AARP Public Policy Institute

Boomers at the Bottom:
How Will Low Income Boomers Cope with Retirement?

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The Urban Institute

Research Report

AARP

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How Will Low-Income Boomers Cope with Retirement?

by
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AARP's Public Policy Institute informs and stimulates public debate on the issues we face as we age. Through research, analysis and dialogue with the nation's leading experts, PPI promotes development of sound, creative policies to address our common need for economic security, health care, and quality of life.

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Background

The retirement of the boomer cohort is now upon us. The oldest boomers became eligible for Social Security benefits at the beginning of this year, and over the next two decades, as boomers move into retirement, the ratio of working-age Americans to Social Security beneficiaries will drop dramatically. Previous research by the Urban Institute projects that boomers will have higher real incomes in retirement than earlier cohorts, but the percentage of earnings they replace in retirement will be about the same for leading boomers (born 1946–1955) as for earlier cohorts and will be lower for trailing boomers (born 1956–1965). The research also found that economic growth will contribute to lower poverty rates for boomer cohorts than for previous generations, but that some groups will remain at risk of poverty and many others with incomes over the poverty line will still experience a sharp drop in living standards in retirement. As population aging and rising health costs place increasing strain on government fiscal resources, the prospects for those boomers who will be at the lower end of the income distribution in retirement raise special concerns.

Purpose

The aim of this study is to provide new evidence on how boomers at the lower end of the income distribution will fare in retirement. Using the Urban Institute's Dynamic Simulation of Income Model (DYNASIM), the study addresses the following questions:

- Who are the low-income boomers? How do their personal characteristics, wealth, and income differ from those of others in the boomer population?

- What share of boomers with low lifetime earnings will improve their relative position by age 67, and what factors will contribute most to their relatively improved economic status?

- What share of boomers with higher lifetime earnings will end up with low income at age 67, and what factors will contribute most to their relative decline?

- How will the likelihood of being low income change over time for different subgroups of the population? How will the personal characteristics, wealth, income, and retirement security of low-income retirees change over time?

- How much could low-income boomers have improved their economic status in retirement if they had saved more over their lifetime?

- How much could low-income boomers improve their economic status at age 67 if they extend their work lives or if they had worked more consistently when younger?

Methodology

In this study, we use the Urban Institute's DYNASIM model to project wealth and income at age 67 for boomers at the lower end of the income distribution. To do this, we rank boomers by their income relative to those in the same birth cohort. Low-income retirees are those whose per capita income at age 67 is at or below the 20th percentile of the income distribution. Higher-income retirees are those whose per capita income at age 67 is above the 20th percentile of the income distribution.

Since the relationship between lifetime earnings and retirement income is likely a strong one, we also rank boomers by their shared lifetime earnings relative to those in the same cohort. Shared lifetime earnings are the average of wage-indexed shared earnings between ages 22 and 62, where shared earnings are half the total earnings of the couple in the years when the individual is married and his or her own earnings in years when not married. Low-lifetime-earners are retirees with shared lifetime earnings at or below the 20th percentile of the shared lifetime earnings distribution. Higher-lifetime-earners are retirees whose shared lifetime earnings are above the 20th percentile of the shared lifetime earnings distribution.

Our analyses consider personal and economic differences between low-income boomers and higher-income boomers. To explore boomers' income mobility over their lifetime, we also consider differences among three groups—individuals who rank in the bottom quintile both by their lifetime earnings and income at age 67 (low-lifetime-earners with low income), individuals in the bottom quintile of lifetime earnings only (low-lifetime-earners with higher income), and individuals in the bottom quintile of income at age 67 only (higher-lifetime-earners with low income).

For each group, we compare their demographic characteristics, levels of wealth and income, and sources of wealth and income. We also analyze their projected replacement rates and poverty rates. Finally, we examine the extent to which higher saving rates, longer work lives, or more consistent work could have improved or may still improve the retirement prospects for retirees with low projected incomes in the boomer cohorts.

The DYNASIM model starts with a self-weighting sample of 103,072 individuals from the 1990–1993 Survey of Income and Program Participation (SIPP). DYNASIM ages this starting sample in yearly increments to 2050, using parameters estimated from longitudinal data sources. The model integrates all the important trends and differentials in life course processes, including birth, death, schooling, leaving home, first marriage, remarriage, divorce, disability, work, and earnings. DYNASIM also simulates pension, Social Security, and nonpension wealth. Using these estimated life transitions, we can construct comprehensive projections of wealth and income in retirement.

DYNASIM is a useful tool for gaining insights into what we expect to happen to the incomes of future retirees. It projects Social Security benefits and other important sources of income in retirement. DYNASIM also accounts for major changes in the growth of economywide real earnings, the distribution of earnings both between and within birth cohorts,

and the composition of the retiree population. All these factors will affect the retirement income of future retirees.

