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Retirement Trends, Employer Pensions And Public Policy by Joseph F. Ouinn¹

To be effective, policy makers must try to anticipate future crises and develop plans to deal with them. In this paper, I would like to describe a potential crisis I see coming and make some suggestions about what we as a society might do about it. The potential crisis is the retirement of the baby boomers - people like me.

Few phenomena have presented a greater continuing challenge to America than the aging of my generation. We have been making waves since we arrived 30 to 45 years ago. In the 1950s, we created shortages of maternity beds and four-bedroom houses. In the 1960s, we forced massive investment in educational facilities as we moved through primary and secondary school, and painful contractions in the 1980s as we moved out. In the 1970s and 1980s, as we joined the labor force in great numbers, we tested the economy's ability to create jobs and maintain full employment. In the 90s, we are clogging promotional ladders, and early next century, we will contemplate leaving the labor force. The decisions we make about when and how to stop work will have major implications for the size and composition of the labor force, the financial well-being of public and private retirement plans (Social Security and employer pensions), as well as the personal well-being of the individuals involved.

In this paper, I will outline recent and projected aging and retirement trends in America. I will then discuss why people retire when they do, with an emphasis on the financial incentives that have been built into many of our public and private retirement systems. I will then turn to some recent research on the plans and preferences of older Americans. Are older Americans willing and able to work? If so, why are more not doing so? Finally, I will address the role of public policy, both past and future, in influencing these retirement trends.

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Another way to view this entire topic is as a case study in applied microeconomics. Economists believe that people respond to incentives, and the retirement literature provides an excellent case in point. To anticipate my findings, I will argue that many current retirement systems, public and private, contain strong retirement incentives - or, equivalently, work disincentives. These incentives are equivalent to dramatic pay cuts as people reach specific ages. This sounds illegal, and it would be if it were through the pay check. But it is not through the pay check, and it is not illegal. People respond to these financial incentives as economic theory and common sense would predict. Faced with a pay cut, many people leave their jobs and often leave the labor force as well. Since these incentives do affect behavior, society can change the behavior by changing the incentives, if that is what we decide we want to do.

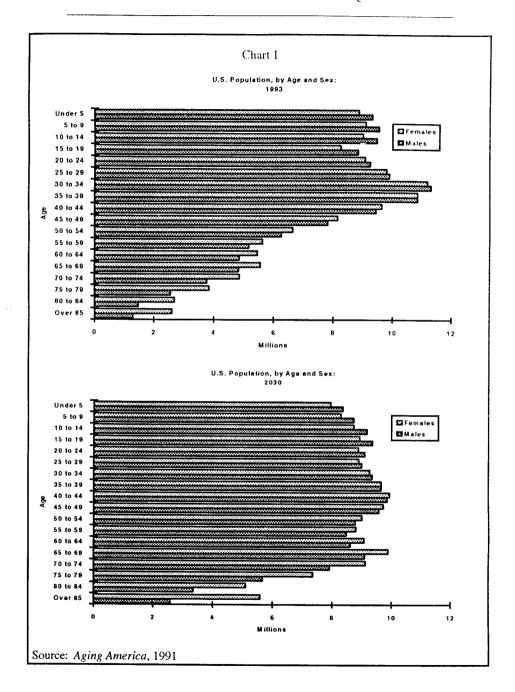
I. Demographic Trends

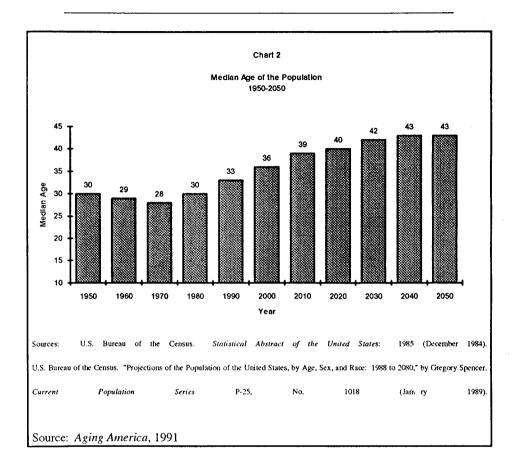
A. Aging Trends

America is aging, and the pace is about to increase dramatically. Today, there are about 32 million Americans aged 65 and older. This will double over the next 40 years. At the same time, the number aged 55 to 64 will increase by two-thirds. In stark contrast, the number under age 55 is projected to increase by only 1 percent. As a result, the percentage of the population aged 65 and over will rise significantly, from under 13 percent today to over 20 percent by the year 2030. One-third of all Americans will be aged 55 and over. The nation then will look like Florida today, which has about 18 percent of its population aged 65 and over. Given global warming, the nation then may also feel like Florida today, but that is a topic for another day.

