective age limits will be less than the incentives not to hire them because they will not be able to qualify for a benefit. It is unlikely, however, that many firms will consciously employ older workers in order to avoid pension costs, since this would run counter to the purpose of having a plan. Large, single-employer plans are most likely to have maximum participation ages, and these firms are especially sensitive to the possibility of bad publicity and union unrest that could come from retiring a number of workers without any support.

Differential Costs

The age of entry into a funded pension plan affects the annual costs of providing a later benefit because it determines the period over which contributions can be made, interest will be accumulated, and withdrawal, death, or disability may occur. The earlier the age of entry, and the longer the period of participation, the more interest will add to the contributions of the employer, and the greater the chance that the worker will die or leave the plan without qualification. The exact provisions of the plan, including the type of benefits offered and conditions for qualifications, determine the extent of the differential.

Given assumptions about the rate of interest which can be earned, the rate of turnover, and the probabilities of death or disabling injury, the costs of any plan can be estimated. Assuming a return on pension funds of 3.5 percent, a \$100 annual increase in earnings beginning initially at \$3,600 and other mortality, disability and withdrawal assumptions usually used by actuaries, the costs of providing benefits to two groups of workers, one with a median age of 22 and another with a median age of 41, were estimated for various benefit formulas in a 1964 study sponsored by the Bureau of Labor Statistics (table 36). For a typical plan that provided 1 percent of monthly earnings for each year of service, the annual costs for the younger group would be \$117 per employee compared with \$179 for the older mix, a differential of 52 percent.³ The difference would be much more in the case of a uniform benefit, and much less for a benefit formula based on earnings in the last years of service. Vesting provisions would reduce the cost differentials because of the high withdrawal rates among young employees, but shorter service requirements for normal retirement, more liberal early retirement conditions and early retirement benefits which are higher than their equivalent all increase the differential.⁴

³ Estimates of Murray W. Latimer as summarized in *The Older American Worker* (Washington: U.S. Government Printing Office, 1965), p. 42.

⁴ Murray W. Latimer, *The Relationship of Employee Hiring Ages to the Cost of Pension Plans* (Washington: U.S. Government Printing Office, 1965).

TABLE 36.—Assuming a return on pension funds of 3.5 percent, a \$100 annual increase in earnings beginning initially at \$3,600, and other mortality, disability, and withdrawal assumptions usually used by actuaries, the costs of providing benefits to 2 groups of workers, 1 with a median age of 22, and another with a median age of 41, were estimated for various benefit formulas in a 1964 study

Benefit formula	Simple plan normal retirement at age 65 with no vesting and 10 years service				Simple plan with 10-year vesting; difference between cost of—		Simple plan with no service; difference between cost of—	
	Average annual per capita costs		Difference between cost of—		Absolute	Percentage	Absolute	Percentage
	Younger	Older	Absolute	Percentage				
A. \$100 a month.....	\$61	\$205	\$144	235	-----	-----	\$172	279
B. Years of service times \$3 a month.....	74	131	57	77	\$47	41	59	79
C. Years of service times 1 percent of monthly earnings for all service.....	117	179	61	52	46	27	63	54
Last 5 years service.....	155	217	62	40	42	19	63	41
D. Years of service times ½ percent of 1st \$400 and 1½ percent of remainder of average monthly earnings for all service.....	81	105	24	30	14	13	25	32
Last 5 years of service.....	134	151	18	13	1	1	19	14

Source: Calculations by Murray W. Latimer in *The Older American Worker* (Washington: U.S. Government Printing Office, 1965), pp. 42-43.

The differentials would be larger if the employer were assumed to isolate the marginal cost of hiring a particular older worker instead of a younger applicant. For instance, a flat \$150 a month benefit for a 27-year-old employee would cost \$114 under a plan with no vesting, a 10-year service requirement, and a normal retirement age of 65; the cost for a 57-year-old employee would be \$745.⁶ In setting hiring policies, however, the employer probably considers the problem in aggregate terms rather than by comparing individual cases.

In all likelihood, the differential cost of hiring older workers has increased somewhat since 1964. Tending to reduce the differential are the trends toward earlier vesting and the more widespread use of final earnings benefit formulas; while the growth of minimum benefit formulas, the elimination of long service requirements, the expansion of early retirement plans which pay more than actuarial equivalents, and the fall in normal retirement ages have all tended to increase relative costs.⁶ On the balance, it is difficult to determine whether the average differential has increased or decreased as a result of these changes in the provisions of pension plans. Another factor, however, has probably increased the cost gap. In 1964, when the preceding calculations were carried out, the average return on pension funds was 3.5 percent.⁷ Since then there have been dramatic changes in investment patterns, with the rate of return increasing to 5 percent or more for most large funds by 1970.⁸ The differential cost of hiring older workers under pension plans is increased when contributions for a younger employee earn a greater return for the longer period over which they are made. A benefit of \$1 per month per year of service under a plan with a normal retirement age of 65 will cost \$5.02 monthly for a newly employed, 40-year-old worker if the rate of return is 4 percent, but only \$4.06 monthly if the rate is 5 percent. For the newly employed, 55-year-old workers, the necessary monthly contribution is \$7.53 at the 4-percent rate of return and \$6.78 at 5 percent.⁹ Looking at the differentials alone, it costs \$2.51 extra, or half again as much, to hire the older worker at the 4-percent rate, while it costs \$2.72 extra or two-thirds again as much at the 5-percent rate.

Very definitely, then, most employers with pension plans have added costs if they hire older workers. If anything the differential has increased in the last decade, making it relatively even more costly to employ the experienced jobseeker.

The Evidence

If either effective age limits or differential costs significantly discouraged the hiring of older workers, their proportion among new hires and in the total work force in highly covered industries might be expected to decline over time. Aggregate data on the age of the work

⁶ *The Older American Worker*, op. cit., p. 43.

⁶ These trends are noted in Bankers Trust Co. *1970 Study of Industrial Retirement Plans* (New York: Bankers Trust Co., 1970), pp. 1-20.

⁷ Murray Latimer, *The Relationship of Employee Hiring Ages to the Costs of Pension Plans*, op. cit., p. 8.

⁸ Louis Harris & Associates, *Large Corporations and Their Pension Funds: 1970* (New York: Louis Harris & Associates, Inc., 1971), p. 84.

⁹ Calculations by Murray W. Latimer, actuarial consultant to the United States Steelworkers.

force in different industries reveal a mixed picture. In terms of the proportion of workers covered, and the outlays per covered worker, the high coverage industries include transportation and public utilities, finance, insurance and real estate, and durable manufacturing; mining, construction and nondurable manufacturing fall somewhere in the middle; while wholesale and retail trade and service industries generally have low coverage and contributions.¹⁰ There is no clear relationship between the changes in the age composition of an industry's male work force and its level of retirement plan coverage (table 37).