We define household wealth as the sum of financial wealth inside and outside of retirement saving accounts, home equity, and the present value of Social Security benefits and benefit payments from employer pension plans. We define income as the sum of income from financial assets (including defined contribution (DC) retirement accounts), earnings, Social Security benefits, income from employer-provided defined benefit (DB) plans, imputed rental income from homes, Supplemental Security Income (SSI) benefits, and co-resident income. Income from financial assets is computed as 80 percent of an actuarially fair annuity that could be purchased with existing wealth. Co-resident income is income supplied by those sharing a housing unit—often these are adult children. In estimating poverty rates, we exclude imputed rental income, but our income for measuring poverty still differs from the official U.S. Census Bureau measure because we count return on capital as well as income from financial assets as part of potential retirement income. In estimating replacement rates, we exclude both imputed rent and co-resident income from the numerator in order to obtain a measure of retirement income that is more comparable to the preretirement income (earnings) that it replaces and closer to the measure used by financial planners to assess the adequacy of retirement resources.

In addition to the usual uncertainty surrounding any projections of future outcomes, our results reflect some major assumptions. We assume, for example, that current-law Social Security benefits will be maintained throughout the projection period, although the projected long-run exhaustion of the Old-Age, Survivors, and Disability Insurance trust fund could lead to some benefit cuts.[1] Also, DYNASIM does not model medical spending or health insurance, whose ever-increasing costs could pose serious threats to the economic security of future retirees. While there is no guarantee about how the future will play out, microsimulation models such as DYNASIM still provide a practical means to gain insights into what we expect to happen in the future. In particular, since much of the boomers' careers have already occurred, microsimulation models provide significant insights into how their prospects differ from those of the cohorts who came before.

Principal Findings

Low-Income versus Higher-Income Boomers

Compared with higher-income boomers, low-income boomers are more likely to be members of a minority group (black, Hispanic, or other) and less likely to have a college degree. On average they have far fewer years of work experience between ages 22 and 62 and are less likely to work at older ages. As a result, own and shared lifetime earnings of low-income boomers are less than one-third the corresponding average lifetime earnings of higher-income boomers. Typical low-income boomers will get 60 percent of their household income at age 67 from Social Security alone, while typical higher-income boomers will get only 32 percent of

[1] This assumption seems reasonable since the last boomer will turn age 67 well before 2041, the year that Social Security is projected to become insolvent. However, we recognize that Social Security benefits cuts could occur sooner.

their household income from Social Security and another 26 percent of their household income from earnings.

The Relationship between Income in Retirement and Lifetime Earnings

There is high, but not perfect, correlation between having low income in retirement and having low lifetime earnings. Overall, 14 percent of boomers will experience income mobility over their lifetime. That is, 7 percent of boomers with low lifetime earnings will move into the higher-income group at age 67, and another 7 percent of boomers with higher lifetime earnings will drop into the low-income group at age 67. The other 86 percent of boomers will have low lifetime earnings and low income at age 67 (13 percent) or higher lifetime earnings and higher income at age 67 (73 percent).

Among low-income boomers, low-lifetime-earners have about one-half the wealth and two-thirds the income of higher-lifetime-earners. While low-lifetime-earners are more than twice as likely as higher-lifetime-earners to still be working at age 67, their household earnings do not amount to very much. What drives most of the differences in household income between low-income/low-lifetime-earners and low-income/higher-lifetime-earners is Social Security. Typical low-lifetime-earners are projected to receive about $5,100 in Social Security benefits at age 67. In contrast, typical higher-lifetime-earners will likely receive about $8,900 from Social Security at the same age. If low-lifetime-earners received as much in Social Security as higher-lifetime-earners, the household income differences between the two groups would drop from $4,100 to $300. So, among low-income boomers, higher-lifetime-earners are not better off than low-lifetime-earners at age 67 because of their work and earnings at older ages, but rather because of their work and earnings at younger ages. In fact, stopping work early is the one factor we have identified that is associated with individuals having low income at age 67, even when they have relatively high lifetime earnings.

Among low-lifetime-earners, two major factors helping them to escape low income in retirement are earnings and co-resident income. Compared with low-lifetime-earner/low-income boomers, low-lifetime-earner/higher-income boomers have roughly the same or slightly higher earnings up to age 50, but significantly higher annual earnings after age 50. As a result, typical low-lifetime-earner/low-income boomers will receive only $600 or 6 percent of their income at age 67 from earnings, while typical low-lifetime-earner/higher-income boomers will receive $9,000 or 37 percent of their income from earnings. Additionally, low-lifetime-earners with low income will receive only $1,000 or 11 percent of their household income from co-residents, while those with higher income will on average receive $5,900 or 24 percent of their household income from co-residents. This finding suggests that low-lifetime-earners can improve their economic well-being at retirement by continuing to work at older ages (or having a spouse who continues to work), or by moving in with someone else who provides economic support.

