# Older workers: increasing their labor force participation and hours of work 

Over the past dozen or so years, older men-especially those 65 years or older-have increased their labor force participation and full-time employment, thereby reversing long-run declines; increases for older women also bave occurred and have been proportionately greater

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Major changes in the movement of labor force participation rates and full-time employment of older workers have occurred during the past dozen years. A closer examination of available data reveals different trends in the labor force participation rates between workers aged 60 and older and workers aged 50-59, as well as varied trends by gender.

This article updates two time series of data on the average age at retirement of men and women aged 50 years or older. One series uses the median age at exit from the labor force (hereafter, median age at exit), and the other uses the mean age at initial receipt of the retirement or disability benefit provided by the Social Security Administration (hereafter, the Social Security mean). The addition of the most recent 5 -year period in the series, 2000-05, provides a 50 -year perspective. The latest data show a continuation of the leveling off of the Social Security average age, but a further drop in the median age at exit. The reason for this decline is the same as it was for the decline between 1990-95 and 1995-2000, namely, that workers aged 60 years or older withdrew from the labor force at a lower rate than workers 50-59 years old, shifting the age distribution of the estimated number of net exits toward the younger ages. The reason for this difference in exit rates is that the labor force participation rates of men and women aged 60 years
or older have increased considerably since at least 1994, while there has been little or no change at ages 50-59. For workers 60 years or older, the increases are a major reversal of men's long-run decline and a marked change from the previously flat trend among women. Furthermore, not only have these workers' participation rates risen impressively, but this age group also has been increasingly working full time-and doing so throughout the year.

The sections that follow update the two time series, as well as the estimates of changes in the duration of postwork retirement, and provide an analysis of the changes that have occurred in the 50-year history of the median age at exit. But the main objective of the article is to present the findings concerning the substantial increase in the labor force engagement of men and women 60 years or older, as well as the reasons for its occurrence. The article closes with comments about some of the implications of the increase, the likelihood of its continuation, and associated issues that need further study.

## Data and methods

Every year, the Social Security Administration publishes the mean age of men and women initially awarded their retirement benefit or their disability benefit, along with
the number of awardees and a frequency distribution of their ages. ${ }^{1}$ To obtain the combined mean age of these two types of beneficiaries, first the mean age of the disability awardees aged 50-64 years was calculated (at age 65 , their award is converted to the retirement benefit), and then the weighted average of that mean and the retirement mean was computed. This weighted average was obtained for every fifth year of data from 1960 to 2004, the latest year for which data were available at the time this article was written. (Because disability data were first reported in 1957, the averages shown in table 1 for 1950-55 are limited to the mean of the retirement awards.) Then the weighted average of the means at the beginning and end of each 5 -year interval was calculated to obtain the average for the interval. The last interval is limited to the period 2000-04.

The median age at exit of workers aged 50 years or older is calculated from annual averages of the number in the labor force and of the labor force participation rate derived from the monthly Current Population Survey, for every fifth
year from 1950 through 2005, arrayed in 5-year age groups from 45-49 years through 75 years or older (used as a proxy for 75-79 years). Estimates of the number of net withdrawals from the labor force for reasons other than death during each 5-year interval are given by the equation:

$$
\begin{equation*}
W=L_{1}\left(1-\frac{R_{2}}{R_{1}}\right) \sqrt{s}, \tag{1}
\end{equation*}
$$

where $L_{1}$ is the number in the labor force at the beginning of the interval, $R_{1}$ is the labor force participation rate of a birth cohort at the beginning of the interval, $R_{2}$ is the labor force participation rate of the same cohort at the end of the interval (hence, 5 years older), and $S$ is the survival rate of the cohort during the interval. (Survival rates are calculated from the official national life tables. ${ }^{2}$ ) The equation applies to each of six cohorts aged 45-49 years through 70-74 years at the beginning of each interval and 50-54 years through 75-79 years at the end of the interval. In order to calculate the median, this analysis converts

Table 1. Estimated average age of retirement and expected years of postwork retirement, by gender, for selected periods, 1950-2005 and projected 2005-10

| Period | Social Security data ${ }^{1}$ |  | Labor force data ${ }^{2}$ |  | Expected years of postwork retirement ${ }^{3}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Men | Women | Men | Women | Men | Women |
| 1950-55. | ${ }^{4} 68.5$ | ${ }^{4} 67.9$ | 66.9 | 67.6 | 12.0 | 13.6 |
| 1965-70 ..................................................... | 63.4 | 64.3 | 64.2 | 64.2 | 13.5 | 16.7 |
| 1980-85 .................................................... | 62.9 | 62.8 | 62.8 | 62.7 | 16.0 | 20.5 |
| 1985-90 .................................................... | 62.8 | 62.8 | 62.6 | 62.8 | 16.3 | 20.3 |
| 1990-95 ...................................................... | 62.7 | 62.6 | ${ }^{6} 62.4$ | ${ }^{6} 62.3$ | 17.2 | 21.3 |
| 1995-2000 .................................................... | ${ }^{5} 62.6$ | ${ }^{5} 62.6$ | ${ }^{6} 62.0$ | ${ }^{6} 61.4$ | 18.0 | 22.0 |
| 2000-05 ......................................................... | ${ }^{5} 62.6$ | ${ }^{5} 62.5$ | ${ }^{6} 61.6$ | ${ }^{6} 60.5$ | 19.0 | 23.1 |
| 2005-107 ......................................................... | ${ }^{(8)}$ | ${ }^{(8)}$ | ${ }^{6} 61.6$ | ${ }^{6} 62.0$ | 18.6 | 21.6 |

${ }^{1}$ Mean age at initial award of benefit for disability or retirement, calculated as the weighted average of the mean ages of those receiving awards for retirement and disability. The mean for individuals awarded disability benefits is limited to those 50 to 64 years of age.
${ }^{2}$ Median age at exit from the labor force of 5-year cohorts aged 50-54 years through 75 or older for reasons other than death.
${ }^{3}$ Average remaining life expectancy at the median age at exit from the labor force.
${ }^{4}$ Age data for disability awards are not available. If they were, the means would be lower.
${ }^{5}$ The mean retirement age for women in 1997 was 65.4, much higher than the means since the 1960s or in 1998 or 1999. It was, therefore, regarded as an anomaly and disregarded. The data for both women and men is limited to the period 2000-04, the latest period available.
${ }^{6}$ Calculated from data for 1995, 2000, 2005, and 2010 which were adjusted to the levels prior to the 1994 revision of the Current

Population Survey. For information about the adjustment, see Murray Gendell, "Retirement age declines again in 1990s," Monthly Labor Review, October 2001, pp. 12-21.
${ }^{7}$ Data for 2010 were projected by the Bureau of Labor Statistics in 2007. See Monthly Labor Review, November 2007, for a description of the projection. More detailed age data than those in the published report were provided to the author by BLs.
${ }^{8}$ Not available.
Source: Gendell, Monthly Labor Review, October 2001, p. 20, endnote 6 and table 1; Life expectancy estimates calculated from national life tables for 1952, 1967, 1982, 1997, and 2002. Estimates for 2007 obtained by linear interpolation between life expectancies at specified ages for 2000 and 2010 in Life Tables for the U.S. Social Security Area 1900-2100, Actuarial Study No. 116, Social Security Administration, Office of the Chief Actuary, August 2002, table 6. Annual Statistical Supplement to the Social Security Bulletin, 2005, tables 6.B5 and 6.C2.
the cohorts (for example, 45-49 becoming 50-54, 50-54 becoming 55-59, and so forth) to age groups (50-54 years, 55-59 years, and so forth). The conversion was done with the use of the Karup-King third-difference formula for osculatory interpolation. ${ }^{3}$

