

# THE INCREASING LABOR FORCE PARTICIPATION OF OLDER WORKERS AND ITS EFFECT ON THE INCOME OF THE AGED

by Michael V. Leonesio, Benjamin Bridges, Robert Gesumaria, and Linda Del Bene\*

---

*The labor force participation rates of men and women aged 62–79 have notably increased since the mid-1990s. The result is a dramatic increase in the share of total money income attributable to earnings. For persons aged 65–69, the earnings share of total income increased from 28 percent in 1980 to 42 percent in 2009. For this age group in the late 1980s and early 1990s, Social Security benefits and earnings were roughly equal shares of total money income (about 30 percent); the earnings share is now more than 12 percentage points larger. When we focus on aged persons who receive Social Security benefits, earnings shares have increased markedly throughout the 62–79 age range since the early 1990s. We show that for aged persons with labor market earnings, those earnings have a large effect on their relative position in the distribution of annual money income of older Americans.*

---

## Introduction

The labor force participation rates (LFPRs) of American men aged 62 or older fell for nearly four decades after World War II. Many factors contributed to that decline, including the availability of Social Security retirement benefits, the provision of employer-provided pension plans, the advent of Medicare in 1965 to finance health care for the aged, and sustained economic growth that increased real lifetime incomes for successive birth cohorts. In short, as Americans became wealthier, they viewed earlier retirements as both desirable and affordable.

A combination of greater longevity and earlier retirements substantially increased the expected duration of retirement over most of the 20<sup>th</sup> century. For example, in the early 1950s, the median age for leaving the labor force was 66.9 for men and 67.6 for women, while life expectancy at age 65 was 12.8 years for men and 15.1 years for women (Gendell 2008, Table 1; Board of Trustees 2011, Table V.A3). Fifty years later, the median age of exit from the labor force by men was 61.6 and 60.5 for women. In 2000, life expectancy at age 65 was 15.9 years for

men and 19.0 years for women. Thus, over the half century, the average duration of retirement—as an approximation—increased from 10.9 to 19.3 years for men and from 12.5 to 23.5 years for women.

Since the 1980s, public policymakers, employers, and individual workers have had cause to reassess the affordability of early retirement. Longer retirements require commensurate increases in resources to maintain an adequate standard of living. Those resources are typically drawn from three sources: Social Security benefits, employer-provided pensions, and personal savings. The aging of the population implies that the ratio of workers to retirees is falling. For Social Security, primarily a pay-as-you-go program, the ratio is

### Selected Abbreviations

ASEC	Annual Social and Economic Supplement
CPS	Current Population Survey
DRC	Delayed retirement credit
FRA	Full retirement age
LFPR	Labor force participation rate

---

\* The authors are with the Division of Economic Research, Office of Research, Evaluation, and Statistics, Office of Retirement and Disability Policy, Social Security Administration. An earlier version of this article was presented at the 31st General Conference of the International Association for Research in Income and Wealth, St. Gallen, Switzerland, August 22–28, 2010.

Note: Contents of this publication are not copyrighted; any items may be reprinted, but citation of the Social Security Bulletin as the source is requested. To view the Bulletin online, visit our website at <http://www.socialsecurity.gov/policy>. The findings and conclusions presented in the Bulletin are those of the authors and do not necessarily represent the views of the Social Security Administration.

projected to fall from its current level of about three workers per beneficiary to about two by 2030 as the baby boom generation leaves the labor force. The Social Security Board of Trustees (2011) projects that assets of the combined Social Security trust funds will be fully exhausted in 2036.<sup>1</sup> Social Security retirement benefits were never intended to be the sole source of retirement income, and their projected cost growth is unlikely to prompt policymakers to make scheduled benefits more generous.<sup>2</sup> Furthermore, Social Security's net replacement rates—defined as the percentage of preretirement earnings that benefits (net of taxes) represent—are declining under current law because of the gradual increase in the full retirement age (FRA) from 65 to 67, increasing taxation of benefits, and rising Medicare Part B premiums, which are deducted from Social Security benefits (Reno and Lavery 2007).<sup>3</sup>

Employers have their own set of concerns about the potential adverse impact on competitiveness of costs associated with pensions and retiree health benefits. Private pension coverage rates have stagnated, at best, for decades—about half of the workforce is covered—and there has been a well-documented shift from defined benefit to defined contribution plans. That change has effectively shifted much of the risk associated with funding adequate pensions from employers to employees. Furthermore, rapidly rising costs of health insurance have discouraged employers from offering such insurance to retirees in recent years.

Recent retirees and older workers currently planning their retirements face a decidedly different environment from that of two decades ago. As the Social Security FRA increases, the benefit reduction for retirement at earlier ages increases, reducing the benefit amount payable each month. About half of the work force does not have an employer-provided pension, and one consequence of the now-chronic low personal saving rate is that many workers have not saved adequate resources for retirement. Those workers with self-managed assets in either private savings or defined contribution pension plans have seen a decade of wide swings in equity prices that have produced limited gains for investors. More recently, a large downturn in housing prices lowered the real value of the single most valuable asset for many near-retirees. It is unsurprising, therefore, that recent surveys show that large numbers of younger workers and near-retirees—though usually not majorities—appear to have inadequate retirement resources and lack confidence about their long-range financial status (Helman, Copeland, and VanDerhei 2011).

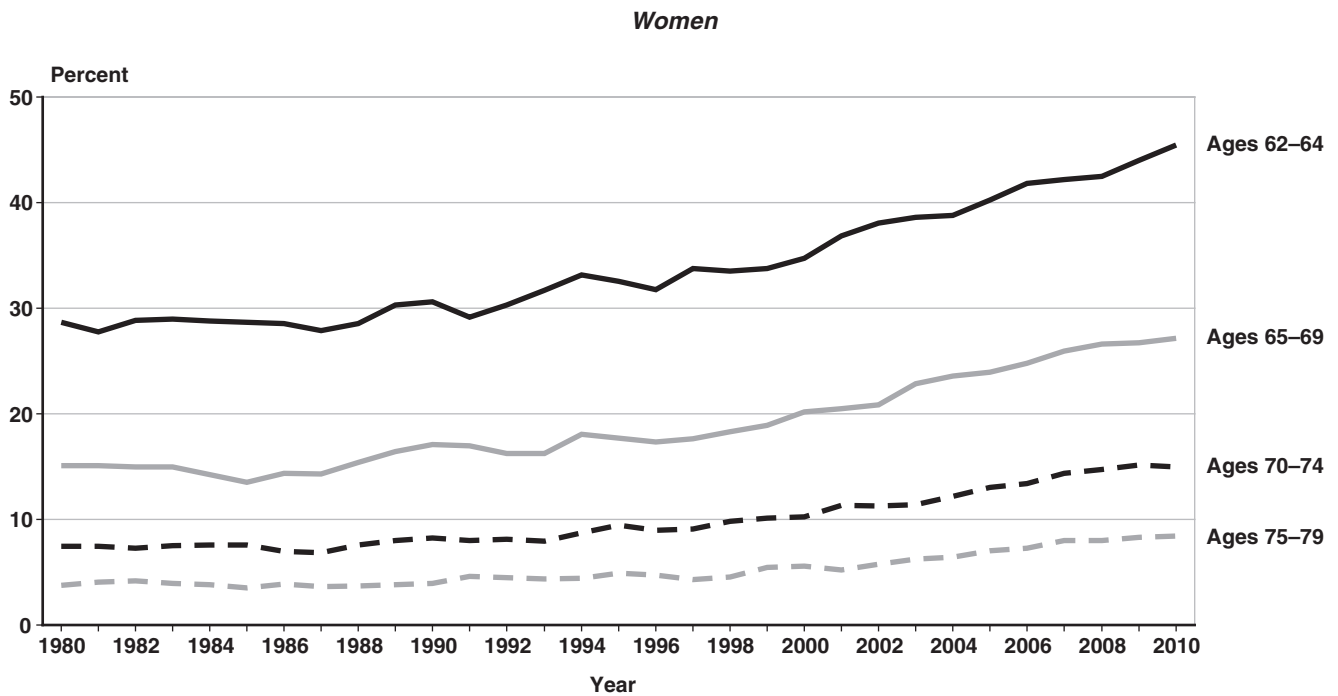
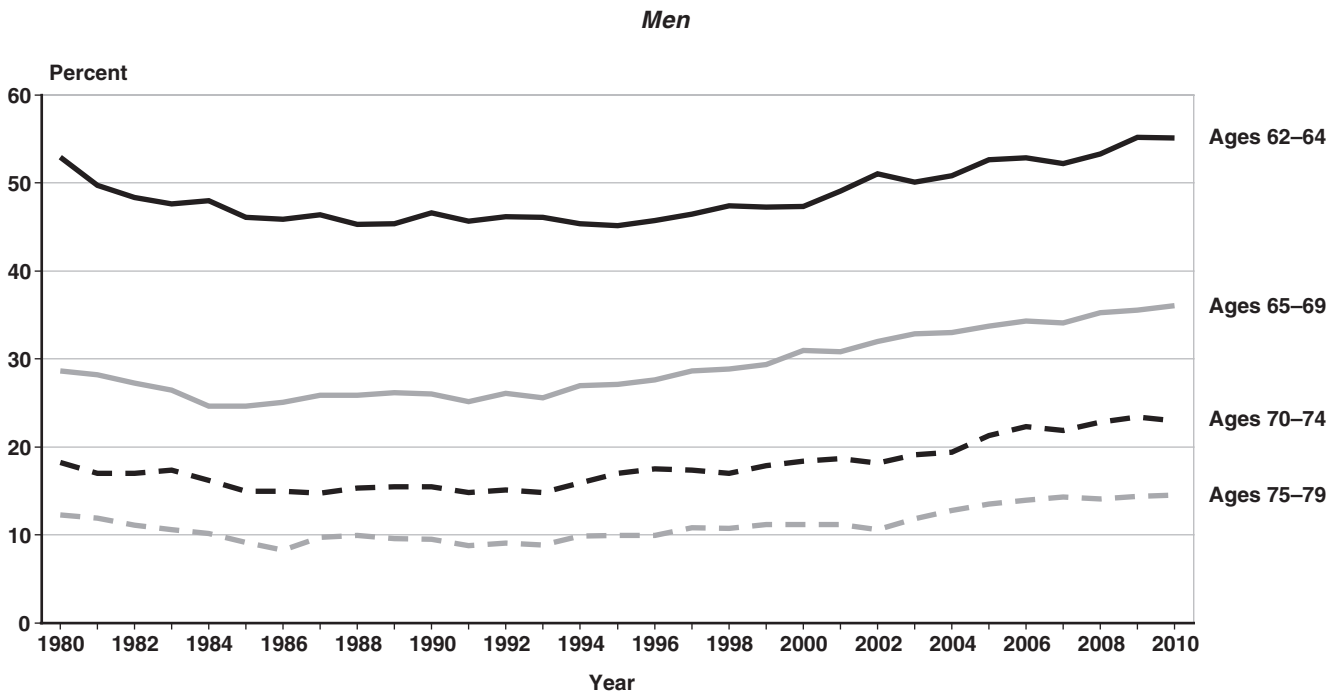
With these factors at work, for much of the past two decades public officials and financial planners have encouraged people to work longer and to delay claiming Social Security benefits. This strategy shortens the retirement period that needs to be funded and can generate additional savings. The evidence presented in this article indicates that earnings have indeed become a much greater share of total income of the older population since the mid-1990s. Around the middle of the 1980s, LFPRs for older men ended a downward trend that had endured since World War II. After stabilizing for about a decade, they began to rise by the mid-1990s. The increased labor force participation is associated with substantial increases in the labor market earnings of the older population, particularly among those aged 65–74, and especially among Social Security beneficiaries. This article discusses the emerging importance of earnings as an income source for older Americans and the factors that may be driving this change.