¹⁰ U.S. Chamber of Commerce, *Employee Benefits, 1969*, op. cit., pp. 13-17.

TABLE 37.—*There is no clear relationship between changes in the age composition and the level of retirement plan coverage for male workers in these industries*

Industry and year	45 to 54 years	55 to 64 years	65+ years	Male workers 45 to 54 years as percent of total male employment 16+ years	Male workers 55 to 64 years as percent of total male employment 16+ years	Male workers 65+ years as percent of total male employment 16+ years	Male workers 45+ years as percent of total male employment 16+ years
1971							
Total.....	100.0	100.0	100.0	20.8	13.7	3.4	37.9
Mining.....	1.4	1.3	.6	25.7	15.4	1.7	42.8
Construction.....	10.2	10.3	8.1	20.8	13.8	2.7	37.3
Manufacturing.....	32.8	31.4	14.0	22.2	14.0	1.6	37.8
Durable.....	21.7	20.3	8.3	22.8	14.1	1.4	38.3
Nondurable.....	11.1	11.1	5.7	21.1	13.9	1.8	36.8
Transportation and public utilities.....	10.0	9.6	4.9	22.9	14.6	1.9	39.4
Trade.....	16.7	18.6	27.6	17.2	12.6	4.7	34.5
Wholesale.....	4.5	5.2	5.8	21.9	14.0	3.9	39.8
Retail.....	11.4	13.4	21.8	15.7	12.2	4.9	32.8
Finance, insurance, and real estate.....	4.1	4.9	9.5	19.1	15.0	4.3	38.4
Service, excluding private household.....	15.7	17.4	29.9	18.4	13.5	5.8	37.7
Public administration.....	9.0	6.5	5.5	28.4	13.6	2.9	44.9
1960							
Total.....	100.0	100.0	100.0	19.9	12.9	4.1	36.9
Mining.....	1.9	1.6	.7	22.3	12.2	1.8	36.3
Construction.....	10.0	9.7	8.7	19.1	11.9	3.4	34.4
Manufacturing.....	34.9	31.6	21.3	20.2	11.8	2.5	34.5
Durable.....	21.7	19.5	12.1	20.1	11.6	2.3	34.0
Nondurable.....	13.1	12.0	9.2	20.5	12.1	2.9	35.5
Transportation and public utilities.....	10.3	11.6	7.2	21.2	15.4	3.1	39.7
Trade.....	18.5	18.4	22.2	19.1	12.3	4.7	36.1
Wholesale.....	4.8	4.5	4.5	20.8	12.5	4.0	37.3
Retail.....	13.6	13.9	17.7	18.6	12.2	4.9	35.7
Finance, insurance, and real estate.....	3.7	4.9	8.0	19.9	16.9	8.7	45.5
Service, excluding private household.....	14.3	16.2	25.1	19.2	14.1	6.9	40.2
Public administration.....	6.4	5.9	6.7	21.4	12.8	4.6	38.8

Source: Data provided by the Bureau of Labor Statistics.

On the one hand, the proportion of older workers in highly covered industries has declined. In 1960, the durable manufacturing, transportation and public utilities, finance, insurance, and real estate sectors provided jobs for 36 percent of all employed males aged 55 to 64, and 27.5 percent of those 65 and over; by 1971, only 34.8 and 22.7 percent of the male workers in the respective age groups held jobs in these more highly covered industries. The service and wholesale and retail trade industries provided jobs for 34.6 percent of 55- to 64-year-old males and 47.3 percent of those aged 65 and over in 1960; by 1971, the percentages increased to 36 and 57.5 percent, respectively. The decline in the proportion of older workers employed in the high coverage sectors and the increase in the ones with low coverage is consistent with the hypothesis that retirement plans have discouraged the hiring of older workers, and also have resulted in earlier retirements.

On the other hand, the changes in older workers' shares of employment in the high and low coverage industries are inconsistent with the hypothesis. In 1960, male workers aged 45 and over accounted for 36.8 percent of the male labor force in the high coverage industries; but by 1971, the proportion had increased to 39 percent. In the low coverage industries in 1960, 37.9 percent of the male labor force was 45 and over, but this declined to 34 percent in 1971. Obviously, more older workers got jobs in the expanding service and trade sectors without increasing their share.

Because the expected shifts do not show up in the aggregate data does not deny that jobs are foreclosed for older workers by retirement plans. Available data on older male job changers alone suggest that there is, in fact, some shift from the highly covered to the less highly covered industries among those changing jobs.¹¹ This is especially true of involuntary job changers. Between 1966 and 1967, it is estimated that 545,000 male workers initially aged 45 to 59 left jobs in manufacturing, transportation, finance, insurance, and real estate; only 404,000 job changers the same age found employment in these industries, a net loss of 141,000. In the trade and services industries, 402,000 left jobs but 438,000 entered jobs, a net increase of 36,000 workers. While only 38 percent of these job changes were involuntary, 55 percent of the net increase in the trade and service sectors was accounted for by involuntary changers; in other words, there is some evidence that those losing their jobs could not find reemployment in their previous industries and were pushed into the low coverage sector.¹²

Because an older job changer moved from a high-coverage industry to a low-coverage one does not mean that he moved from a firm with a pension plan to one without a pension plan or that the existence of retirement benefits was a factor in the employer's willingness to hire him. Conversely, though a job changer remained in the same industry, he may have moved from a covered to an uncovered establishment or vice versa. There is no good aggregate data to assess this possibility.

¹¹ Data prepared as special tabulation from longitudinal study of older workers by Herbert S. Parnes, et al., the Ohio State University.

¹² *Ibid.*

However, information pieced together from the surveys of 62- to 65-year-old new social security registrants is suggestive. According to calculations based on data for the July 1968 to June 1969 period, 79 percent of the male registrants whose last or current wage and salary job was their longest were covered by pension plans. Among those male registrants whose last or current job was not the longest, only 22 percent were covered in their most recent position, even though 38 percent had been covered earlier in their longest job.¹³ Job changing was thus more frequent for employees of uncovered firms; but also, many of those who changed jobs moved from covered to uncovered employment.