## Findings

Average age at retirement and duration of postwork retirement. The Social Security mean (for those aged 50-64) has been essentially flat for both men and women since the early 1990s at about 62.5 (table 1). However, the median age at exit fell in the 1990s and continued to drop in the 2000-05 period, after flattening in the 1980s, with the decline greater for women than men. In the 2000-05 period, the median age at exit was 61.6 for men and 60.5 for women, a decline from the medians in the 1995-2000 period of 0.4 and 0.9 for men and women, respectively. Since the 1995-2000 interval, the median age at exit has been notably lower than the Social Security mean. With more than 80 percent of these Social Security beneficiaries receiving retirement awards, the minimum age for which is 62 , it is much more difficult for this measure to decline from a level (aged 62.5) close to this minimum than for the median age at exit to do so.

The median age at exit estimated for the 2005-10 period, based on the labor force data for 2010 projected by the Bureau of Labor Statistics (BLS) in 2007, indicates no change for men, but a large reversal for women (from age 60.5 to age 62.0). Whether this will in fact happen is uncertain. For example, the BLS 1999 projection for 2005 implied a similar reversal of the declines of the 1990s, but this did not occur. ${ }^{4}$ The cohort-specific labor force net withdrawal rates prior to 2000-05 had declined more among the older cohorts than the younger ones, lowering the median age at exit. The 1999 projection of labor data for 2005 implied a reversal of this pattern, but it did not occur. ${ }^{5}$ The 2007 projection for 2010 implies a similar reversal in the pattern of changes in the net withdrawal rates.

Even as the median age at exit fell between 1995 and 2000 and 2000 and 2005, longevity continued to rise. Consequently, the duration of post-work retirement lengthened, increasing by a year for men, from 18.0 to 19.0 years, and by scarcely more for women, from 22.0 to 23.1 years. Compared with the estimates for 1950-55, these gains mean that the duration of post-work retirement has increased over the past half century by 7 years for men, a rise of 58 percent (19.0/12.0), and 9.5 years for women, a gain of 70 percent (23.1/13.6). However, if
the median ages at exit implied in the 2010 projection do occur, there will be a decline in the length of post-work retirement, especially among women.

Changes in the median age at exit are mainly the result of the pattern of changes in the cohort-specific net withdrawal rates. Table 2 presents the pattern of the actual change between 1995-2000, 2000-05, and projected 2005-10. It also shows the pattern of the projected change between 2000-05 and 2005-10 as measured by the cohort-specific ratios of the later to the earlier period. Starting with the actual change, we see that the ratios are less than 1.00 for all cohorts but the youngest, indicating declines in the net withdrawal rates. The patterns are somewhat irregular, but there is a tendency for the declines to be greater among the older than the younger cohorts, more so for the women than the men, which is why the women's median age at exit fell more than the men's. The exception to this pattern of declines, namely, the increases experienced by the youngest cohort, reinforces the effect of the differential decline.

As for the projected change, the pattern among women is a clear reversal of the pattern described in the preceding paragraph: the ratios are smaller among the younger than the older cohorts, indicating a greater decline in net exits from the labor force in the younger cohorts. This pattern of differences is the main reason for the large rise of 1.5 years projected for women's median age at exit. Among men, however, the slightly greater decline in net withdrawal rates in the two oldest cohorts than in the younger cohorts is not enough to produce a change in the median age. The impact of changes in the withdrawal rates in cohorts aged 65-69 and 70-74 at the beginning of the 5 -year interval is small because the numbers in the labor force at those ages are comparatively little. As noted earlier, there is no assurance that the projected reversal of the pattern of changes in the net withdrawal rate will actually take place.

It is instructive to put these recent changes in the median age at exit and the net withdrawal rate in the context of the longer run changes. Table 3 presents these changes for three 15-year periods from 1950-55 through 1995-2000. As in table 2, the changes in the net withdrawal rates are shown as ratios of the later to the earlier net withdrawal rate. With only minor exceptions among the two oldest male cohorts in the first 15-year interval, the ratios exceed 1.00 , indicating increases in the net withdrawal rates, during the first 30 years. However, the increases were smaller during the second than the first interval, indicating a deceleration in the rate at which older men and women were leaving the labor force. In addition, with only minor

Table 2. Changes in the 5-year cohort net withdrawal rates from the labor force for reasons other than death, by gender, 1995-2000, 2000-05, and projected 2005-10

| Cohort | Net withdrawal rates ${ }^{1}$ |  |  | Ratios of net withdrawal rates |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1995-2000 | 2000-05 | 2005-10 ${ }^{2}$ | $\begin{gathered} 2000-05 \\ \text { divided by } \\ 1995-2000 \end{gathered}$ | 2005-10 divided by 2000-05 |
| Men |  |  |  |  |  |
| 45-49 to 50-54 | 0.0433 | 0.0479 | 0.0440 | 1.11 | 0.92 |
| 50-54 to 55-59 | . 1096 | . 1070 | . 0991 | . 98 | . 93 |
| 55-59 to 60-64 .............................................. | . 2813 | . 2393 | . 2191 | . 85 | . 92 |
| 60-64 to 65-69 ............................................. | . 4501 | . 4139 | . 3994 | . 92 | . 96 |
| 65-69 to 70-74 | . 3081 | . 2940 | . 2097 | . 95 | . 71 |
| 70-74 to 75-79 ${ }^{3}$........................................... | . 4585 | . 4235 | . 3655 | . 92 | . 86 |
| Women |  |  |  |  |  |
| 45-49 to 50-54 ................................................ | . 0390 | . 0634 | . 0245 | 1.63 | . 39 |
| 50-54 to 55-59 ............................................... | . 1566 | . 1413 | . 1012 | . 90 | . 72 |
| 55-59 to 60-64................................................ | . 3182 | . 2499 | . 2341 | . 79 | . 94 |
| 60-64 to 65-69 ..................................................................... | . 5007 | . 4304 | . 4309 | . 86 | 1.00 |
| 65-69 to 70-74 ............................................................................. | . 4099 | . 3247 | . 3654 | . 79 | 1.13 |
| 70-74 to 75-793.......................................... | . 5629 | . 5051 | . 5128 | . 90 | 1.02 |

${ }^{1}$ The labor force participation rates used to calculate the net withdrawal rates $[(1-R 2 / R 1) \sqrt{ }$; see equation (1) in text] have been adjusted to pre-1994 levels because of a revision of the Current Population Survey introduced in 1994.
${ }^{2}$ The 2010 labor force participation rates are from the 2007

Bureau of Labor Statistics projection.
${ }^{3}$ Age 75 or more is used as an approximation of age 75-79.
SOURCE: Calculated by the author from published BLS data and unpublished 5 -year age-specific labor force participation rates for 2010 projected in 2007 and supplied to the author by bLs.
deviations, in both periods, the younger the cohort, the greater the change in the net withdrawal rate. This pattern is the main reason for the declines in the median age at exit during these two periods. The range of variation was greater in the first 15-year interval than in the second period, causing a drop in the median age at exit about twice as great in the first as in the second period. In the third interval, however, most of the ratios were less than 1.00 , indicating declines in the net withdrawal rates, a big change from the preceding 30 years. Yet, the median age at exit continued to fall, even if more slowly, because the declines in men's net withdrawal rates were greater in the older men than in the younger cohorts. Among women, the net withdrawal rates of the younger cohorts continued to rise even as the net withdrawal rates of the older cohorts fell.