These changes can be seen in Charts 1 and 2. The demographic profile is changing from a triangle today to a rectangle by the year 2030. Chart 1 provides an important insight into Social Security's recent funding crisis. Chain letters work well on triangles, but not on rectangles. In the past, there have been many workers for each retiree, meaning that the retiree benefits could be funded with only a modest burden on those contributing to the system. In the future, these ratios will change, necessitating increases in contributions and/or decreases in benefits. Recent legislation has done both.

The same demographic tale can be seen in Chart 2. The median age in America is on the rise. It was 28 in 1970 and is 33 today. It will rise to 39 in 20 years and to 42 by the year 2030. After that, there will be little change.





Analysts interested in retirement finance often emphasize the ratio of the number of prime working age individuals (aged 20-64) to the number of those of traditional retirement age (65+) -- in Chart 1, the number in the middle of the profile divided by the number in the top. That ratio is about 4.5 to 1 today, but will drop to 3 to 1 by 2030.

But even this may be a bit optimistic, since 65 is no longer the normal age of retirement. Not only is the triangle turning into a rectangle, but the line of demarcation between those working and those not has been dropping as we will see. The ratio of those

contributing to Social Security to those receiving benefits is projected to decline from about 3.3 to 1 today to about 2 to 1 by 2030. This is a very significant change in the demographic environment.

B. Labor Force Trends

In 1950, nearly half of all men aged 65 and over were in the labor force. Today, only 16 percent are. The proportion went from 1 in 2 to 1 in 6 in only 40 years. What used to be common is now the exception.

The trend toward earlier retirement can be seen in more detail in Charts 3, 4 and 5. Chart 3 shows labor force participation rates for men by 5 year cohorts (from 45-49 years old to 70+) from 1964 to the present. The rates for all 6 groups have declined. The largest absolute decline is for men 60-64; it dropped 25 points -- from about 80 to 55 percent. It is no coincidence that this age range contains some key years for Social Security and pension eligibility. The largest relative decline was for men aged 70 and over, whose participation rate dropped nearly in half over the past three decades.

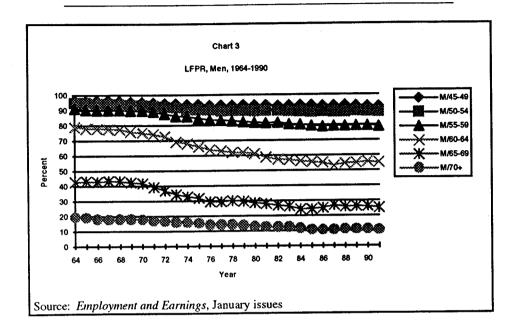


Chart 3 also suggests a leveling off of this long-term trends over the past 5 years. There has been virtually no change in these numbers since 1986. Is the early retirement trend over? I think so, although it is too early to say for sure.

Chart 4 shows even finer detail for men, by individual ages 60 through 65. As in Chart 3, the participation rates for all ages have declined, then held steady since the mid-1980s. In addition, the age of the largest labor force withdrawal has changed. Note that in 1964, at the left side of Chart 4, the largest gap occurred at age 65. Now, the largest gap is at age 62. There is still significant labor force withdrawal at 65, but much of the action has already occurred by then.