This still does not prove that a retirement plan influences the employer to discriminate against older workers. Measuring such discrimination or its causes is difficult because the Age Discrimination in Employment Act of 1967 makes it illegal.¹⁴ In 1965, however, before the act was passed, an extensive employer survey was carried out in five cities where there were no State laws prohibiting age discrimination in order to ascertain the extent of and motivation for restrictive age policies and practices. Only a fourth of the surveyed employers had specific, articulated upper age limits for one or more occupational groups, but only a sixth had an affirmative policy of hiring without regard to age. Among the remainder with no specific policy, at least half indicated by comment or practice that they had preferences which effectively precluded older applicants. Workers 45 and over accounted for only 6.9 percent of new hires in the firms with upper age limits, 8.6 percent in those with no age policy, and 13 percent in those with an affirmative policy. Overall, one of every five establishments failed to hire any older worker 45 or over in 1965, and almost half reported that these accounted for less than 5 percent of all their new hires.¹⁵

Employers with upper age limits, and those without them who hired few older workers, were asked what factors explained their employment patterns (table 38). Though over four-fifths of these firms had pension plans, fewer than 15 percent reported that these had in some way limited their hiring of older workers, and only 6.7 percent gave this as their major reason. Relatively few made direct references to the differential costs of hiring older workers under the pension plan; more frequently, the employer felt that if an older worker would not be able to qualify under the service requirement of the plan he or she should not be hired.¹⁶ Despite the limited number of cases in which employers claimed their pension plans were a factor, hiring patterns of those with plans differed significantly from those without. Where 20.8 percent of the workers hired by uncovered establishments were 40 and over, only 14.8 percent of those hired into covered jobs were from this older cohort; put in another way, firms without plans were almost half again as likely to fill their jobs with older workers.¹⁷

¹³ Walter W. Kolodrubetz, "Characteristics of Workers With Pension Coverage on Longest Job: New Beneficiaries," *Social Security Bulletin*, Vol. 34, No. 11, November 1971, p. 18.

¹⁴ Virginia Reno, "Compulsory Retirement Among Newly Entitled Workers: Survey of New Beneficiaries," *Social Security Bulletin*, March 1972, p. 3.

¹⁵ *The Older American Worker*, op. cit., pp. 3-17.

¹⁶ *Ibid.*, p. 13.

¹⁷ *Ibid.*, p. 13.

TABLE 38.—*Employers with upper age limits, and those without them who hired few older workers, were asked what factors explained their employment patterns*

Major reason	Percent distribution of number of times mentioned
Physical requirements.....	34.2
Job requirements.....	25.1
Company standards.....	9.1
Promotion from within.....	8.1
Earnings.....	7.3
Pension plan—costs and provisions.....	6.7
Lack of skills and experience.....	6.3
Limited work life expectancy.....	5.1
Few applicants apply.....	5.0
Educational requirements.....	4.2
Adaptability.....	3.1
Training too long and costly.....	3.0
Inferior quantity of work.....	2.3
Slowness in attaining proficiency.....	2.1
Need for balance of ages.....	1.7
Undesirable personal characteristic.....	1.7
Health insurance—costs and provisions.....	1.4
Life insurance—costs and provisions.....	1.2
Other.....	6.8

Source: U.S. Department of Labor, *The Older American Worker* (Washington: U.S. Government Printing Office, 1965), p. 10.

An Assessment

Looking at the substantial cost differentials of hiring and covering older workers under pension plans and at the effective age limits of many plans may give an exaggerated notion of the impact of the retirement system on the job prospects for older workers. To start with, only half of all private sector wage and salary jobs are covered by retirement plans. While evidence suggests that covered establishments tend to hire fewer older workers, there are many factors involved. Employers may not realize the differential costs or they may feel they are balanced by greater productivity and stability. Even if it costs half again as much annually to cover an older worker as opposed to a younger one, this may amount to only 1 percent or less of the wage and supplement package. The decision is governed by supply and demand factors as well as the characteristics of needs and applicants. Pension plans are also prevalent in the high wage, unionized establishments with health, disability, and life insurance plans which themselves add extra costs for hiring older workers.

Be that as it may, it is not unimportant to older workers who cannot find work or to the ones who must move from high paying pension-covered jobs to lower paying ones in uncovered industries, that perhaps some percentage of potential jobs have been foreclosed in the last decade to some extent because of pension plans. The impacts have been concentrated in particular sectors and among particular workers, and they are not insignificant in these cases. The normal retirement age provisions usually preclude the hiring of workers 65 and over in covered employment. Those who are 55 to 65 are also hard hit, because they either cannot qualify for pensions in a new job and will

retire without benefits which the employer may wish to avoid, or else they will qualify at an exorbitant cost to the firm.

By the same token, impacts are concentrated among large, single employer plans. In multiemployer plans, such as those found in construction, the firm does not have to pay directly for the added costs of hiring an older worker since each contribution is usually based on the payroll and any extra costs are spread over all covered employers. Pension plans are, therefore, less of an impediment. But the single employer must consider this, and when the firm is so large that hiring policies are depersonalized and are integrated into the overall management policies, differential costs may be considered very important, especially since the employer will usually have more control over hiring decisions than he does over pension levels and provisions set through collective bargaining. Jobs in establishments covered by single employer plans include many of the highest paying and most stable ones in the economy.

Though it is difficult to isolate the impact of private retirement plans on jobs for older workers, it is a safe assumption that they are an increasingly important factor. Since 1964, when a fifth of covered employers felt their plans were a reason for not hiring older workers and a tenth thought it was the major reason, the differential costs have increased. Management has also probably become more concerned with social image. Pensions are no longer viewed as a gratuity, but as a deferred wage, and workers who do not get benefits have more and more frequently gotten a sympathetic ear from the press and Congress. Any previous reluctance to hire older workers who could not later qualify for pensions has undoubtedly increased. It is also probably true that the negative impacts of retirement plans were obscured by the extremely tight labor markets which prevailed over the later sixties. Employers may have decided that hiring older, skilled workers and paying the extra pension costs was cheaper than reaching back down the labor queue and hiring the disadvantaged who had to be trained.

These and other factors suggest that retirement plans will be increasingly important in determining the job prospects of older workers. First, not all pension funds have revised their investment patterns or changed their actuarial assumptions; and among those which have, a large number may not have yet realized the cost differential this implies in hiring older workers rather than younger ones. Second, labor markets are likely to remain much more slack than in the sixties, with an influx of skilled workers in their twenties competing for available jobs, so that employers would not be under as much compulsion to hire older workers. And third, trends toward earlier retirement are likely to continue, which will not only increase cost differentials for hiring older workers, and push back the effective age limit, but will probably shift the focus of hiring policy toward the goal of obtaining a younger work force.

These changes will not be sudden or dramatic, but over the long run they may have a significant impact. In large, single employer plans, typically in durable manufacturing, transportation, communication, and public utilities, the work force will get younger as present employees retire earlier and new accessions are drawn from among younger workers.

