The 1980s and 1990s were marked by two concurrent trends in employer-provided health insurance: a significant decrease in the fraction of workers receiving insurance through their employers and a sharp increase in the insurance premiums paid by workers. These trends and the possible link between them are explored in two new NBER studies. In “Employee Costs and the Decline in Health Insurance Coverage” (NBER Working Paper 9036), David Cutler finds that the fraction of non-elderly Americans receiving health insurance through employers fell from 71% in 1987 to 68% in 2000, despite a lengthy economic boom in the 1990s. Over this same time period, the fraction of the population that was uninsured rose by 3 percentage points, an increase of 7.2 million people.

Cutler notes that in order for a worker to have employment-based insurance, three things must happen: the worker must be employed by a firm that offers coverage, be eligible for coverage, and choose to take-up the coverage. Thus, changes in coverage can be explained by changes in the rate of offer, eligibility, or take-up over time. Figure 1 illustrates trends in these three factors for male full-time workers from 1988 to 2000. Interestingly, the share of firms offering insurance remained roughly constant at 80% over this period. The eligibility rate among these full-time workers was also relatively constant and quite high, at over 95%. By contrast, there was a significant drop in the fraction of workers electing to take-up coverage, from 94% to 90%. Cutler calculates that 79% of the decrease in insurance coverage for these workers is due to reduced take-up. For female workers, there was also a significant decrease in eligibility associated with shifting to
part-time work, so that for all workers, 61% of the decrease in employer-provided insurance between 1988 and 2000 is due to reduced take-up by workers.

A key question is why workers decline to take up benefits. Some workers may do so because they have access to insurance through a spouse. However, declining coverage is also common among those without access to other insurance – 20% of uninsured workers who are offered coverage decline it. When asked, over 60% of these workers list cost as the reason for declining coverage. In fact, employee premiums rose rapidly during this period. Between 1988 and 1993, the average annual employee premium for a family plan doubled from $814 to $1,656; this increase represents close to half of the total increase in the premium. Using data from several surveys of employers, Cutler estimates that each $10 increase in monthly employee premiums lowers the take-up rate by 0.4 percentage points. These results suggest that the increase in premiums from 1988 to 2000 can explain nearly all of the decrease in take-up of insurance coverage.

In “Why Did Employee Health Insurance Contributions Rise?” (NBER Working Paper 8878), Jonathan Gruber and Robin McKnight explore why the share of premiums paid by workers increased during this period. As Figure 2 illustrates, the fraction of workers receiving employer-provided insurance who paid no premiums fell from 44% to 28% between 1982 and 1998. This low figure is surprising — simple economic models suggest that workers should prefer to have firms to pay all premiums because the government subsidizes employer provision of insurance by exempting employer-paid premiums from income taxation, effectively lowering the price of health insurance if purchased by the firm. In this simple model, premium increases would be absorbed by the firm, with a corresponding decrease in wages, as workers understand that wages and insurance premiums are both part of the total compensation package.

The authors identify six reasons why employers might have shifted premium costs to employees and estimate the importance of each between 1982 and 1996 using the nationally-representative Current Population Survey. The first factor is increased managed care penetration. As managed care spread, firms began to offer multiple insurance plans; because the cost of the plans can vary significantly, firms may have increased the employee’s share of premiums to encourage employees to choose the low-cost option. The authors find that increased managed care penetration is associated with a lower probability that a firm pays all premiums, but the effect is not statistically significant. Next, the authors explore whether employees’ increased access to other insurance through a spouse’s employer or through Medicaid led firms to raise employee premiums to encourage them to switch. They find that a 10 percentage point increase in the share of the employee’s health spending that is Medicaid-eligible is associated with a 1.7 percentage point decrease in the probability the firm pays all premiums. Similarly, a 10 percentage point increase in the probability that the employee’s spouse works is associated with a 1 percentage point decrease in the probability the firm pays all premiums.