Impact of older workers leaving the labor force. Did the decline in the net withdrawal rates after 1980-85 reduce the impact of the net withdrawals of older workers on the size of the labor force? Again, it is helpful to consider this issue in the context of the trend since the early 1950s. In addition, it is useful to take into account the relative number of older workers in the labor force. Table 4 presents
the data. (The numbers in the labor force were published by the Bureau of Labor Statistics, and the number of net exits were estimated by the author. The latter should be regarded as approximations.)

The number of net exits increased rapidly during the first two 15 -year intervals, especially among women. The number of women in the labor force in the early 1950s was less than half that of men and the number of female workers aged 50 years or older was a third of that of men. In addition, the net withdrawal rates of these women at that time were substantially lower than those of the men, except among the two oldest cohorts. It is, therefore, not surprising that the number of net exits of older women was much smaller in the early 1950s than that of older men. From this low level, however, the increase in the number of net exits was much more rapid among women than men, an eight-fold rise by 1980-85 versus a doubling among the men. Thereafter, the numbers have been much more similar, in line with the more rapid increase of the numbers in the labor force among women than among men.

The ratio of net exits to the total labor force in 1950-55 was twice as large among men as among women because both their relative number of net withdrawals among

| e 3. Changes in the 5-year cohort net withdrawal rates from the labor force for reasons other than death over 15-year intervals, by gender, 1950-55 through 1995-2000 |  |  |  |
| :---: | :---: | :---: | :---: |
| Cohort | Ratios of net withdrawal rates |  |  |
|  | $\begin{gathered} \text { 1965-70 } \\ \text { divided by } \\ 1950-55 \end{gathered}$ | $\begin{gathered} \text { 1980-85 } \\ \text { divided by } \\ 1965-70 \end{gathered}$ | 1995-2000 divided by 1980-85 |
| Men |  |  |  |
| 45-49 to 50-54 .............. | 3.91 | 1.54 | 0.89 |
| 50-54 to 55-59 ............................................... | 2.20 | 1.87 | 1.05 |
| 55-59 to 60-64 .............................................. | 2.08 | 1.92 | . 92 |
| 60-64 to 65-69 .............................................. | 1.48 | 1.30 | . 81 |
| 65-69 to 70-74 .............................................. | . 99 | 1.18 | . 71 |
| 70-74 to 75-792 .............................................. | . 93 | 1.22 | . 87 |
| Decline in median age at exit from the labor force (in years) | 2.7 | 1.4 | . 8 |
| Women |  |  |  |
| 45-49 to 50-54 ............................................... | $\left.{ }^{3}\right)$ | $\left.{ }^{3}\right)$ | 1.88 |
| 50-54 to 55-59 .............................................. | 8.00 | 5.94 | 1.22 |
| 55-59 to 60-64 .............................................. | 9.97 | 1.34 | 1.05 |
| 60-64 to 65-69 ............................................... | 1.97 | 1.21 | . 87 |
| 65-69 to 70-74 | 1.19 | 1.05 | . 87 |
| 70-74 to 75-79 ${ }^{2}$................................................. | 1.29 | 1.21 | . 86 |
| Decline in median age at exit from the labor force (in years) $\qquad$ | 3.4 | 1.5 | 1.3 |
| ${ }^{1}$ Calculated from labor force participation rates adjusted to pre1994 levels. Data for 2000 are based on 2000 census population controls. <br> ${ }^{2}$ The age group, 75 and older is used as an approximation of the |  | age group, 75-79. <br> ${ }^{3}$ Net accession. <br> Source: Calculated by the author from published Bureau of Labor <br> Statistics data and estimates of pre-1994 adjustment factors. |  |
|  |  |  |  |

workers aged 50 years and older and the percentage of workers of this age group in the labor force were considerably greater. By 1965-70, however, these ratios were essentially the same among women and men, and they have remained quite similar since then. The ratio of net exits to the total labor force peaked around 1980-85 at about 6.5 percent to 7.0 percent and then declined to between 5 percent and 6 percent. BLS labor force projections for 2005-10 indicate an increase to about 6 percent among women. ${ }^{6}$ The fluctuations in this ratio after the early 1950s have been similar for men and women.

The data for the three periods after 2000-05 shown in table 4 are based on projections of the numbers in the labor force made by the BLS in 2007. (Footnote 3 in table 4 describes how the numbers of net exits for these periods were estimated.) The data show the continued aging of the labor force (the fraction of persons in the labor force aged 50 years and older increased from about one-fifth in 1995 to about one-fourth in 2005 and is then projected to reach about one-third by 2015) after 2005, especially among women, as the baby-boom cohorts reach these ages. Since the ratio of net exits to the total labor force is the product
of the other two ratios, the increased aging of the labor force, other things equal, will raise the ratio of net exits to the labor force. To get some sense of the numerical impact of the aging effect, it has been assumed that the percentage of net exits in the elderly labor force estimated for the period 2005-10 would remain unchanged thereafter. By 2015-20, the ratio of net exits to the labor force rises 1.2 percentage points among men and 1.9 percentage points among women, reaching levels of approximately 7 percent to 8 percent, which exceeds the previous peak of 6 percent to 7 percent in the 1980-85 period. The greater rise among women than men in this exercise is mainly because of the greater increase in the number of older workers among women (about 80 percent between 2000-05 and 2015-20) than among men (about 60 percent). The rise in the number of all workers in the total labor force is the same for women as for men ( 14.5 percent).

These specific results are hypothetical and should not be taken literally. However, it is highly likely that the labor force will become older, more so among women than men. But the extent to which this will take place is uncertain. The aging of the labor force will cause the ratio of net

Table 4. Estimated number and percentage of net exits from the civilian labor force, by gender, 1950-55 through 2000-05 and projected 2005-2020