Not surprisingly, boomers with low lifetime earnings who end up with higher incomes at retirement experience very high replacement rates in retirement. Low-lifetime-earner/higher-income boomers replace 194 percent of their earnings in working years at age 67, compared with replacement rates of 120 percent for low-income/low-lifetime-earners, and only 49 percent for low-income/higher-lifetime-earners. Although they have higher replacement rates than their

higher-earning counterparts, low-income/low-lifetime-earners are the ones most likely to have retirement incomes below the poverty line, with 34 percent of them projected to be in poverty at age 67. In contrast, only 10 percent of the low-income/higher-lifetime-earners will be poor at age 67.

Changes in Low-Income Retirees over Time

We also compare the economic status at retirement of low-income adults in four different birth cohorts: older retirees (born 1926–1935), younger retirees (born 1936–1945), leading boomers (born 1946–1955), and trailing boomers (born 1956–1965).

The proportion of low-income adults is expected to change over time for different subgroups. Divorced and never-married adults, non-Hispanic blacks, Hispanics, other minority groups, and those with 35 or more years of labor force experience are less likely to be low income in the future. In contrast, high school dropouts, high school graduates, and retirees with fewer than 30 years of work experience are significantly more likely to be low income among trailing boomers than among older retirees. The trend in higher education over time will put people without college degrees at much more of a relative disadvantage in the future than in previous years.

The largest source of retirement wealth will continue to be Social Security benefits, but low-income boomers will have less wealth from DB pension plans and more wealth from retirement accounts and other financial assets than previous generations of low-income retirees. Economic growth will raise the real median income of low-income boomers relative to earlier cohorts and reduce their likelihood of being poor. Poverty rates of all demographic subgroups will decline over time, with some of the groups with the highest incidence of poverty experiencing some of the greatest improvement. For example, poverty rates among low-income females will drop sharply, becoming only slightly higher than poverty rates of low-income males. Poverty rates of unmarried adults will drop much more than poverty rates of married adults, but unmarried people (whether divorced, never married, or widowed) will continue to experience higher poverty rates than married people. Poverty rates will also drop sharply among Hispanics. However, poverty rates will decline more among whites than among blacks, and among college graduates than among high school dropouts, widening the disparity in poverty rates between these groups.

The median income replacement rate among low-income adults will rise steadily from 71 percent for older retirees to 86 percent for leading boomers, but then drop sharply back to 71 percent for trailing boomers. At the same time, the percentage of low-income adults who replace less than 75 percent of their earnings will drop from 53 percent for older retirees to 46 percent for leading boomers, but then will increase to 53 percent for trailing boomers.

Increasing Retirement Living Standards through Savings and Work

We simulated the effects of saving more, working longer, and working consistently on incomes of low-income boomers at age 67. To estimate the effects of more saving, we simulated an increase in saving of 1 percent of earnings every year between ages 25 and 66. We assumed

these savings were invested in a diversified portfolio with real rates of return based on average yields of stocks and bonds over a long period.

Overall, the increase in saving produces nontrivial gains, but still leaves many low-income boomers with inadequate retirement incomes. The higher saving rate would raise low-income boomers' median wealth at age 67 by about 14 percent and median income at age 67 by about 9 percent. The percentage of boomers in poverty would decline by 4 percentage points, from 25 to 21 percent, and the median replacement rate would increase by 10 percentage points, from 78 to 88 percent. The percentage of boomers replacing less than 75 percent of their income would drop from 49 percent to 44 percent. Further, the median additional wealth required for low-income boomers to reach and maintain replacement rates of 75 percent in retirement would decline by 17 percent, from $99,500 to $82,300.

We simulated working longer by assuming that boomers worked an extra five years or the number of remaining years until age 67, whichever is less, and maintained the earnings of their later working years. The extra work years raise the mean retirement age of low-income boomers from 58 to 62, the share with 35 or more years of work experience from 21 to 27 percent, and the share with earnings at age 67 from 12 to 20 percent. But tacking on a few more years to the end of one's career has a relatively modest effect on lifetime earnings—raising average own lifetime earnings by only about 10 percent.

Delaying retirement by a few years increases household wealth at age 67 by increasing Social Security benefits, DB pension benefits, and assets in retirement saving accounts, but the boost in median household wealth is expected to be only 5 percent. More important, delaying retirement will raise median household income by 13 percent because of the additional earnings that working generates on top of the increased income from Social Security, DB pensions, and retirement accounts. Working an extra five years does slightly less for low-income boomers than saving 1 percent of earnings throughout their career; it reduces their poverty rate by 3 (instead of 4) percentage points to 22 percent and raises their median income replacement rate by 5 (instead of 10) percentage points to 83 percent. As a result, the share of boomers replacing less than 75 percent of their preretirement income would drop by 2 (instead of 5) percentage points to 47 percent. For low-income boomers whose replacement rates were less than 75 percent under the baseline, working longer has the same impact as saving more on the additional wealth needed to maintain a 75 percent replacement rate throughout retirement. Both simulations reduced the amount of additional wealth by 17 percent from the baseline.