The authors also look at the effect of rising insurance premiums and cyclical downturns in the economy. If firms are unable to respond to these factors by decreasing wages (for example, because of contracts or workers’ reluctance to accept pay cuts), firms may decrease their share of insurance premiums instead. A 10 percentage point increase in the unemployment rate is associated with a roughly 1.5 percentage point decrease in probability the firm pays all premiums, while rising insurance costs are not found to be a significant factor. Finally, the authors investigate the effect of declining income tax rates, which reduce the subsidy to employer-provided insurance, and find that this is also associated with a decreased probability of the firm paying all premiums. Overall, the factors examined by the authors can explain about one-quarter of the rise in employee premiums over the 1982-1996 period.

David Cutler acknowledges research support from the National Institute on Aging and the Robert Wood Johnson Foundation. Jonathan Gruber acknowledges support from the National Institute on Aging and the Michigan Economic Research Initiative on the Uninsured. This research was summarized by Courtney Coile.
How to Increase 401(K) Saving

In their decisions about 401(k) saving, employees often “follow the path of least resistance.” This is the conclusion of James Choi, David Laibson, Brigitte Madrian and Andrew Metrick in a new NBER study entitled “Defined Contribution Pensions: Plan Rules, Participant Decisions, and the Path of Least Resistance” (NBER Working Paper 8655). Employees generally do whatever takes the least effort — generally doing nothing — a phenomenon these investigators call “passive decision-making.” For better or worse, 401(k) plan administrators can manipulate the path of least resistance — through automatic enrollment rules, default contribution rates, and other plan design features — to powerfully influence the savings and investment choices of their employees.

The findings also suggest the importance of 401(k) design decisions in insuring that employees save enough for their retirement. The study looks at the 401(k) investment decisions of about 200,000 employees at seven U.S. companies, most of which have made one or more changes to their 401(k) plans over time. The use of data from multiple companies over a period of years enables the investigators to compare saving decisions across companies with different plan design features, and to analyze how saving behavior changes in response to plan design changes.

One aspect of plan design explored in the study is whether or not there is automatic enrollment of new employees. The typical 401(k) plan requires an active election on the part of employees to initiate participation. A few plans have implemented automatic enrollment. Note that automatic enrollment does not require the participation of employees — it just makes participation the default decision. As illustrated in figure 1, automatic enrollment dramatically increases the percentage of workers who participate in the plans. Fewer employees enroll if they need to “do something” to participate, as compared with programs where they have to “do something” not to participate. The path of least resistance matters a lot.

Two related aspects of 401(k) plan design are the default contribution rate and the default investment allocation associated with automatic enrollment. If new employees “do nothing,” how much of their salary will be contributed automatically to the 401(k) plan, and how will it be invested (among stock funds, bond funds, company stock, and other investment options)? While employees always have the option of changing their contributions, these default provisions also have a very significant influence on what people do. A large proportion of automatically enrolled new employees accept both the default contribution rate and the default investment allocation associated with the plan. Figure 2 shows the percentage of new enrollees who chose to invest at the default contribution rate before and after it was implemented at three of the companies in the study. It is important to note that the defaults could raise or lower 401(k) contributions, depending on where the default rate is set. At these companies, the default was set quite low (two to three percent of salary), and so the contribution rates of new enrollees became lower after the defaults were implemented, even as many more new employees participated in the plans.

The asset allocation defaults are also important as they determine whether people’s 401(k) money will be invested in assets that are likely to appreciate a lot over the long-term (such as stock mutual funds), or assets with more modest (though more stable in the short-term) returns, or assets with unusual risk (such as company stock). In this case, too, employees tend to follow the default asset allocations associated with their plan.