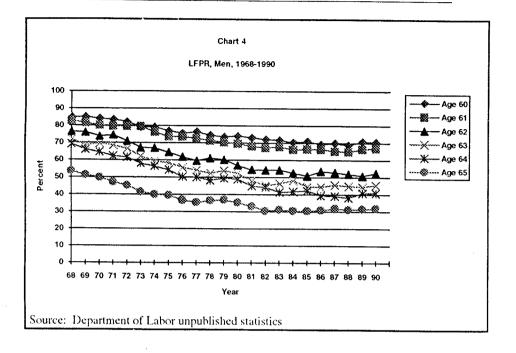
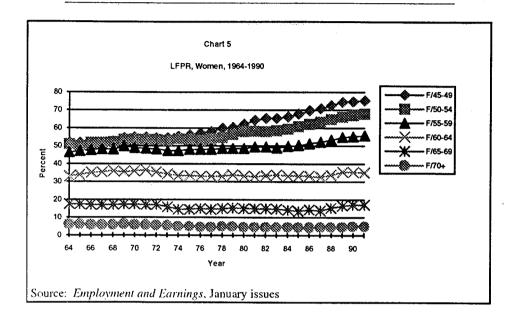
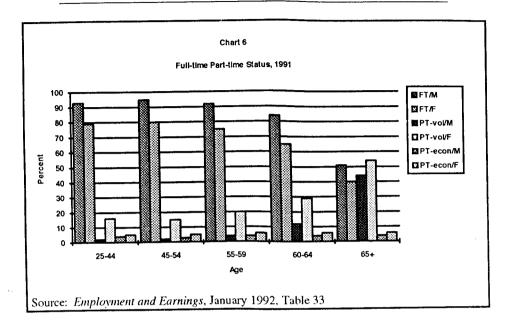


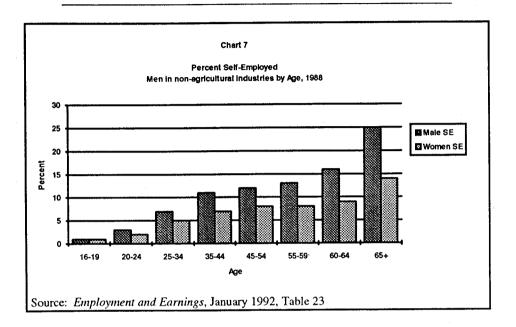
Chart 5 tells a very different story for women. There are two offsetting trends at work - people are retiring earlier but more women, especially married women, are working. For the three oldest groups (women aged 60 and over), the trends are essentially flat, suggesting that these two demographic phenomena have canceled each other out. For the three youngest groups (aged 45 to 59), however, participation rates are on the rise. For these, the working women phenomenon has dominated the retirement phenomenon.



Two other labor market observations are worth making. The first is the importance of part-time work among older Americans. Chart 6 shows that older workers are much more likely to be employed part-time than are younger ones. Currently, about half of all employed men and 60 percent of employed women aged 65 and over are working part time (fewer than 35 hours per week), compared to only 10 percent of younger men and 25 percent of younger women. As we will see, even more older Americans claim that they would like to be working part time. In addition, the importance of part time work among older workers is on the rise - it has increased by about 10 percentage points over the past 20 years.



Another interesting phenomenon is self-employment. As seen in Chart 7, this also increases with age. About a quarter of employed men and about 15 percent of employed women aged 65 and over are self-employed. This is about three times the proportion of younger workers. This occurs both because self-employed workers are less likely to retire at any given age than are wage and salary workers, and also because some wage and salary workers turn to self-employment late in life, partly for reasons that I will discuss below.



C. Patterns of Retirement

Much of the recent economic research on retirement has focused on patterns of labor force withdrawal; that is, how many people disengage from their career occupations. The stereotypical retirement is an abrupt change from full time career work to full time retirement -- from the assembly line to the fishing line. Although this probably is still the modal behavior, a significant minority of older Americans do something other than leave the labor force when they leave full time status on their career job. Research that co-authors and I have done suggests that about a quarter of wage and salary workers do something else. Very few of these non-traditional retirees are able to work part time on their career jobs, so most find new jobs (some full time; some part time), often in new industries or occupations. These are called bridge jobs and are way stations along the road from a full time career position to complete labor force withdrawal.

Among the self-employed, about half take non-traditional routes. About a quarter move to part-time status on their same jobs -- something that wage and salary workers are not able to do. The other quarter find new jobs.

The bottom line is that exit routes of older Americans from work to retirement are already more varied than we once thought. Depending on future changes in pension incentives, discussed below, these non-traditional retirement routes may become even more prevalent in the future.

II. Retirement Determinants

The individual retirement decision is obviously a complex one. There are many reasons why a person may decide to leave the labor force, such as failing health, weariness with the job (especially if it is physically demanding), a layoff, the retirement of a spouse, subtle pressures to retire and make room for others or eligibility for retirement benefits. All these and more can be important in individual cases.