## **Background**

This article's statistical results are based on the Census Bureau's Current Population Survey (CPS) monthly files and Annual Social and Economic Supplement (ASEC) files for the period 1980–2010.<sup>4,5</sup> All statistics pertain to the civilian noninstitutionalized population. Chart 1 displays annual LFPRs during 1980–2010 for men and women aged 62–79.<sup>6</sup> The choice of population ages to study is somewhat arbitrary. Some workers younger than age 62 leave the labor force for retirement and LFPRs for both men and women begin to decline noticeably by age 55. At age 80 or older, about 7 percent of men participated in the labor force in 2009–2010, a figure that has trended upward during the past decade. Nonetheless, a large majority of retirements, under various definitions of the term, occur during ages 62–79.

For most of the latter half of the 20th century, successive generations of Americans with substantial lifetime labor force attachment scaled back or ceased labor force participation at increasingly younger ages.<sup>7</sup> For men in all four of the age intervals (62–64, 65–69, 70–74, and 75–79) displayed in Chart 1, the early 1980s show the final years of the long decline in LFPRs. Those rates then stabilize, more or less, for about a decade; then they begin a period of generally sustained annual increases in the mid-1990s.<sup>8</sup> The largest percentage point increase (11.4) between the low point and 2010 occurred for the group aged 65–69, but the proportional LFPR increases for the other three

**Chart 1.**  
**LFPRs for the population aged 62–79, by age group and sex, 1980–2010**



SOURCE: Authors' calculations using CPS monthly files.

NOTE: Annual figures are weighted arithmetic means of the 12 monthly values.

age groups are also substantial. Recent labor force projections from the Bureau of Labor Statistics indicate that the LFPRs for three of the four age groups will continue to increase during 2008–2018 at roughly the same pace as occurred during 1998–2008; for 65- to 69-year-olds, the increase will decline from 7.6 to 4.7 percentage points (Toossi 2009).

The LFPRs for women in the same age groups show little trend until the 1990s, at which point they begin to increase at rates similar to those for men. In part, increasing lifetime labor force attachment drives the trend for later birth cohorts. Each successive cohort of women reaching age 62 tends to have a higher percentage with recent work experience than earlier cohorts had. The Bureau of Labor Statistics projects LFPR increases for all four age groups during 2008–2018 roughly similar to those in the previous decade (Toossi 2009).

The LFPR trends for the older population depicted in Chart 1 are well known. Less studied is the nature of the jobs held by older workers. More specifically, what role does self-employment play versus wage-and-salary work, and is the increased work primarily full time or part time? Charts 2a and 2b present LFPRs for men and women categorized by both employment characteristics. Following Bureau of Labor Statistics convention, we define part-time employment as that which involves working fewer than 35 hours per week.<sup>9</sup>

Since the mid-1990s, most of the increase in LFPRs for older men has been in full-time wage-and-salary employment (Chart 2a). The two youngest age groups show the largest percentage-point gains. For men aged 62–64, the full-time wage-and-salary rate increased from 23.6 percent in 1995 to 33.4 percent in 2010, while the rate for those aged 65–69 increased from 8.7 percent to 17.3 percent. Although the absolute increases for the two oldest groups are smaller, the proportional increases during that interval are larger, as their 2010 rates more than double their 1995 LFPRs. Among the employment categories, part-time wage-and-salary work shows the second-largest LFPR gains since 1993 for all four age groups. At ages younger than 70, full-time work has long been more important than part-time work for men, but the recent data indicate that even among men aged 70–74, full-time work is now more prevalent; only men aged 75–79 are more likely to work part time. Finally, during the past 15 years, increases in wage-and-salary employment are the primary drivers of rising labor force participation for all four

age groups, with self-employment rates exhibiting little change.

The results for women are similar, with the preponderance of LFPR increases for the two youngest age groups attributable to rising full-time wage-and-salary employment (Chart 2b). LFPRs for women younger than age 70 are considerably lower than those for same-age men. Until very recently (2007), women aged 65–69 in wage-and-salary jobs were more likely to be working part time. Although the part-time wage-and-salary rate rose by nearly 3 percentage points during 1993–2010 for that age group, it has now been surpassed by the full-time wage-and-salary rate. Among women aged 70–74 and 75–79, part-time work still dominates full-time work. In addition, women are considerably less likely than men to be self-employed, whether full time or part time, in all four age groups.

### ***The Importance of Earnings in the Total Incomes of Older Americans***

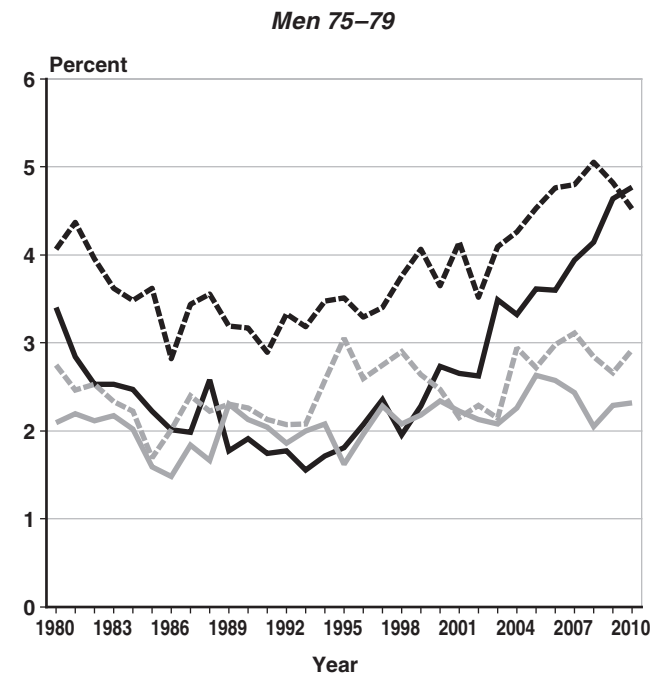
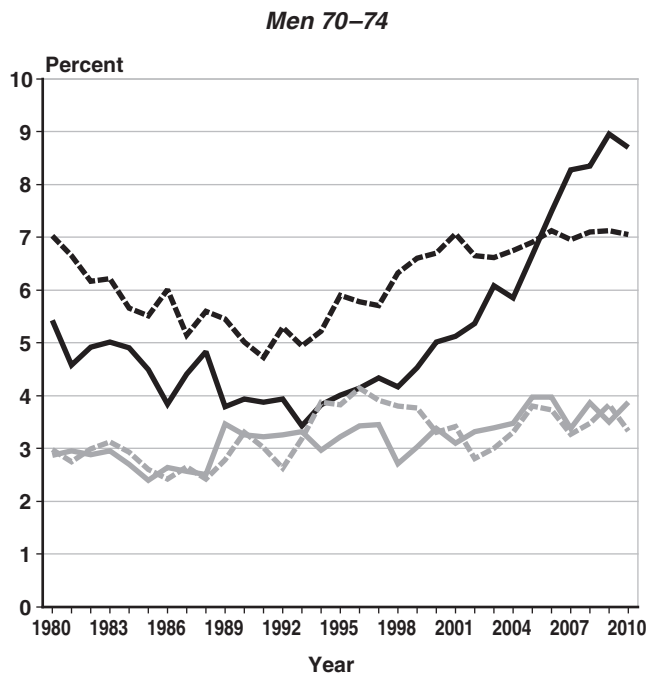
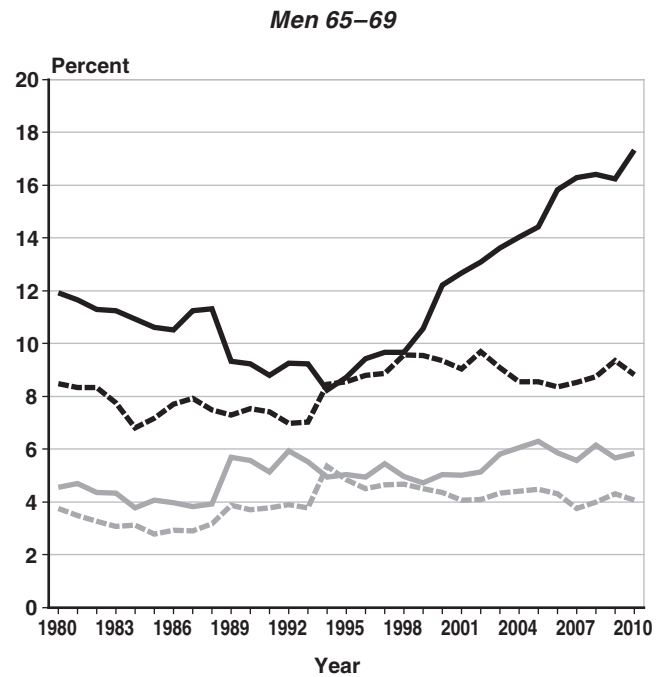
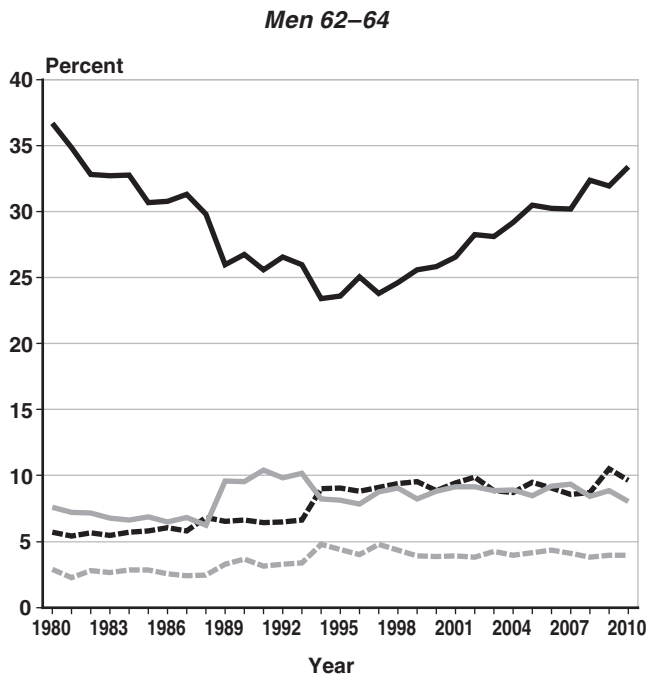
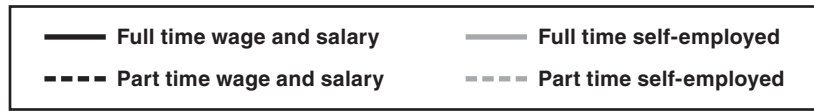
---

The increased labor force participation of the older population has been accompanied by a large increase in the importance of earnings in their total incomes. In this section, we examine the components of the annual income received by persons aged 62 or older during 1980–2009. We consider the total money incomes of aged persons in two living-arrangement categories: married-couple units and nonmarried-person units.<sup>10</sup> *Total money income* is the sum of five component categories:<sup>11</sup>

- *Earnings* comprise all wage-and-salary earnings and farm and nonfarm self-employment income.
- *Social Security benefits* include retired-worker, disabled-worker, spouse and other dependent, and survivor benefits.
- *Pension benefits* include income from all private pensions and annuities, government civilian and military employee pensions, and railroad retirement program benefits. This category includes retirement, survivor, and disability benefits from these sources.
- *Asset income* includes interest, dividends, rents and royalties, and estate and trust income.<sup>12</sup>
- *Other income* is the sum of unemployment compensation; workers compensation; veterans' payments; educational assistance; child support; alimony; contributions and financial assistance; miscellaneous survivor, disability, and retirement income; Supplemental Security Income; and other public assistance.

