LIVING LONGER, LIVING BETTER:
The Policy Challenge of an Aging Workforce

by

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Summary

The United States and other industrial nations face key challenges associated with a graying population. Depressed birth rates and rising longevity have increased the dependency ratio throughout the industrialized world. Population projections of the Social Security Trustees suggest the U.S. aged-dependency ratio -- the ratio of Americans older than 64 to Americans aged 20 to 64 -- will increase almost 70 percent between 2000 and 2030. The increase will be even larger in some other rich countries. As the American population grows older, the cost of paying for pension and health benefits must rise, boosting tax burdens and impairing the nation's ability to pay for other government obligations. The burden imposed by an aging population would rise more gradually if workers could be persuaded to delay their retirements and continue contributing to the health and pension systems.

Many people may be surprised to learn that the typical age at retirement is now increasing-slowly in the case of American men and more rapidly in the case of women. The trend toward earlier and earlier retirement was an important labor market development during most of the twentieth century. The trend was evident in all the major industrialized countries. In the United States, however, the trend toward earlier retirement came to at least a temporary halt in the mid-1980s. Male participation rates at older ages have stabilized or even increased slightly. Older women's participation rates are clearly rising. Several changes in the economic environment and in public policy contributed to the long-term decline in the U.S. retirement age as well as to the recent reversal.

The main cause of earlier retirement in the first 85 years of the twentieth century was the increase in Americans' wealth, which permitted workers to enjoy rising living standards even as they spent a growing percentage of their lives outside the paid work force. The expansion of Social Security pensions and of employer-sponsored pension plans and the introduction of mandatory retirement rules also encouraged earlier retirement over much of the last century.

Many public policies and private institutions that encouraged early retirement were modified in the past two decades, however. Mandatory retirement has been outlawed in most jobs. Social Security is no longer growing more generous. Worker coverage under company pension plans has stopped rising. Both Social Security and many private pensions have become more "age neutral" with respect to retirement. Public and private pension programs now provide weaker financial incentives for workers to retire at particular ages, such as age 62 or age 65. They offer stronger incentives for older workers to remain in the work force. Other public policies could encourage later retirement. An open question is whether such policies are needed. Rising labor productivity and increased work effort during the pre-retirement years mean that Americans can continue to enjoy higher living standards, even as improved longevity adds to the number of years that workers spend in retirement. If opinion polls are to be believed, most Americans favor protecting the institutions that allow early retirement even if it means these institutions will require heavier contributions from active workers.

Retirement trends

At the beginning of the last century, retirement was relatively uncommon but not unknown. Two out of three American men past age 65 were employed, but one-third were not.[(1)] By the middle of the twentieth century male retirement was much more common. Fewer than half of men 65 and older held a job in 1950. By 1985 the proportion at work fell still further. Just 16 percent of men over 65 were employed or actively seeking a job. Eighty-four percent were outside the active labor force. The percentage of women past 65 who were employed or looking for work also shrank during the first four decades after World War II, though this was mainly because the average age of women past 65 was rising. The reduction in women's employment was far smaller than among men because the percentage of older women who worked outside the home had never been high.

The decline in labor force participation at older ages has not been confined to the United States. It is characteristic of all rich industrialized countries. In most European countries employment rates among the elderly are now significantly below those in the United States. Along with a shrinking work week and rising paid employment among married women, earlier retirement among men has been a distinctive feature of economic progress in all the developed countries.

The pattern of declining work among older men is clearly evident in Figure 1. Each line in the figure traces the labor force participation rate of older American men, by age, in a different year of the past century. (A person is considered to be a labor force participant if he or she holds a job or is actively seeking work.) The top line shows age-specific participation rates of older men in 1910. Note that there is a clear pattern of labor market withdrawal with advancing age. Even at age 72, however, the male participation rate in 1910 was over 50 percent. Participation rates in 1940, 1970, 1984-85, and 1998-99 are displayed in the lower four lines. Each of these lines shows a characteristic pattern of labor market withdrawal as men grow older. The crucial difference between 1910 and later years is that the fall-off in labor force participation begins at an earlier age and proceeds at a faster pace.

