



# Incentives for Early Retirement in Private Pension and Health Insurance Plans

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## INTRODUCTION

THE U.S. LABOR MARKET WILL SOON experience a shock coming from three merging demographic forces: an increase in life expectancy, a decrease in fertility rates, and the retirement of baby boomers. Until recently, the baby boomers' movement through the work force hid the long-term impact of the first two changes. But the population structure in the future will be very different from the one we have today. Population growth will slow down significantly, and by 2030 it is expected to be 30 percent lower than today.

The change in the composition of the population will be more striking. The ratio of people age 65 or older to those between 20 and 64 years of age has increased from 0.14 in 1950 to 0.21 in 1997. Between 1997 and 2030, it will soar to 0.36. Unlike the postwar period, this increase will not be offset in the labor market by the entry of large numbers of new (baby boom) workers or increased numbers of working women. The relative increase in the older population will have a significant impact on the economy in general and on employers in particular. The average age of the labor force will increase, affecting the supply, demand, and cost of older workers.

To cope with the future shortage of young workers, additional incentives have to be provided to induce people to work later in life. Some policy changes, such as

changes in Social Security and proposed changes to Medicare, seem to go in that direction; however, many features in the compensation structure of private firms encourage people to retire early. In this policy brief we will examine some of those features.

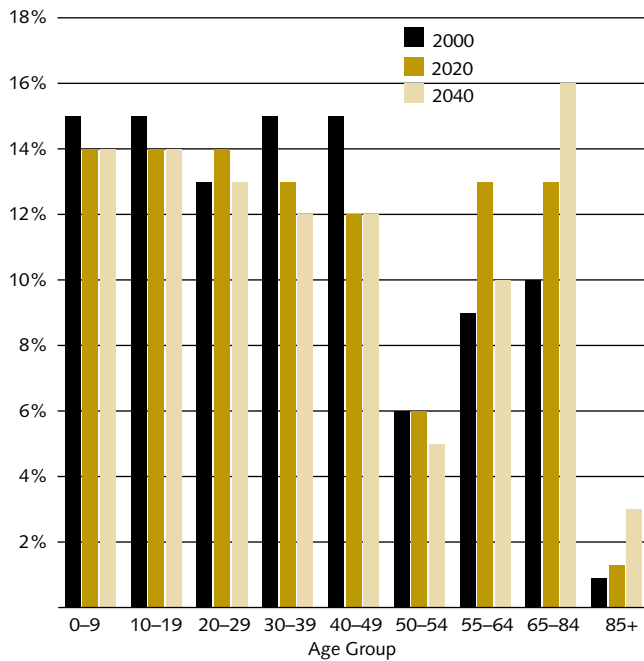
## DEMOGRAPHIC AND LABOR FORCE CHANGES

It is estimated that the total U.S. population will grow about 21 percent between 1980 and 2000, 18 percent between 2000 and 2020, and only 14 percent in the following 20 years. The U.S. Bureau of the Census predicts that after 2025 the population will grow more slowly than ever before in U.S. history.

The most significant change, however, involves the age structure of the population. Figures 1 and 2 plot the distribution of male and female populations by age, projected for 2000, 2020, and 2040. Three conclusions can be drawn: (1) the proportion of people age 30 or younger is going to remain relatively constant; (2) the proportion of those in the 30 to 50 age group is going to decrease, from about 30 percent in 2000 to a little less than 24 percent in 2040; (3) the proportion of older people is going to be significantly higher. People age 65 or older are projected to represent 20 percent of the population in 2040, compared with 12 percent now and a little more than 13 percent in 2000. In absolute terms, 75 million Americans will be age 65 or older by 2040. Moreover, the proportion of people age 85 or older will increase from 1.4 percent to 4.5 percent, making this the fastest growing group in the population. There are no significant sex differences in these patterns, except that older women will represent a larger percentage of the population than older men will.