We also examined a scenario in which low-income boomers worked more continuously throughout their lives. If low-income boomers worked every year between ages 22 and the year prior to retirement (at the same earnings as adjoining working years), the share with 35 or more years of work experience would increase from 21 to 52 percent, and average lifetime earnings would rise by almost 30 percent. In spite of these gains, however, we project a more modest increase in income at age 67 from working more continuously than from delaying retirement, because there is hardly any increase in earnings at age 67. In addition, working more continuously would actually reduce the income replacement rate because it increases preretirement earnings (the denominator of the ratio) by more than household income (the numerator of the ratio). As a result, more low-income boomers will fall below a 75 percent

replacement rate, and the median additional amount of wealth required for reaching and maintaining a 75 percent replacement rate throughout retirement is expected to increase by 10 percent, to $109,700.

Saving and working more would raise some boomers' income above the threshold that categorized them as low income under the baseline. Saving an additional 1 percent of wages would raise 15 percent of low-income boomers above the baseline low-income threshold. In comparison, the share of low-income boomers who would rise above the baseline low-income threshold would be 22 percent if boomers delayed retirement by up to five years, but only 5 percent if they worked more consistently in the years prior to retirement.

Conclusion

Boomers with low income in early retirement (at age 67) are more likely to be black, Hispanic, or other minority, and less likely to have a college degree than their better-off counterparts. Compared with higher-income boomers, low-income boomers will have fewer years of work experience between ages 22 and 62, will be less likely to work at older ages and will have lower lifetime earnings. But a relatively large share of boomers with low lifetime earnings will end up with higher incomes at retirement. The two main factors that facilitate this mobility are earnings at older ages and the sharing of income with co-residents.

Because of long-term projected growth in real earnings, low-income boomers will have higher real incomes in retirement than their predecessors and a lower incidence of poverty. Typical leading boomers will have higher income replacement rates at retirement and will be more likely to have enough income to replace 75 percent of their earnings than previous generations of retirees. But typical trailing boomers will have much lower replacement rates in retirement and will be less likely to have enough income to replace 75 percent of their earnings than leading boomers. In fact, replacement rates for trailing boomers will be about the same as those for older retirees—reversing the improvement over time.

If low-income boomers had saved more over their lifetime or if they extend their work lives, then their incomes in retirement would be higher. But the gains are not spectacular. Increasing savings by 1 percent of earnings every year would boost median household income by about 9 percent, while working an extra five years (up to age 67) would raise median household income by 13 percent. Working more consistently in younger years would add less to retirement income than either additional savings or extending one's work life.

It is important to keep in mind that our analyses focus on retirement wealth and income at the relatively young age of 67. Butrica (2007) finds that more than two-fifths of retirees will have significantly less income at age 80 than they did at age 67 due to changes in marital status, health status, living arrangements, or work status. Retirees who become widowed or divorced between ages 67 and 80 will experience a decline in median income of 35 to 37 percent, while those who quit working between these same ages will face a 24 to 25 percent decline in their median income.

The need for Social Security reform is well known. If not carefully designed, benefit reductions could significantly affect the well-being of low-income retirees. Proposals such as raising the maximum taxable Social Security earnings or reducing Social Security replacement rates for higher-wage workers could improve the solvency of the Social Security system without hurting low-wage workers or low-income retirees. Although not cost neutral, instituting minimum Social Security benefits is one way to mitigate the negative impact of potential Social Security benefit cuts on low-income retirees.

Any reduction in future Social Security benefits means that retirees will be forced to rely more heavily on private savings. However, current tax incentives for private pensions and individual retirement savings disproportionately benefit higher-income workers. Not only are higher-income workers more likely to be covered by an employer pension plan or to contribute to tax-deferred retirement saving accounts, but they also receive a larger tax subsidy per dollar of contribution than workers in lower income tax rate brackets. Proposals such as mandating defined contribution pensions and making the saver's credit refundable could increase pension coverage and encourage saving among low-income workers.[2] Cutting back existing tax expenditures could pay for any expansion of credits or incentives for low-wage workers to save. For example, the contribution limits on individual retirement accounts and 401(k) plans could be lowered without hurting low-income people.

The safety net for retirees also could be improved by reforming the SSI program. Increasing the asset limit to reflect changes in the cost of living since it was set at a fixed level in 1972 would allow more seniors to qualify for this safety-net benefit. Increasing the maximum benefit to the poverty threshold would allow the program to fulfill its mission of protecting elderly and disabled adults from economic hardship.

[2] The saver's credit is a federal tax credit that matches contributions to retirement savings accounts by low-income workers. Currently, the credit is nonrefundable, which means that it does not result in any additional incentive to save for many tax-filing units (Orszag and Hall 2003). One way to address this is by making the saver's credit refundable so that low-income taxpayers without tax liability could benefit from it (Gale, Iwry, and Orszag 2005; Toder 2005).