The decline in male participation was neither smooth nor uniform over the century. By far the largest proportionate declines in participation occurred among men past the age of 65. In 1998-99, for example, the participation rate among 72-year-olds was only one-quarter the equivalent rate in 1910. The fall-off in participation was smaller at younger ages. In general, large declines in participation occurred in the early and middle parts of the century for the oldest age groups; major declines occurred after 1960 among younger men. The largest percentage declines among men older than 70 occurred between 1910 and 1940. The fastest declines among 65-to-69 year-olds took place between 1940 and 1970. The biggest declines among men under 65 did not occur until after 1960, after the earliest age of eligibility for Social Security benefits was reduced to 62. A striking feature of Figure 1 is that there has been *no* decline in older men's participation rates since the mid-1980s. After a long period of decline, the participation rates of older men stabilized or even increased slightly after 1985.

The story for older American women is different. Older women's participation rates in the post-World-War-II era have reflected two partially offsetting phenomena - the early retirement trend of older workers in general and the increasing labor force participation of married women. As a result of the latter, the participation rates of older women did not exhibit the dramatic post-war declines seen among men. Instead, as shown in lower panel of Table 1, age-specific labor force participation rates generally increased among women. Between 1950 and 1998-99, the female participation rate rose 39 percentage points at age 55, 26 points at age 60, 8 points at age 65, and 7 points at age 70.

What is similar to the male experience is the shift in trends after 1985. As with men, there is a noticeable break from the earlier trend in older women's labor force participation. Between 1970 and 1985 older women's labor force participation rate barely increased at all and even declined among people past age 62. In contrast, female participation rates surged in the 15 years after 1985. Figure 2 shows the annual percentage-point change in participation at selected ages in the two different periods. The lighter bars show changes between 1970 and 1985; the darker bars show changes between 1985 and 1999. The top panel shows trends in the participation rate of older men, and the lower panel shows trends at the same five ages for women. At age 62, the male participation rate fell 1.5 percentage points a year from 1970 to 1985. The rate among 62-year-old women declined 0.2 points a year over the same period. Between 1985 and 1999, the male participation rate at age 62 rose 0.3 percentage points a year; the female rate increased 0.7 points a year. At each age the rate of increase in participation rates accelerated, the rate of decline in participation rates shrank, or a decline in participation rates was reversed. The similarity of the break points in the male and female time series is striking. Women's participation rates at older ages have risen strongly over the past 15 years, while among older men the long-term decline in participation rates has ended and may even have reversed.

Historical information about participation rates can be used to trace out the long-term trend in retirement. Figure 3 shows the trend in the "average" male retirement age if we define that age as the youngest age at which fewer than half the men in the age group remain in the work force. Under this definition, the average male retirement age fell from 74 years in 1910 to 63 years in 1998-99, a drop of about 1.2 years per decade. The tabulations in Figure 3 also indicate, however, that the trend toward earlier male retirement has recently slowed and may even have ceased.

The decline in the average retirement age has occurred in an environment of rising life expectancy among older Americans, especially in the period since 1940. Falling mortality rates among the elderly added almost four years to the expected life span of a 65-year-old man and more than 5½ years to the life expectancy of a 65-year-old woman after 1940. Since expected male life spans increased about 0.8 years per decade during a period in which the retirement age dropped 1.2 years per decade, the amount of the male life span devoted to retirement climbed about 2 years per decade, adding almost 12 years to the amount of time men spend in retirement. Retirement now represents a substantial fraction of a typical worker's life. For many workers, retirement will last longer than the period from birth until full-time entry into the job market.

Explaining the trends

Research by economists and other social scientists has shed light on the evolution of retirement in the United States. In the 1940s and early 1950s, fewer than 5 percent of new retirees reported leaving work because they wanted to retire or enjoy more leisure. About 90 percent left because of poor health or a layoff. These explanations for retirement dominated survey responses and the research literature from the 1940s through the early 1970s. Only a very small percentage of retired men reported leaving work because they wanted to retire.

In recent surveys of new Social Security beneficiaries, a larger percentage of pensioners reports leaving work because of a desire to enjoy additional leisure or to retire. By the early 1980s, the desire to leave work explained nearly half of all retirements among men 65 or older, while poor health accounted for only a little over a fifth and involuntary layoff about 15 percent of retirements. The percentage of workers who say they have retired for purely voluntary reasons has dramatically increased.

Wealth. The survey responses just mentioned make it plain that the long-term trend toward earlier male retirement had an important *voluntary* component. A growing body of research evidence also supports this inference. The simplest and probably most powerful explanation for earlier retirement is rising wealth. The United States has grown richer over time. Real per capita GDP in the United States has more than doubled since 1960, increasing about 2 percent a year. Some of this increased wealth has been used to purchase more leisure. Americans stay in school longer than they once did, enter the workforce later, work fewer hours per year, and leave the labor force earlier.