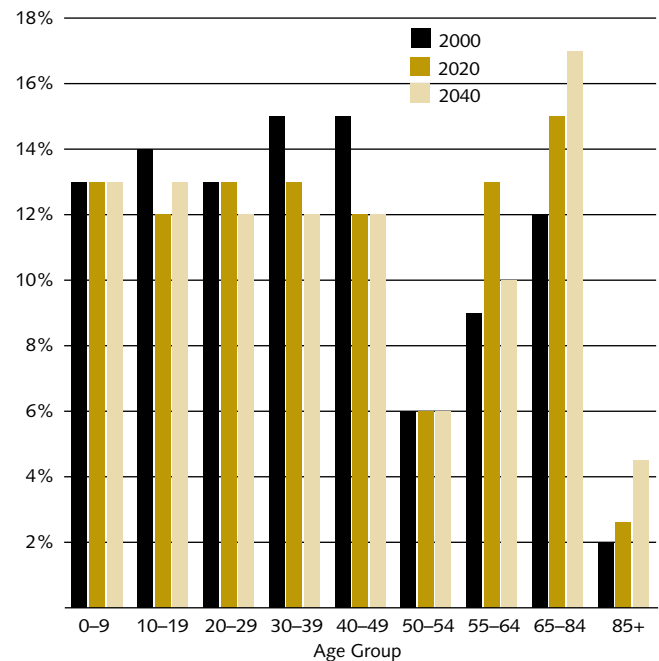
The aging of the population will be reflected in the characteristics of the labor force. The median age of the U.S. population—now 34.9—is projected to increase to 35.7 in 2000 and to 38.3 in 2040. An older population will probably mean an older labor force. Using the population projections of the U.S. Bureau of the Census

**FIGURE 1.**  
Percent Distribution of Males, Projections for Years 2000, 2020, and 2040



Source: U.S. Bureau of the Census.

**FIGURE 2.**  
Percent Distribution of Females, Projections for Years 2000, 2020, and 2040



Source: U.S. Bureau of the Census.

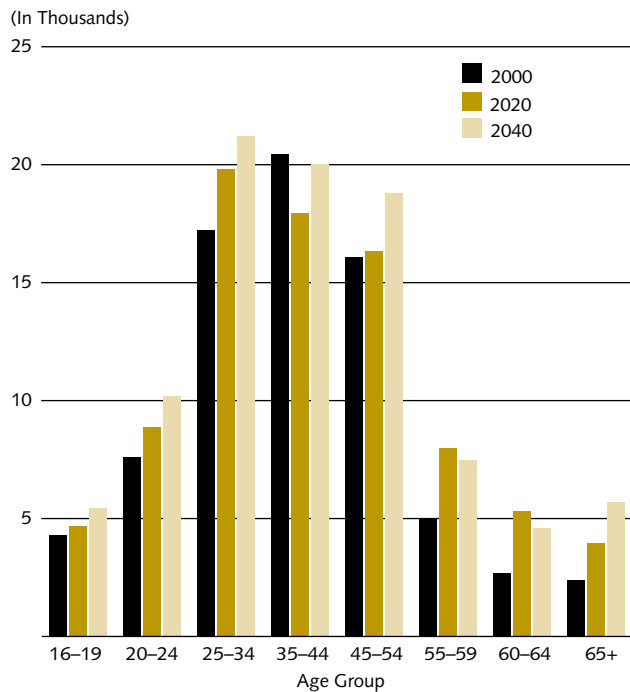
and assuming that labor force participation rates in the future will be the same as now, it is possible to estimate the size of the labor force by sex and age group. These projections are shown in figures 3 and 4. The growth rate of younger workers—those ages 16 to 44—is going to slow down, more for men than for women, with an absolute decrease in the number of male workers in the 35 to 44 age group. On the other hand, the growth rate of older workers is going to increase.

Table 1 shows various projections in the growth rate of the labor force. Two conclusions emerge. First, the growth rate of the labor force in the future will be much lower than it is now and lower than population growth for the same periods. Between 2000 and 2020, the labor force is projected to grow at 12 percent, and for the following 20 years it will grow at 9 percent. This represents a very significant slowdown, especially compared with the 22 percent increase in the labor force in the 10-year period 1976–1986 and the 14 percent increase in

the following decade.<sup>1</sup> Second, the growth rate for older workers is going to be much higher than the total labor force growth rate: more than 100 percent for workers age 65 or older for the period 2000–2040, compared with 22 percent for all the age groups combined.<sup>2</sup>