I. Introduction

With the prospect of reduced replacement rates from Social Security benefits and declining prevalence of traditional employer-sponsored pension plans, Americans in the boomer cohorts have been bombarded with messages about the importance of saving for their own retirement well-being. However, diverting income from paying for current needs to saving for future needs remains infeasible for many low-wage workers. In addition, low-wage workers are much less likely than others to be covered by employer-sponsored defined benefit (DB) pension plans or to have access to employer-sponsored defined contribution (DC) plans. As a result, many low-wage workers will enter retirement with very little savings. To be sure, some will end up with relatively higher income in retirement. One way this can happen is through marriage to a high-earning spouse (Lerman 2005). Other ways of boosting retirement income are through continued work at older ages and delaying take-up of Social Security benefits (Butrica et al. 2004; Butrica, Smith, and Steuerle 2007). Further, low-income people can boost their living standards by co-residing with a higher-income individual, often an adult child or other relative.

Even good retirement planning does not guarantee retirement security. Despite their ability to work and save when young, a number of individuals will end up with low income in retirement because of events such as divorce, widowhood, job loss, and disability and other adverse health events (Johnson, Mermin, and Uccello 2006).

Numerous studies have examined the adequacy of retirement income to protect economic security, with implications for boomers. Most of these studies focused on current retirees or individuals on the verge of retirement (Gustman and Steinmeier 1999; Haveman et al. 2006; Moore and Mitchell 2000). Other studies have compared boomers in middle age with their parents when they were the same age (Easterlin, MacDonald, and Macunovich 1990; Easterlin, Schaeffer, and Macunovich 1993; Sabelhaus and Manchester 1995). Butrica and Uccello (2004) compared the overall level, distribution, and composition of retirement income of boomers with previous generations, and assessed the adequacy of this income in maintaining retirees' economic well-being. But none of these studies focused specifically on low-income households.

Our analysis uses projections from the Urban Institute's Dynamic Simulation of Income Model (DYNASIM) to assess the retirement preparedness of low-income boomers. We begin by identifying low-income boomers and understanding how their personal characteristics, wealth, and income differ from those of others in the boomer population. We then examine lifetime earnings and retirement income to increase our understanding of how much income mobility boomers can expect over their lifetime. We identify factors that will enable some boomers with low lifetime earnings to escape low income at retirement and those that will cause some boomers with higher lifetime earnings to end up with low income at retirement. Next we consider how the likelihood of being low income is expected to change over time, as well as the extent to which the personal and economic characteristics of low-income retirees will change.

After analyzing the retirement prospects of low-income boomers, we consider possible ways to increase their retirement living standards. There has been much discussion of the potential importance of higher saving rates and more years of paid work for improving retirement outcomes. Therefore, we will estimate the amount by which low-income boomers

could have improved their economic status in retirement if they had saved more over their lifetime, worked more consistently when younger, or extended their working life past their projected retirement date.

Our findings show that there is high, but not perfect, correlation between having low income in retirement and having low lifetime earnings. Nearly two in three boomers with low lifetime earnings will end up with low retirement income. The two main factors that facilitate upward income mobility for boomers at age 67 are earnings at older ages and sharing income with co-residents. If low-income boomers had saved more over their lifetime or if they extend their working life for additional years, then their incomes in retirement would be higher. But the gains are not spectacular. If they had saved an additional 1 percent of earnings every year, their median household income at age 67 would be boosted by about 9 percent. Working an extra five years would raise median household income by 13 percent. Working more consistently in younger years would add less to retirement income than either additional saving or extending one's work life.

In addition to the usual uncertainty surrounding any projections of future outcomes, our results reflect some major assumptions. We assume, for example, that current-law Social Security benefits will be maintained throughout the projection period, although the projected long-run exhaustion of the Old-Age, Survivors, and Disability Insurance (OASDI) trust fund could lead to some benefit cuts.[3] Also, DYNASIM does not model medical spending or health insurance, whose ever-increasing costs could pose serious threats to the economic security of future retirees. While there is no guarantee about how the future will play out, microsimulation models such as DYNASIM still provide a practical means to gaining insights into what we expect to happen in the future. In particular, since much of the boomers' careers have already occurred, microsimulation models provide significant insights into how their prospects differ from those of the cohorts who came before.

II. Previous Literature

Using Current Population Survey (CPS) data, Purcell and Whitman (2006) demonstrate that Americans ages 65 and over have enjoyed a considerable increase in real income since 1969. This rise in income has been accompanied by a decline in the percentage of elderly Americans living in poverty. The authors attribute the change mostly to the growth of real wages, but also give credit to public policies that support retirement saving (e.g., individual retirement accounts (IRAs) and 401(k) plans) and long-term economic growth. Despite the improvement in elderly poverty rates, a number of studies have revealed large disparities in elderly income and wealth. Analyzing Asset and Health Dynamics Among the Oldest Old (AHEAD) data, Smith (1997) shows that while the fortunes of older Americans have improved on average, the plight of the economically vulnerable is even more severe among the elderly than in the general population. The author finds that single women, especially among minorities, are the most likely to be impoverished at old age. Moore and Mitchell (2000) observe asset disparities among older Americans in the Health and Retirement Study (HRS) and warn that inferences drawn from

[3] This assumption seems reasonable since the last boomer will turn age 67 well before 2041, the year that Social Security is projected to become insolvent. However, we recognize that Social Security benefits cuts could occur sooner.

information about median households say little about the retirement prospects of other households. Similarly, Wolff (2002) points out that while average retirement wealth increased from 1983 to 1998, so did wealth disparities, and the typical household did not see an improvement.