Social Security and Medicare. For many of today's retired workers, the increases in wealth flowing from greater national prosperity have been augmented by windfall gains from a generous Social Security system. Because Social Security was historically very generous, most generations retiring up to the present have received larger pensions than their contributions alone could have paid for if the contributions had been invested in safe assets. Workers who retired under Social Security before the mid-1980s received pensions well in excess of the benefits they would have received if Social Security offered normal returns on their contributions. Retired Americans continue to receive Medicare benefits that are vastly larger than those that could be financed solely out of their contributions and the interest earnings on those contributions. This fact is well known to students of social insurance, who recognize that most early contributors to a pay-as-you-go retirement system obtain exceptional returns on their contributions. The exceptional returns on Social Security and Medicare taxes have increased the amount of consumption that older Americans can afford. One way workers have used these windfall gains is to retire at a younger age.

While some researchers have attributed most of the post-war decline in male labor force participation to the introduction and liberalization of Social Security, most specialists think the impact on retirement has been considerably smaller. Because of the long-term rise in productivity, workers are much wealthier today than they were at the beginning of the twentieth century. This would have led workers to retire earlier than previous generations, even in the absence of Social Security and Medicare. Social Security, Medicare, and employer-sponsored retirement plans were established and expanded in part to help workers achieve the goal of living comfortably without work in old age. If these programs had not been developed, it is likely that workers and employers would have found other ways to achieve the same goal.

Older workers' health and the health requirements of jobs. Of all the explanations advanced for earlier retirement, two of the least persuasive are declining health and the changing physical requirements of work. While nearly all good retirement studies find that health plays an important role in the timing of retirement, there is no convincing evidence that the health of 60-year-olds or 65-year-olds was declining over the period in which older Americans' labor force participation was falling. Declining mortality rates as well as recent evidence about the trend in the physical disabilities of the aged suggest instead that the health of Americans is improving, at least in early old age. Moreover, analyses of the growth of different kinds of occupations and in their physical requirements imply that the physical demands of work are now easier to meet than they were in the past. A much smaller proportion of jobs requires strenuous physical effort; a larger percentage requires only moderate or light physical exertion. Of course, within every generation there will be workers who are in poor health and who work in physically demanding jobs. These workers will be among the first to retire. But it cannot be true that a general deterioration in health or widespread increases in the physical demands of employment explain the tendency for recent generations to retire earlier than workers in the past.

Financial incentives. Besides increasing most current retirees' lifetime wealth, the Social Security system also affects the financial attractiveness of remaining at work. Most workers can choose to collect Social Security starting at age 62, and many do.

One reason that many people must retire in order to collect a Social Security check is that the program imposes an earnings test in calculating the annual pension. Workers who are between 62 and 64 and who earn more than $10,800 a year lose $1 in annual benefits for every $2 in earnings they receive in excess of $10,800. Until this year, workers between 65 and 69 lost $1 in benefits for every $3 in annual earnings in excess of $17,000. (Pensioners age 70 and older did not face an earnings test.) At one time the earnings limits were much lower, discouraging pensioners from work and possibly encouraging them to postpone claiming a pension until they were confident their earnings would remain low.

Many employer-sponsored pension plans are structured similarly to Social Security pensions. Workers who are covered under an old-fashioned defined-benefit plan earn pension credits for as long as they work for the employer that sponsors the plan (sometimes up to a maximum number of years). The longer they work under the plan, the higher their monthly pension. Most defined-benefit plans are structured to encourage workers to remain with the employer for a minimal period - say, 10 years - or until a critical age - say, age 55. Workers who stay for shorter periods may receive very little under the plan. On the other hand, workers who stay in the job too long may see the value of their pension accumulation shrink. This would happen if the plan offered benefits to workers starting at age 55 but then failed to significantly increase the monthly benefit for workers who delayed retirement after age 55. If a 55-year-old worker can collect a monthly pension of $1,000 when he retires immediately and a monthly check of $1,001 if he delays his retirement one year, he will clearly lose a substantial amount of lifetime benefits - nearly $12,000 - for each year he postpones receipt. The worker essentially suffers a pay cut when he reaches age 55, and the cut is equal to the loss in lifetime benefits he suffers by postponing retirement. Such a pay cut might seem illegal under U.S. age discrimination laws, but it is perfectly legal as long as the pay cut is reflected in reduced lifetime pensions rather than reduced money wages. Many employers find this kind of pension formula to be an effective prod in pushing workers into early retirement.