Chart 2a.

LFPRs for men aged 62–79 by age group: Wage-and-salary versus self-employed workers by full-time versus part-time work status, 1980–2010

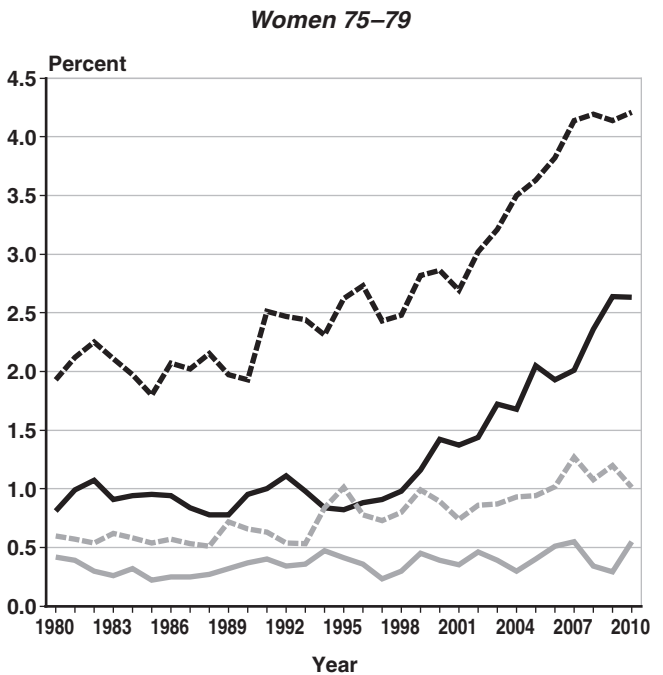
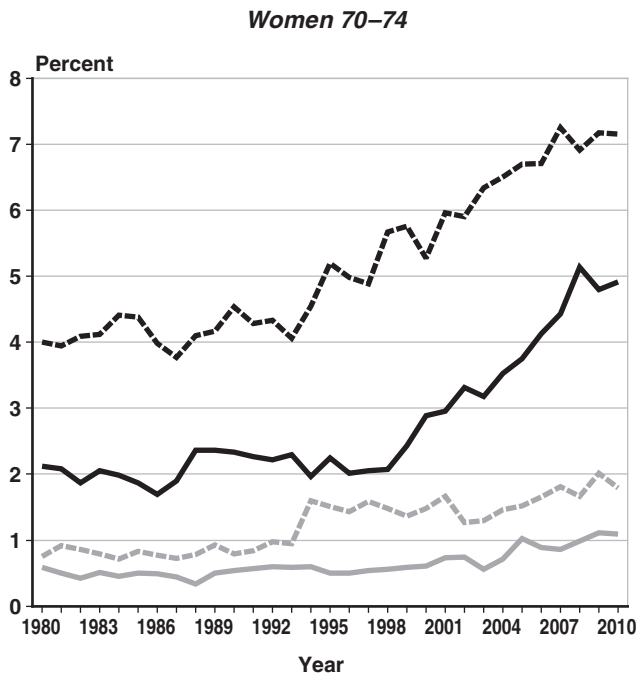
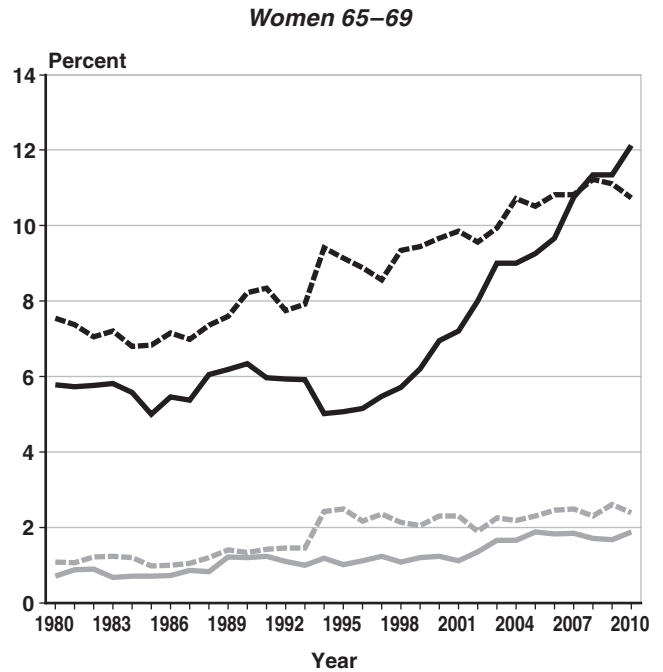
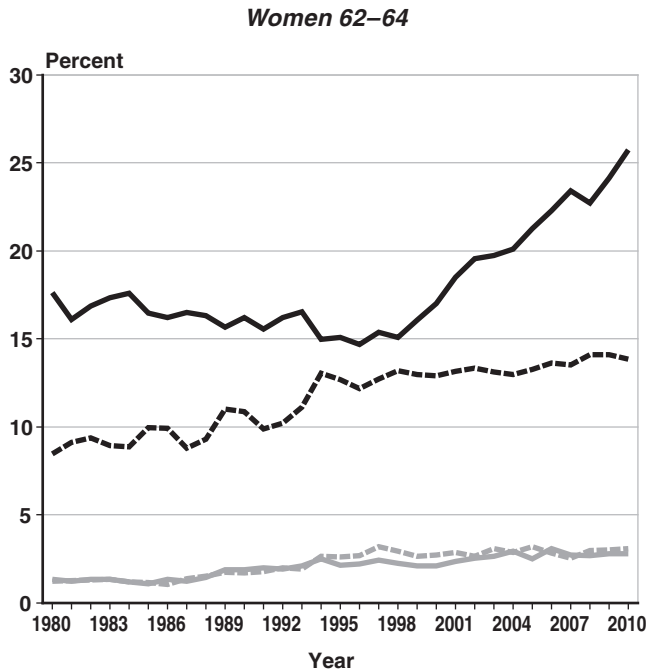
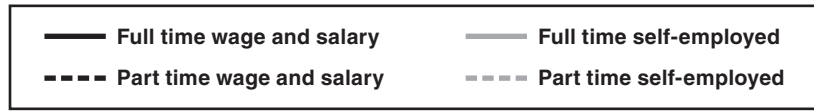


SOURCE: Authors' calculations using CPS monthly files.

NOTE: Annual figures are weighted arithmetic means of the 12 monthly values. Part time is defined as working fewer than 35 hours per week.

Chart 2b.

LFPRs for women aged 62–79 by age group: Wage-and-salary versus self-employed workers by full-time versus part-time work status, 1980–2010



SOURCE: Authors' calculations using CPS monthly files.

NOTE: Annual figures are weighted arithmetic means of the 12 monthly values. Part time is defined as working fewer than 35 hours per week.



Charts 3 through 6 show income shares for aged persons during 1980–2009. We calculate income shares as follows: For married persons living with a spouse, we assume equal sharing of incomes, and divide the couple’s total income and each of its income components equally between the husband and wife. For unmarried persons, we look only at the person’s own income. Income shares are the weighted sum of the amounts for an income category expressed as a percentage of the weighted sum of total money income for the relevant demographic group.<sup>13, 14</sup>

### ***Income Shares by Source for All Persons Aged 62–79***

Chart 3 displays the income shares for people aged 62–79. Panels for all four age groups show substantial increases in the shares of total money income accounted for by labor market earnings since the mid-1990s.<sup>15</sup> As the importance of earnings has increased, the asset income share has fallen noticeably—a decline that began in the early 1990s—while the Social Security benefit income share has declined modestly. The pension benefit share has represented from 11 percent to 23 percent of total money income during 1980–2009 for the four age groups, and within age groups the share has varied over time. After increasing during the 1980s and early 1990s for all four age groups, the pension benefit share has declined gradually since the mid-1990s for the three youngest age groups, but has held steady for those aged 75–79. The “other income” share is consistently small (about 2–4 percent) for all age groups.

For the youngest age group (62–64), whose LFPRs have risen for both men and women by about 10 percentage points since 1995, the earnings share increased from 50 percent in 1990 to 58 percent in 2000 and 66 percent in 2009, with the upward trend beginning in the mid-1990s. For this age group, the asset income share attained its high value of 17 percent in 1985 before falling to 10 percent in 1994. The asset income share remained in the 8–11 percent range during 2000–2006, with a value of 8 percent recorded for 2009. Over the three decades, the Social Security benefit share of income declined from 16 percent to 11 percent.

The importance of earnings in total income also increases substantially for the three oldest age groups. For 65- to 69-year-olds, the earnings share increased from 28 percent in 1980 to 34 percent in 2000, and reached 42 percent of total money income in 2009. Similar to the experience of the 62- to 64-year-olds,