8. THE POLICY IMPLICATIONS

The following conclusions are based on the preceding analysis, but also on additional data and information, and on the judgments of the author. The discussions of pension legislation are focussed on proposals before the 92d Congress. The provisions of legislation currently being considered differ somewhat, but the conceptual issues remain the same.

The Importance of the Labor Market Impacts

With rapid growth and maturation over the last decades, the private retirement system has developed into an important labor market institution. Contributions to pension and profit-sharing plans are absorbing a growing share of the wage package, and are consequently becoming of more concern to employers and employees. The retirement plan is increasingly recognized as a management tool which can be used to phase out older workers, to reduce the labor force, or alternatively, to attract, retain, or motivate employees. It is also becoming accepted as a fact of life which must be considered in policymaking. Management must adjust its policies to negotiated changes in plan provisions which may lead to undesired earlier retirements, extra costs of laying off older workers under special early retirement provisions, or contributions for many years in the future to finance higher benefits and liberalized provisions. On the other hand, the employee, or the union, must be increasingly concerned with maximizing benefits from the retirement plan. For the individual, this may mean sticking with a job another year or two until qualification for vesting and either moving up or delaying the decision to retire. For the union, the goal is to balance retirement plan demands with other components of the compensation package, and to balance the changes within the retirement plan in order to satisfy its members and to get the most for them.

Though these various impacts are not insignificant and are certainly increasing, it is easy to exaggerate their importance by concentrating on atypical cases and projecting these into the future. Many analysts believed that special early retirement provisions would become universal when they were negotiated in the early sixties in several large industrial plans, but in fact, they were neither copied nor widely utilized once they were instituted. Similarly, the thrust toward 30 and out provisions in the pension plans of a few large industrial companies has led to fears of an "early retirement time bomb" which may drastically alter the work patterns of the labor force. Other claims have been made that retirement plans have indentured the labor force, or that they have foreclosed jobs for older workers still wanting to work, creating a crisis for our senior citizens.

These claims about massive labor market impacts are not supported by available evidence. For the most part, as shown in the foregoing analysis, changes in retirement patterns, labor mobility, and the avail-

ability of jobs for older workers have been gradual; furthermore, the discernible developments can only be partially attributed to changes in the private retirement system. The impacts of pension and profit-sharing plans are concentrated among workers in the older age brackets and among industries and establishments with the most comprehensive plans. When aggregate data are considered for the entire labor force and for low-covered as well as highly covered industries, the separate effect of the retirement plans are moderate.

Their predominant influence has been to lower the age of retirement. The labor force participation rate of workers 65 and over has declined dramatically in the last decade and pension and profit-sharing plans have contributed. Other factors are probably more important; that is, liberalized social security benefits and increased affluence have made retirement easier, while changes in the demand for labor may have foreclosed jobs for less educated older workers. Nevertheless, changes in plan provisions toward lower normal and early retirement ages and toward automatic retirement have been a significant factor in reducing the desire and opportunity to continue working past page 65.

For the work force in the 60- to 64-year-old bracket, the impacts are somewhat less, but still significant. Voluntary early retirement is becoming more widespread as benefits are liberalized, and all evidence indicates that the trend will continue. But there is still a long way to go before a substantial proportion of pension and profit-sharing plans provide a benefit which, even when combined with social security at age 62, provides a meaningful alternative to earned income and the wherewithal to live comfortably in retirement. The lucrative early retirement benefits provided by the automotive plans and those in a few other industries are the exception rather than the rule. Perhaps more significant is the trend toward lower normal retirement ages and the proliferation of service-only requirements; these will have an increasingly important impact on the 60- to 64-year-old cohort in the current decade.

To a certain extent, the differential costs of hiring older workers under pension plans, and the reluctance to hire those who will not qualify for benefits is reducing the number of opportunities for job-seekers in their fifties and sixties. The impact is greatest in the industries with liberal benefits which are usually trying to phase out their older work force through early or compulsory retirement. While there has been no significant shift in the distribution of older workers into the uncovered sectors of the economy, the reason is mainly that job changing is limited among the older cohorts so that the shift does not have much of an impact on aggregate distributions.

To a limited degree, private retirement plans have been used to cushion layoffs and rising unemployment by coaxing or pushing older workers into retirement during recessions, thus opening jobs for younger workers. Changes in plan provisions and improvements in benefit levels have increased the proportion of older workers who at any time can retire with immediate benefits of some significance under early, normal, special, or mandatory retirement provisions; this trend will continue. It might, therefore, be expected that in a future recession, if it occurs after an extended period of low employment, retire-

ments under pension and profit-sharing plans may increase more than in the 1969-70 recession where they had only a minor countercyclical effect.

The impacts of retirement plans on the labor market behavior of younger workers are not very great, except in the few cases where special early retirement provisions or early retirement based on service alone may permit retirement in the late fifties or early sixties. Retirement plans have not noticeably changed aggregate rates of labor mobility, though clearly some workers are discouraged from changing jobs at some times in their lives. Trends toward earlier vesting have in the last decade apparently balanced any immobilizing effect of rising benefits and this will probably continue over the seventies.

Finally, the impacts of retirement contributions as a deferred wage and a labor cost are increasing. Covered establishments and their employees generally accept and expect these contributions as part of the compensation package. The type and level of benefits which are provided may affect the satisfaction and attachment of workers to a minor degree; for instance, profit-sharing plans may marginally increase productivity in some industries. The growth of contributions is one of the factors making employment in the covered sectors more attractive than elsewhere, regardless of any changes in relative cash compensation. Thus, the retirement system is a hidden and increasingly important aspect of the bifurcation of the labor market into primary and secondary sectors, making workers in the former better off after retirement as well as in the present. But these effects are certainly peripheral.

Though most of the labor market impacts of the private retirement system have been modest to date, they are likely to become more significant in the future. As plans mature, benefits will be increased and eligibility provisions broadened so that more and more covered workers will be eligible and will take retirement plans into account in their labor market decisions. Increased contributions will be required from employers and they will become more aware of how to manipulate or at least cope with retirement plans as a part of good management. With all this said, the evidence does not suggest any sudden disruptions in current trends of development, or any cataclysmic changes. There is not likely to be any sudden bankruptcy of employers as they must meet pension commitments, no wholesale foreclosure of jobs for older workers, and no massive exit from the labor force of workers in their late fifties or early sixties.