This explanation of the financial incentives in Social Security and employer-sponsored pensions sheds some light on the retirement trends discussed earlier. Social Security is now the main source of cash income of households headed by someone 65 or older. The program provides slightly more than 40 percent of the total cash income received by the aged. Among aged households in the bottom 60 percent of the elderly income distribution, Social Security provides over three-quarters of cash income. Until 1941, Social Security provided no income at all to the aged. Today the program replaces about 42 percent of the final wage earned by a full-career single worker who earns the average wage and claims a pension at age 65. If the worker has a non-working dependent spouse, the benefit replaces 63 percent of the worker's final wage. Benefits are clearly large enough so they can be economically significant in influencing the choice of retirement age.

The change in retirement trends after 1985. There are two types of explanation for the slowdown or reversal of retirement trends in recent years. One hypothesis is that permanent changes in the retirement environment have encouraged additional work by older Americans. Under this interpretation, the long-term trend toward earlier retirement is over. Another view is that temporary cyclical factors are responsible for a pause in the historical retirement trend. When these cyclical factors are behind us, the historical trend toward earlier retirement will resume. Although it will be many years before we can be sure of the relative importance of these explanations, it is possible to assess some of the permanent and temporary factors that have influenced recent retirement trends.

Although a strong economy has contributed to the recent rise in older Americans' participation rates, it is probably not a big part of the story. The economy also grew strongly and unemployment reached very low levels in the 1960s, yet older men's labor force participation rates fell in the decade and older women's participation rates changed very little (see Table 1). Joseph Quinn estimated the impact of the business cycle on older workers' participation rates, and found that changes in the overall unemployment rate account for a relatively small proportion of the change in participation trends since 1985. Most of the change in participation trends since 1985 is probably due to factors other than the cyclical movement in economy-wide unemployment.

Social Security's impact. It is easier to point to factors in the retirement environment that have permanently changed in a way that encourages later withdrawal from the job market. One important change is that the nation's main pension program, Social Security, is no longer growing more generous. Workers who retired between 1950 and 1980 retired in an environment in which Social Security benefits were rising, both absolutely and in relation to the average earnings of typical American workers. Most workers received pensions that were higher than those they would have obtained if their Social Security contributions had been invested in safe assets. The maturation of the Social Security program meant that fewer workers who retired after 1985 received windfalls from the program. The Social Security amendments of 1977 and 1983 brought an end to a four-decade expansion and liberalization of benefits. In fact, the amendments trimmed retirement benefits modestly in order to keep the program solvent.

Congress has changed Social Security rules and the pension formula to make work late in life more attractive. The amount of income a recipient can earn without losing any Social Security benefits has been increased, and the benefit loss for each dollar earned over the exempt amount has been reduced. For pensioners between 65 and 69, the earnings test has been eliminated altogether. In the 1977 and 1983 Social Security amendments, Congress also increased the reward that workers receive for delaying initial benefit receipt past the normal retirement age (NRA). Instead of penalizing work after the NRA, Social Security is becoming more age-neutral. When this formula change is fully implemented, for workers attaining age 62 after 2004, the adjustment for delayed benefit receipt will be approximately fair for retirements up through age 70. It is nearly so today. There will be no retirement penalty for delaying retirement beyond the normal retirement age.

Employer-provided pensions. Important changes have also occurred in the private sector. There has been a sharp increase in the relative importance of defined-contribution pension plans and a continuing decline in the importance of old-fashioned defined-benefit plans. Defined-contribution plans are age-neutral by design, and therefore they have none of the age-specific work disincentives that are common in traditional defined-benefit plans. As a growing percentage of workers reaches retirement age under defined-contribution plans, there will be less reason for workers to leave their jobs to avoid a loss in lifetime retirement benefits.

Eliminating mandatory retirement. Some changes in the environment are the result of policy initiatives aimed specifically at encouraging more work at older ages. For example, mandatory retirement has been nearly eliminated in the United States. In the early 1970s about half of all American workers were covered by mandatory retirement provisions that required them to leave their jobs no later than a particular age, usually age 65. In 1978 the earliest legal age of mandatory retirement was raised from 65 to 70, and in 1986 mandatory retirement provisions were outlawed altogether for the vast majority of workers. The increase and eventual elimination of mandatory retirement ages not only increased the options open to older employees who wanted to remain on their jobs, but also sent an important message to Americans about the appropriate age to retire.