In this paper, I want to emphasize a factor that many know less about -- the financial incentives built into Social Security and many employer pension plans. These incentives can twist compensation patterns over time, subsidizing work at younger ages, thereby encouraging retirement. I will argue that Social Security and some defined benefit pension plans impose pay cuts on older workers, not via pay check, which would be illegal, but by a subtler though no less effective means. Many older workers respond exactly as one would expect -- they leave their career jobs. Some begin new careers, and many leave the labor force altogether.

Social Security and pensions are promises of future incomes. They are complicated promises, with many important dimensions such as the age of eligibility, the size of the annual benefit, what happens to that benefit if there is inflation after retirement, and what happens if the worker foregoes the benefit after eligibility and decides to continue work.

The best summary measure of one of these promises is the present discounted value of the expected income stream — its asset or wealth equivalent. This is nothing other than the stock of money today that could provide the promised income stream in the future. For example: in a world of five percent interest rates, at which one could lend or borrow, \$100,000 in cash is exactly the same as a stream of \$5,000 per year forever. One could turn the \$100,000 asset into the stream by putting it in a bank, where the interest payments would equal \$5,000 per year. Conversely, one could transform a \$5,000 stream into a \$100,000 asset by borrowing \$100,000, at five percent interest, and using the annual income to meet the interest payments. Every income stream has an asset equivalent, which is just the present discounted value of that stream.

This concept is essential for comparing different pension streams because it puts everything in constant dollars. Although it may be difficult to see which of two streams, with different amounts coming at different times, is worth more, it is not difficult to two stacks of money, both in today's dollars.

With this view of Social Security and pensions as assets in mind, consider someone currently eligible for retirement benefits, who is considering either retiring and claiming benefits now or working another year on the career job, and then claiming benefits. With respect to the pension or Social Security, the delay brings good news and bad news. The bad news is that the individual, by working another year for the firm, must forego the pension benefit; say \$8,000 for the year. The good news is that the future annual benefits, when claimed, are likely to be higher. Why?

For Social Security, they will increase for two reasons. Social Security benefits are based on one's average indexed monthly earnings, which tend to increase with an additional year of work. In addition, there is an actuarial adjustment to all future benefits -- a thank you from the Social Security Administration for claiming benefits for one fewer year. Between ages 62 and 65, the reward is about seven percent for each year of delay. (Most people know this number in reverse. They know that if one claims benefits at age 62 rather than age 65,

one receives only 80 percent of the "full" benefit. The 20 percent reduction is just three years times seven percent; actually, 6-2/3 percent.) After age 65, however, the adjustment drops to only four percent per year of delay.

For defined benefit pension plans, future annual benefits will rise following a year of additional work because they are usually based on some combination of years of service and highest (or final) carnings, both of which are likely to increase.

The pension or Social Security choice, therefore, is not as simple as a choice between \$8,000 and \$0 in retirement income that year. Rather, it is a choice between two streams of income, one which starts immediately and provides \$8,000 per year, and another with <u>higher</u> annual benefits, but not starting until later. Which of these streams is worth more?

It depends, which is always a safe answer in economics. In this case, it depends on whether the increments in the future are sufficient to offset the benefits foregone today. The way to find out is to compare present discounted values of the two streams.

Table 1 depicts three hypothetical scenarios. In the first (A), future benefits are unchanged by another year of work. In this case, the math is easy -- the present value of the stream of benefits will decline by precisely the benefits foregone during the year of work; in our example, by \$8,000. By working that additional year, the individual earns a paycheck (say \$30,000), but loses \$8,000 in pension wealth. Net compensation for that year of work is not \$30,000, despite what the IRS 1040 form says, but \$22,000 -- the \$30,000 gain minus the \$8,000 loss.

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Table 1 HYPOTHETICAL RETIREMENT BENEFITS OVER TIME				
нүротнепо	Year 1	(EMENI BENI Year 2		
SCENARIO A	rear r	I car b	rour o	2001
Retire Now	\$8,000	\$8,000	\$8,000	\$8,000
Work another year,	\$0	\$8,000	\$8,000	\$8,000
then retire		~ -,		
SCENARIO B				
Retire Now	\$8,000	\$8,000	\$8,000	\$8,000
Work another year,	\$0	\$8,100	\$8,100	\$8,100
then retire				
<u>SCENARIO C</u>				
Retire Now	\$8,000	\$8,000	\$8,000	\$8,000
Work another year,	\$0	\$10,100	\$10,100	\$10,100
then retire				

But this example is too simple, because future annual benefits will probably rise. But will they rise a little or a lot? If they rise substantially, as in Scenario C, then the present discounted value of the delayed stream may exceed that of the current stream -- the future increments exceed the initial benefits foregone. Suppose the present discounted value of the stream increased from \$85,000 to \$95,000. If so, by remaining on the job for another

year, the worker gains both a paycheck (\$30,000) and a \$10,000 increase in Social Security or pension wealth. True compensation is not \$30,000 but \$40,000.

