

The number of companies offering health benefits to early retirees is declining, although reductions in the percentage of early retirees covered by health insurance have been only slight to date. In general, workers who will be covered by health insurance are more likely than other workers to retire before the age of 65, when they become eligible for Medicare. What effect that will have on claims under the Disability Insurance program is not yet clear.

Acknowledgments: An earlier version of this paper was presented at the symposium on *Disability, Health, and Retirement Age: Challenges for Social Security Policy*, cosponsored by the Social Security Administration and the National Academy of Social Insurance, Bethesda, Md., September 2000. The author thanks Virginia Reno for her comments.

*The author is with the Employee Benefit Research Institute.

The Erosion of Retiree Health Benefits and Retirement Behavior: Implications for the Disability Insurance Program

by Paul Fronstin*

Summary

The effects of retiree health insurance on the decision to retire have not been examined until recently. It is an area of increasing significance because of rising health care costs for retirees, the uncertain future of Medicare, and increased life expectancy. In general, studies suggest that individual retirement decisions are strongly responsive to the availability of retiree health insurance.

Early retiree benefits and retirement behavior are also important because they may affect the Social Security Disability Insurance (DI) program. It is not apparent that if a person loses retiree health benefits, or if fewer people are eligible for retiree health benefits in general, claims for DI will increase. The potential 2-year loss of health benefits may be a deterrent to leaving the labor force and claiming DI, although persons who are unable to work would leave the labor force even without health benefits.

In order to understand how the decline in retiree health benefits may affect enrollment in DI, analysts must at least incorporate the role of coverage under the Consolidated Omnibus Budget Reconciliation Act of 1985 (COBRA). That act provides many people with access to health insurance during the 2-

year gap between eligibility for DI and Medicare. In fact, persons with sufficient means to retire early could use the income from Disability Insurance to buy COBRA coverage during the first 2 years of DI coverage.

Determining the effect of the erosion of retiree health benefits on DI must account properly for the role of other factors that affect DI eligibility and participation. The financial incentives of Social Security, pension plans, retirement savings programs, health status, the availability of health insurance, and other factors influencing retirement decisions must be taken fully into account in order to isolate the precise effect of retiree health benefits.

Introduction

Retirement—defined here as complete withdrawal from the labor force—can best be defined as a process rather than as a single event (Quinn and Kozy 1996). The process generally begins with the termination of career employment and frequently includes periods of postcareer employment, part-time work, partial retirement, and temporary retirement (Ruhm 1991). Workers often use one or more transitional stages, or bridge jobs, between their career job and

retirement. One common transitional stage is movement from full-time to part-time work. For wage and salary workers, the move usually entails switching jobs, but it is sometimes accomplished by remaining in their current jobs on a part-time basis.

The process of retirement varies with individual preferences, predicted future earnings, pension accruals, Social Security benefits, health, and preferences for leisure. It may be made by weighing the combined benefits of the wages from continuing to work and the potential increase in future income from accruing greater pension benefits against the costs of forgoing the increased leisure of retirement and future pension accruals. To be realistic, the decision should account for risks, including uncertain future income, inflation, and premature death.

Health insurance coverage may also be a factor in the retirement decision. Employer-sponsored health insurance can represent a significant source of income security for early retirees because Medicare—the federal health insurance for retired persons—is not available to people under age 65 unless they are disabled. Although early retirees as a group are probably healthier than those age 65 or older, the risk of medical need increases with age. Early retirees without health insurance may be vulnerable to costly medical expenses. Individually purchased health insurance can be expensive, may restrict coverage for certain services, and may be unavailable for those with preexisting conditions who lack prior creditable health insurance coverage. Group health insurance through an employer is usually the most affordable source of health insurance coverage for early retirees.

This article examines the link between retiree health benefits and retirement behavior, recent trends in retiree health benefits, and implications for future Disability Insurance programs' claims.

Health Benefits' Influence on Early Retirement

A worker's decision to retire early is directly linked to the availability of retiree health insurance, a recent public opinion poll found (Employee Benefit Research Institute 1998).¹ In 1998, 74 percent of workers reported that they would not retire before becoming eligible for Medicare unless their employer provided retiree health benefits, and 47 percent of workers expected to receive such benefits. The same survey showed that 45 percent of workers planned to retire before age 65. Finally, 82 percent of the respondents believed they would need additional health insurance coverage beyond what is provided by the Medicare program.

The reason that health insurance availability influences the decision to retire is straightforward, as noted

by Madrian (1994). Almost 75 percent of wage and salary workers between the ages of 18 and 64 have employment-based health insurance coverage (Fronstin 1996). That insurance is portable into retirement only in the sense that some workers have the option of continuing their coverage under the Consolidated Omnibus Budget Reconciliation Act of 1985 (COBRA).² Without retiree health insurance, workers might not have access to coverage until age 65, when they become eligible for Medicare.³

While some workers would have access to retiree health insurance in other ways—through a spouse or in the private market—most would not.⁴ Purchasing health insurance in the private market may not be affordable, however. Employers that provide access to group health insurance are usually able to obtain lower premiums than individuals can because the insurance companies spread risk across larger groups of people and average administrative costs are lower.