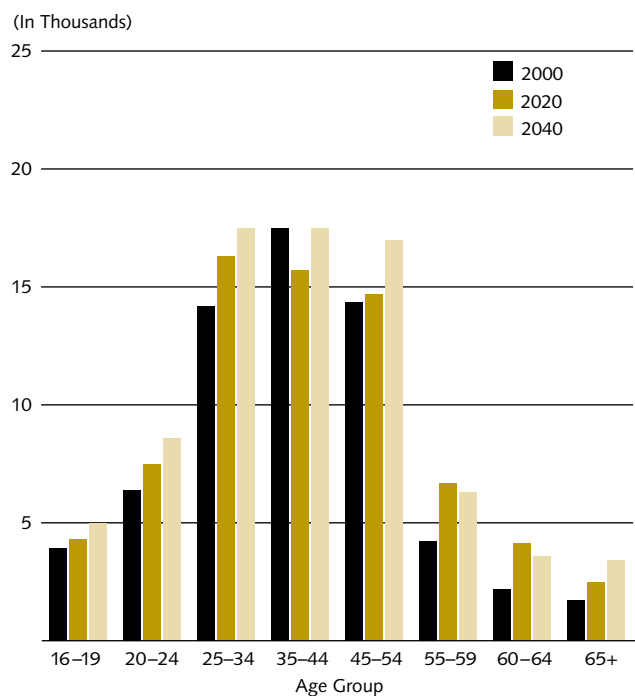
These demographic and labor force trends suggest that in the future, as young workers become scarce, firms will have to employ older workers. Employers will have to retain their employees for a longer period of time or hire new workers from an older age group. Changes in the compensation structure and an increase in part-time jobs may have to be considered, because current private retirement and health insurance financing systems provide incentives for workers to retire early. In the next sections we examine some of those incentives and discuss the kinds of changes that might be considered to facilitate the adjustment to future demographic trends.

**FIGURE 3.**  
Projected Male Labor Force, 2000, 2020, 2040



Source: Author's projections based on U.S. Bureau of the Census and Bureau of Labor Statistics data.

**FIGURE 4.**  
Projected Female Labor Force, 2000, 2020, 2040



Source: Author's projections based on U.S. Bureau of the Census and Bureau of Labor Statistics data.

### STRUCTURE OF PRIVATE PENSION PLANS

To deal with the changes in the demographic structure of the population, the Social Security system was reformed in 1983. The most notable changes include a phased increase in the normal retirement age from 65 to 67, beginning in 2003; an increase in the income limits at which the earnings test applies to individuals ages 65 to 69; and a gradual increase in the delayed retirement credit, from 3 percent in 1983 to 8 percent for those turning 62 years old in 2005 or later. Other changes are being debated: further increases in the normal retirement age, increases in the early retirement age, and increases in the age of eligibility for Medicare. A change in the formula used to calculate Social Security benefits (for example, an increase in the number of years counted to calculate average earnings on which benefits are based) and an increase in the contribution rate are also being contemplated. All these changes are aimed partly at reducing the incentives to retire early.

Although Social Security is the most significant source of income for a large percentage of the elderly population, private pensions are becoming an important source of income after retirement. According to the Bureau of Labor Statistics (1996, 1997), about 65 percent of full-time employees participate in one or more retirement plans. The low labor force participation rate of older workers is partially associated with features in both the Social Security system and private pension plans.

Most private pension plans are in one of two categories: (1) defined benefit plans, in which the benefit can be calculated in advance, using a formula that includes the number of working years, earnings history, and age at retirement, and (2) defined contribution plans, which specify contributions made by the employer and the employee. In the most common defined contribution plan, contributions are deposited in the employee's account and invested. At retirement, the employee receives both the principal and the interest accumulated in the account, either as a lump sum or in the form of an annuity.

**TABLE 1.**  
Projected Growth Rate in Labor Force between 2000 and 2040

	2000–2010	2010–2020	2020–2030	2030–2040
Total labor force	0.080	0.035	0.034	0.062
20–64 years old labor force	0.076	0.028	0.017	0.062
65+ labor force	0.130	0.350	0.300	0.080
Total population growth	0.084	0.084	0.074	0.066

Source: Author's projections based on U.S. Bureau of the Census and Bureau of Labor Statistics data.

These two types of plans are very different in the incentives they create for early retirement.

Defined benefit plans are most common in large firms and in the public sector. About 52 percent of full-time employees in medium and large private establishments were participating in defined benefit plans in 1995, down from the 63 percent who participated in 1988.<sup>3</sup> Because the benefit is specified by a formula, it is possible to include explicit incentives to retire at particular ages by changing the way the benefit accrues over time. The following factors may encourage early retirement:

- Accrual rates that vary with age (highly unusual), earnings, or years of service
- Wage indexing rules to calculate pensions that vary with age of retirement or years of service
- Reduction in the normal retirement benefit by retiring early but by less than what would be actuarially fair (i.e., benefits are reduced but not enough to compensate for the longer period of time they will have to be paid out if retiring early)
- Limit on the increase in pension accrual after a certain number of years in the firm
- Explicit buyouts, offered from time to time to some of the workers in the firm.