But this can work the other way as well. In Scenario B, the increments are worth less than the benefits foregone. If the present discounted value decreases form \$85,000 to \$79,000, the worker has earned \$30,000 but lost \$6,000 in retirement income wealth. True pay is not \$30,000, as it was last year, before eligibility, but rather only \$24,000 -- a 20 percent pay cut. In fact, the decline is likely to be larger, since the previous year's work is added to future benefits, implying that last year's compensation was higher than the \$30,000 of traditional earnings.

An interesting question is which of these scenarios holds. A great deal of research, summarized in Quinn, Burkhauser and Myers (1990), suggests that Social Security and many defined benefit pensions are designed so that, at some point, Scenario B applies. Social Security and pension wealth often fall with continued work. For Social Security, this is certainly the case at 65, when the actuarial adjustment drops form seven percent to four percent per year of delay. For pensions, it is more difficult to generalize, since there are about 600,000 pensions in the U.S., each with its own rules and regulations. But research makes clear that, for many defined benefit plans, pension accruals (changes in the present discounted value of the promised income stream), decline at some point, usually after the age of earliest eligibility, and often turn negative. Future increments are insufficient to compensate for benefits foregone, and pension wealth declines with additional work.

The size of the loss can be substantial. Kotlikoff and Wise (1991) studied the details of almost 1,200 pension plans, and concluded that "...typical plan provisions provide a strong incentive for retirement after the age of normal retirement, and a large proportion of plans provide strong incentive for retirement after the age of early retirement...it would not be unusual for the reduction in pension benefit accrual after the age of early retirement to be equivalent to a 30 percent reduction in wage earnings."

Note that the argument is not that the individual is a net loser if he or she continues to work. The value of the paycheck is greater than the loss in retirement wealth; the \$30,000 gain exceeds the \$6,000 loss in our last example. The point is that true compensation (pay plus accrual) declines as people age, even as the paycheck continues to grow. The hypothetical worker who used to earn \$30,000 now earns \$24,000. One pocket is filled while the other is picked.

There is considerable research, also summarized in Quinn et al. (1990), that shows that financial penalties can be large, and that these incentives do affect retirement behavior. The size of the change in pension wealth is a statistically significant predictor of what people actually do. The higher the wealth loss, other things equal, the more likely an individual is to leave the labor force and retire. People behave as though they understand and respond to these incentives.

Although I hate to admit it. I can summarize much of this research with a very simple analogy. If I were offered \$10 per hour for all work done before noon, and \$7 per hour for all work after noon, what would I do? I would try to concentrate my working hours in the morning, and work less or not at all in the afternoon. To oversimplify a bit, this is what Social Security and some pensions do, except that noon is age 65 for Social Security, and often earlier for defined benefit pension plans. People respond as economic theory and common sense predict.

III. Plans and Preference of Older American Workers

The section above highlights what older Americans are doing, and emphasizes one of a large number of motivating factors for their retirement behavior -- economic incentives. In this section, I discuss what older Americans say they would like to be doing.

Surveys suggest that many older Americans would like to leave the labor force in a way other than what they have done (if retired) or expect to do (if still working). Some

retirees wish they were still employed. Some of those still on the job would like to work longer than they think they actually will.

In 1989, the Commonwealth Fund of New York sponsored a special Harris survey in which older Americans were asked about their work plans and preferences. For a substantial minority, the responses suggested preferences at variance with current status or plans. Of those already retired, nearly a quarter said that they wished they were still working and were capable of doing so. When this sample was narrowed by requiring that respondents also pass several specific labor market commitment tests, a substantial minority -- nearly 14 percent of those not employed -- claimed that they were willing and able to work.