In addition, the need for health insurance increases with age (Madrian 1994). Older individuals are more likely than younger people to be in fair or poor health, they are more likely to have been diagnosed with a serious health condition, and they spend a greater proportion of their family income on medical expenses. As a result, lack of health insurance during retirement could be an impediment to leaving the labor force before age 65.

Hurd and McGarry (1993) examined the retirement intentions of current workers, as opposed to retired workers' retrospective responses to various factors affecting their decision to retire. Specifically, they examined the effect that the availability of retiree health insurance would have on the probability that a full-time worker would continue full time beyond age 62. Using data from the 1992 Health and Retirement Study, Hurd and McGarry asked workers to rate on a scale of 0 to 100 what the chances were that they would be working full time at age 62 and at age 65. The study found that workers who have retiree health insurance that is at least partially funded by their employer are 18 percent to 24 percent less likely to be working full time beyond age 62 than workers without insurance.

In a study limited to men, Karoly and Rogowski (1994) found that the probability of retiring early would increase 50 percent, or approximately 9 percent, age points, among workers who had access to health insurance. They also found evidence that the availability of health insurance coverage in addition to employer-provided insurance increased the likelihood of early retirement. (The source of that insurance was usually the wife's employer.) The study suffers from a number of shortcomings that may have affected the

results, however. First, it imputes the availability of retiree health insurance on the basis of firm size, industry, and region. As a result, the effects of retiree health insurance may be overestimated because firm size and industry can be highly correlated with retirement decisions for reasons other than health insurance, such as pension plan provisions.

Second, the results may be overstated because the study does not take into account accumulated pension or Social Security wealth. Since it does not capture the influence of defined benefit plans, which may contain strong economic incentives to retire early, the apparent effect of retiree health insurance may actually represent the combined effect of retiree health benefits and pension benefits.⁵ Third, the study is not able to control for union status. Union members are typically eligible for additional retirement benefits from age 60 or age 62 until they reach full Social Security eligibility.

Madrian (1994) found that individuals with retiree health insurance retired between 5 and 16 months earlier than those without such insurance, with most retiring about a year earlier. The probability of retiring before age 65 was between 7 and 15 percentage points higher for workers with retiree health insurance. This study, however, also suffers from a number of shortcomings. It attempts to control for participation in a pension plan, but the results are inconclusive. Moreover, some of the retirees in the sample had been retired for as many as 15 years and had to remember their health insurance and pension status at the time of retirement. As a result, the study must infer that what individuals refer to as private health insurance through a former employer is in fact retiree health insurance. In addition, the data include pension and Social Security wealth, but it is not clear how those data were used in the analysis.

Gustman and Steinmeier (1994) used a life-cycle model of retirement that incorporates the value of retiree health benefits and includes information on pension accruals. They found that employment-based health benefits lowered men's retirement age by approximately 1.3 months. As the authors point out, their life-cycle approach may tend to underestimate the effect of retiree health insurance on withdrawal from the labor force.

Gruber and Madrian (1995) took a different approach to the decision to retire. They examined the effect of state and federal mandates to continue insurance coverage.⁶ Those mandates enable individuals to continue purchasing health insurance through a previous employer at group rates. While that coverage is technically not considered retiree health insurance, the implicit group rate subsidy may enable individuals to continue health insurance coverage after retiring, in effect encouraging early retirement, especially if they do not qualify for Medicare benefits.

Their study found that the probability of retiring increases 32 percent (2.2 percentage points) for each additional year of continuation of coverage.⁷ However, the study may have overestimated the effects if individuals are using continuation-of-coverage benefits as a bridge to future employment rather than as a bridge to Medicare eligibility. In fact, the study finds that approximately 16 percent of the retirement effect is accounted for by job changes.

Like Gustman and Steinmeier (1994), Lumsdaine, Stock, and Wise (1994) used longitudinal data from a single firm in a model developed originally to estimate the impact of Social Security and pension plans on retirement behavior. They found that retiree health benefits had no impact on retirement behavior. Rust and Phelan (1997) argued that there are serious shortcomings in that approach. Using data from the Retirement History Survey, they found a substantial effect: Men aged 60 to 61 with retiree health insurance were up to 10 percentage points more likely to retire than men without such insurance.

Blau and Gilleske (1997) were the first to use longitudinal data on a nationally representative sample of older Americans to estimate the impact of retiree health benefits on retirement behavior. Specifically, they used waves 1 and 2 of the Health and Retirement Study (HRS) to examine the rate at which men between the ages of 51 and 62 enter and leave the labor force and switch jobs. In general, they found much larger effects than previous research did. The availability of retiree health benefits increased the rate of retirement by 2 percentage points per year when retirees were required to contribute to the cost of coverage and 6 percentage points per year when they were not, an increase of between 26 percent and 80 percent in the retirement probability. In addition, the study found that the rate of retirement increased with age.