This message was reinforced by a provision of the 1983 Social Security amendments that is gradually raising the normal retirement age in Social Security from 65 to 67. The higher NRA will become fully effective for workers who reach age 62 in 2022. So far as I know, the United States was the first industrial nation to pass a law lifting the retirement age under its main public pension program. Although few workers may be aware of the higher retirement age, many are affected by it already. Workers reaching age 62 in 2000 face a normal retirement age of 65 years and 2 months, which means that they will qualify for age-62 pensions that are 1 percent smaller than age-62 benefits under the traditional NRA. The delay in the eligibility age for unreduced pensions has an effect on benefit levels that is almost identical to across-the-board benefit cuts.

These changes in the retirement environment suggest that the future will not look like the past. The relative attractiveness of work and retirement at older ages has been altered in favor of work, though the changes may have produced only modest effects so far. The break in the early retirement trend that occurred in the mid-1980s suggests that changes in the retirement environment are having an impact in the expected direction.

Should we encourage later retirement?

Even if the trend toward earlier retirement has stopped, it is natural to ask whether the nation should take further steps to encourage later retirement. One reason often mentioned to induce later retirement is concern over public finances. Social Security is the largest item in the federal budget, and when the Baby Boom generation retires after 2010 it will become even more costly. Restoring both Medicare and Social Security to long-term solvency will be painful. The federal budgetary cost of achieving solvency would obviously be smaller if workers' eligibility for benefits under the two programs were delayed.

A large part of Social Security's long-term funding problem arises because of good news about longevity.[(2)] Americans now live longer than their parents and grandparents did. Their children and grandchildren can be expected to live longer than we do. The improvements in longevity mean that living Americans will survive much longer past age 65 than was true when Social Security was established in the Great Depression. The longevity increases provide the equivalent of a benefit increase to Social Security recipients. The benefit increase must be paid for if the system is to remain solvent.

While it might seem logical to raise the retirement age in Social Security to reflect improvements in longevity, most workers do not accept the logic of a later retirement age. American voters and workers routinely reject the idea of a higher retirement age when it is suggested as a solution to Social Security's problems. With rare exceptions, solid majorities of poll respondents reject any proposed hike in the retirement age. Most political leaders take their cue from the polling numbers. Nearly all of the presidential candidates in both political parties expressed strong opposition to the idea of a higher Social Security retirement age sometime during the past presidential campaign, for example.

Americans' hostility to a higher retirement age does not provide much guidance to policymakers, however. Big majorities also oppose other basic steps that would solve Social Security's funding problem. Most poll respondents are against higher payroll taxes, lower monthly benefits, and investment of Social Security reserves in stocks, where they could earn a higher return. Many workers' may oppose a higher retirement age in Social Security because they intend (or at least hope) to retire several years before attaining the *early* eligibility age for Social Security benefits. If the Social Security retirement age is increased, early retirement would become a less affordable dream.

Other options. There is no compelling reason to raise either the Social Security retirement age or the average retirement age, of course. If Americans' incomes continue to grow 1 or 2 percent a year, some fraction of the increase can be used to finance comfortable incomes during longer spells of retirement. This means, however, that more of the income earned by active workers must be set aside to pay for longer retirements. This could take the form of higher payroll or income taxes to pay for Social Security benefits to the currently retired or higher personal saving to make up for the loss of monthly Social Security benefits if Social Security pensions are trimmed to preserve solvency.

There is some evidence that workers understand this trade-off. When forced to choose between the option of making larger contributions to pay for retirement or accepting smaller pensions after they retire, most workers opt to make larger contributions. By a 2-to-1 majority, workers favor higher payroll taxes over reduced Social Security pensions (Employee Benefit Research Institute, 1997, "The 1997 Retirement Confidence Survey: Summary of Findings." Washington, D.C., Chart 6). This suggests a simple conclusion: Americans would rather set aside more of their wages for retirement than postpone their retirement.

More work before retirement. Workers can offset the effect of higher retirement contributions by working longer hours during their prime working years. There is some evidence this is occurring. American work patterns have changed slowly but significantly over the past generation. Since the 1960s three major trends have affected adults' use of time. Women have joined the paid work force in record numbers; men have retired from their jobs at younger ages; and both men and women have devoted more years to formal schooling. The effects of these trends on average work effort can be seen in Figure 4, which shows changes in weekly hours of paid work between 1968 and 1998. The darker bars show average hours on a job during the second week of March 1968; the lighter bars, average hours exactly 30 years later in March 1998. The weekly average is calculated as the total hours of work during the survey week divided by the total number of men and women in the indicated age group. People who do not work are included in these estimates. (The estimates would show higher average hours if they reflected the work effort only of people who held jobs.)