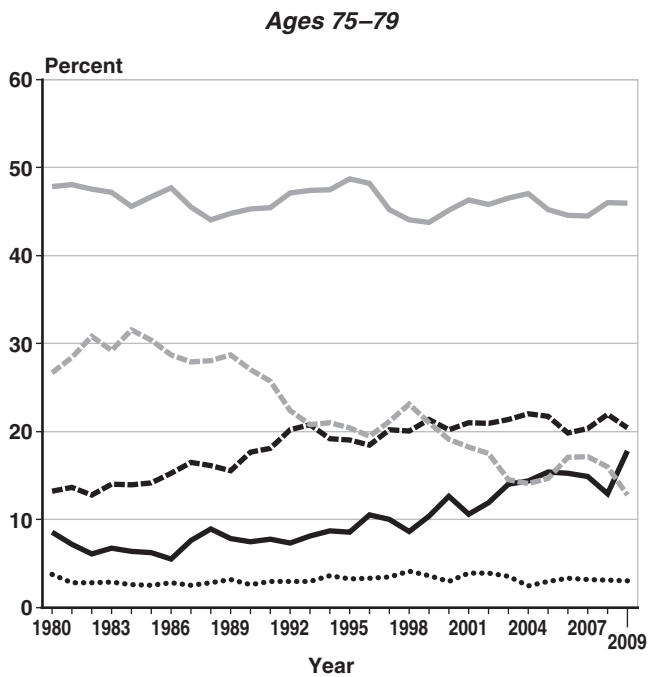
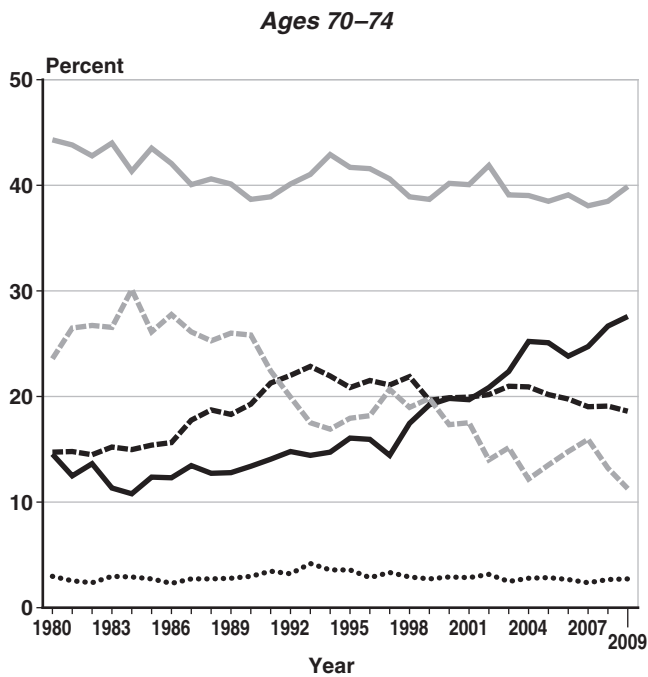
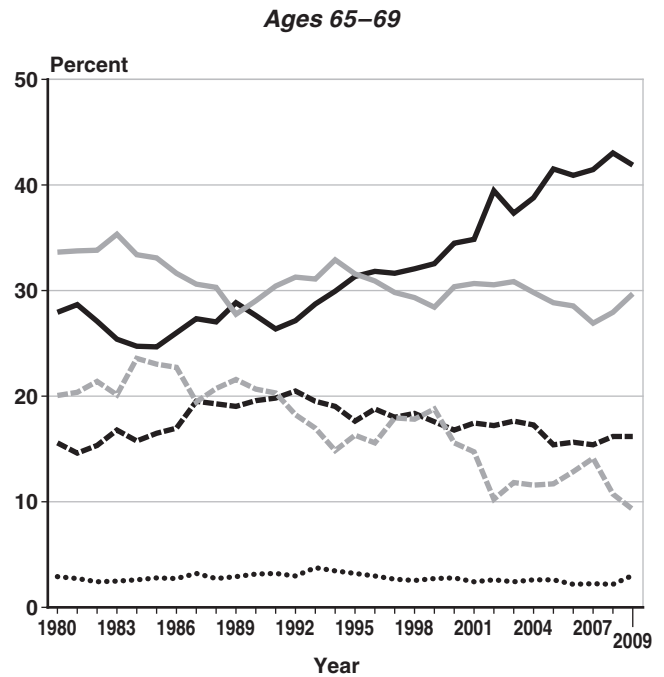
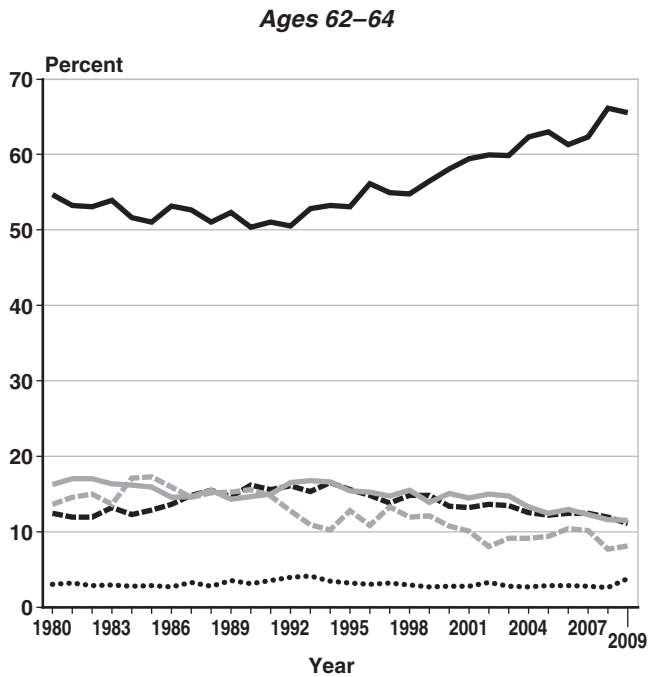
the shares of asset income fell from 20 percent in 1980 to 9 percent in 2009. The Social Security benefit share also decreased by about 4 percentage points during that period. The changes in income shares attributable to earnings (since 2000) and assets (since 1999) are particularly pronounced. In 2000, the Social Security FRA (the age at which benefits are not reduced for early claiming) began its gradual increase to age 67 and the retirement earnings test for beneficiaries at FRA through age 69 was repealed. Both changes improve work incentives for current and potential Social Security beneficiaries. The declining share of asset income likely reflects relatively low investment returns for most of that decade and a 10 percentage point decline (to 57 percent) in persons reporting income from that source since 1999.<sup>16</sup> Perhaps the single most striking feature of the panel for 65- to 69-year-olds is that for the middle of the 1980–2009 period, Social Security and earnings were about equally important components of total money income, each with roughly a 30 percent share. Since 1994, these components have sharply diverged, with the earnings share now more than 12 percentage points higher than the Social Security share.

Social Security benefits remain the most important component of total money income for the two oldest age groups, although the gap between the benefit and earnings shares has narrowed substantially for those aged 70–74. The earnings share for 70- to 74-year-olds has essentially doubled, from 12–15 percent in the early 1980s to 28 percent in 2009. The corresponding increase for 75- to 79-year-olds was from 5–7 percent in the mid-1980s to 12–18 percent in 2004–2009. Both groups experienced large declines in asset income shares.<sup>17</sup>

### ***Income Shares by Source for Persons Aged 62–79 with Earnings***

In recent years a majority of people aged 62–64 have earnings, but the percentages decline with age.<sup>18</sup> For example, in 2009, the percentages for our four age groups were 68 percent (ages 62–64), 47 percent (ages 65–69), 30 percent (ages 70–74), and 19 percent (ages 75–79). Naturally, the average share of earnings in total money income among earners, as shown in Chart 4, is higher than for the wider population that includes nonearners, as shown in Chart 3. For all four age groups in Chart 4, the earnings share has consistently exceeded the Social Security benefit share—usually by a sizable amount, even for the two oldest groups.<sup>19</sup> The four panels of the chart show a clear

**Chart 3.**  
**Distribution of total money income by source, all persons aged 62–79 by age group, 1980–2009**



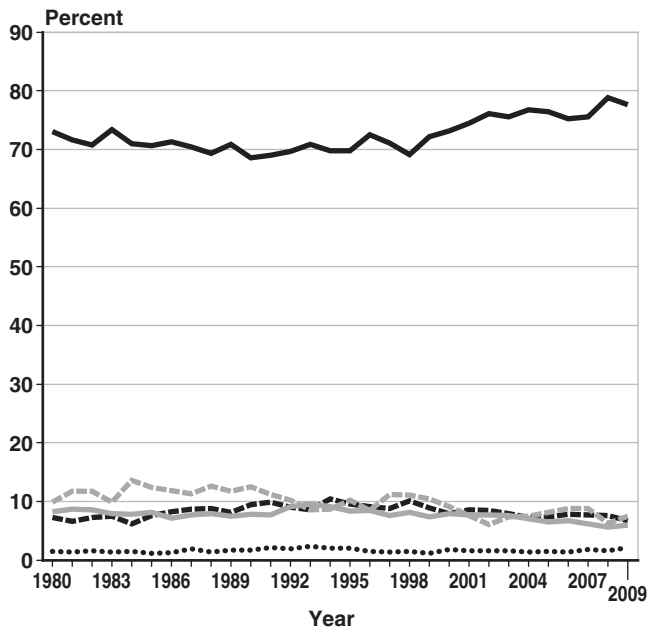
SOURCE: Authors' calculations using CPS ASEC data.



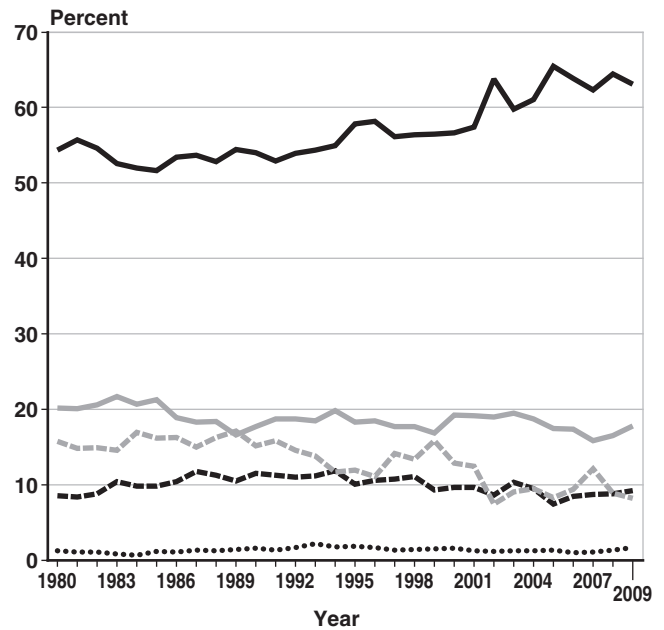
**Chart 4.**  
**Distribution of total money income by source, all persons aged 62–79 with earnings by age group, 1980–2009**



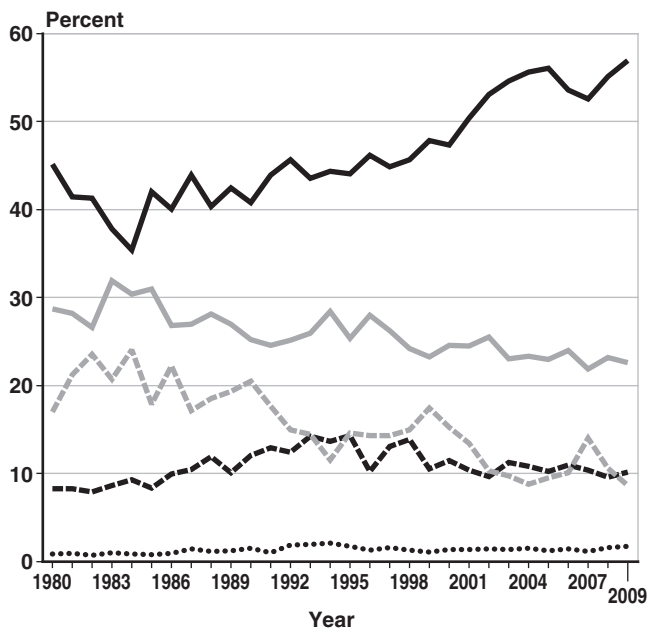
*Earners 62–64*



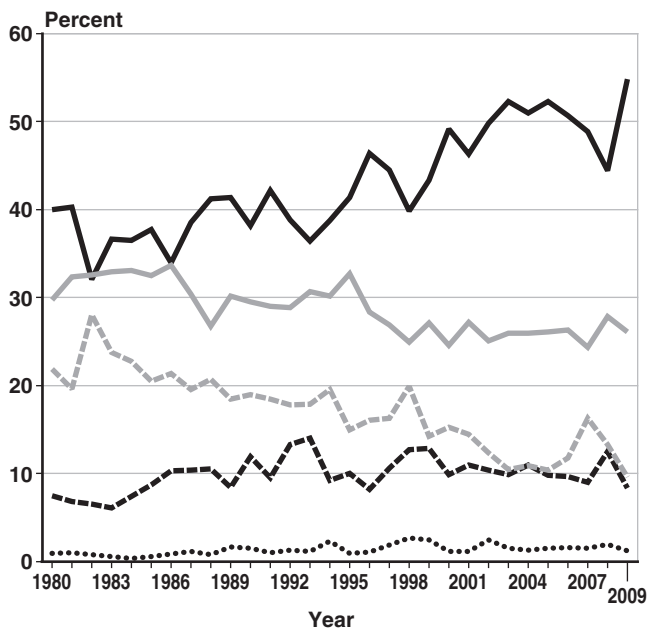
*Earners 65–69*



*Earners 70–74*



*Earners 75–79*



SOURCE: Authors' calculations using CPS ASEC data.