Among those still employed, sizable minorities (10 percent of men and 13 percent of women) said that they expected that they would stop working before they really wanted to. What does this mean? If people want to keep working, why do they not just do so? Mandatory retirement provisions might once have explained this phenomenon, but they have been virtually eliminated. My hypothesis is that these people are really saying two things. Under the current terms and conditions of employment (e.g., the implicit pay cuts imposed by Social Security and some pension plans), the lack of hours flexibility, the unwillingness of employers to move older workers into less stressful or less demanding lines of work), the workers choose to retire. In that sense, the decision is voluntary. But they would prefer to continue working under different terms and conditions; for example if their pension wealth did not decline, if they could work part time or if they could be retrained for a less stressful occupation. Without these options, they leave the firm, and often the labor force as well.

IV. Policy Options

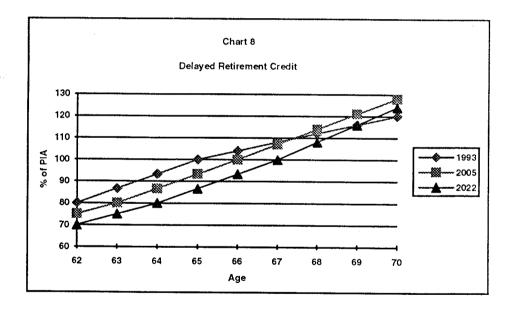
A. Looking Back

Many changes have already occurred or are underway that should extend the work life of many Americans. Mandatory retirement has been eliminated. It was first moved from age 65 to 70, and then outlawed for nearly all workers in 1986. Those who might have been are no longer constrained by such provisions. Research suggests, however, that the aggregate impact of this change will be small. The reason is that the financial incentives discussed above remain, and these often went into effect at precisely the same time (traditionally, at age 65) as did Social Security and sometimes pension plan retirement incentives. The carrot and the stick arrived simultaneously, and much of what looked like a mandatory retirement effect, because of the timing, was in fact due to the financial incentives that remain to this day.

Recent Social Security legislation (1983) is in the process of increasing the delayed retirement credit for continued work after age 65 from three to eight percent per year of delay. The first point has already gone into effect (the reward is currently four percent per year), and it will rise by one half point every other year until it reaches eight percent in the year 2010. This will be close to actuarially fair, implying that the two streams (claimed now or claimed later) will be worth about the same. The legislation will eliminate the Social Security "pay cut" discussed above.

In addition, the exempt amount that one can earn without losing any Social Security benefits now increases annually. During 1992, for example, beneficiaries aged 62 to 64 could earn \$7,400 (and those 65 to 69, \$10,200) before benefits declined. After that, benefits are reduced by \$1 for every \$2 of earnings for those aged 62 to 64, and, as of January 1990, by \$1 for every \$3 in earnings for those 65 to 69. At age 70 (it once was 72), the earnings test no longer applies, and one can have unlimited earnings and still draw full Social Security benefits.

Social Security amendments will also increase the age of eligibility for full benefits from the current 65 to age 66 (by the year 2005) and eventually to age 67 (by 2022). This is a clever way to describe an across-the-board benefit cut. As seen in Chart 8, shifts to the right (one must wait longer for the same amount) are the same as shifts down (one receives less at any given age). This, like the other changes just described, should encourage people to work longer. The research on the magnitude of these effects, however, suggests that the impacts will be modest; on the order of months, on average, not years.



Many researchers think that the impacts of pension incentives are more important than those of Social Security, and interesting changes are underway here, too. The growth of pension coverage is over. The percentage of working population covered by employer pensions has been virtually unchanged since 1975 at about 46 percent (about 53 percent of

the full time working population). Very recently, there is some evidence that it is actually on the decline.

In addition, an increasing percentage of pension coverage is in defined contribution plans, which do not have any of the work disincentive effects discussed above. Defined contribution plans are basically just savings accounts with tax advantages. Their values do not decline with additional work, as defined benefit "assets" often do. Between 1975 and 1987, the percentage of primary coverage that was in defined contribution plans increased from 13 to 32 percent. In addition, nearly all secondary coverage is defined contribution. In total, about two-thirds of all active participants are now in defined contribution plans. This suggests that pension incentives may be less important in the future than they are now.

B. A Look Ahead

What are the future policy options for the federal government and for employers? How can society encourage work, or at least not discourage it, among older Americans?

Concerning Social Security, the federal government, at minimum, should stick to the current plans, and allow the delayed retirement credit to increase from four percent per year of delay past age 65 to the eight percent legislated for the year 2010. This will make Social Security close to actuarially fair, on average, and eliminate the Social Security wealth loss that currently accompanies work beyond 65. This process could be accelerated by increasing the delayed retirement credit more quickly, or by eliminating the earnings test altogether, as is currently the case at age 70. The latter, however, is unlikely in the current fiscal environment.