Taken together, these findings underline the need for research directly studying the retirement prospects of low-income Americans. Bell, Carasso, and Steuerle (2005) explore the retirement savings of low-income families. They begin by examining how the composition of income sources for current retirees ages 65 and older differs among individuals at different income levels. The authors find that older adults in the highest income quintile have a far more equal distribution of income sources than those in the lowest quintile, for whom Social Security provides more than 80 percent of household income.

The authors explore the disparities in retirement preparation. Among full-time workers ages 25 to 64, more than 70 percent of the bottom income quartile lacked a pension plan, compared with only about 28 percent of the top quartile. The authors attribute this disparity in pension coverage to the higher turnover rate among low-income workers and their increased likelihood of employment with smaller firms, which are less likely to have pension plans. The authors also show that among those at ages 51 to 61, disparities between the highest and lowest wealth holders arise from several key factors. Among those in the lowest wealth decile, expected future Social Security and Medicare benefits make up the vast majority of wealth. While individuals in the highest wealth decile have greater lifetime values of Social Security benefits, they also rely on Social Security and Medicare to make up far less of their wealth. Pensions, housing, and other assets, which are almost nonexistent for low-wealth individuals, dominate the wealth of those in the highest wealth decile.

Whether the boomer generation is saving enough for retirement has been an ongoing concern. Numerous studies have assessed boomers' retirement preparedness by examining their income and wealth (see Butrica and Uccello (2004) for a review of this literature); however, none of these studies has focused on low-income households. Butrica and Uccello (2004) used DYNASIM to compare the retirement wealth, income, and economic security of boomer cohorts with those of previous generations. The authors found that boomers are expected to accumulate more wealth and will receive more income in real terms at retirement than current retirees; however, they will not achieve higher replacement rates. The authors concluded that boomers may need to increase their savings or work longer if they desire to maintain their real living standards. The current study builds upon Butrica and Uccello (2004) by focusing on low-income boomers and simulating different ways to improve their retirement security through increased savings and work.

III. Methodology

Our analytic sample includes noninstitutionalized, nondisabled adults who survive until at least age 67.[4] We compare differences in their household retirement resources and their retirement security by personal characteristics, including gender, marital status, race/ethnicity,

[4] Our sample includes those who are not projected to ever become physically disabled (i.e., nondisabled).

education, labor force experience, current work status, and lifetime average earnings.[5] We define own lifetime earnings as the average of an individual's wage-indexed earnings between ages 22 and 62.[6] We also create a measure of shared lifetime earnings, defined as the average of wage-indexed shared earnings between ages 22 and 62, where shared earnings are half the total earnings of the couple in the years when the individual is married and his or her own earnings in years when not married.

Measuring Household Retirement Resources

Our analysis of retirement resources is based on comprehensive measures of household wealth and household income (table 1). Household wealth includes financial assets and housing equity, as well as private pension and Social Security wealth. Measuring household wealth broadly to include Social Security wealth is particularly important for assessing the economic security of low-income households, who rely heavily on Social Security. We compute the wealth of each individual by dividing household wealth at age 67 by the number of household members. We report wealth in 2005 dollars.

In addition to the income that could be generated from wealth at retirement, we include other income resources at age 67, such as earnings, Supplemental Security Income (SSI), and income from co-resident family members. These sources of income are likely to be especially important to low-income boomers. Thus, our measure of household income includes income from assets, earnings, SSI benefits, imputed rental income, co-resident income, Social Security benefits, defined benefit pensions, and retirement accounts. For each individual, we compute per capita household income at age 67 in 2005 dollars.

Measuring the Adequacy of Retirement Income

We evaluate the adequacy of retirement resources using a number of different benchmarks. First, we examine poverty rates to assess whether retirees' incomes will be high enough to support a basic standard of living. We calculate poverty rates using the official poverty thresholds of the U.S. Census Bureau. These thresholds vary with family size and age and increase annually with increases in prices as measured by the Consumer Price Index (CPI). The analysis uses the 65-and-over poverty threshold, which assumes that married couples need about 1.26 times the income that single adults need to live equally well. Like the U.S. Census Bureau, we do not include imputed rent in the income measure used to determine poverty rates, but we do use a broader measure of financial income so our poverty rates will be lower than Census estimates (table 1).

[5] Our race/ethnicity categories include white non-Hispanic, black non-Hispanic, Hispanic, and other minority—where "other minority" comprises Asians and Native Americans.

[6] Our measure differs from the Average Indexed Monthly Earnings (AIME) used to compute Social Security benefits in three ways. First, we include all years of earnings between ages 22 and 62, while AIME is based on the highest 35 years of earnings. Second, we include earnings not covered by Social Security. Third, we include earnings above the Social Security taxable maximum.