NOTE: Zero-earners are included if they meet the age requirement and have a spouse who reports earnings.

increase in earnings shares over time for the population of earners, but not as large an increase as depicted in Chart 3 for the total population in this age range. The reason is that some of the increase in LFPRs does not translate into an increasing earnings share for earners when the earnings shares of new participants are low. To the extent that an age group's higher LFPR is accounted for by increases in employment in higher paying (typically full-time) jobs, the additional participation will tend to increase the earnings share of total money income. This increase is particularly noticeable, from 35 percent in 1984 to 57 percent in 2009, for units aged 70–74. For the youngest age group (62–64), earnings always accounted for at least 68 percent of total money income, and more recently has increased to 78 percent. For 65- to 69-year-old earners, the earnings share has always exceeded 50 percent, and attained 63 percent in 2009.

### ***Income Shares by Source for Social Security Beneficiaries Aged 62–79***

Many Americans equate retirement with receiving Social Security benefits that are not disability related. In the past, beneficiary status has been strongly associated with withdrawal from the labor force or reduced work. From the program's inception, Social Security benefits have been subject to earnings tests that have helped reinforce the idea that benefits are intended to replace labor market earnings. Over the years, the relaxation of earnings test rules has made work more attractive to beneficiaries by increasing annual limits on allowable earnings, reducing the benefit reduction rate, and exempting more people from the test. We discuss these changes later in the article.

Chart 5 shows income shares by source for persons aged 62–79 who receive Social Security benefits.<sup>20</sup> The Social Security benefit share of total money income is substantial for all four age groups, with greater shares observed for older ages. All four age groups again show notable increases over time in the earnings share of total money income, particularly the 65–69 and 70–74 age groups. Among 65- to 69-year-old beneficiaries, the earnings share increased sharply, from 22 percent in 1994 to 33 percent in 2009. Nearly all of the increase (more than 10 percentage points) occurred between 2000 and 2002, the period immediately following the repeal of the earnings test for workers who reach the FRA.<sup>21</sup> For 70- to 74-year-olds, the earnings share increased from 13 percent in 1990 to 25 percent in 2009. The earnings share gained 6 percentage points during 2002–2004, but much

(almost 40 percent) of the increase from 1990 to 2009 occurred prior to 2000. For all four age groups, the asset income share declined substantially over the past two decades. Since the early 1990s, pension shares have declined slightly (by 2–4 percentage points) for the three youngest age groups and changed little for the 75- to 79-year-old group. The other-income share has remained small (about 2–4 percent) for Social Security beneficiaries in all four age groups throughout the observation period.<sup>22</sup>

### ***The Importance of Earnings in the Distribution of Total Money Income***

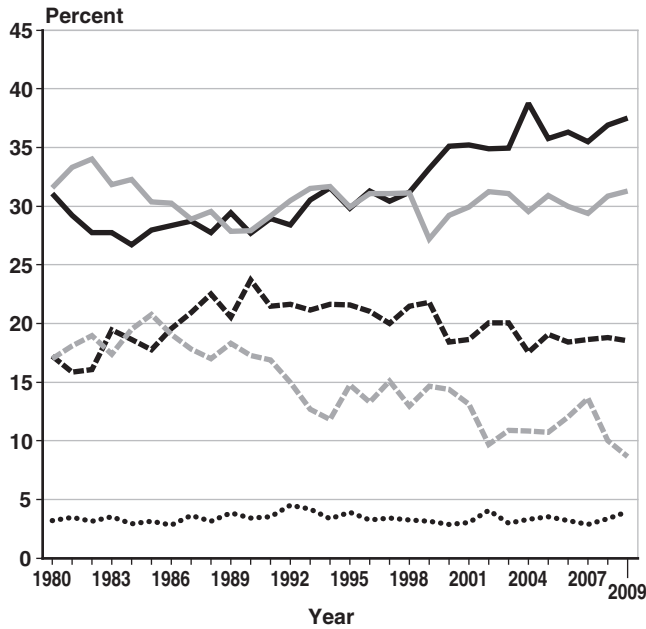
For some older workers, particularly those without adequate resources to finance retirement, labor market earnings may be a necessary component of total income. Other older workers may be motivated more by job satisfaction or a desire to remain active in the labor force, with any earnings being a secondary consideration. We now examine changes in the shares of the five income sources over time by size-adjusted total money income quintile. The quintile cutoffs are determined by the distribution of adjusted total money income for the population aged 55 or older. For this exercise, we calculate the adjusted income for each person aged 55 or older using a simple equivalence scale (equal to  $\sqrt{2}$  for married couples living together and equal to 1 for all other persons).<sup>23</sup> For each member of a couple, adjusted income is the couple's income divided by  $\sqrt{2}$ . We then rank the size-adjusted total money incomes of persons using person-level CPS weights to determine quintile cutoffs.

Because earnings have long been the major source of income for persons younger than age 65, we focus on the population aged 65 or older, for whom earnings traditionally have been relatively less important. Chart 6 displays the behavior of total money income shares during 1980–2009 for the five income quintiles (1 = lowest, 5 = highest). Earnings represent small shares of total money income for the lowest two quintiles throughout the observation period, never exceeding 3 percent in quintile 1 or 7 percent in quintile 2. Social Security benefits account for very large proportions of income in the two lowest quintiles, with a slight increasing trend over the full observation period. Growth in the earnings share since the early 1990s is increasingly apparent as our attention moves to the higher income quintiles. In quintile 5, earnings have been the largest income component since the mid-1990s, with the 2009 share equal to 43 percent. The highest quintiles have experienced notable

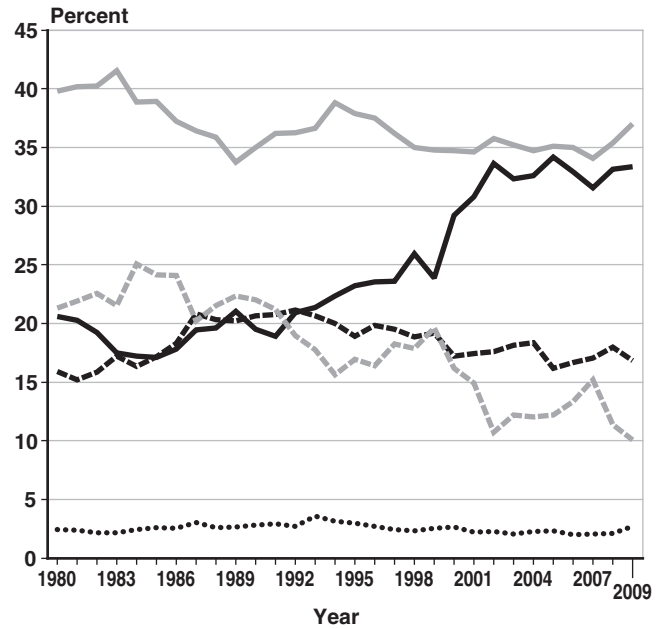
**Chart 5.**  
**Distribution of total money income by source, all persons aged 62–79 who receive Social Security**  
**benefits by age group, 1980–2009**