A fourth aspect of plan design explored in the study is whether or not automatic distributions of 401(k) assets are made to employees who leave their jobs. Yet again, the path of least resistance dominates. Employees with cash balances below $5000 are often given automatic cash distributions when leaving their jobs; most of these employees consume this money, rather than rolling it into an IRA or another retirement plan. By contrast, employees with cash balances above $5000 rarely...
receive automatic distributions; most of these employees leave the money just where it is — accumulating in their 401(k) account. A fifth aspect of plan design is the rate at which employers match employee contributions, and the match threshold (the maximum amount of contributions that the employer matches). An employer match is found to increase 401(k) participation, and the match threshold is an important focal point in the selection of employee contribution rates. Increasing the match threshold can raise contribution rates, particularly among those with lower prior saving rates. This makes sense, since there are real and immediate losses to the employee from contributing below the match threshold. A final interesting aspect of the study is the role of financial education in the workplace, such as retirement planning seminars. The effect of these programs in altering saving intentions is found to be significant. However, their effect on actual saving is modest at best — and far smaller than the plan design characteristics already noted. Even after workplace education, and despite the best of intentions, “the path of least resistance” is still to do nothing. This contrasts with a program at one of the companies in the study that implemented a pre-commitment program in conjunction with workplace education. This program pre-commits employees to allocate a portion of future raises toward higher 401(k) contributions. With the pre-commitment in place, the good intentions of the employee became the default, and increases in saving did occur. It is clear from these findings that companies can do quite a lot more to promote retirement saving than just implement a 401(k) plan, and counting on employees to take it from there. Plan design decisions like automatic enrollment, higher default contribution rates, default investment allocations with higher expected long-run returns, and pre-commitment mechanisms to increase future contributions can have a huge influence.

The research was funded by the National Institute on Aging, the MacArthur Foundation, the Sloan Foundation, and a National Science Foundation Graduate Research Fellowship. It was summarized by Richard Woodbury.

The Changing Character and Dramatic Growth of Retirement Saving in the United States

A new NBER study by James Poterba, Steven Venti and David Wise, “The Transition to Personal Accounts and Increasing Retirement Wealth: Macro and Micro Evidence” (NBER Working Paper 8610) analyzes contributions made over 25 years to traditional pension plans and to retirement saving programs, such as IRAs and 401(k) plans. The study finds a major transition over this period from traditional pensions toward individually-controlled retirement accounts, and a dramatic increase in retirement saving overall. Between 1975 and 1999, the total value of assets set aside to support retirement increased from $400 billion to over $12 trillion, as illustrated in Figure 1. To put this in perspective, $12 trillion is equal to about $350,000 for every American over age 65 today. It is equal to $45,000 for every person — from infant to centenarian — in the United States. And it is in addition to Social Security.

The study by Poterba, Venti and Wise points to a fundamental and ongoing transition in the economics of retirement. For past generations of retirees, the large majority of income support has come from Social Security and, for some, a traditional employer-provided pension benefit. Retirees typically owned...
homes, but few had enough financial assets to support even six months of their retirement. This is changing. The past two decades have seen the emergence of an entirely new component of retiree finances. The most widely known retirement saving programs are Individual Retirement Accounts (IRAs) and employer-sponsored 401(k) plans. Other retirement saving programs include 403(b) plans for employees in nonprofit and educational organizations, 457 plans for state and local employees, the Thrift Savings Plan for federal employees, and Keogh plans for self-employed workers.

While many types of retirement programs have had an important impact in increasing retirement saving, the employer-sponsored 401(k) plan has been the single most important source of growth. The number of active participants increased from essentially no participants in 1981 to nearly 40 million active participants in 1997. This is a sizable fraction of the entire U.S. labor force. Active participants in 401(k) plans make an average annual contribution to their plan of over $3000. Total annual contributions to 401(k) and other similar plans reached $176 Billion in 1999.

The study also explores whether the new retirement saving plans have in any way displaced traditional pension plans. The investigators find little if any displacement — probably less than 11 percent of the total plan contributions of 401(k) participants. The amount of new saving taking place in IRAs, 401(k) plans, and similar retirement accounts simply dwarfs any decline in traditional pension coverage. And for most workers who have had a traditional pension, their 401(k) plan is in addition to the pension.