Congress could also make Social Security benefits entirely taxable. At present, one half of benefits are taxed for individuals with income (adjusted gross income plus tax-free interest income plus one-half of Social Security benefits) in excess of \$25,000, and for couples exceeding \$32,000. Full taxation strikes me as reasonable, for current cohorts at least, since the present discounted value of their expected benefits significantly exceeds what

their and their employers' contributions would have equaled in alternative investments. This would change slightly the relative attractiveness of work and retirement, and might encourage some at the margin to stay longer in the labor force.

Health care costs are a major concern of employers, especially those considering hiring older workers. Older workers are more expensive to insure while working, and many firms continue health coverage after retirement. Medicare coverage begins at age 65 but a recent change in policy prevents those over 65 who are covered by employer health plans from using Medicare until their private coverage is exhausted. Reversal of this policy would make older works slightly less expensive than they now are, and would also increase Medicare expenditure -- also unlikely in the current environment.

The most important question, and the great unknown, is what will happen to employer pension incentives? Will firms with defined benefit plans, foreseeing the demographic shifts and possible labor shortages, go along with the Social Security trend, and reduce their work disincentives as well? Or, on the contrary, will they increase their retirement incentives to make up for the loss of mandatory retirement and the legislated decline in Social Security retirement incentives? Will firms change their internal rules and procedures to encourage part time work on the career job? Currently, very few wage and salary workers have this option.

Research has made clear what firms should do if they want to keep older workers on the job. First and foremost, they should change the financial options facing older Americans by neutralizing the current work disincentives. This can be done either by changing from defined benefit to defined contribution plans or by changing the benefit calculation rules so that pension wealth does not decline with additional time on the job. Firms can show more flexibility with respect to part time work. In the Commonwealth/Harris poll mentioned above, three times as many men and twice as many women said that they wanted part time work as had it. Some European nations have introduced partial pensions, creative programs in which older employees can combine part

time work and draw a portion of their pension. In Sweden, for example, eligible workers who drop to part time can have up to 65 percent of their earnings loss made up in partial pension benefits. This is a popular program, and analogous schemes exist in Norway, Denmark and Finland. Ironically, most of these plans were introduced to ease people out of the labor force -- to encourage them to work part time rather than full time. But the same tools can be used in the other direction, to induce people to work part time rather than not at all.

V. Summary and Conclusion

Many American workers face three choices as they age. They can remain working full time on their career jobs and eventually suffer surreptitious pay cuts via losses in their Social Security and/or employer pension wealth. Or they can move to a new job, often part time, and almost always at substantially lower pay. Or they can leave the labor force altogether.

Very few do the first; that is, remain on the career job when faced with financial incentives encouraging departure. A sizable minority (perhaps a quarter) do the second --switch jobs in order to claim a career pension when it is most advantageous or to work fewer or more flexible hours or to reduce job responsibilities. The majority leave the labor force.

In the future, however, because of dramatic demographic changes already underway, firms may well want to retain more older workers on the job. It is unrealistic to expect that many workers will do so if they face retirement systems that penalize those who do.

Most economists love to make predictions. We are "rarely right, but never in doubt." As Paul Samuelson has pointed out, we predicted nine of the past four recessions! In contrast to my colleagues, I have been humbled by experience. I have learned to predict either a number or a date, but never both. I am also a fan of J. P. Morgan's advice -- when asked what the stock market was going to do, he replied, "Fluctuate, my boy, fluctuate." I do

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not know whether there will be labor shortages in the future or not. It will depend, among other things, on the state of the macroeconomy, immigration policy and the willingness of younger people to work, all of which are difficult to predict. But what I do know from my reading of the research literature is that if want to keep older workers on the job, we know how to do it. Financial incentives influence behavior. This is true in the retirement realm as it is in so many others. Incentives are by no means the only factor, but they are very important, nonetheless.

I suspect that the business community will respond to the labor markets of the future as they have in the past. If shortages do develop and older workers could help meet the excess demand, then institutions and incentives will change. Instead of using these incentives to induce older workers out of the labor force, as they have so effectively in the past, employers will use the same creativity to encourage those at the margin to stay productive members of the labor force for a few more years.

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