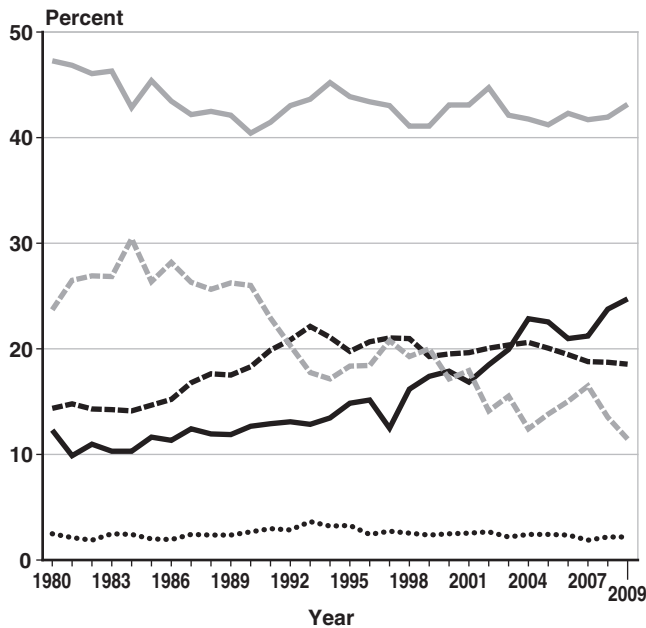
*Beneficiaries 62–64*



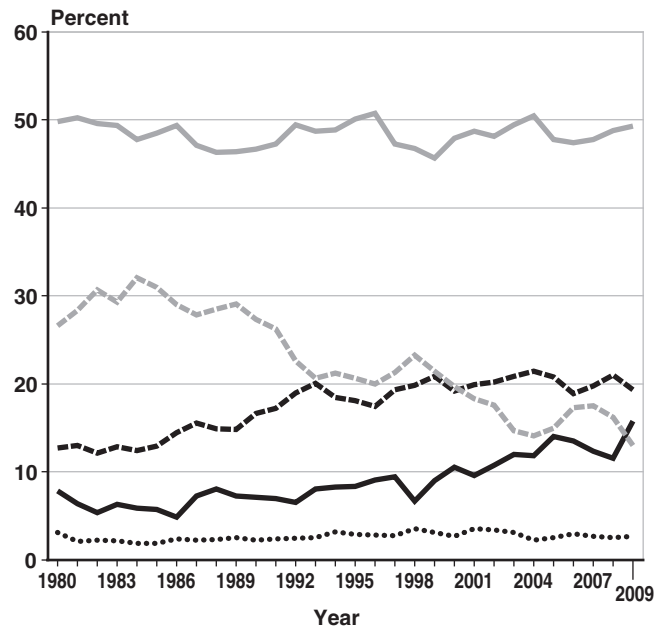
*Beneficiaries 65–69*



*Beneficiaries 70–74*



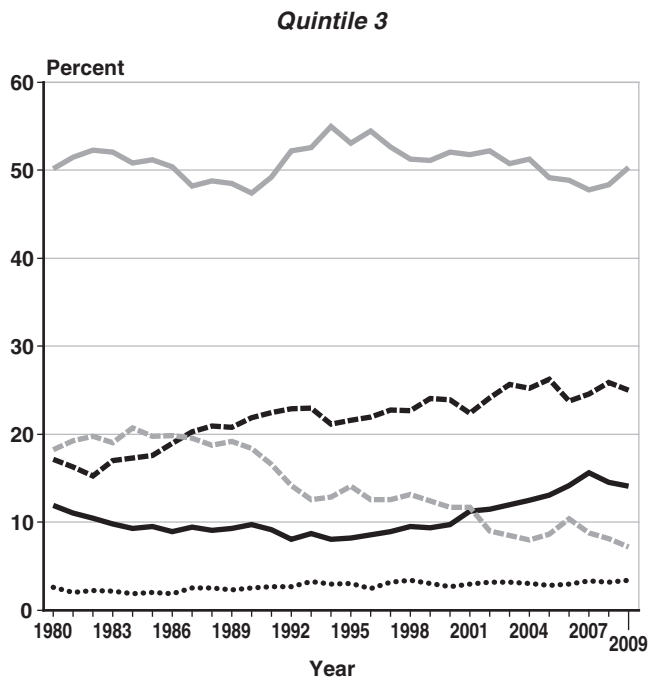
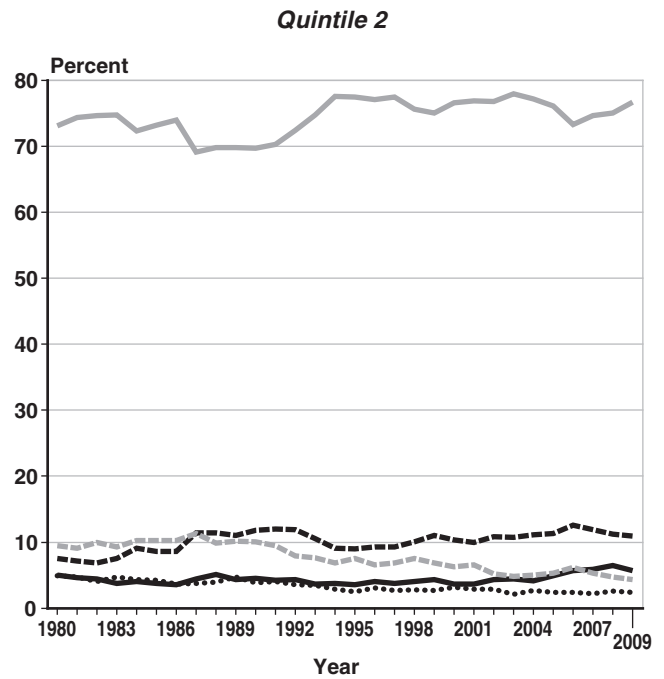
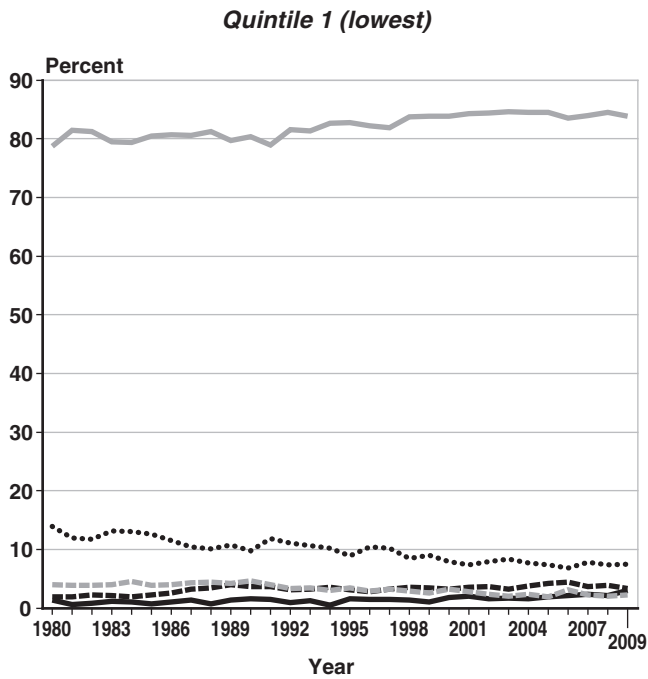
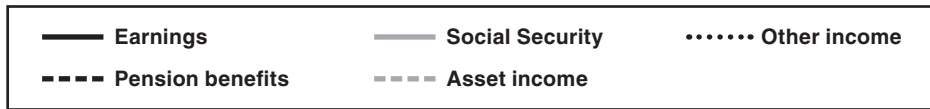
*Beneficiaries 75–79*



SOURCE: Authors' calculations using CPS ASEC data.

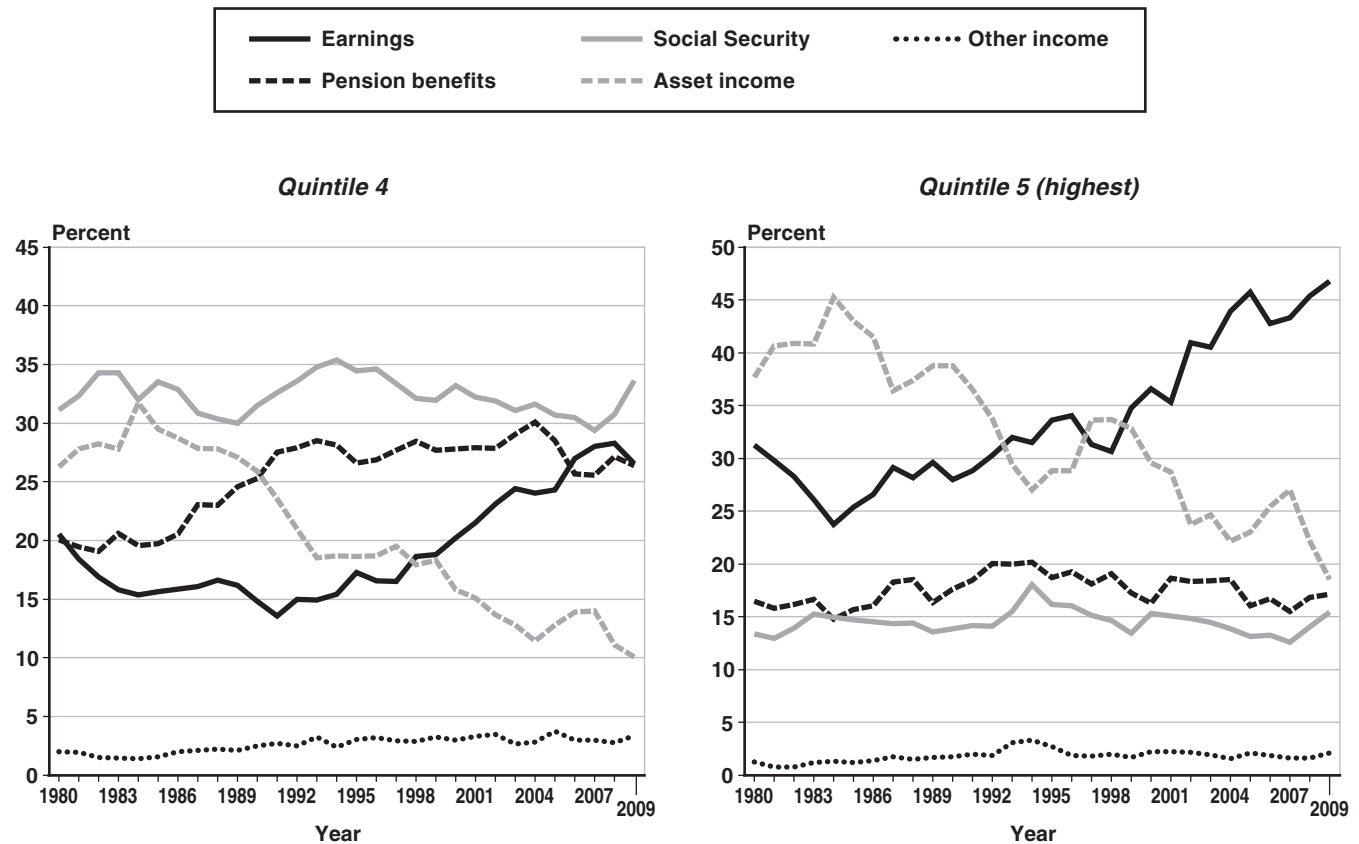
NOTE: Nonbeneficiaries are included if they meet the age requirement and have a spouse who receives Social Security benefits.

**Chart 6.**  
**Distribution of total money income by source, all persons aged 65 or older by income quintile, 1980–2009**



Continued

**Chart 6.**  
**Distribution of total money income by source, all persons aged 65 or older by income quintile,**  
**1980–2009—Continued**



SOURCE: Authors' calculations using CPS ASEC data.

declines in asset income shares. The importance of Social Security benefits in total money income is notably smaller as one moves to higher quintiles; the respective shares for quintiles 3, 4, and 5 are about 50 percent, about 30 percent, and under 20 percent.

To assess the importance of earnings for persons aged 65 or older, one can examine how the distribution of adjusted total money income would be altered if we replaced actual earnings amounts with zero (no work). We tabulate the resulting movements from higher to lower quintiles using the original quintile cut-off values. Chart 7 summarizes the results of this exercise, looking at all men and women aged 65 or older, and then focusing on only those men and women who report earnings of their own. Each panel in Chart 7 graphs the percentages of persons whose units would move down one or more quintiles (shown in black) and two or more quintiles (shown in gray) over the 1980–2009 period if their own earnings were subtracted from their unit's total money income.<sup>24</sup>

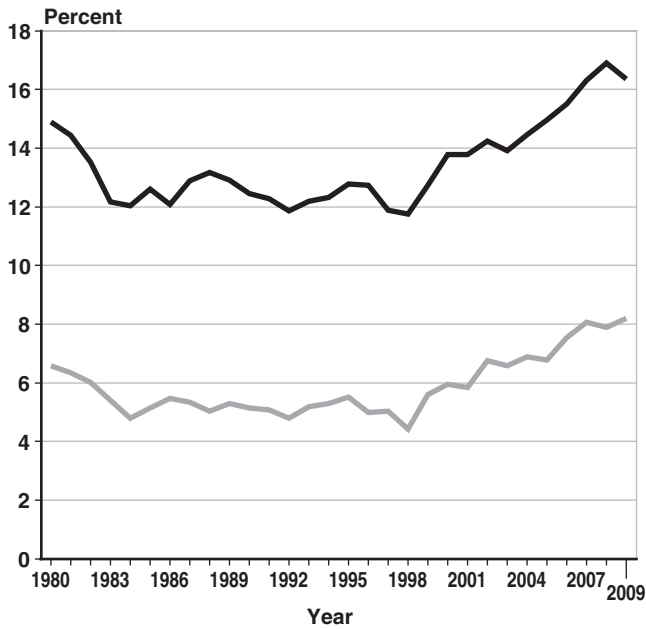
Again, the growing importance of earnings since the early 1990s is apparent for both older men and women. Throughout the observation period, men are generally more likely to have earnings, given their higher LFPRs. It is, therefore, no surprise that eliminating earnings as an income source results in larger percentages of men moving down in the income distribution by one or more quintiles. For all men aged 65 or older, the percentage who would move one or more income quintiles downward increases from 12 percent in 1990 to 16 percent in 2009; and among those with earnings, the proportion migrating downward increases from 58 percent to 67 percent. For all women aged 65 or older, the percentage moving down one or more quintiles increases from about 6 percent in 1990 to 10 percent in 2009; among those with earnings, the increase is from 52 percent to 64 percent.<sup>25</sup> Of those aged 65 or older who move down at least one income quintile when earnings are zeroed out, two-fifths move down by two or more quintiles, regardless of sex.