Rogowski and Karoly (2000) built upon the work of Blau and Gilleske by using three waves from the HRS to examine the effects of retiree health benefits on retirement behavior. They found that workers with access to retiree health benefits were 68 percent more likely to retire than their counterparts who would lose insurance coverage upon retirement.

Trends in Retiree Health Benefits

Retiree health benefits were originally offered in the late 1940s and the 1950s, when business was booming as a result of economic expansion and there were very few retirees in relation to the number of active workers. The benefits emerged as part of collective bargaining agreements, and employers were willing to

provide them because the cost was such a small proportion of total compensation.

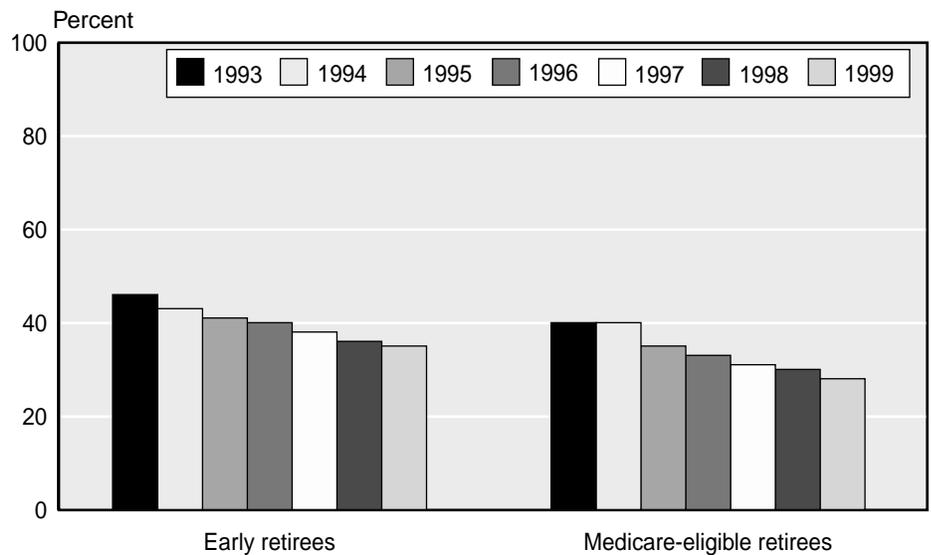
With the enactment of Medicare in 1965, the employer's obligation became even less significant, and costs declined even further because employers were able to integrate their retiree health benefit programs with Medicare. The resulting liabilities were not substantial, and the financing of those benefits was of no concern. In more recent years, however, the changing demographics of the workforce, coupled with increasing life spans and rising health care costs, have left many employers with higher ratios of retirees to active workers and have caused employers' retirement liabilities to grow.

In December 1990, the Financial Accounting Standards Board (FASB) approved Financial Accounting Standards Statement No. 106 (FAS 106), *Employers' Accounting for Postretirement Benefits Other Than Pensions*. FAS 106 dramatically changed the way most private companies accounted for their retiree health benefits. It required companies to record unfunded retiree health benefit liabilities on their financial statements in order to comply with generally accepted accounting standards, beginning with fiscal years after December 15, 1992. The new listing of liabilities far exceeded the costs that had appeared before FAS 106 and was unappealing to many companies.

As a result, many employers began a major overhaul of their retiree health benefits program. Some dropped them completely. An annual survey of employers with 500 or more workers shows that the percentage offering health benefits to early retirees declined from 46 percent in 1993 to 35 percent in 1999 (see Chart 1). In addition, a survey of employers with (mostly) 1,000 or more workers shows that the percentage offering health benefits to early retirees declined from 88 percent in 1991 to 76 percent in 1998 (Chart 2). The

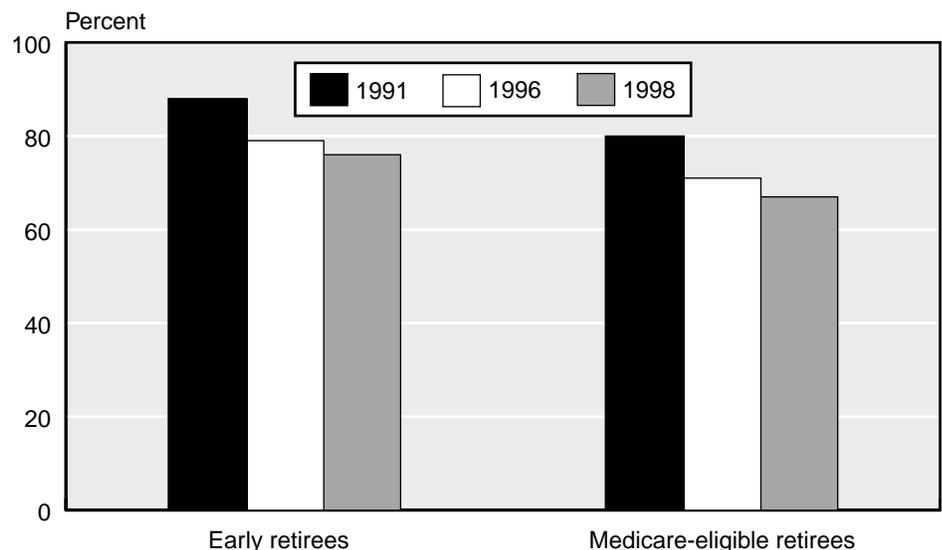
higher rate at which retiree health benefits are offered in Chart 2 can be accounted for by the fact that larger firms are more likely to offer retiree health benefits. In fact, the "drop" rate is lower among employers with 1,000 or more employees than among the sample with 500 or more employees.