| [Number in thousands] |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Period | Net exits (1) | In civilian labor force ${ }^{1}$ |  | Ratios in percent |  |  |
|  |  |  |  | Column 1 divided by column 2 | Column 2 divided by column 3 | Column 1 divided by column 3 |
|  |  | Age 50 and older (2) | All ages <br> (3) |  |  |  |
| Men |  |  |  |  |  |  |
| 1950-55 | 1,942 | 12,145 | 43,819 | 16.0 | 27.7 | 4.4 |
| 1965-70. | 2,888 | 13,699 | 48,255 | 21.1 | 28.4 | 6.0 |
| 1980-85 | 4,332 | 14,101 | 61,453 | 30.7 | 22.9 | 7.0 |
| 1995-2000 ${ }^{2}$. | 3,672 | 14,212 | 71,360 | 25.8 | 19.9 | 5.1 |
| 2000-05 ${ }^{2}$. | 4,028 | 17,584 | 76,280 | 22.9 | 23.1 | 5.3 |
| 2005-102. | 4,490 | 21,114 | 80,033 | 21.3 | 26.4 | 5.6 |
| 2010-153. | 5,368 | 25,204 | 84,633 | 21.3 | 29.8 | 6.3 |
| 2015-203. | 5,979 | 28,072 | 87,344 | 21.3 | 32.1 | 6.8 |
| Women |  |  |  |  |  |  |
| 1950-55. | 371 | 3,921 | 18,389 | 9.5 | 21.3 | 2.0 |
| 1965-70 | 1,557 | 7,256 | 26,200 | 21.5 | 27.7 | 5.9 |
| 1980-85. | 2,968 | 9,395 | 45,487 | 31.6 | 20.7 | 6.5 |
| 1995-2000². | 3,500 | 11,451 | 60,944 | 30.6 | 18.8 | 5.7 |
| 2000-05 ${ }^{2}$. | 3,725 | 14,566 | 66,303 | 25.6 | 22.0 | 5.6 |
| 2005-102. | 4,201 | 18,119 | 69,288 | 23.2 | 26.2 | 6.1 |
| 2010-153. | 5,282 | 22,768 | 73,062 | 23.2 | 31.2 | 7.2 |
| 2015-203 .............................. | 6,059 | 26,115 | 75,950 | 23.2 | 34.4 | 8.0 |

[^0]is the product of the ratio of net exits to the labor force age 50 and older and the projected number of the latter.

Source: Numbers in the labor force, 1950-2005 from bls publications. Numbers of net exits 1950-2005 estimated by the author. Footnote 3 describes how the numbers for 2010-2015 and 2015-2020 were obtained.
exits to the total labor force to rise, unless there is a decline in the ratio of net exits to the elderly labor force large enough to offset the aging effect. The future course of the latter ratio depends greatly on the future trajectory of the age-specific labor force participation rates of elderly men and women. To judge what that trajectory might be, this study examines the major changes in the elderly labor force participation rates since 1994. This part of the analysis starts by examining the nature and magnitude of these changes over several years. Afterwards, the discussion section reviews what appears to have brought about those changes.

Trends in the labor force participation rates. It is helpful to see what has happened during the past 50 years. Starting with the trends of elderly men, we see in table 5 that there were declines in the labor force participation rates at all the ages from ages 45-49 to ages 75 and older, between 1955 and 1985, and that the magnitude of the
proportional declines increased from small to very large as the age groupings increased. At ages 65 and older, they were about 60 percent in 1955. Around 1985, the pace of these declines slowed greatly, except at ages 45-49, until about the mid-1990s. Thereafter (1994-2007), there were marked reversals of the declining trend at ages 60-64 and older. The percentage rise in the rates was especially pronounced at ages 65-69 (28 percent) and 70-74 (34 percent). At ages below 60, the changes since 1994 have been very small and gradual, with a persistent decline at ages 45-49 and 50-54.

The trend of older women's labor force participation rates has been quite different than that of older men. Between 1955 and 1985, the rates for women aged 45 through 59 increased by more than 40 percent. There was a much more modest gain ( 15 percent) among women aged 60-64. At ages 65-69 and older there were substantial percentage declines from very low levels. However, these declines ended around 1985 and rates rose subsequently.

## Table 5. Change in the labor force participation rates of older workers, by age and gender, selected years and periods, 1955-2007

| Year | Labor force participation rates, by age group |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 45-49 | 50-54 | 55-59 | 60-64 | 65-69 | 70-74 | 75 and older |
| Men |  |  |  |  |  |  |  |
| 1955 | 97.1 | 95.7 | 92.5 | 82.6 | 57.0 | 37.1 | 19.4 |
| 1985 | 93.3 | 88.6 | 79.6 | 55.6 | 24.5 | 14.9 | 7.0 |
| 1993 | 91.7 | 88.1 | 78.2 | 54.1 | 25.4 | 14.7 | 6.9 |
| 19941. | 91.0 | 86.7 | 76.9 | 52.8 | 26.8 | 15.8 | 8.6 |
| 2007 ............................................................. | 89.8 | 86.4 | 77.8 | 59.2 | 34.3 | 21.2 | 10.0 |
| Women |  |  |  |  |  |  |  |
| 1955 | 45.8 | 41.5 | 35.6 | 29.0 | 17.8 | 9.2 | 4.0 |
| 1985 | 67.8 | 60.8 | 50.3 | 33.4 | 13.5 | 7.6 | 2.2 |
| 1993 .......................................................... | 76.5 | 69.9 | 57.1 | 37.1 | 16.1 | 7.9 | 2.8 |
| $1994{ }^{1}$ | 77.6 | 70.7 | 59.2 | 37.8 | 17.9 | 8.7 | 3.5 |
| 2007 . | 77.2 | 74.7 | 66.6 | 47.9 | 25.7 | 14.0 | 4.8 |
| Period | Percentage change in labor force participation rates |  |  |  |  |  |  |
| Men |  |  |  |  |  |  |  |
| 1955-85. | -3.9 | -7.4 | -13.9 | -32.7 | -57.0 | -59.2 | -63.9 |
| 1985-93....................................................... | -1.7 | -. 6 | -1.8 | -2.7 | 3.7 | -1.3 | -1.4 |
| 1994-2007................................................... | -1.3 | -. 3 | 1.3 | 12.1 | 28.0 | 34.2 | 11.6 |
| Women |  |  |  |  |  |  |  |
| 1955-85. | 48.0 | 46.5 | 41.3 | 15.2 | -24.2 | -17.4 | -45.0 |
| 1985-93. | 12.8 | 15.0 | 13.5 | 11.1 | 19.3 | 3.9 | 27.3 |
| 1994-2007.. | -. 5 | 5.7 | 12.5 | 26.7 | 43.6 | 60.9 | 37.1 |

[^1]been adjusted to pre-1994 levels because the intervals in which the percentage changes are shown are either pre-1994 or post-1993.

Source: Annual average cPs data published by the Bureau of Labor Statistics.

At ages under 60, the pace of increases accelerated relatively more between 1985 and 1993. After 1993, there was no further gain at ages 45-49, a small rise among those $50-54$, and successively larger percentage increases with age, through ages 70-74, peaking at about 60 percent.

Full-time employment. Another important finding is that, in addition to the notable increases in the labor force participation rates of men and women at ages 62 and older, there were striking gains at these ages between 1994 and 2007 in the percentage of employed workers who worked full-time (table 6). The percentage increases rose with age through ages 66-69. There were double-digit percentage gains among men aged 65 and older and among women aged 62 and older. The rise in women's full-time employment was greater than for men.