**Chart 7.**

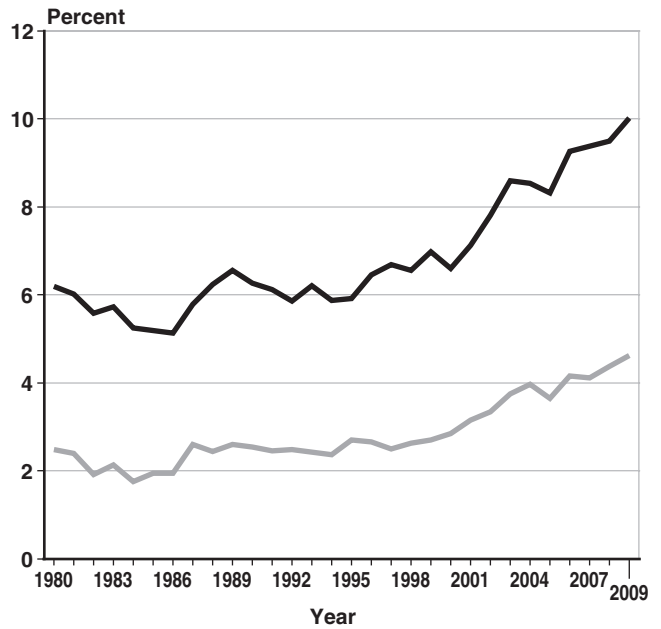
**Percentage of persons aged 65 or older who would belong in lower total money income quintiles if their earnings were eliminated, total and for those with earnings, by sex, 1980–2009**



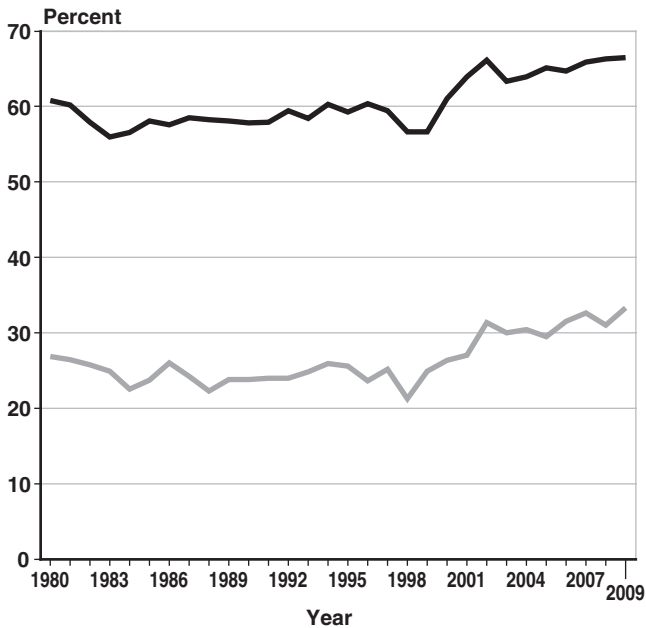
*All men 65 or older*



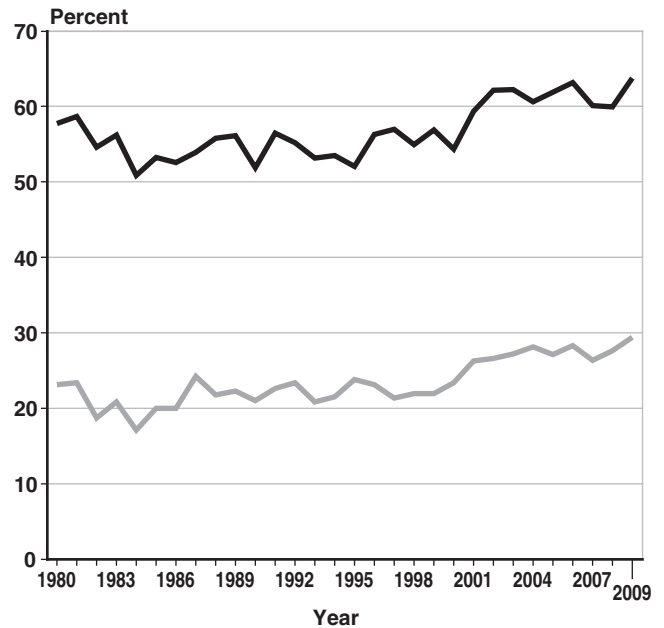
*All women 65 or older*



*Men 65 or older with earnings*



*Women 65 or older with earnings*



SOURCE: Authors' calculations using CPS ASEC data.



Thus, earnings have become an increasingly important income source for the population aged 65 or older and, for those who have them, earnings substantially affect their relative position in the distribution of annual money income among Americans aged 55 and older.

## ***Discussion***

---

Many factors have likely contributed to the increase in late-life earnings. In this section, we briefly review some of the more plausible influences.

Although their influence is difficult to measure, several important changes in the law have helped facilitate longer work lives. The Age Discrimination in Employment Act or ADEA (1967) prohibits workplace discrimination, in general, against people aged 40 or older based on age; specifically bans practices such as discrimination in hiring, firing, wages, fringe benefits, training, job assignments, and promotions; and explicitly bans job notices that specify age preferences. The 1978 Mandatory Retirement Act, which amends the ADEA, prohibits mandatory retirement before age 70. A further amendment in 1986 abolished mandatory retirement for most jobs (employers with fewer than 20 workers are exempt).

The passage of the Employee Retirement Income Security Act (ERISA) in 1974 broadly affected the operation of employer pensions, for example by liberalizing vesting rules for workers. The 1986 Tax Reform Act reduced ERISA's 10-year vesting requirement to 5 years. Although these changes were designed to increase the probability that an employee would retire with a pension, they raised pension costs for employers, providing incentives either to scale back pension coverage or to shift those added costs to workers by slowing the growth in money wages. These two pieces of legislation are thought to have contributed to the decline in defined benefit pensions. Stagnant pension coverage rates coupled with the shift toward defined contribution pensions have likely encouraged older individuals to continue working. Unlike defined benefit plans, which usually feature significant incentives to retire at specific ages, defined contribution plans are largely neutral with respect to retirement age. Thus, the increasing prevalence of defined contribution plans has effectively reduced a disincentive for continuing work.

One aspect of the very low private saving rate in the United States (until its recent modest recovery) is the substantial fraction of near-retirees who are estimated to have inadequate retirement savings.

Although observers disagree about the extent to which accumulated assets are insufficient, our analysis of the sources of retirement income for the bottom two total money income quintiles finds a near absence of income from assets or pensions. For many seniors, earnings are necessary to attain a satisfactory standard of living, but many aged units in the lowest quintiles do not work.

Inadequate retirement savings can result not only from failing to contribute regularly to a retirement savings account, but also from unexpectedly low investment returns. The past decade has seen lower equity returns than the historical averages, with periodic gains offset by precipitous declines in asset prices. There is not yet much evidence on the effects of poor investment performance on retirement timing, and the little evidence that exists is mixed. For many families, housing equity represents the single largest form of wealth. The effects of the recent steep declines in housing prices on retirement decisions are unknown, but are likely to serve as work incentives for older workers.

Continued work is usually contingent on good health; and by most measures, the health of the “young old”—those who are most likely to want to continue working—has improved over time, making them more able to work. Along with a healthier older population, technological and other advances have enabled many work opportunities to become less physically demanding. Furthermore, as educational attainment of successive cohorts has increased over time, the older labor force increasingly includes higher skilled workers who are more likely to enjoy work and earn higher pay, enhancing the option to continue working.

The increasing cost of health care has led to the declining availability of employer-provided health insurance for retired workers. With group coverage unavailable to many retirees, older individuals often cannot afford insurance. The risk of incurring health expenses without coverage motivates some workers to extend employment in order to retain employer-provided health insurance, at least until age 65 when Medicare coverage begins.

The average age of the population is increasing, as smaller cohorts follow the baby boomers. Many speculate that the job market for older workers will continue to improve as demand for their services increases. To meet that demand, prospective employers may have to redesign jobs and offer compensation packages to suit the preferences of older workers.

Finally, the past two decades have seen important changes in the Social Security retirement program meant to encourage older workers to continue working and postpone claiming benefits. These changes include the following:

- Gradually increasing the FRA from 65 to 67. The exhibit below illustrates how the FRA, currently 66, is between the two phases in which it is to rise incrementally from 65 to 67. The effect of a 2-year increase in the FRA is equivalent to a 13.3 percent benefit cut. A benefit cut induces more work.

Effective date	Full retirement age	Worker's birth year
1999 and earlier	65	1937 and earlier
2000	65 and 2 months	1938
2001	65 and 4 months	1939
2002	65 and 6 months	1940
2003	65 and 8 months	1941
2004	65 and 10 months	1942
2005–2016	66	1943–1954
2017	66 and 2 months	1955
2018	66 and 4 months	1956
2019	66 and 6 months	1957
2020	66 and 8 months	1958
2021	66 and 10 months	1959
2022 and later	67	1960 and later

SOURCE: SSA 2011.

- Gradually increasing the delayed retirement credit (DRC) from 3 percent to 8 percent per year during 1990–2008.<sup>26</sup> The DRC is the rate by which the eventual monthly benefit amount increases when a worker defers claiming benefits beyond the FRA. Credits can accrue until age 70. On average, 8 percent is actuarially fair; that is, for a person with average life expectancy, delaying first receipt of benefits does not change the present value of expected lifetime benefits. Like the increased FRA, the increased DRC promotes continued work.
- Liberalizing the retirement earnings test (including abolishing the test for persons aged 65–69) in 2000. From its inception, Social Security has had an earnings test that sets retiree earnings limits, above which benefit payments are reduced. Over the years, ad hoc increases to the earnings limit have been instituted many times. Four changes are particularly

relevant for the 1980–2009 period examined in this article. In 1983, the earnings test was eliminated for beneficiaries aged 70–71. In 1990, the benefit reduction rate decreased from 0.50 to 0.33 for beneficiaries aged 65–69. Beginning in 1996, a series of large annual increases in the exempt amount was adopted for beneficiaries aged 65–69, which was overridden by the 2000 abolition of the earnings test for beneficiaries who have reached the FRA.<sup>27</sup> Eliminating the earnings test is considered a work incentive, especially for beneficiaries who do not understand that lost benefits are subsequently restored, as well as for workers with high discount rates who strongly prefer current-period income.

All told, the economic environment over the past 30 years has changed in ways that favor increased work and earnings by older workers, a trend that appears likely to continue.

## Notes

*Acknowledgments:* The authors thank Clark Burdick, Lynn Fisher, Susan Grad, Dean Leimer, David Pattison, and Patrick Purcell for comments and advice on earlier drafts, and Richard Burkhauser and Jeff Larrimore for providing us with their estimates of income amounts subject to top-coding in the Current Population Survey.

<sup>1</sup> Social Security has two trust funds, the Old-Age and Survivors Insurance Trust Fund and the Disability Insurance Trust Fund. After the projected exhaustion of assets in 2036, continuing tax income would be sufficient to pay 77 percent of scheduled benefits, before gradually declining to 74 percent by 2085.

<sup>2</sup> US Social Security benefits as a percentage of pre-retirement earnings are among the lowest in Organisation for Economic Co-operation and Development countries (OECD 2007).