Second, we analyze income replacement rates to compare the standard of living obtainable in retirement to the level achieved during the working years. Replacement rates are the ratio of wage-indexed per capita family income at age 67 to average wage-indexed shared earnings between ages 50 and 54, where shared earnings is half the total earnings of the couple in the years when the individual is married and his or her own earnings in years when not married. In estimating replacement rates, we exclude both imputed rent and co-resident income from the numerator in order to obtain a measure of retirement income that is more comparable to the preretirement income (earnings) that it replaces and closer to the measure used by financial planners to assess the adequacy of retirement resources (table 1).

Table 1. Measures of Economic Well-Being, by Sources of Wealth and Income

	Household Wealth	Household Income	Poverty Rate	Replacement Rate
Total Wealth				
Financial	X			
Housing	X			
Social Security	X			
DB Pension	X			
Retirement Accounts	X			
Total Income				
Financial Income		X	X	X
Earnings		X	X	X
SSI Benefits		X	X	X
Imputed Rental Income		X		
Co-resident Income		X	X	
Social Security Benefits		X	X	X
DB Pension Benefits		X	X	X
Retirement Accounts		X	X	X

We also consider the share of retirees whose replacement rates are less than 75 and 50 percent. Financial planners often recommend that retirees have enough income to replace 70 to 90 percent of their preretirement earnings, and would view a 50 percent replacement rate as representing a serious shortfall that could create economic challenges and necessitate lifestyle adjustments (TIAA-CREF 2006; T. Rowe Price 2007; Vanguard 2006). For retirees whose incomes are projected to fall below 75 percent of their preretirement earnings, we compute the additional wealth it would take for them to reach and maintain a 75 percent income replacement rate throughout retirement. This additional wealth is based on their income at age 67 and the annuity factors described later in this report.

For each measure of interest (e.g., wealth, income, or replacement rate), most of our tables report an approximated median value, which is the mean value between the 40^{th} and 60^{th} percentiles of the distribution. This statistic better describes outcomes for typical people than the mean value for the entire population because it is not affected by extreme values. Furthermore, this statistic better describes the composition of wealth and income for the typical individual or couple than the median value because it is based on the middle 20 percent of the sample rather than a single observation. For ease of exposition, however, we refer to this statistic as the median throughout the paper, unless otherwise noted. We also use the term “typical” to refer to those

with wealth, income, or replacement rates in the 40th to 60th percentiles of the wealth, income, or replacement rate distribution.

Defining Low-Income and Higher-Income Retirees

Throughout the paper, we refer to low-income retirees as those whose per capita income at age 67 is at or below the 20th percentile of the income distribution for their respective birth cohorts. Higher-income retirees are those whose per capita income at age 67 is above the 20th percentile of the income distribution. In other words, retirees who do not fall into the low-income category are considered higher income.

This measure of low income is conceptually different from the prevailing measure of low income—the official poverty threshold of the U.S. Census Bureau. Our definition focuses on the extent to which individuals maintain their economic position relative to others at the same age in a given year. In contrast, poverty is an absolute concept because individuals are considered poor if they have family incomes below an absolute minimum level—the poverty threshold.[7] Figure 1 shows how our low-income thresholds compare with the poverty thresholds for single and married adults ages 65 and older across birth cohorts. The DYNASIM poverty thresholds, which are $11,609 for married couples and $9,201 for single individuals, in 2005 dollars, are depicted on a per capita basis for comparability with the low-income thresholds.[8]