The source of these data (in table 6) does not provide information on full-time employment prior to 1994, perhaps because of the 1994 revision of the Current Population Survey. However, there is evidence that full-time employment declined among older workers from about 1970 to 1993. From the March CPS data files, Franco Peracchi and Finis Welch calculated the change between 1968-71 and 1987-90 in the full-time "participation" of older men and women at ages $55,60,62,63,64,65$ and 68. ${ }^{7}$ There were declines at every age except among women aged 55 years. The declines were much larger for men than women, especially at ages 60-65. In another study, Philip L. Rones and others calculated the average annual percentage distribution of nonagricultural wage and salary workers by weekly hours, by age and gender, in 1976, 1985, 1989 and $1993 .{ }^{8}$ Among those 55 years of age and

| Percentage of employed older workers employed full time, by age and gender, selected years and periods, 1994-2007 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Percentage employed full-time, by age group |  |  |  |  |  |
|  | 55-61 | 62-64 | 65 | 66-69 | 65-69 | 70 and older |
| Men |  |  |  |  |  |  |
| 1994 | 91.4 | 77.0 | 62.3 | 52.4 | 54.9 | 47.5 |
| 1999 | 92.3 | 79.1 | 65.4 | 54.6 | 57.3 | 46.0 |
| 2000 | 92.3 | 80.0 | 69.6 | 57.2 | 60.4 | 48.5 |
| 2007. | 92.0 | 82.2 | 76.1 | 67.6 | 70.1 | 55.1 |
| Women |  |  |  |  |  |  |
| 1994 | 73.7 | 59.3 | 48.4 | 36.0 | 39.4 | 34.7 |
| 1999 | 77.2 | 60.0 | 47.2 | 42.6 | 43.7 | 32.6 |
| 2000 ............................................................ | 77.9 | 61.4 | 50.8 | 42.5 | 44.7 | 35.7 |
| 2007 .................................................................. | 79.2 | 68.4 | 63.7 | 49.2 | 53.3 | 40.9 |
| Period | Percentage change in percentage employed full-time |  |  |  |  |  |
| Men |  |  |  |  |  |  |
| 1994-99 ................................................................ | 1.0 | 2.7 | 5.0 | 4.2 | 4.4 | -3.2 |
| 1999-2000 ...................................................... | . 0 | 1.1 | 6.4 | 4.8 | 5.4 | 5.4 |
| 2000-07 | -. 3 | 2.8 | 9.3 | 18.2 | 16.1 | 13.6 |
| 1994-2007 | . 7 | 6.8 | 22.2 | 29.0 | 27.7 | 16.0 |
| Women |  |  |  |  |  |  |
| 1994-99.. | 4.7 | 1.2 | -2.5 | 18.3 | 10.9 | -6.1 |
| 1999-2000 | . 9 | 2.3 | 7.6 | -. 2 | 2.3 | 9.5 |
| 2000-07 | 1.7 | 11.4 | 25.4 | 15.8 | 19.2 | 14.6 |
| 1994-2007 ............................................... | 7.5 | 15.3 | 31.6 | 36.7 | 35.3 | 17.9 |
| Source: Calculated by the author from unpublished annual average Current Population Survey single-year-of-age data provided by |  |  |  |  |  |  |

older, the percentage working 35 hours or more (that is, full-time work) declined slowly but steadily. Therefore, the increases in the full-time employment of elderly workers since 1994 constitute a notable reversal of the trend during at least the preceding two decades or so.

In addition, the prevalence of full-time work for the full year (defined by BLS as $50-52$ weeks) has also gone up substantially among older workers since at least 1994. (See table 7.) The patterns in this table are similar to those in table 6: declining prevalence with age within the year or period, the relative gains over time become greater as age increases, and larger increases among older women than among older men. The increase was especially large among women aged 65 and older. It is also striking that only at ages 65-69 were the gains between 2000 and 2005 much larger than the gains between 1994 and 2000. Among men, 74 percent of the total increase of 10.2 percentage points between 1994 and 2005 occurred after 1999. Among women, the comparable figure is 64 percent. A likely reason for the accelerated pace is the elimination
in 2000 of the Social Security earnings test between the normal retirement age (then 65) and age $70 .{ }^{9}$

Given these increases in full-time work for 50 to 52 weeks, the average number of hours worked rose between 1994 and 2006 at ages 55-64 among women and at ages 65-69 and 70-74 among women and men. (See table 8.) The gains were greater at ages 65-69 and 70-74 than at ages $55-64$. There were no increases in the averages among those who usually worked full time. The gains in average hours usually worked part time were offset to at least some extent by the decline in the percentages employed part time. Hence, the increases in the average hours worked must be largely the result of the increases in the percentage working full time.

Another indication of the strengthened commitment to labor market activity among older workers is the increase between 1994 and 2006 in the percentage of the employed that were at work. (See table 9.) Despite the already high level (over 90 percent) reached in 1994, there were further gains of between 0.8 and 2.0 percent-

Table 7.
Annual average percentage and percent change of older workers employed full-time for 50-52 weeks of the year, by age and gender, selected years, 1994-2005 ${ }^{1}$

| Year | Age group |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 45-54 | 55-59 | 60-61 | 62-64 | 65-69 | 75 and older |
| Men |  |  |  |  |  |  |
| 1994 | 83.6 | 77.6 | 69.1 | 58.4 | 44.0 | 30.6 |
| 2000 | 86.0 | 81.3 | 75.7 | 63.6 | 46.7 | 35.3 |
| 2005 | 84.9 | 80.4 | 77.4 | 67.9 | 54.2 | 37.3 |
| 2005/1994 (percent) . | 1.6 | 3.6 | 12.0 | 16.3 | 23.2 | 21.9 |
| Women |  |  |  |  |  |  |
| 1994 | 63.0 | 59.4 | 57.2 | 42.3 | 27.0 | 18.4 |
| 2000 | 69.7 | 66.5 | 59.7 | 51.7 | 32.7 | 23.8 |
| 2005 | 70.0 | 68.2 | 61.6 | 54.8 | 42.5 | 30.8 |
| 2005/1994 (percent) .. | 11.1 | 14.8 | 7.7 | 29.6 | 57.4 | 67.4 |

${ }^{1}$ These data are from the March Current Population Survey of the following year. Respondents are asked about their work experience during the preceding year.

Source: Calculated by the author from unpublished annual
average Current Population Survey work experience data, by number of weeks of employment. These data were provided by the Bureau of Labor Statistics on request from cpsinfo@bls.gov.

Table 8. Average hours worked by older persons at work by actual hours of work during the reference week, by age and gender, 1994-2006

| Year | Ages 55-64 ${ }^{1}$ |  |  | Ages 65-69 |  |  | Ages 70-74 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total at work | Usually full time ${ }^{2}$ | Usually part time ${ }^{2}$ | Total at work | Usually full time ${ }^{2}$ | Usually part time ${ }^{2}$ | Total at work | Usually full time ${ }^{2}$ | Usually part time ${ }^{2}$ |
| Men |  |  |  |  |  |  |  |  |  |
| 1994 | 41.9 | 44.6 | 20.3 | 31.8 | 42.4 | 18.5 | 29.5 | 42.2 | 17.6 |
| 2000 .................................... | 42.6 | 44.8 | 21.0 | 33.7 | 42.9 | 19.4 | 30.9 | 42.8 | 19.3 |
| 2006 ................................... | 42.1 | 44.4 | 21.4 | 35.9 | 42.9 | 19.6 | 32.7 | 42.3 | 19.1 |
| 2006/1994 (percent).............. | . 5 | -. 4 | 5.4 | 12.9 | 1.2 | 5.9 | 10.8 | . 2 | 8.5 |
| 1994 .................... | 34.8 | 40.7 | 20.2 | 26.6 | 39.9 | 17.5 | 24.7 | 41.2 |  |
| 2000 ............................................................ | 36.4 | 41.4 | 20.6 | 28.5 | 40.4 | 18.7 | 26.1 | 39.3 | 18.1 |
| 2006 .................................... | 36.6 | 40.9 | 21.3 | 30.1 | 40.0 | 19.1 | 27.6 | 39.7 | 18.5 |
| 2006/1994 (percent)................ | 5.2 | 5 | 5.4 | 13.2 | . 3 | 9.1 | 11.7 | -3.6 | 10.1 |

${ }^{1}$ This age group is not disaggregated in the source table into smaller age categories.