Legislative Concerns

This does not mean that nothing can be or should be done to channel the further development of the private retirement system or to better cope with its impacts. Perhaps because of the diversity of the private retirement system, or perhaps because it developed only recently as an important supplement to social security, there has been, to date, a minimum of governmental guidance and regulation. The Welfare and Pension Plans Disclosure Act of 1958 (WPPDA) requires the disclosure of certain information and provides for the regulation of some types of serious misconduct, but it does not have any enforcement teeth. In 1970, there were 174,010 welfare and pension plans on file

with the Department of Labor, but only 533 cases of violation were closed, and only a fifth of these involved action to correct misconduct by retirement plan managers.¹ There has also been a minimum of oversight exercised under the tax laws, and almost none under the Wagner, Taft-Hartley, and Landrum-Griffin Acts which provide penalties for some violations with jointly administered funds.²

For over a decade, stronger regulatory legislation has been urged to correct a number of alleged deficiencies in the private retirement system. In a comprehensive investigation completed in 1965, The President's Committee on Corporate Pension Funds concluded that:

(1) There were no effective prescribed government standards applicable to welfare and pension plans;

(2) State laws were inadequate to cope with violations of fiduciary trust by trustees, employees, or administrators;

(3) Vesting provisions were generally severe and restrictive, or non-existent;

(4) Numerous plans were not adequately funded;

(5) Plans frequently terminated prematurely, with no insurance to provide for payment of accrued benefits to workers; and,

(6) Employers could be immobilized by the lack of portability of earned pension credits.³

A variety of legislative measures have been introduced since then to deal with these observed deficiencies and hearings have been held in almost every session of Congress.⁴ The 92d Congress was no exception; a wide array of pension reform bills were introduced, and one, the Retirement Income Security for Employees Act (S. 3598) was reported out of committee but too late for Senate action. All of these legislative proposals deal with essentially the same set of issues.

One of the primary concerns is the establishment of a Federal minimum standard for vesting. There is copious documentation of workers who have held the same pension-covered job for 15 years or more, never qualifying for a retirement benefit because of strict age and service requirements for vesting. Despite the trend toward more liberal provisions, many plans have lagged behind, providing the worker little in the way of benefit security. But liberal vesting increases the costs to employers, since more workers will qualify for benefits, and there is opposition to minimum requirements, or at least to those which will affect a large proportion of all plans.

Among the legislative proposals there are several approaches to vesting. The Retirement Income Security for Employees Act would require the vesting of 30 percent of accrued benefits after 8 years, and 10 percent each year thereafter so that full vesting would be achieved after 15 years.⁵ Another proposal (S. 2485—92d Cong.) would require

¹ U.S. Department of Labor, Labor Management Services Administration, *Welfare and Pension Plans Disclosure Act: 1970 Report to Congress* (Washington: U.S. Government Printing Office, 1970), p. 11.

² *Interim Report of Activities of the Private Welfare and Pension Plan Study, 1971*, Senate Committee on Labor and Public Welfare, 92d Congress, 1st Session (Washington: U.S. Government Printing Office, 1972), pp. 4-5.

³ *Ibid.*, p. 26.

⁴ *Ibid.*, p. 27.

⁵ "S. 3598—The Retirement Income Security For Employees Act of 1972," *Congressional Record—Senate*, October 12, 1972, S. 17728.

full vesting after 10 years, with various optional formulas.⁶ A slightly different approach is contained in the bill introduced by the Nixon administration (H.R. 12272-92d Cong.). This would adopt a "rule of 50," that is, at least half of an employee's accrued benefits would be vested when age plus years of participation totaled 50, and at least one-fifth of the balance would be vested in each of the next 5 years.⁷

Measures to provide for the portability of vested benefits are closely related. A worker who stays at one job for a given period of years and gets a benefit based on his final salary times years of service will receive a higher benefit than a worker moving through a number of similar plans, even if he attains a vested right in each, which is unlikely. It is alleged that this provides an impediment to mobility and certainly the job changer would benefit if he could carry his credits with him. Most pending legislation merely recommends further study into this issue, but the Retirement Income Security for Employees Act would provide for a central pension fund which would accumulate the contributions voluntarily transferred to it in fulfillment of the pension obligations to individuals who have left specific plans. These could either be accumulated until age 65 or used to buy into new plans.

Another major legislative issue is the security of vested rights and continued retirement income. There have been a number of cases, the best known of which is the Studebaker shutdown, when establishments have closed down without enough money in the pension fund to pay all accrued benefit liabilities. Pending proposals would require more conscientious funding by employers, would protect the worker against mismanagement of the pension funds, and would insure against the loss of benefits due to a shutdown before contributions for accrued benefits had been accumulated. For instance, one proposal (H.R. 1269-92d Cong.) would require plans to fund all past service liabilities over a 25-year period, and in every year to at least meet accruing liabilities plus interest on those left unfunded. A premium would be paid each year to a pension benefit insurance corporation based on the amount of unfunded liability to protect against termination of the plan. Finally, much more detailed reporting would be required of retirement plan provisions to workers and of financial dealings to the Department of Labor.⁸

If vesting, funding, reinsurance, portability, and fiduciary standards were established, the cost of pension plans would be raised for those employers who had to improve their plans to meet these standards and for those who were just initiating plans. The usual maturation process has been to start with a large unfunded liability and then to catch up over the years. Federal legislation which raises initial costs might discourage the initiation of new plans. This is one of the issues raised by opponents of Federal standards and those who would keep them at a minimum. To stimulate the growth of coverage, the administration's proposal (H.R. 12272-92d Cong.) would permit any individual not covered by a private employer's retirement plan to deduct from federally taxable income 20 percent of the total up to \$1,500 annually

⁶ *Ibid.*, p. 110.

⁷ *The Administration's Private Pension Proposal* (Washington: American Enterprise Institute, 1972), p. 22.

⁸ *Interim Report of Activities of the Private Welfare and Pension Plan Study, 1971*, op. cit., p. 110.

when this is set aside in a bona fide retirement plan. These contributions would have to be held in separate trust and could not be withdrawn until retirement age.⁹ Given the incentive of tax deductibility, it is hoped that uncovered individuals would be able to help themselves.

These issues will have to be faced by the 93d Congress; but if, as expected, some pension reform legislation is passed, the same issues will remain in deciding how quickly and strictly to implement the regulations, and in the future, how much to raise the minimum standards. Among the factors which must be considered are the labor market impacts of proposed changes. For instance, it has been argued in support of minimum vesting standards and voluntary portability arrangements that they would alleviate the immobilizing impact of private retirement plans. This is, of course, a secondary concern; the major issue is to protect the welfare of the worker who holds a job for many years without earning a vested right. But the labor market impacts cannot be dismissed without consideration.

Labor Market Implications

One obvious policy implication of the analyzed labor market impacts is that the administration's vesting approach, the "rule of 50," has very serious drawbacks. The evidence is fairly conclusive that there are already substantial differential pension costs in hiring older workers which have resulted in a declining proportion of them being hired in highly covered sectors. Pensions are not foreclosing all jobs, but they are certainly reducing the chances of finding reemployment at a late age in the more attractive areas.