Chart 1.
Provision of retiree health benefits by employers with 500 or more employees, 1993-1999



SOURCE: William M. Mercer, Inc. (1999).

Chart 2.
Provision of retiree health benefits by employers with 1,000 or more employees, 1991, 1996, and 1998



SOURCE: McArdle and others (1999).

The data presented in Charts 1 and 2 should not be construed as suggesting that employers are dropping retiree health benefits. When cross-sections of employers are studied over time, it appears that employers are dropping retiree health benefits, whereas in fact the percentage of employers offering them is declining. New large employers most likely never offered retiree health benefits in the first place. Thus, cross-sections are not examining employer behavior over time as much as they are providing snapshots of the availability of retiree health benefits.

An analysis of a constant sample of employers (McArdle and others 1999) shows a decline in the availability of retiree health benefits, but the decline was not as large as that portrayed in Chart 2. Although employers are not necessarily dropping retiree health benefits, fewer workers will have them available when they retire because the workforce appears to be moving away from firms that offer benefits to firms that do not.

Employers that continue to offer retiree health benefits have made changes in the benefit package to reduce their liability. The most common change has been in cost-sharing provisions, with employers asking retirees to pick up a greater share of the cost of coverage. In 1999, 42 percent of employers that had 500 or more workers and offered retiree health benefits required their retirees to pay 100 percent of the premium for coverage, up from 31 percent of employers in 1997 (see Chart 3).

While there is no doubt that fewer employers offer retiree health benefits today and that the percentage of employers offering coverage continues to decline, it is not

clear that fewer retirees are covered by health insurance. According to data from the Current Population Survey (CPS), the percentage of early retirees covered may have increased slightly between 1994 and 1999.⁸ Overall, there have been no statistically significant changes in sources of health insurance coverage for early retirees since 1994 (see Chart 4). In addition, the likelihood of their being uninsured is statistically unchanged since 1994. (The data for Chart 4 are given in Appendix Table 1.)

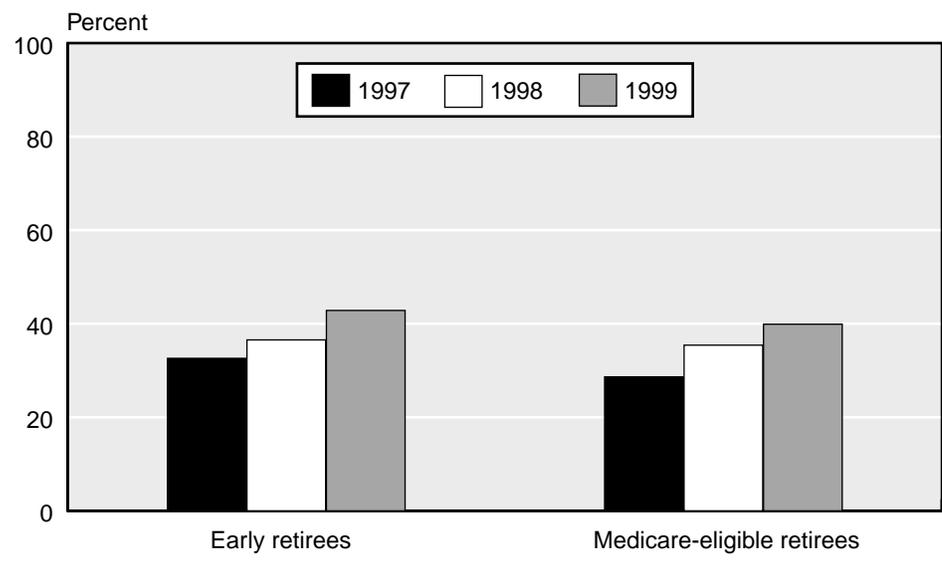
Since some persons in the CPS who report their main activity as “ill or disabled” may in fact be retired, trends in coverage for the those persons are also presented in Chart 4. Overall, there is no significant change in insurance coverage for the ill or disabled between 1994 and 1999. The percentage of uninsured dropped, mainly because more ill or disabled persons were being covered by Medicare. Specifically, between 1994 and 1998, the percentage of ill or disabled persons aged 55 to 64 with Medicare increased from 43 percent to 49 percent, then dropped to 47 percent in 1999 (Fronstin 1996).