The incentives to retire embedded in defined benefit plans have been studied in the economic literature. In a number of papers, Kotlikoff and Wise (1985, 1987, 1989) analyze the incentive effects of private pension plan provisions. They examine the features of a Fortune 500 firm's pension plan and estimate the accrual of pension wealth from an additional year of work for workers of different ages. They find that there is a significant loss in pension wealth beyond age 65, in some cases more than the wage that could be earned by working one more year. This plan also provided an incentive to take early retirement, because the reduction in benefit by retiring

before the normal retirement age was less than actuarially fair.

The effect of pensions on retirement is also analyzed by Stock and Wise (1990) and Lumsdaine, Stock, and Wise (1994). They use a model in which individuals at every age evaluate the expected gain or loss from staying on the job one more year. If the value of retiring today is higher than the maximum value of retiring at any other age in the future, the individual retires. This model, along with data on earnings and pension provisions from a Fortune 500 company, is used to estimate the effect of pension plan provisions on retirement. The authors simulate a number of changes to Social Security and private pension plan rules, such as changes in early retirement and normal retirement age, and measure the effect those changes would have on retirement rates in that particular firm. The main conclusion is that changes in pension plans have a much stronger impact than changes in Social Security regulations on the retirement decisions of employees.

All the previous models are subject to the same criticisms. First, the information available does not contain detailed individual characteristics. Second, there is no way to differentiate between the pension incentives to retire and the incentives to leave the firm and move into some other job, maybe part time, because every separation from the firm at the time of retirement is treated as a withdrawal from the labor force. Third, the models use data from only a few firms, casting doubts about how representative the previous results are.

Defined contribution plans have been gaining in popularity over the past decade. The Bureau of Labor Statistics reports that participation in defined contribution plans for full-time workers in medium and large private establishments increased from 45 percent in 1988 to 55 percent in 1995. According to the same source, about 38 percent of full-time workers in small private firms participated in a defined contribution plan in 1996. Because defined contribution plans have no explicit

formula to manipulate pension accruals depending on age or years of service, they are said to be age-neutral, but there is no evidence concerning the effect of increased participation in defined contribution plans on labor force participation of older workers. Although it is possible that the increased participation in defined contribution plans is reducing the incentives to early retirement, a number of factors related to this type of plan could still induce workers to retire early:

- Employer contribution rates that may change according to age or years of service
- Early retirement provisions (explicit buyouts)
- Specific tax rules that may affect the timing of retirement (such as penalties for early withdrawal)
- Potential availability of a lump sum on the condition of leaving the firm.

### HEALTH CARE BENEFITS AND INCENTIVES TO WORK

Health insurance is an important component of the compensation structure of private firms. There is a general perception that older workers are more expensive in terms of health insurance cost. According to Barth, McNaught, and Rizzi (1996), the average cost of employee health care coverage increases with age. For men ages 45 to 54 the cost is twice that for those ages 25 to 34. Costs also increase as a proportion of average earnings (6 percent of earnings for those ages 25 to 34 and 8.4 percent for the 45-to-54-year-old group). Higher health care costs may discourage firms from hiring or keeping older workers.

As older workers' insurance becomes more expensive and the government's Medicare program continues to be the secondary payer in the presence of employer health insurance for older workers, firms may try to maintain incentives for early retirement and reduce the scope of health insurance coverage for their retirees. A recent survey by Hewitt Associates (1997), using a constant sample of approximately 600 large firms, found that firms' health insurance coverage for retirees declined from 92 percent to 87 percent between 1991 and 1996. The proportion of firms requiring pre-65 retirees to pay a premium increased from 85 percent to 95 percent in the same period (72 percent to 88 percent for post-

65 retirees). Firms also have tightened the requirements to access postretirement health care coverage by imposing increases in age and service requirements.

Medicare and retiree health insurance affect the timing of retirement. The government provides health care insurance for the nonpoor elderly only after age 65, which is an incentive for workers whose employers provide health insurance to keep working until then, unless the firm offers health insurance to its retirees. If fewer firms offer health insurance to their retirees, then more workers will have an incentive to remain at work until age 65. Conversely, all things being equal, if firms offer retiree health insurance, employees will probably retire earlier. There is some empirical evidence to support this hypothesis. Madrian (1994) finds that retiree health insurance decreases retirement age by about one year; Gustman and Steinmeier (1994) find that the retirement age decreases by about four months.