2 "In order to differentiate a person's normal schedule from his or her activity during the reference week, persons also are classified according to their usual full- or part-time status." From Employment
and Earnings, Bureau of Labor Statistics, February 2006, p. 184, on the Internet at www.bls.gov/cps/eetech_methods.pdf.

Source: Unpublished Current Population Survey data on persons at work by actual hours at work at all jobs during the reference week. Percentage change calculated by the author.
age points. It is also worth noting that during this period, there were large increases in the numbers employed and at work (table 9). The gains at ages 55-64 were larger than at ages 65-74 because the younger group contained the leading edge of the baby boom. There will be, of course, even greater increases as the rest of the larger baby-boom birth cohorts reach these ages. Thus, men and women in their fifties, sixties, and perhaps their seventies also, will be in a position to make an even more substantial contribution to the American economy than they have since 1994, especially if their increases in labor force participation rates and full-time employment continue.

Social Security retirement awards. Since the mid-1990s, the increases in the labor force participation rates and full-time employment of older workers, especially at ages 65-69, have been accompanied by a large shift in the incidence of Social Security retirement awards away from ages 62-64 to those ages 65 and 66. (See table 10.) To get a clear picture of these shifts, this analysis examines just Social Security awards and eliminates from the published award data (as much as is feasible) the number of beneficiaries of other types of awards who have, at various times, had their benefits converted to a retired-worker award. For decades, the number of disability beneficiaries, who
are automatically converted at age 65 , has been recorded, so it has been easy to isolate those data. However, from 1997 through 2003, many beneficiaries of nondisabled widows' or widowers' benefits were converted to higher retirement awards, but the Social Security Administration has not been able to ascertain their number and ages. The published data suggest that there were more than 100,000 widow conversions in 1997 and about 30,000 in 1998, preponderantly at ages 68,69 , and 70 years and older, with smaller numbers in subsequent years. The number of widower conversions has been negligible. Consequently, the data in table 10 are more approximate for women than for men.

What do these data tell us? There were fairly steady declines between 1995 and 2005 in the award rates at ages 62,63 , and 64 of about 20 percent to 25 percent. In 2000, there were large increases in the rates at ages 65 through 69, very likely in response to the elimination of the earnings test (which reduced benefits by 1 dollar for every 3 dollars earned above a modest specified limit) for beneficiaries between the normal retirement age, then 65, and 69. (The test had already been eliminated for beneficiaries aged 70 and older, but not for those aged 62-64.) For the next 3 years, the impact of this legislative change appears to have been mainly at age 65 . By then (2003), the

Table 9. Percentage of the employed at work in the reference week and percentage increase in the number of older workers employed and at work, by age and gender, 1994-2006

| Year | Age group |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 55-64 |  | 65-69 |  | 70-74 |  |
|  |  |  |  |  |  |  |
| Gender | Percentage increases in the number |  |  |  |  |  |
|  | Employed |  |  | At work |  |  |
|  | 55-64 | 65-69 | 70-74 | 55-64 | 65-69 | 70-74 |
| Men <br> Women | $\begin{aligned} & 66 \\ & 81 \end{aligned}$ | $\begin{aligned} & 42 \\ & 40 \end{aligned}$ | $\begin{aligned} & 41 \\ & 45 \end{aligned}$ | $\begin{aligned} & 68 \\ & 83 \end{aligned}$ | $\begin{aligned} & 45 \\ & 42 \end{aligned}$ | $\begin{aligned} & 42 \\ & 49 \end{aligned}$ |

Source: Calculated by the author from unpublished annual Labor Statistics. average Current Population Survey data provided by the Bureau of

Table 10. Retired worker awards as a percentage of the Social Security population eligible for the award, by single years of age (62-69) and gender, 1995-2005¹

| [Percentages as of December 31] |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Year | Age |  |  |  |  |  |  |  |
|  | 62 | 63 | 64 | 65 | 66 | 67 | 68 | 69 |
| Men |  |  |  |  |  |  |  |  |
| 1995 | 45.6 | 30.5 | 19.4 | 73.9 | 43.5 | 29.3 | 26.6 | 25.6 |
| 1996 .................................... | 44.1 | 27.7 | 17.9 | 65.5 | 42.2 | 27.4 | 24.6 | 24.1 |
| 1997 .................................... | 43.3 | 27.0 | 16.4 | 68.4 | 40.0 | 26.7 | 23.7 | 24.1 |
| 1998 .................................... | 42.5 | 26.0 | 15.6 | 62.6 | 39.7 | 26.0 | 26.0 | 24.7 |
| 1999 .................................... | 41.4 | 26.7 | 17.0 | 62.3 | 39.0 | 25.8 | 23.3 | 27.6 |
| 2000 .................................... | 42.5 | 26.4 | 18.1 | 84.8 | 70.0 | 62.0 | 59.8 | 59.6 |
| 2001 .................................... | 39.9 | 26.2 | 15.6 | 86.5 | 47.7 | 33.3 | 30.2 | 29.1 |
| 2002 .................................... | 38.9 | 24.5 | 16.2 | 82.8 | 45.6 | 27.2 | 26.6 | 24.5 |
| 2003 .................................... | 37.4 | 22.9 | 14.3 | 77.2 | 38.5 | 22.8 | 18.7 | 17.9 |
| 2004 .................................... | 36.3 | 22.4 | 13.8 | 55.6 | 61.3 | 23.5 | 20.9 | 18.3 |
| 2005 .................................... | 36.2 | 22.8 | 14.6 | 47.9 | 67.6 | 23.7 | 20.9 | 21.0 |
| Women |  |  |  |  |  |  |  |  |
| 1995 ................................... | 50.8 | 32.3 | 18.9 | 71.2 | 25.8 | 14.6 | 13.8 | 11.9 |
| 1996 ................................. | 49.5 | 30.0 | 18.0 | 63.8 | 25.5 | 13.1 | 10.7 | 11.4 |
| 1997 | 48.9 | 29.3 | 17.4 | 69.2 | 26.7 | 19.4 | 20.9 | 24.3 |
| 1998 | 48.6 | 28.0 | 16.0 | 61.4 | 24.8 | 15.1 | 15.9 | 16.3 |
| 1999 ................................. | 46.7 | 29.0 | 16.6 | 59.1 | 24.8 | 15.6 | 13.8 | 14.8 |
| 2000 ................................ | 48.0 | 28.9 | 19.4 | 75.2 | 41.6 | 27.8 | 25.7 | 22.5 |
| 2001 ................................. | 45.6 | 28.2 | 15.6 | 78.7 | 26.0 | 16.6 | 15.2 | 15.7 |
| 2002 ................................. | 44.0 | 26.5 | 16.6 | 74.3 | 24.1 | 12.1 | 13.6 | 12.8 |
| 2003 ................................. | 42.9 | 24.5 | 14.8 | 71.1 | 19.4 | 11.4 | 11.6 | 12.6 |
| 2004 ................................. | 41.3 | 24.0 | 14.0 | 50.8 | 36.0 | 12.7 | 13.7 | 14.4 |
| 2005 ................................. | 41.1 | 24.8 | 15.2 | 45.4 | 46.3 | 13.2 | 15.1 | 16.3 |

> ${ }^{1}$ The numerator is the number of retired-worker awards. Disability beneficiaries, who are automatically converted to the retired-worker award at age 65 , have been excluded. However, many nondisabled widows who received a higher retired-worker award between 1997 and 2003 are included. Widower conversions are also included, but their number is negligible. The denominator is the number of fully insured workers less the number of insured beneficiaries. The latter
includes retired workers, insured widows and widowers, and insured spouses.