The apparent inconsistency between fewer employers offering retiree health benefits and workers not necessarily losing retiree health benefits can be explained, in part, by recent changes in the labor force. Contrary to popular belief, the percentage of workers employed by small firms has not been rising. In fact, it may be declining. According to the data in Chart 5, the percentage of workers employed by firms with 1,000 or more workers increased from 38.3 percent in 1994 to 39.6 percent in 1999. It is true that small employers are creating jobs and

that large employers have downsized, but when small employers create jobs, they often become large employers and thus are able to add employee benefits to their compensation packages. On the other hand, when large firms downsize, they often remain large firms. So while fewer employers are offering retiree health benefits, the decline may be offset by the movement of workers from small firms to large firms.⁹

Ultimately, it may be a few more years before we truly understand how workers and retirees will be affected by cutbacks in retiree health benefits. Many workers may never qualify for retiree health benefits because their employers offer them only to workers hired before a specific date.

Chart 3.
Employers with 500 or more employees requiring retiree to pay full cost of coverage, 1997-1999



SOURCE: William M. Mercer, Inc. (1999).

Implications for Disability Claims

The connection between retiree health benefits and the Social Security Disability Insurance (DI) program is a complicated one. Retiree health benefits provide insurance specifically for health care expenses, while DI is an income insurance program, though not a means-tested one. After qualifying for DI, a person must wait 2 years before being eligible for health care benefits under

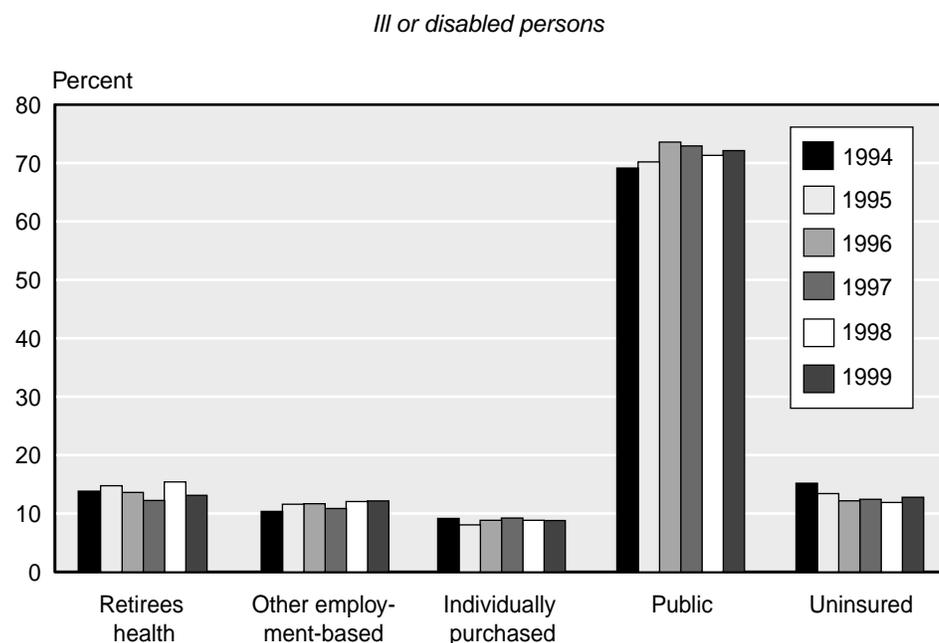
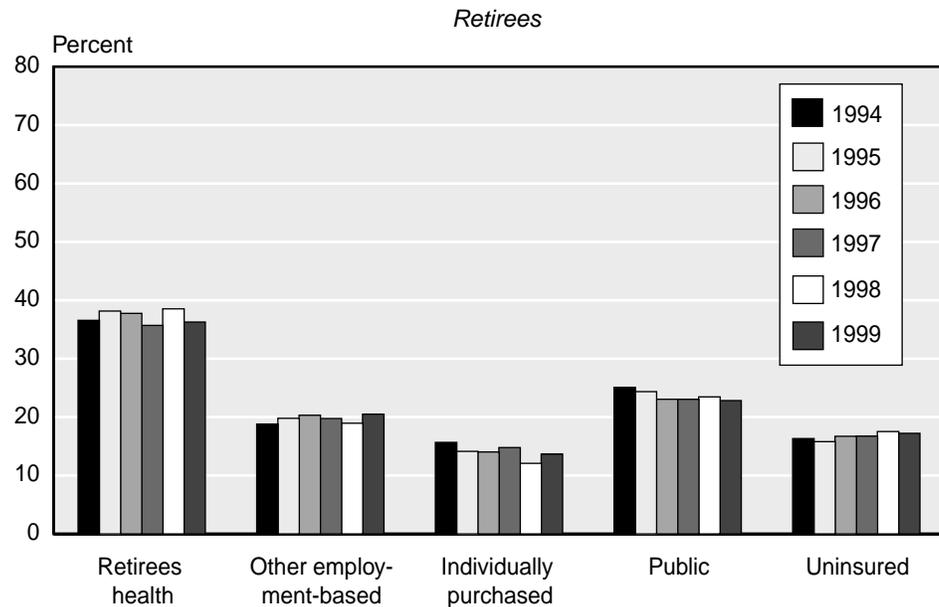
Medicare. As a result, it is not apparent that if a person loses retiree health benefits, or if fewer people are eligible for retiree health benefits in general, claims for DI will increase. The potential 2-year loss of health benefits may be a deterrent to leaving the labor force and claiming DI, though persons who were unable to work would leave the labor force even without health benefits. In order to understand how the decline in retiree health

benefits may affect enrollment in DI, analysts must at least incorporate the role of COBRA coverage.