While the focus of the study is to document the overall growth of retirement saving in the United States, the study also illustrates the potential impact of saving trends on individual workers who contribute to 401(k) plans, or similar plans, throughout their working careers. For example, a middle-income worker approaching retirement today might have earned a salary that grew from around $9,000 at age 25 to $22,000 at age 40 to $37,000 at age 55, and so on. If this person had contributed 9 percent of their earnings to a 401(k) plan beginning at age 25, they would have accumulated about $575,000 in retirement saving by age 65. This hypothetical example, the investigators suggest, will become the reality for an increasing number of retiring workers in the United States. Over time, more and more workers will reach retirement having made contributions to 401(k) plans throughout their working careers.

The research was funded by the National Institute on Aging and the National Science Foundation. It was summarized by Richard Woodbury.

**Pensions and Health in South Africa**

Many social and economic changes are associated with the end of the apartheid regime in South Africa. One such change was the dramatic increase in the public pension paid to African, Indian and Coloured elderly of that country. Over a very short period of time, the number of public pension recipients increased from 50,000 to over 1.5 million South Africans. And from the perspective of most families in South Africa, the pension represents a sizable amount of money. It is more than double the median Black income per capita. With the expansion of the pension system, there was — almost overnight — a truly dramatic change in the economic resources available to a very large number of South African households.

What was the effect of the expanded pension payments on the lives of older people in South Africa? And to what extent did the beneficial effects of the program extend beyond the immediate pension recipients to their children and grandchildren? A new NBER study by Anne Case, “Does Money Protect Health Status? Evidence from South African Pensions”
The National Bureau of Economic Research is a private nonprofit research organization founded in 1920 and devoted to objective quantitative analysis of the American economy. Its officers are:

- Martin Feldstein — President and Chief Executive Officer
- Susan Colligan — Vice President for Administration and Budget
- Michael H. Moskow — Chairman
- Elizabeth E. Bailey — Vice Chairman

Contributions to the National Bureau are tax deductible. Inquiries concerning the contributions may be addressed to Martin Feldstein, President, NBER, 1050 Massachusetts Avenue, Cambridge, MA 02138-5398.

The NBER Bulletin on Aging and Health summarizes selected Working Papers recently produced as part of the Bureau’s program of research. Working Papers are intended to make preliminary research results available to economists in the hope of encouraging discussion and suggestions for revision. The Bulletin is issued for similar informational purposes and to stimulate discussion of Working Papers before their final publication. Neither the Working Papers nor the Bulletin has been reviewed by the Board of Directors of the NBER.

The Bulletin is not copyrighted and may be reproduced freely with appropriate attribution of source. Please provide the NBER’s Public Information Department with copies of anything reproduced.

Individual copies of the NBER Working Papers summarized here (and others) are available free of charge to Corporate Associates. For all others, there is a charge of $5.00 per downloaded paper or $10.00 per hard copy paper. Outside of the United States, add $10.00 per order for postage and handling. Advance payment is required on all orders. To order, call the Publications Department at (617) 568-3900 or visit www.nber.org/papers. Please have the Working Paper Number(s) ready.

Subscriptions to the full NBER Working Paper series include all 500 or more papers published each year. Subscriptions are free to Corporate Associates. For others within the United States, the standard rate for a full subscription is $2200; for academic libraries and faculty members, $1275. Higher rates apply for foreign orders. The on-line standard rate for a full subscription is $1560 and the on-line academic rate is $630.

Partial Working Paper subscriptions, delineated by program, are also available. For further information, see our Web site, or please write: National Bureau of Economic Research, 1050 Massachusetts Avenue, Cambridge, MA 02138-5398.

Requests for Bulletin subscriptions, changes of address, and cancellations should be sent to Bulletin, NBER, 1050 Massachusetts Avenue, Cambridge, MA 02138-5398. Please include the current mailing label.