Source: Unpublished data supplied September 2006 by the Office of the Chief Actuary, Social Security Administration. A similar, but more inclusive, set of "retirement" rates can be seen in Short-Range Actuarial Projections of the Old-Age, Survivors, and Disability Insurance Program, 2005, Actuarial Study No. 119, August 2005, table III.B9.
normal retirement age had begun to rise (another legislative change), by 2 months per year, from 65 to 66 (to be reached in 2008). Thus, men and women who wanted to earn money unconstrained by the earnings test had to be at least 65 years and 2 months in 2003, 65 and 4 months in 2004, and 65 and 6 months in 2005. By the end of the year, when the data that are used to calculate the rates are compiled, more and more of workers who reached the normal retirement age earlier in the year became 66. As a result, a shift in the incidence of the awards took place from age 65 to age 66 .

This pattern of changes in the award rates is quite similar for men and women, but it is somewhat less pronounced for women, perhaps partly because of the widow conversions included in the data. The latter are clearly evident in table 10 only in 1997 at ages 67-69 and in 1998 at
ages 68-69. Hence, it is difficult to judge the extent of the impact of the conversions.

There are also indications that the removal of the earnings test contributed to the increases in the labor force participation rates and full-time employment described earlier. A recent study, which analyzed Social Security administrative data of annual earnings and retirement benefit claims over a period 4 years prior to, as well as 4 years after the test's elimination, found evidence of some increase in the labor force participation rates of workers $65-69$ years old. ${ }^{10}$ The authors also concluded that the increase in the labor force participation rates was mainly because these older workers remained at work rather than returned to it. In addition, they found "large and significant" increases in earnings only at levels above the test threshold, but whether this increase implies a rise in full-
time work among these better paid workers is not clear. However, another study using data from the Health and Retirement Study found a larger proportional increase in full-time employment among workers 65-67 years old than those aged 62-64 between 1998 and 2002, suggesting that the removal of the earnings test contributed to the rise in full-time employment. ${ }^{11}$ This finding is consistent with the data shown in table 6 .

## Discussion

The post-war period can be divided into approximately two 30 -year periods. In the first period, conditions became increasingly favorable to early retirement, whether measured by the average age of older workers at their exit from the labor force or at their initial receipt of the Social Security retirement or disability benefit. In the second period, changes took place that weakened the favorable conditions and then produced incentives to delay retirement.

Real income rose more rapidly in the first period than in the second. For example, family income (measured in 2001 dollars) grew from about \$20,000, on average, in 1947 to about $\$ 52,000$, on average in 2000 , but most of that gain occurred by the early 1970s, when family income reached an average of $\$ 40,000 .{ }^{12}$ Another indication of this difference in enhanced economic well-being between the two periods may be seen in the much greater decline in the poverty rate in the first period than in the second. The rate fell sharply from about 40 percent in 1950 to about 12 percent in 1972, with little change occurring thereafter. Among the elderly (65 and older), the early decline was even more rapid, from 59 percent in 1950 to about 19 percent in 1972. ${ }^{13}$

There were larger increases in Social Security, pension, and health benefits in the earlier than the later period. ${ }^{14}$ Wage controls during World War II led many companies to increase compensation by providing substantial pension and health care benefits. Defined benefit pension plans expanded up to about the late 1970 s, but a subsequent expansion of defined contribution plans greatly reduced the share of workers with a pension plan who had defined benefit coverage, from 80 percent in 1985 to 33 percent in 2003. ${ }^{15}$ In 1956, Congress allowed female workers to receive reduced Social Security retirement benefits at age 62 and then granted the same opportunity to men in 1961. In 1965, Medicare, providing considerable health care insurance to those aged 65 and older, was established. Defined benefit plans, but not defined contribution plans, provided strong incentives for early retirement, as did the early retirement age introduced into the Social Security program. The health care insurance provided by Medicare facilitated
retirement by age 65 .
By the late 1970s, however, projections began to show large future shortfalls in Social Security funding, necessitating program reforms. Large increases in benefits ended, and other efforts culminated in the major revisions of the 1983 legislation: the normal retirement age would gradually rise from 65 to 67 , beginning with those born in 1938 and the actuarial reductions in benefits for early retirement would be increased, as would the benefit for delaying retirement beyond the normal retirement age (up to age 70). The restrictions of the earnings test were gradually reduced, and in 2000, the test was completely eliminated for those who had reached the normal retirement age. (It had already been eliminated for those older than age 69.) The legally permissible age for mandatory retirement was increased in 1978 from 65 to 70 and then eliminated entirely in 1986 for nearly everyone. In addition to its direct effect, this change may have had a symbolic effect of indicating the propriety of continuing to work as long as one was willing and able to do so.

Increasing competition from foreign and new domestic companies, which did not have the burden of the large cost of the fringe benefits provided to employees and retirees of the older domestic firms, led the latter to shift from defined benefit to defined contribution pension plans and to reduce or eliminate health care benefits for retirees. This circumstance was exacerbated by the rapid rate of growth in the cost of health care. These higher health care costs also became an incentive for older workers to continue working full time in order to have affordable health care insurance until at least age 65, when Medicare coverage would become available. The increased competition also led many companies to move jobs abroad, where labor was much cheaper. For this and other reasons, the share of the labor force in manufacturing declined substantially with a concomitant rise in the service sector, which generally provides less pay and fringe benefits than manufacturing jobs. These changes contributed to increases in income inequality, income volatility, and job insecurity. ${ }^{16}$ (Anxiety about job loss was much greater in 1996 and 2005 than in 1982 even though the unemployment rate was twice as high in 1982.) ${ }^{17}$ It thus became increasingly difficult for many workers to accumulate sufficient resources to maintain their standard of living in retirement. The significant rise in longevity, which had also been taking place, contributed to the challenge because it meant that workers had to plan for a retirement that could last 25 years or more, with the increasingly likely threat, among other things, of the need for very expensive long-term care during the
latter part of that period. As a result, there has been a growing recognition of the value of delaying retirement for some years. Doing that would delay the drawdown of retirement assets, increase accumulations in defined contribution plans, and, if not claimed already, enhance Social Security benefits, as well as shorten the period for which the retirement resources would be needed. This is what financial planners have been advising, and it appears that many older workers have been taking their advice.