In spite of the trend toward earlier male retirement since 1968, the figure shows a sizable jump in the total amount of time that Americans spend at work. The increase in hours was driven almost entirely by the surge in women's employment. The CPS interviews show only a small change in average weekly hours among men and women who actually hold a job. Averaging across all ages, women worked 49 percent more hours in March 1998 than they did in March 1968 (20.3 hours a week in 1968 versus 13.6 hours in 1968). The rise was due to a 45 percent jump in the fraction of women holding jobs. Partly offsetting the rise in women's employment was the dip in men's paid work. Most of the drop occurred as a result of sinking employment among men past age 54. Across all age groups, the male employment rate slid 6 percentage points (or 8 percent) between 1968 and 1998, but it fell 15 percentage points among men between 55 and 64 and 9 points among men past 64.

The combined effects of the shifts in male and female work patterns are displayed Figure 4. Averaging the trends of both men and women, we see that hours spent on the job increased for people 18 to 54 years old and declined for people past age 54. Older Americans clearly enjoyed more free time in 1998 than their counterparts in 1968, mainly because of earlier male retirement. For adults between 25 and 54, however, the estimates imply that paid employment consumes a much bigger percentage of available time. The employment rate of people in their prime working years jumped 11 percentage points - almost 17 percent - between March 1968 and March 1998, boosting the average amount of time spent in jobs from 28 hours to 32 hours a week. This increase is equivalent to five extra 40-hour work weeks a year for adults between 25 and 54. In short, Americans are working longer hours between 25 and 54. The increase in hours should help them pay for shorter hours and longer retirements when they are older than 55.

Conclusion

After a long period of decline, the trend toward earlier retirement came to at least a temporary halt in the mid-1980s. Labor force participation rates of American men past age 60 leveled off, and in the past few years they have actually increased slightly. Participation rates among older women have risen significantly since 1985, though this trend may be the result of the historic shift in women's attitudes toward career employment rather than to a change in their retirement behavior *per se.* Along with workers in Japan and Scandinavia, Americans now leave the paid work force later than workers almost anywhere else in the industrialized world.

The question is, do Americans retire at an age that will ultimately prove unaffordable? As life spans increase, the fraction of life spent in retirement will rise unless we delay workers' exit from paid employment. Improved longevity places heavier burdens on active workers if retirees are supported by contributions from current payrolls. Even without any further improvement in longevity, the long-term decline in birth rates has slowed labor force growth and will eventually increase the ratio of retired to active workers. This will place extra pressure on retirement programs like Social Security and Medicare that depend on payroll taxes for most of their funding. To reduce this pressure, the country could adjust the age of eligibility for early and/or normal retirement benefits and take other measures to encourage workers to postpone their exit from the labor market. These steps would directly improve the finances of Social Security and Medicare. They would encourage some workers to delay their departure from career jobs and induce others to find bridge jobs to tide them over until full retirement benefits begin. The United States has already taken several steps in this direction, and these steps have contributed to the recent growth of employment among older Americans.

Although most workers today claim that they expect to keep working after age 65, or "retirement," most oppose additional changes in the retirement system that would push them to retire at a later age. A majority resists the idea that a higher retirement age is needed to protect Social Security. The United States is a rich country and will become wealthier in the future. It can certainly afford to maintain current retirement patterns if its citizens choose to spend their additional wealth in this way. The important public policy issue is the importance of this goal in comparison with other legitimate uses of the rise in wealth.

Proponents of a higher retirement age often focus on the long-term trend in older people's employment rates without considering what has happened to work effort and productivity among people before they reach the retirement age. They worry about the budget cost of retirement at age 62 without reflecting on the fact that younger workers may be paying for their longer and healthier retirements by working harder and more productively in their pre-retirement careers. As long as productivity continues to improve, American society and individual workers can choose how they want to allocate the income gains that flow from higher productivity. The evidence of the twentieth century suggests they will use at least part of it to pay for a longer retirement.

[1] Historical changes in retirement patterns are more difficult to measure among women. During much of the twentieth century, most women worked primarily within the home (and without pay) for most of their adult lives. It is harder to detect when retirement occurs for people who work mainly in the home or without any regular pay.

[2] Much of the future funding problem is due to the maturation of the program (most future retirees will reach the retirement age with enough earnings credits to receive a full pension), slow growth in the future working population, and a long-term slowdown in the rate of real wage growth (which has deprived the system of anticipated revenues). Increased longevity explains only part of the system's funding shortfall.