As mentioned above, COBRA requires employers with health insurance plans to offer continued access to qualified beneficiaries for up to 18 months after a covered employee terminates employment. So a person who was not eligible for retiree health benefits but did qualify for DI would probably be able to get COBRA coverage for at least 18 of the 24 months before becoming eligible for Medicare. What many people do not know is that disabled persons are eligible to continue COBRA coverage for 29 months, essentially providing coverage for the entire gap between retirement and Medicare eligibility.

The coverage offered under COBRA must be identical to that available before the change in the worker's employment status. The qualifying retiree may be required to pay up to 102 percent of the premium, however. A recent survey found that annual premiums for employee-only coverage were over \$2,400 and for family coverage were over \$6,300, or \$202 and \$529 monthly (Gabel and others 2000). Disabled beneficiaries may be required to pay up to 150 percent of the premium for months 19 through 29. Based on the figures above, that would amount to \$303 per month for employee-only coverage and \$794 per month for family coverage.¹⁰

Chart 4.
Source of health insurance coverage for retirees and ill or disabled persons aged 55 to 64, 1994-1998



SOURCE: Author's estimates from the March Current Population Survey, 1995-2000.

Group health plans for public and private employers with fewer than 20 employees are excluded from COBRA provisions, as are plans offered by churches (as defined in section 414(e) of the Internal Revenue Code), the District of Columbia, or any territory, possession, or agency of the United States. While many states had already passed continuation-of-coverage laws before enactment of COBRA, those statutes generally extend coverage for 3 to 6 months.¹¹

Since DI is income insurance and is not means-tested, people with sufficient means to retire early could use the income from DI to buy COBRA coverage during the first 2 years of DI coverage. To predict the magnitude of the effect that this possible scenario would have on DI, one needs to know whether DI income is sufficient to pay for COBRA (especially for months 19 through 29, when coverage can cost 150 percent of the premium) and how many disabled workers have sufficient assets or income to cover their remaining living expenses.

Conclusions

Predicting the effect of the expected future erosion of retiree health benefits on the DI program is a complicated task. First, people in the United States are living longer and healthier lives. The percentage of the population between ages 50 and 64 reporting difficulty seeing, lifting, climbing, and walking declined markedly between 1984 and 1993 and is expected to continue declining (Freedman and Martin 1998). An increase in the health

status of the population will result in fewer claims being made against the DI program.

Second, the effect may not be pronounced for many years. So far, the erosion of retiree health benefits does not appear to have affected health insurance coverage for early retirees. Furthermore, it is difficult to predict the future of retiree health benefits. With the deemphasis of defined benefit pension plans in favor of defined contribution plans, employers have essentially lost a vehicle for managing the retirement of their workers. Without health benefits, workers will have no incentive to retire early.

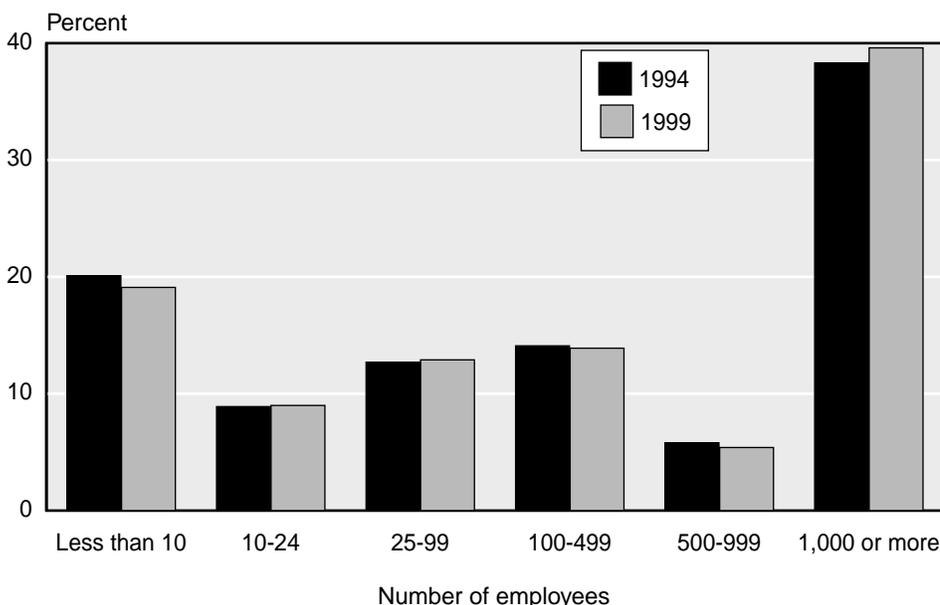
Currently, this is not a problem because the tight labor market has employers providing incentives to workers to remain in the labor force. However, if the economy softens, employers will struggle with whether they should reduce retiree health benefits to control costs or keep them as an incentive to get workers to retire. In a recession, it is likely that employers would cut back on retiree health benefits because they would not need incentives to get workers to retire—employers could simply lay off at least some workers. Ultimately, rising health care costs, the availability of retiree health benefits for recent hires, the future of the economy, and future public policy changes may all contribute to an increasing pace of erosion in retiree health benefits.¹²