Though these changes indicate why increasing numbers of older workers have felt the need to remain in or reenter the labor force and to work full-time for the full year at ages that relatively few of their predecessors had done, a number of puzzles remain. There is much discussion in the literature about older workers' desire to ease into retirement by moving from full-time to part-time employment before leaving the work force entirely. And the percentage working full time does decline with age. But, as we have seen, at each age there have been substantial gains since 1994 in the percent working, not just 35 or more hours per week, but doing so $50-52$ weeks a year. What does this mean? Is the gradual transition to the complete withdrawal from the labor force just occurring later in life, or has a new transition pattern begun to develop? Why have the reversals in the declines in labor force participation rates and full-time employment not taken place among men age 50-59? Why have they not been affected by the changing conditions described in the preceding paragraph, which motivated men aged 60 years or more to work increasingly and do so full time throughout the year? Similarly, why has there been a marked deceleration in the rise of the labor force participation rates of women under age 60 during the past 12 years, while it has been accelerating among women over age 59? Why have the recent gains in labor force participation rates and full-time employment been greater among older women than older men? What do these changes, especially the increase in full-time employment, imply about the demand for older workers? Has there been a change in employers' belief that the productivity of older workers is too low to justify their compensation? If so, is it because of the increases in health and educational attainment that have been occur-
ring, or are employers becoming more concerned about an anticipated labor shortage?

It is difficult to judge whether the recent labor force trends among men and women in their fifties will change in the future. Among those older than 59, however, it is likely that labor force participation rates and full-time employment will keep rising as the shift from defined benefit to defined contribution plans continues, health care costs keep climbing, further increases in health and educational attainment take place, the pressure on employers from ongoing globalization to reduce the cost of fringe benefits persists, and the changes in the Social Security program continue to shift the balance of incentives from the early to the normal retirement age. As a result, tax revenue will be greater, economic growth will be enhanced, and the retirement security of older workers and their families will be improved. Moreover, in democratic societies, delaying retirement has been found to be "the only viable solution to pension problems in the face of aging societies." ${ }^{18}$

As for the financial status of the Social Security system, the implications are less clear. Increased payroll taxes could be offset by a gain in benefits earned. Also, how much the system worker/retiree ratio rises depends on the extent to which the additional older workers delay claiming the Social Security retirement benefit until they stop working.

In THE PAST 12 YEARS, A MAJOR REVERSAL of the long-run decline has occurred in the supply of labor at ages 60 and older and apparently in the demand also. Though it is difficult to judge the pace and extent of further gains in the labor force participation rates and full-time employment of these older men and women, there is reason to believe these trends will continue. There is, however, a need to provide a firmer basis for judging what to expect from the labor force participation rates of older persons by identifying the reasons for these increases in greater detail, as well as why they have taken place at ages 50-59 to a much smaller degree among women and not at all among men. The additional insight would also enhance efforts to facilitate further gains in the supply of and demand for the employment of older men and women.

## Notes

${ }^{1}$ Annual Statistical Supplement to the Social Security Bulletin, 2005 (Social Security Administration, 2006), tables 6.B5 and 6.C2.
${ }^{2}$ National Vital Statistics Reports, "United States Life Tables, 2004 vol. 56, no. 9 (U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, Dec. 28, 2007), table 1, on the Internet at http://www. cdc.gov/nchs/data/nvsr/nvsr56/nvsr56_09.pdf (visited Jan. 28, 2007).
${ }^{3}$ Jacob S. Siegel and David A. Swanson, eds., The Methods and Materials of Demography, 2nd ed. (San Diego, Elsevier/Academic Press, 2004), Appendix C. The formula also appears in the first edition.
${ }^{4}$ Mitra Toossi, "Labor force projections to 2016: more workers in their golden years," Monthly Labor Review, November 2007, pp. 33-52.
${ }^{5}$ Murray Gendell, "Retirement age declines again in 1990s," Monthly Labor Review, October 2001, p. 18.
${ }^{6}$ Toossi, "Labor force projections to 2016," November 2007, and more detailed age data were provided to the author by BLS.
${ }^{7}$ Franco Peracchi and Finis Welch, "Trends in labor force transitions of older men and women," Journal of Labor Economics, 1994, vol. 12, no. 2, pp. 223-225.
${ }^{8}$ Philip L. Rones, Randy E. Ilg, and Jennifer M. Gardner, "Trends in hour of work since the mid-1970s," Monthly Labor Review, April 1997, table 2, p. 7.
${ }^{9}$ The Social Security earnings test required a reduction in benefits if earnings exceeded a specified amount. See Annual Statistical Supplement to the Social Security Bulletin, 2005, table 2.A29 for a history of the changes in the test.
${ }^{10}$ Jae G. Song and Joyce Manchester, "New evidence on earnings and benefit claims following changes in the retirement earnings test in 2000," Working Paper 107 (Office of Research, Evaluation, and Statistics, Office of Policy, Social

Security Administration, July 2006). See also Leora Friedberg, "The Recent Trend Towards Later Retirement," Work Opportunities for Older Americans, Series 9 (Chesnut Hill, mA, Center for Retirement Research at Boston College, March 2007), p. 3. On the Internet at http://crr.bc.edu/images/stories/Briefs/ wob_9.pdf (visited Jan. 28, 2008).
${ }^{11}$ Alan L. Gustman and Thomas L. Steinmeier, "The Social Security Retirement Earnings Test, Retirement and Benefit Claiming," Working Paper No. 2004-090 (Ann Arbor, MI, University of Michigan Retirement Research Center, 2004) pp. 7-8. On the Internet at http://www.mrrc.isr.umich.edu/ publications/papers/pdf/wp090.pdf (visited Jan. 28, 2008).
${ }^{12}$ Alan J. Auerbach, David Card, and John M. Quigley, eds., Public Policy and the Income Distribution (New York, NY, Russell Sage Foundation, 2006), figure 2 and p. 2.
${ }^{13}$ Robert L. Clark, Richard V. Burkhauser, Marilyn Moon, Joseph F. Quinn, and Timothy M. Smeeding, The Economics of an Aging Society (Malden, MA, Blackwell Publishing, 2004), p. 182.
${ }^{14}$ Clark, et al, Economics of an Aging Society p. 43.
${ }^{15}$ Federal Interagency Forum on Aging-Related Statistics, Older Americans 2004: Key Indicators of Well-Being (Washington, D.C., United States Government Printing Office, November 2004), p. 15.
${ }^{16}$ Jacob S. Hacker, The Great Risk Shift: The Assault on American Jobs, Families, Health Care, and Retirement and How You Can Fight Back (New York, NY, Oxford University Press, 2006).
${ }^{17}$ Hacker, The Great Risk Sbift, p. 18.
${ }^{18}$ Vincenzo Galasso, The Political Future of Social Security in Aging Societies (Cambridge, MA, MIT Press, 2006), p. xvi.


[^0]:    ${ }^{1}$ The civilian labor force at the beginning of each 5 -year period. ${ }^{2}$ Data adjusted to pre-1994 levels.
    ${ }^{3}$ Numbers in the labor force after 2005 projected by the Bureau of Labor Statistics in 2007, but not adjusted to pre-1994 levels. The terminal date of the projection is 2015 . It is assumed that the ratio of net exits to the labor force age 50 and older does not change after 2005-2010. The number of net exits in 2010-2015 and 2015-2020

[^1]:    ${ }^{1}$ The revision of the Current Population Survey (CPS) in 1994 raised the labor force participation rates relative to those obtained before 1994 by an estimated 4.3 percent for women age 55-64 and 10.6 percent for women 65 or more. Similarly, it raised the rate 8.4 percent for men 65 or more. The data for 1994 and 2007 have not