The studies of the effect of Medicare on the timing of retirement are not very conclusive. Madrian and Beaulieu (1998) look at the effect Medicare eligibility has on time of retirement. Workers with postretirement health coverage from their employer should be unaffected by Medicare eligibility, as should workers with no health insurance at all. However, those who are covered by employer health insurance only until retirement should have an incentive to postpone retirement until age 65. The authors compare retirement behavior of individuals whose spouses are eligible for Medicare (i.e., who are at least 65 years old) with that of individuals whose spouses are not eligible for Medicare. The latter group should be more concerned about losing employer-provided health insurance, because neither spouse would be covered by health insurance and thus should be more likely to postpone retirement. They find that the group of men with Medicare-eligible wives has a higher probability of retirement.

Other studies about the effect of Medicare on retirement seem to contradict each other. Rust and Phelan (1997) find that individuals with employer-provided health insurance only until retirement are much less likely to retire than those who have other forms of insurance or no health insurance at all. This effect is smaller after age 65, when these individuals become eligible for Medicare. On the other hand, Lumsdaine, Stock, and Wise (1994) find that Medicare eligibility has little effect on retirement.

## CONCLUSIONS

The U.S. population structure in the future is going to look very different than it does today, as the proportion of elderly people increases. As the median age of the population increases, the median age of the labor force will, too. Any increases in the labor force to sustain future rates of economic growth will have to come in part from older workers. However, a number of barriers still exist to continued work beyond a certain age. Some of these barriers stem from public policies and are being reduced; for example, changes in Social Security rules are moving in that direction. Private firms' practices are also important in affecting the timing of older workers' retirement. The current structure of some private pension plans and the availability of retiree health care coverage provide strong incentives to retire early. These rules will have to be changed, but little is known about how firms are preparing to face the demographic shift, and research should be intensified in this area. Other issues—such as the effect of increased participation in defined contribution plans and the effect of Medicare eligibility on early retirement—need to be further explored, to help in designing policies to encourage people to continue working.

In evaluating policies to discourage early retirement, two factors deserve particular attention. The first factor involves the way private and public policies interact with each other. For example, having Medicare be the primary payer for health care for older workers will probably have a strong impact on both the government budget and the cost of employing older people. The second factor is the presence of efficiency/equity trade-offs in adopting certain policies. For example, discouraging retiree health insurance may decrease the incentive for early retirement, but it will also decrease the access to adequate health care for those workers who have to leave an employer before age 65, for whatever reason.

## ENDNOTES

<sup>1</sup>For more detailed labor supply projections, see Toder and Solanki (1999). They look at projected changes in labor supply between 1997 and 2040, using various assumptions to capture changes in labor force participation of women after the postwar period and changes in productivity of workers in various age groups.

<sup>2</sup>These projections are somewhat different from the ones the Social Security Administration (SSA) uses to predict the evolution of Social Security accounts. Compared with the Bureau of the Census, the SSA uses a lower net immigration assumption (600,000 instead of 820,000), a lower fertility rate (an average of 1.93 for the period 1995–2050 instead of 2.12), and a lower life expectancy (in 2050, life expectancy for men is assumed to be 77.5 and for women 82.9, while the Bureau of the Census projects 79.7 and 84.3, respectively). In addition, the baseline population is different. The SSA projections incorporate the population overseas, both civilian and military, which has no relevance when talking about incentives to early retirement in U.S. private firms. These factors combined result in lower SSA population and labor force growth rates than the ones projected in this report.

<sup>3</sup>Only 15 percent of full-time workers in small private establishments participated in defined benefit plans, while about 90 percent of full-time workers in state and local governments held a defined benefit plan.

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# T H E R E T I R E M E N T P R O J E C T

## **About the Author**

Daniel Dulitzky is a research associate with the Urban Institute's Executive Office Research Group, where his research focuses on the effect of private pensions on retirement, the effect of changes in Social Security on individual behavior, and Social Security reforms. He holds a Ph.D. in economics from the Massachusetts Institute of Technology.

## **The Retirement Project**

The Retirement Project is a multiyear research effort that will address how current and proposed retirement policies, demographic trends, and private sector practices affect the well-being of older individuals, the economy, and government budgets. The project is made possible by a generous grant from the Andrew W. Mellon Foundation.