Third, an interesting question arises concerning the effect that lack of health insurance may have on disability claims. If individuals ineligible for retiree health benefits are unable to get health insurance coverage, they

may delay treatment for needed care and may eventually become disabled and qualify for the DI program. Diabetes, a disease that affects mainly older persons, is an example of that sequence. Persons with untreated diabetes are at high risk of blindness and other side effects, such as limb amputation. While individuals with diabetes can often treat the disease by managing their diet, health insurance is usually the vehicle by which they obtain information on how to do so. Lack of access to health care for persons with diabetes often results in lack of knowledge and lack of treatment and in turn may result in increased eligibility for DI.

Finally, determining how the erosion of retiree health benefits affects DI must account for other factors that affect DI eligibility and participation.

Chart 5.
Distribution of workers by firm size, 1994-1999



SOURCE: Author's estimates from the March Current Population Survey, 1995-2000.

Notes

¹ Most of the research in this section that was published before 1997 was reviewed in Fronstin (1997).

² COBRA requires employers with health insurance plans to offer qualified beneficiaries continued access to group health insurance for up to 18 months after a covered employee terminates employment. COBRA does not apply to firms with fewer than 20 workers.

³ Some individuals may have access to health insurance coverage through a spouse; hence, married and nonmarried individuals will face a different set of choices in determining whether to retire early.

⁴ Previous research has found that 34 percent of workers age 45 or older worked for an employer that sponsored retiree health insurance either throughout their retirement (29 percent) or only until age 65 (5 percent). While 15 percent reported that retiree health insurance was unavailable, 21 percent did not respond to the question or did not know the answer; 30 percent did not have access to health insurance through their employer (Yakoboski and others 1994). If one assumes that the 21 percent who did not know the answer or did not respond to the question do not have access to retiree health insurance, then 66 percent of workers age 45 or older do not have access to retiree health insurance.

⁵ The study does attempt to control for the effects of pension eligibility, but its efforts are limited by the fact that data on pension eligibility are missing for 26 percent of the sample.

⁶ Because COBRA does not apply to employers with 20 or fewer workers, a number of states have enacted COBRA-like continuation-of-coverage mandates that apply only to the small group market.

⁷ The authors limited their sample to men between the ages of 55 and 64. Individuals were defined as being retired if they reported being retired at the time of the survey (March) and if they had worked at least 1 week during the previous year. By that definition, almost 7 percent of the sample was retired.

⁸ The change in the likelihood of being covered by retiree health benefits was not statistically significant; furthermore, the survey does not allow researchers to distinguish between retiree health benefits and COBRA coverage.

⁹ The seemingly inconsistent trends may also be due to more retirees accepting COBRA coverage. It is impossible to distinguish between COBRA coverage and retiree health benefits in the March CPS.

¹⁰ Employers typically spend \$5,470 per year to provide health benefits to a retiree who is not yet eligible for Medicare (William M. Mercer 2000). That figure is an average of the employee-only cost and the family cost, as separate estimates are not available. Employers typically spend more on health benefits for retirees than for active workers because the average retired population uses more health care services than the average active-worker population.

¹¹ See Fronstin (1998) for a list of the states with COBRA-like continuation-of-coverage laws and the length of time coverage must continue.

¹² A recent ruling by the Third U.S. Circuit Court of Appeals may have a strong impact on the future of retiree health benefits. The court ruled that the Age Discrimination in Employment Act (ADEA) applies to both active workers and retirees. As a result, a large number of employers may be in violation of the law if they provide different benefits for Medicare-eligible retirees than they do for early retirees. That is often the case in a retiree health benefits program because benefits for Medicare-eligible retirees are usually integrated with Medicare, making the value of the benefit lower for those retirees than for early retirees. Since the value of the benefit is defined by a retiree's age, the plan would be in violation of the ADEA. If Congress does not act to clarify the distinction between active workers and retirees in the ADEA, employers may respond by cutting benefits for early retirees or by eliminating their programs completely.