Quite obviously, the "rule of 50" would add to this impact. If a worker aged 50 were hired and worked for 5 years, he would be fully vested at the end of the period. If a 35-year-old worker were hired, he would have no vested right after 5 years, and a 20-year-old would have no vested right until the 15th year of service. A much larger proportion of younger hires would leave the plan before qualifying for a benefit, so that it would be much less costly to hire them. The administration's proposal would soften this impact somewhat. For workers near or beyond age 50 when hired, there could be a three year delay until the beginning of participation. This would reduce, but would not eliminate the disincentive to employ older jobseekers.¹⁰

Neither on the grounds of equity nor efficiency is the combined age and service requirement preferable to a service only formula. Most plans now take the latter approach, sometimes with a minimum age requirement but rarely using the combination age and service total as a standard. The "rule of 50" would force them to adopt a new approach which would reward different workers and would increase the differential cost of hiring older jobseekers. There are no equity grounds to justify vesting the 45-year-old worker with 5 years of service rather than the 35-year-old worker with 15; in fact, it would seem fairer to give the benefit first to the worker with longer service. Whether or not this is true, the fact remains that older jobseekers would be increasingly excluded by a combined age and service formula.

⁹ *The Administration's Private Pension Proposal*, op. cit., pp. 7-9.

¹⁰ *The Administration's Private Pension Proposal*, op. cit., p. 23.

There are other labor market implications of private retirement plan reform legislation, but these are much less clearcut. First, the minimum vesting standards and voluntary portability arrangements which have been proposed are likely to have a negligible impact on labor mobility. As suggested by the preceding analysis, the evidence indicates that retirement plans impede voluntary job changing for only a minority of those considering moves and only during the period immediately preceding qualification for a present or future benefit. Furthermore, workers with long tenure who are the most likely to be affected by retirement plans are the least likely to move anyway, accounting for only a fraction of all job changers. If legislative action lowers the service requirement, for instance, from 15 to 10 years, the impact on each worker approaching qualification will be less, since he or she will have less accrued service in calculating the benefit and a greater discount because it is further in the future; on the other hand, more potential job changers will be affected since mobility for those with close to 10 years of service is much higher than for those with nearly 15. The net impact of the modest vesting standards which have been proposed by legislation will, therefore, be minimal in the aggregate.

The voluntary portability arrangements of the Retirement Income Security for Employees Act are likely to have an even more meager impact. There are many technical problems involved in transferring pension credits, and there is little likelihood that the arrangements will be used by many individuals or employers. Whether or not they are utilized, however, few workers probably understand how plan provisions can interact to yield a greater benefit for continuous service than for separate periods of vested service: It is unlikely that workers who have just been vested will decide not to move to another job where they can also gain a vested right because they project a differential total benefit at the end of their worklife. It is therefore unlikely that they will be more willing to change jobs because they can carry their vested pension credits with them.

This is not to argue that minimum vesting standards and portability arrangements are undesirable. The welfare and equity arguments for both may be compelling. And there is no doubt that immediate full vesting and complete portability would, if they were ever achieved, provide some stimulus to labor mobility. The fact remains, however, that deferred graded vesting after 8 or 10 years and voluntary portability arrangements will have almost no impact on mobility.

Second, funding and reinsurance provisions are likely to make retirement plans somewhat more attractive to employees and less attractive to employers. From the employer's point of view, the reinsurance premium will raise retirement plan costs, especially where there is a large unfunded liability. In plans that are well established, with little question of future viability, reinsurance raises costs with little added benefit. The extent of the added costs may be small if risk factors are used to determine reinsurance premiums. Funding requirements may reduce the flexibility which retirement contributions offer, while greater emphasis on funding schedules, and particularly the setting of standards for reasonable actuarial assumptions as to investment return expectations, may make employers less willing to expand

benefits to the extent they are not raising them in the expectation of increased earnings on reserves. For employees, on the other hand, re-insurance and more stable funding will mean increased benefit security. To the extent that the employee now discounts his deferred wages by a risk factor based on the chances of plan termination with unfunded liabilities, the discount will be reduced. In all likelihood, however, few employees consider this possibility unless they are near retirement age and their employer is known to be on extremely shaky ground. Even in the case of the Studebaker shutdown, the union recognized and, in a sense, accepted the existence of a large unfunded liability in order to provide a larger immediate benefit; it apparently did not consider the possibility of plan termination.¹¹ If there is a rational discount of the dollars going into retirement plans, it is probably related more to the individual's fear of leaving the plan before qualifying than to the fear that the plan itself will be terminated. Employees may not value retirement deferrals because they expect to move on to another job before qualifying. Earlier vesting may in this sense tend to assuage younger workers who would prefer direct wages to increased benefits. All these effects, however, are hypothetical. Many employees would not be affected, and many of those affected would not realize the difference. Some employers would have extra expenses to come up to minimum standards, but these might be met by simply delaying benefit level increases or other changes in the plans. For the most part, then, the proposed regulations would have only a very modest effect on the deferred wage and cost of labor aspects of private retirement plans.

Third, by raising the minimum standards and costs of retirement plans, and reducing the flexibility with which they can be administered, proposed legislative changes may further retard the growth of coverage into new firms. Expansion has been slow in the last decade, and it is not likely to speed up. While the administration's proposal to provide tax deductibility for individual contributions into retirement plans recognizes the existence and inequity of the existing "have and have not" division, and while one of its aims is to reach out to uncovered workers, it is unlikely to do much to correct this situation, even if accepted. Firms without retirement plans usually pay low wages, and neither the employers nor employees are able to support very significant if any pension contributions. Tax deductions will largely help those few more affluent workers who are not covered rather than the much larger number of uncovered low wage workers who simply cannot afford deferral of any income. The mechanism is also suspect because it makes the tax on savings regressive, yielding more benefits to the higher paid worker who has the higher tax rate and therefore is subsidized on a large proportion of contributions.¹² **A formula which reduced taxes by some fixed proportion of retirement fund set-asides would be more helpful to the lower income worker, but the fact remains that few low earners could save much on their own.** Institutionalization of deferrals in formal pension and profit-sharing plans is the

¹¹ Testimony of Clifford MacMillan in *Private Pension Plans*, Hearings before Subcommittee on Fiscal Policy of the Joint Economic Committee, 89th Congress, 2d session (Washington, U.S. Government Printing Office, 1966), pp. 107-109.

¹² Statement of Andrew Biemiller before House Ways and Means Committee on H.R. 12272, May 11, 1972 (mimeographed).

only hope for the majority of those who must struggle to make ends meet, and their chances of being helped by new plans may be reduced by the changes initiated to assist covered workers.