<sup>3</sup> The 1983 Amendments to the Social Security Act contained a mix of program changes designed to reduce benefit costs and increase revenues. Changes included a gradual increase in the FRA—the age at which full benefits are payable—in two phases: from 65 to 66 during 2000–2005 and then to 67 during 2017–2022. The legislation also gradually increased the incentive to delay claiming benefits between the full retirement age and age 70.

<sup>4</sup> To protect the privacy of survey respondents, the Census Bureau adjusts some ages (age perturbation) in public-use files depending on the demographic characteristics of household members. This masking technique can result in relatively large errors in income estimates for subgroups within the older population (Alexander, Davern, and Stevenson 2010). The effects on this article's results are likely to be very small because of the level of aggregation used in

our research (multiyear age groups that include all races). For more on this problem in the context of the population aged 60 and older, see Census Bureau (2010).

<sup>5</sup> We extracted CPS monthly files for 1980–2008 and ASEC files for March 1981–2009 using Unicon Research Corporation’s (2009) CPS Utilities software. Monthly files for 2009–2010 and the ASEC file for March 2010 were downloaded from the Census Bureau website (<http://www.census.gov/>).

<sup>6</sup> We caution the reader to note the different scaling of vertical axes in the multiple panels displayed in the charts throughout the article. We vary the vertical axis scales to make distinctions clearer by utilizing chart space more fully, which can easily convey the false impression that different absolute changes are the same.

<sup>7</sup> Using decennial census data, Ransom and Sutch (1988) find little change in LFPRs for older men during 1900–1940. Parsons (1980) documents a 15 percentage point decline in the LFPR of men aged 55–64 during 1948–1976.

<sup>8</sup> The lowest participation rates for each age group are 45.1 percent for ages 62–64 in 1995; 24.6 percent for ages 65–69 in 1984 and 1985; 14.8 percent for ages 70–74 in 1987; and 8.3 percent for ages 75–79 in 1986.

<sup>9</sup> Labor force participants not working in the week before the survey are classified by their usual work status. Self-employment includes both incorporated and unincorporated self-employment.

<sup>10</sup> Nonmarried-person units include persons who are separated or married but not living with their spouse.

<sup>11</sup> The Social Security Administration uses a similar categorization in its biennial publication *Income of the Population 55 or Older* (SSA 2010).

<sup>12</sup> A shortcoming of the CPS income data is the lack of information on capital gains and losses, which is a nontrivial source of income for some elderly persons. Because the CPS collects no data for asset holdings, we did not attempt to impute capital gains and losses to aged persons.

<sup>13</sup> Income amounts in the public-use ASEC files are subject to top-coding. Since the late 1990s, the Census Bureau’s public-use files have contained the arithmetic means for income values above the top-code amounts, enabling accurate calculation of income shares. For income years 1980–2001, we use comparable means developed by Larrimore and others (2008). For income years 1998, 2000, and 2001, the cell means recorded in the public-use files are identical (or nearly so) to the values calculated by Larrimore and his colleagues, but some public-use file cell means for 1999 income sources appear to contain substantial errors. These corrections for top-coding have only minor effects on the article’s income-share estimates.

<sup>14</sup> Differential CPS reporting by income component likely causes the income shares of earnings and Social Security benefits for the aged to be overstated and our share of asset income to be understated. Estimates of CPS aggregate income underreporting for the whole population are available for selected years during the 1984–2001 period in Coder and Scoon-Rogers (1996), Roemer (2000), and Ruser, Pilot, and Nelson (2004).

<sup>15</sup> Recall that the various income-share panels use different vertical scales.

<sup>16</sup> The declining share of asset income since the 1990s is observed in both CPS data and in the Federal Reserve Board’s Survey of Consumer Finances. Fisher (2007) notes that among Survey of Consumer Finances units aged 65 or older, the percentage holding financial assets has increased while the probability of owners reporting corresponding asset income has decreased. Because the nonreporting involved assets such as money market and savings accounts, which very likely generate income each year, at least part of the decline in measured asset income appears to be an increasing failure to report asset income received.

<sup>17</sup> Although the article’s results focus on the population aged 62–79, the importance of labor market earnings in total income has also increased for those aged 80 or older, where the earnings share has risen from 3–4 percent in the 1980s to 6–10 percent during the past decade.

<sup>18</sup> Zero-earners are included among persons with earnings if they meet the age requirement and have a spouse who reports earnings.

<sup>19</sup> There is one exception: For persons aged 75–79 for 1982, the earnings share is slightly smaller than the Social Security share.

<sup>20</sup> We include a person who is not a Social Security beneficiary but who satisfies the relevant age restriction if the spouse receives Social Security income.

<sup>21</sup> FRA was 65 for anyone aged 65–69 during 2000–2002. Increases in the FRA would begin to affect 65- to 69-year-olds starting in 2003.

<sup>22</sup> We also examined the income shares of Social Security beneficiaries separately for (1) members of married couples and (2) all other persons. Earnings shares for married persons are considerably larger than for others. As one might expect, the Social Security benefit share is consistently the largest share for “other persons” in all age groups in all years (they have no spouse who could provide non-Social Security income). However, both groups trend to increased earnings shares.

<sup>23</sup> There is no professional consensus on a single best equivalence scale. The square root equivalence scale has been used in distributional analyses conducted by the Organisation for Economic Co-operation and Development,



the Congressional Budget Office, and the Urban Institute-Brookings Institution Tax Policy Center. See Citro and Michael (1995, 176–182) for further discussion and references.

<sup>24</sup> In calculating these percentages, we exclude the small number of persons with negative earnings.

<sup>25</sup> In an alternative exercise we replace the earnings of both members of each married couple with zero even if one member is younger than age 65. We look at all men and women aged 65 or older and then focus on those 65 or older in units with earnings. The percentage of men that moves down one or more quintiles increases from 19 percent in 1990 to 26 percent in 2009, and the proportion among men in units with earnings increases from 66 percent to 75 percent. The percentage of women moving down one or more quintiles increases from 11 percent to 16 percent between 1990 and 2009, and among those in units with earnings, the increase is from 61 percent to 72 percent.

<sup>26</sup> The DRC increased by 0.5 percentage points for birth cohorts attaining age 65 in successive even-numbered years.

<sup>27</sup> Throughout this period, the earnings test for beneficiaries aged 62 to 64 remained unchanged: a 0.50 benefit reduction rate for excess earnings with a wage-indexed annual limit. Note that any lost retired-worker benefits prior to a worker's FRA are restored by an actuarially fair amount added to monthly benefits when the FRA is reached. When the test applied to beneficiaries aged 65–69, lost benefits were restored at the DRC rate.

## References

- Alexander, J. Trent, Michael Davern, and Betsey Stevenson. 2010. "Inaccurate Age and Sex Data in the Census PUMS Files: Evidence and Implications." NBER Working Paper No. 15703. Cambridge, MA: National Bureau of Economic Research. <http://www.nber.org/papers/w15703>.
- [Board of Trustees] Board of Trustees of the Federal Old-Age and Survivors Insurance and Disability Insurance Trust Funds. 2011. *The 2011 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds*. Washington, DC: Government Printing Office. <http://www.socialsecurity.gov/OACT/TR/2011/tr2011.pdf>.
- Census Bureau. 2010. "Analysis of Perturbed and Unperturbed Age Estimates: 2008." Current Population Survey User Note. [http://www.census.gov/cps/user\\_note\\_age\\_estimates.html](http://www.census.gov/cps/user_note_age_estimates.html).
- Citro, Constance F., and Robert T. Michael. 1995. *Measuring Poverty: A New Approach*. Washington, DC: National Academy Press.
- Coder, John, and Lydia Scoon-Rogers. 1996. "Evaluating the Quality of Income Data Collected in the Annual Supplement to the March Current Population Survey and the Survey of Income and Program Participation." Census Bureau Housing and Household Economics Statistics Division Working Paper. <http://www.census.gov/sipp/workpapr/wp215.pdf>.
- Fisher, T. Lynn. 2007. "Estimates of Unreported Asset Income in the Survey of Consumer Finances and the Relative Importance of Social Security Benefits to the Elderly." *Social Security Bulletin* 67(2): 47–53.
- Gendell, Murray. 2008. "Older Workers: Increasing Their Labor Force Participation and Hours of Work." *Monthly Labor Review* 131(1): 41–54.
- Helman, Ruth, Craig Copeland, and Jack VanDerhei. 2011. "The 2011 Retirement Confidence Survey: Confidence Drops to Record Lows, Reflecting 'the New Normal.'" Issue Brief No. 355. Washington, DC: Employee Benefit Research Institute. [http://www.ebri.org/pdf/briefspdf/EBRI\\_03-2011\\_No355\\_RCS-2011.pdf](http://www.ebri.org/pdf/briefspdf/EBRI_03-2011_No355_RCS-2011.pdf).
- Larrimore, Jeff, Richard V. Burkhauser, Shuaizhang Feng, and Laura Zayatz. 2008. "Consistent Cell Means for Topcoded Incomes in the Public-Use March CPS (1986–2007)." *Journal of Economic and Social Measurement* 33 (2/3): 89–128.
- [OECD] Organisation for Economic Co-operation and Development. 2007. *Pensions at a Glance: Public Pensions Across OECD Countries*. Paris: OECD Publishing.
- Parsons, Donald O. 1980. "The Decline in Male Labor Force Participation." *Journal of Political Economy* 88(1): 117–134.
- Ransom, Roger L., and Richard Sutch. 1988. "The Decline of Retirement in the Years Before Social Security: U.S. Retirement Patterns, 1870–1940." In *Issues in Contemporary Retirement*, edited by Rita Ricardo-Campbell and Edward P. Lazear, 3–37. Stanford, CA: Hoover Institution Press.
- Reno, Virginia P., and Joni Lavery. 2007. "Social Security and Retirement Income Adequacy." Social Security Brief No. 25. Washington, DC: National Academy of Social Insurance.
- Roemer, Marc I. 2000. "Assessing the Quality of the March Current Population Survey and the Survey of Income and Program Participation Income Estimates, 1990–1996." Washington, DC: Census Bureau.
- Ruser, John, Adrienne Pilot, and Charles Nelson. 2004. "Alternative Measures of Household Income: BEA Personal Income, CPS Money Income, and Beyond." Paper presented to the Federal Economic Statistics Advisory Committee, Washington, DC, December 14.

[SSA] Social Security Administration. 2010. *Income of the Population 55 or Older*. Washington, DC: Office of Retirement and Disability Policy, Office of Research, Evaluation, and Statistics. [http://www.socialsecurity.gov/policy/docs/statcomps/income\\_pop55/2008/index.html](http://www.socialsecurity.gov/policy/docs/statcomps/income_pop55/2008/index.html).

———. 2011. *Fast Facts and Figures About Social Security, 2011*. Washington, DC: Office of Retirement and Disability Policy, Office of Research, Evaluation, and Statistics. [http://www.socialsecurity.gov/policy/docs/chartbooks/fast\\_facts/2011/index.html](http://www.socialsecurity.gov/policy/docs/chartbooks/fast_facts/2011/index.html).

Toossi, Mitra. 2009. "Labor Force Projections to 2018: Older Workers Staying More Active." *Monthly Labor Review* 132(11): 30–51.

Unicon Research Corporation. 2009. *CPS Utilities* (documentation for Census Bureau Current Population Surveys, January–December 1980–2008 and Annual Social and Economic data files, March 1981–2009). Los Angeles, CA: Unicon Research Corporation.