References

- Blau, D.M., and D.B. Gilleske. 1997. *Retiree Health Insurance and the Labor Force Behavior of Older Men in the 1990s*. NBER Working Paper 5948, Cambridge, Mass.: National Bureau of Economic Research.
- Employee Benefit Research Institute. 1998. *Findings from the EBRI/MGA Health Confidence Survey, Wave I—1998*. Washington, D.C.: Employee Benefit Research Institute.
- Freedman, V.A., and L.G. Martin. 1998. "Understanding Trends in Functional Limitations Among Older Americans." *American Journal of Public Health* 88(10):1457-1462.
- Fronstin, P. 1998. "Portability of Health Insurance: COBRA Expansions and Job Mobility." *EBRI Issue Brief No. 194*, Washington, D.C.: Employee Benefit Research Institute.
- _____. 1997. "Employee Benefits, Retirement Patterns, and Implications for Increased Work Life." *EBRI Issue Brief No. 184*, Washington, D.C.: Employee Benefit Research Institute.
- _____. 1996. "Sources of Coverage and Characteristics of the Uninsured: Analysis of the March 1996 Current Population Survey." *EBRI Issue Brief No. 179*, Washington, D.C.: Employee Benefit Research Institute.
- Gabel, J.; L. Levitt; J. Pickreign; H. Whitmore; E. Holve; S. Hawkins; and N. Miller. 2000. "Job-Based Health Insurance in 2000: Premiums Rise Sharply While Coverage Grows." *Health Affairs* 19(3):144-151.
- Gruber, J., and B.C. Madrian. 1995. "Health-Insurance Availability and the Retirement Decision." *American Economic Review* 85(4):938-948.
- Gustman, A.L., and T.L. Steinmeier. 1994. "Employer-Provided Health Insurance and Retirement Behavior." *Industrial and Labor Relations Review* 48(1):124-140.
- Hurd, M., and K. McGarry. 1993. *The Relationship Between Job Characteristics and Retirement*. NBER Working Paper No. 4558, Cambridge, Mass.: National Bureau of Economic Research.

- Karoly, L.A., and J.A. Rogowski. 1994. "The Effect of Access to Post-Retirement Health Insurance on the Decision to Retire Early." *Industrial and Labor Relations Review* 48(1):103-123.
- Lumsdaine, R.L.; J.H. Stock; and D.A. Wise. 1994. "Pension Plan Provisions and Retirement: Men and Women, Medicare, and Models." In *Studies in the Economics of Aging*, edited by D.A. Wise. Chicago, Ill.: University of Chicago Press.
- Madrian, B.C. 1994. "The Effect of Health Insurance on Retirement." *Brookings Papers on Economic Activity* 1, pp. 181-252.
- McArdle, F.; S. Coppock; D. Yamamoto; and A. Zebrak. 1999. "Retiree Health Coverage: Recent Trends and Employer Perspectives on Future Benefits." Paper prepared for the Henry J. Kaiser Family Foundation, Menlo Park, Calif.
- Quinn, J.F., and Kozy, M. 1996. "The Role of Bridge Jobs in the Retirement Transition: Gender, Race, and Ethnicity." *The Gerontologist* 36(3):363-372.
- Rogowski, J., and L. Karoly. 2000. "Health Insurance and Retirement Behavior: Evidence from the Health and Retirement Survey." *Journal of Health Economics* 19(4):529-539.
- Ruhm, C.J. 1991. "The Work and Retirement Patterns of Older Americans." *EBRI Issue Brief No. 121*, Washington, D.C.: Employee Benefit Research Institute.
- Rust, J., and C. Phelan. 1997. "How Social Security and Medicare Affect Retirement Behavior in a World of Incomplete Markets." *Econometrica* 65(4):781-831.
- William M. Mercer, Inc. 1999. *Mercer/Foster Higgins National Survey of Employer-Sponsored Health Plans 1999*. New York: William M. Mercer, Inc.
- _____. 2000. *Mercer/Foster Higgins National Survey of Employer-Sponsored Health Plans 2000*. New York: William M. Mercer, Inc.
- Yakoboski, P.; P. Fronstin; S. Snider; A. Reilly; D. Scheer; S. Boyce; and B. Custer. 1994. "Employment-Based Health Benefits: Analysis of the April 1993 Current Population Survey." *EBRI Special Report SR-24/Issue Brief No. 154*, Washington, D.C.: Employee Benefit Research Institute.

Appendix Table 1.

Source of health insurance coverage for retirees and ill or disabled persons aged 55 to 64, 1994-1998

	1994	1995	1996	1997	1998	1999
Retirees						
Retiree health	36.6	38.2	37.8	35.7	38.5	36.3
Other employment-based	18.8	19.8	20.3	19.8	19.0	20.5
Individually purchased	15.7	14.1	14.0	14.8	12.1	13.7
Public	25.1	24.4	23.1	23.0	23.5	22.8
Uninsured	16.3	15.8	16.7	16.7	17.5	17.2
Ill or disabled						
Retiree health	13.8	14.8	13.6	12.2	15.4	13.1
Other employment-based	10.4	11.6	11.7	10.9	12.0	12.2
Individually purchased	9.2	8.1	8.8	9.2	8.8	8.8
Public	69.1	70.2	73.6	72.9	71.3	72.1
Uninsured	15.2	13.4	12.2	12.4	11.9	12.8