Future Labor Market Issues

Though the labor market impacts of retirement plans play only a secondary role in current public policy deliberations, they are likely to be a somewhat more important factor in the issues which loom on the horizon. Some of these are suggested by the previous analysis.

First, compulsory and automatic retirement provisions are likely to come under increasing scrutiny. A large proportion of those who continue working in their sixties, especially past 65, are forced out of their jobs either by these provisions or by employment policies related to retirement plans. Mandatory provisions are becoming more often automatic than discretionary, and provisions of all types will proliferate as the normal retirement age is reduced. Where funds needed to pay the retirement benefit have already been accumulated, and the benefit is considered adequate, the employer will be under no compunction to continue employing older workers who are felt to be less productive. When the normal retirement age is 60 or 62, more workers may want to continue on the job than when it is 65, and as a result, they may object more strenuously if they are pushed out of work. Compulsory and automatic retirement provisions are not an essential part of pension or profit-sharing plans in the sense that they reduce direct pension costs; the retirement plan is simply a way of accomplishing the employer's aim of getting rid of older workers. Prohibition of such policies and provisions may be necessary, especially if the mandatory retirement age begins to inch below 65.

Second, whether or not the "rule of 50" is adopted as a vesting standard, it is likely that the impact of pension plans on the hiring of older job seekers will come under increasing scrutiny as more older people are forced out of jobs but still want to work, as there are relatively more young workers competing for jobs, and perhaps as the aggregate unemployment rate reaches an equilibrium above the level of the sixties. One solution is to subsidize the differential pension costs, if there are any, involved in hiring older employees. Alternately, employers should also be urged to adopt more widely the types of benefit formulas, such as those based on years of service and final period earnings, which minimize the differentials.¹³

Third, as more and more people take advantage of lucrative early retirement provisions which will be available in a growing minority of plans, there may be some controversy if they reenter the labor force and compete for the jobs of other workers who are not covered or have not qualified for early retirement. Likewise, as normal retirement ages are pushed to 60 and below, there will be the same potential problem of competition between haves and have nots for jobs. Society may very well feel that there should be a minimum age for normal retirement, such as the 62 threshold under social security, and that benefits

¹³ President's Committee on Corporate Pension Funds and Private Retirement and Welfare Programs, *Public Policy and Private Welfare Programs* (Washington, U.S. Government Printing Office, 1965), p. 16, and see ch. 7.

should be actuarially reduced for retirement before this age. It may well be that the taxpayer does not want to subsidize extremely early retirement except in the case of disability or layoff or other special situations and tax laws might be used to set a minimum age. On the other hand, covered workers who are able to retire at an early age may feel they should have the option of working, and might oppose any re-employment restrictions.

Fourth, in order to increase the countercyclical impact of retirement plans, it might be possible to provide unemployment insurance payments in addition to retirement benefits to early retirees in periods of high unemployment. Under current State laws, retirement beneficiaries are sometimes automatically disqualified, but in most cases the unemployment insurance payment is offset by the amount of the retirement benefit. It might be possible to provide a Federal supplement in times of high unemployment to workers who either voluntarily or involuntarily leave their jobs under early or normal retirement provisions. If several hundred thousand workers could be encouraged to retire, the welfare loss would be less than having an equal number of younger workers off the job.

Fifth, as workers retire earlier, the problem of the erosion of benefits by inflation will grow more critical. There has been a marked trend toward benefit formulas based on terminal earnings in order to protect the worker somewhat from inflation, but this does not help the worker who has already retired. If there is an annual inflation rate of 4.5 percent, the real value of a stable benefit will be cut in half in 15 years, and the 55-year-old early retirees stand a good chance of living at least this long. In all likelihood, therefore, cost-of-living provisions will be one of the benefit dimensions which will increase greatly in the coming decade.¹⁴ If this occurs, there are significant implications for the wage-price relationship. Cost-of-living adjustment provisions under wage agreements contribute to the wage-price spiral, and this impact will be increased if employers have to increase contributions to provide higher benefits to current as well as future beneficiaries.

Sixth, because of the increasing labor force participation rate of women and the trend toward earlier vesting which will permit them to qualify for benefits despite their typically shorter job tenure, it can be projected that the proportion of women receiving benefits will begin to increase rapidly. One issue which this will raise is whether women should get the same benefit or qualify under the same standards as males. A 65-year-old white woman can expect to live another 16.4 years compared with 12.8 years for a male. A standard benefit based on earnings and years of service will be more costly for the female than for the male because it must be paid over a longer period. Where the work force under a plan is largely male or largely female, there is no problem; but when it is mixed, a decision must be made relative to contributions and benefits for the sexes.

The Broader Questions

While these specific current and future issues are important, there are more basic questions about the private retirement system which

¹⁴ T. J. Gordon and R. E. LeBeau, "Employee Benefits, 1970-85," *op. cit.*, p. 98.

must be addressed and hopefully resolved. The preceding analysis has assumed that pension and profit-sharing plans are worthwhile, and that they will continue to evolve in their present directions with some increased governmental regulation but generally under their own momentum. It is a matter of judgment whether the system which exists is generally equitable and effective, and how or in what ways it should be changed; it is only an assumption that it will not be drastically altered.

One basic and still unresolved issue is whether the dual system of private retirement plans and social security, and the relative balance between them, is acceptable. As mentioned previously, there are some who would argue that the public retirement system, with its early vesting, portability, and almost complete universality, should be expanded relative to the private system. There is no doubt that an accelerated increase in social security taxes and benefits would check the growth of private retirement plan contributions and benefits.

In defense of the private retirement system, and its status relative to social security, several points can be made.

First, many of the faults of the system are being corrected in the course of its own development, through trends toward earlier vesting and through maturation which usually leads to fuller funding. Legislative regulations such as those proposed should improve the worst plans without fundamentally altering the system.

Second, private retirement plans have significant advantages over social security in terms of their flexibility. Their variability serves an important function. Worker interests differ: the autoworker may be more concerned with retiring early from a physically demanding job than the college professor who is more interested in the portability aspects of his plan. Employer interests also vary: in technologically intensive industries such as petroleum, older workers may be relatively less productive than in retail trade, and the retirement plans in the first case would more likely stress lower retirement ages. Overall, it is a fundamental fact that the ability to pay for retirement plans varies between worker groups and firms. There is no way that every worker could get the retirement benefit of the automobile workers unless there were a massive redistribution of income in society. Social security, is, in fact, becoming a mechanism for redistribution, and proposals for financing out of tax revenues would increase this transfer effect. Unless it is believed that all individuals should have an equal income in retirement, private retirement plans are important in letting relatively more affluent workers prepare for their futures above and beyond the floor of adequacy provided by social security.

Another advantage of the private retirement system is that, despite some exceptions, pension and profit-sharing plans are funded while the social security system operates on a pay-as-you-go basis. The savings which are generated by the private system are probably a positive factor in the growth of the economy, and there is no doubt that funding alleviates much of the intergenerational transfer inherent in social security. By the time the current pension-covered worker retires, enough will have been accumulated through deferrals from wages to provide most if not all of his or her benefit. While some of current contributions go to meet past service liabilities, the proportion is much

less than under social security, where current taxes are paid out to existing retirees.

Overall, then, there is justification for having a dual retirement system. Despite the problems with pension and profit-sharing plans, the arguments for vastly expanding social security to replace or at least to reduce the relative importance of the private retirement system, are not compelling.

Another underlying issue, once Federal minimum standards are established for vesting, funding, and other aspects of private retirement plans, is how quickly these minimums should be raised. For instance, the 8 through 15 year graded vesting standard of the Retirement Income Security For Employees Act, which only applies retroactively to workers 45 and over, will not dramatically change the costs of most existing plans.¹⁵ A 5 year full vesting standard would be much more costly and would affect almost all plans, while immediate vesting requirements would have a massive impact. It is likely that any reform legislation will establish relatively modest standards, but once the congressional foot is in the door, there is the possibility of establishing even more stringent requirements. As in dealing with minimum wages, the impact of any proposed changes will be concentrated in the most marginal plans, and the gains in welfare from better protected participants will be balanced against the potential losses if plans are dropped or if the standards stop them from being established. If the experience with minimum wage legislation is repeated, there is likely to be a continuing pushing match between the advocates of stricter standards and those who decry the price tag and negative consequences. The compromise will be standards which change at about the same pace as the average of private retirement plans; in other words, massive dislocations are unlikely.

Another issue which will become critical is the tradeoff between the immediate welfare impacts of private retirement plans, i.e., their effectiveness in fulfilling their designed functions, and their secondary or spillover impacts on other workers or the economy as a whole. In the labor market context, there are several illustrations:

(1) Does the employer have the right to use the retirement plan as a way to retain workers, even though this means that those who leave the job may lose their benefits?

(2) If private retirement plans discourage the hiring of older workers, to what degree should they be altered in order to protect potential hires, and to what extent will this affect the benefit available to existing workers?

(3) Early retirement benefits under private retirement plans may, as mentioned previously, result in workers in their fifties and sixties retiring with benefits from covered jobs and competing for work elsewhere with uncovered employers. What is the tradeoff between the effect of the plan on the welfare of early retirees, and the secondary impacts of competition from those who retire early?

(4) Pressure from coworkers, unions, or employers may convince older workers to retire earlier than planned when unemployment is

¹⁵ As noted above, this section was written before passage of pension reform bills in the 93d Congress.

high in order to open jobs for others. This will have a desirable countercyclical effect in the aggregate, but what is the tradeoff with the welfare loss of individuals who are forced off their jobs under pension plans?

The question of tradeoffs also arises in other contexts. For example, pension fund investment patterns might have undesirable financial consequences, but any regulations which reduce the returns on these funds would also reduce the benefits which could be provided. Likewise, the institutionalized savings and investment of pension funds may have unwanted aggregate economic effects if the economic situation is such that there is too much saving and too little consumption. In these cases, actions may be justified which have nothing to do with the effectiveness of individual plans to provide for the welfare of retired workers.

These various questions cannot be resolved in any absolute way. Tradeoffs and strategies will depend on circumstances encountered at particular points in time. Decisions will usually be marginal in the sense that they will be made only when particular problems become acute and only to the extent necessary to correct these problems. Thus, for example, the issue will not be whether to eliminate private pension plans and to have all contributions made to a central fund, but rather whether to further raise social security benefits or to require the deposit of accrued vested contributions in a central fund when a worker moves outside the coverage of a plan. The decision which is made will depend on a number of normative and philosophical as well as pragmatic arguments. It is important, however, that the broader questions be kept in mind when the more specific problems are addressed.

The Need To Know

In order to deal with these current and future issues, there is a need for much more information about almost all aspects of the private retirement system. For such an important and pervasive institution, the data concerning private retirement plan characteristics, coverage, contributions, benefit levels, and beneficiaries, are woefully inadequate. Available information must be pieced together to get even a crude description of the private retirement system. To measure the impacts of this system, broad inferences must be made linking descriptive data to observed outcomes.

For instance, in assessing the relationship between private pensions and labor mobility, the only recourse is to look at the vesting and early retirement provisions, to theorize about the impacts, and then to examine aggregate quit rates and tenure in specific situations where it is hypothesized that private retirement plans will have significant influence. What is unavailable is data which can be of use to directly compare the behavior of firms and workers covered by various types of retirement plans with the behavior of uncovered firms and workers.

To fill this gap, there are a variety of informational needs: First, in hypothesizing about any labor market impacts, the assumption is that the worker is completely rational and understands what he has to gain or lose by a specific course of action. Yet the countless stories of unrequited expectations of older workers which have been presented to justify pension reform legislation suggest that many individuals do

not understand the terms of their plans or their implications. One of the most vital needs, therefore, is to determine how much employees know about their plans and how much they take this knowledge into consideration. Looking particularly at the issue of labor mobility, job changers and those who would like to but do not change employers, should be intensively interviewed to determine their understanding of the retirement plan considerations.

Second, employers, like employees, may not be completely cognizant of the implications of their retirement plans. The provisions may or may not be best suited to the needs of the firm, and the employers may not understand or care about such factors as the differential costs of hiring older workers or the possibility of using plans as a layoff device. Actual policies may differ significantly from articulated provisions. More information is needed to explain the business management dimensions of private retirement plans.

Third, a longitudinal study is needed tracing older workers into retirement to specifically isolate the influence of different types of retirement plan provisions on future labor force participation. The available studies on retirement patterns usually go no further than asking whether a worker is covered or uncovered and will or will not receive a benefit. The effect of varying benefit formulas and levels, as well as different early, normal, and mandatory retirement provisions need further study.

Fourth, a large-scale comparative study is needed of the behavior of firms with and without retirement plans of different types, and of employees in these firms. This is the only way that the plans can be linked with the behavior of employers and employees. Possibly, this comparative study could determine the degree workers understand plan provisions, and could also focus on older workers nearing retirement age.

A comprehensive project to study the labor market implications of the retirement system is warranted. Pension and profit-sharing plans have a variety of significant and increasing impacts on employers, employees, and the economy as a whole. The private retirement system is clearly an important labor market institution as well as a mechanism for improving the welfare of retired workers. Further study is vitally needed.

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