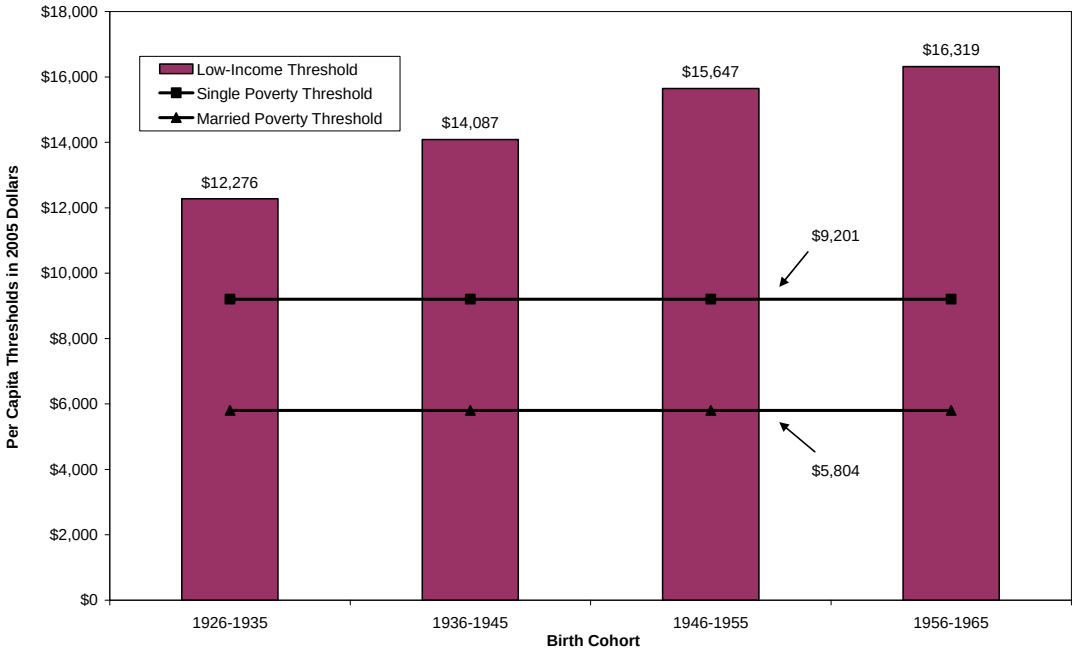
Poverty thresholds increase annually with increases in prices as measured by the CPI and do not reflect real-wage increases over time. Therefore, in real dollars, poverty thresholds remain constant over time. However, as is suggested by the increasing thresholds for low income, incomes are not expected to remain constant over time. The reason is that wages, which drive incomes, are projected to increase by about 4.6 times between 1993 (when the 1926 birth cohort turns age 67) and 2032 (when the 1965 birth cohort turns age 67), while prices are projected to increase by only about 2.8 times.[9] As a result, the low-income threshold for the 1946–1955 birth cohorts ($15,647) is expected to exceed the poverty threshold projected for single individuals by more than $6,600 and the poverty threshold projected for married couples by more than $9,800 per person in 2005 dollars. The gap between the low-income and poverty thresholds is expected to be even larger for the 1956–1965 birth cohorts.

[7] Additionally, our measure of income resources differs from the Census measure. DYNASIM imputes income from financial assets by determining the real annuity a family could buy if it annuitized 80 percent of its financial assets. In contrast, the Census measure of income includes only actual money income. It does not include income from assets, other than interest and dividend income from financial assets. In particular, it does not include income from retirement accounts that have not been annuitized or otherwise withdrawn during the year; account balances that are left to accumulate are excluded altogether.

[8] DYNASIM poverty thresholds are based on the 1997 official poverty thresholds, adjusted for changes in the CPI. In comparison, the 2005 official poverty thresholds were $11,815 for married couples and $9,357 for single individuals (Social Security Administration 2007).

[9] Based on the intermediate assumptions in table V.B1 of the 2008 OASDI Trustees Report (Board of Trustees 2008).

Figure 1. Low-Income and Poverty Per Capita Thresholds, by Birth Cohort



Source: Authors' tabulations of DYNASIM3.

Defining Low-lifetime-earners and Higher-lifetime-earners

In the paper, we also reference low-lifetime-earners and higher-lifetime-earners, who are not necessarily the same as low-income retirees and higher-income retirees. Low-lifetime-earners are retirees with shared lifetime earnings at or below the 20th percentile of the shared lifetime earnings distribution for their respective birth cohorts. Higher-lifetime-earners are retirees with shared lifetime earnings above the 20th percentile of the shared lifetime earnings distribution. In other words, retirees who do not fall into the low-lifetime-earner category are considered higher-lifetime-earners.

This definition of low-lifetime-earner likely captures those individuals most at risk of not being financially prepared for retirement. And, because it is based on shared lifetime earnings instead of own lifetime earnings, individuals with relatively low or no earnings who benefit economically from the earnings of a high-earning spouse will not be regarded as low-lifetime-earners.

IV. Data

To explore issues related to the adequacy of retirement resources among low-income boomers, we use the Urban Institute's DYNASIM model. DYNASIM is a useful tool for gaining insights into the future retiree population and their retirement income. The model starts with a self-weighting sample of 103,072 individuals from the 1990–1993 Survey of Income and Program Participation (SIPP). DYNASIM ages this starting sample in yearly increments to 2050, using parameters estimated from longitudinal data sources. The model integrates many important trends and differentials in life course processes, including birth, death, schooling, leaving home,

first marriage, remarriage, divorce, disability, work, and earnings. Important for this study, DYNASIM also simulates the major sources of retirement wealth and income.

Appendix table B1 summarizes the basic processes modeled in DYNASIM, along with the data on which the module's parameters are estimated. Favreault and Smith (2004) provide a fuller description of each of the modules used in DYNASIM. We provide some detail below on the modules directly related to this paper. We also discuss how DYNASIM projections compare with the 2004 HRS survey data for boomers and adults ages 62 and older. The boomers represented in this comparison are limited to those born between 1946 and 1953 because boomers born after 1953 are not yet surveyed in the 2004 HRS. In the HRS, wealth information is collected for the current year, while income information is collected for the previous year. For this reason, we use 2004 DYNASIM wealth projections and 2003 DYNASIM income projections to compare with wealth and income reports in the 2004 HRS.

Financial Wealth

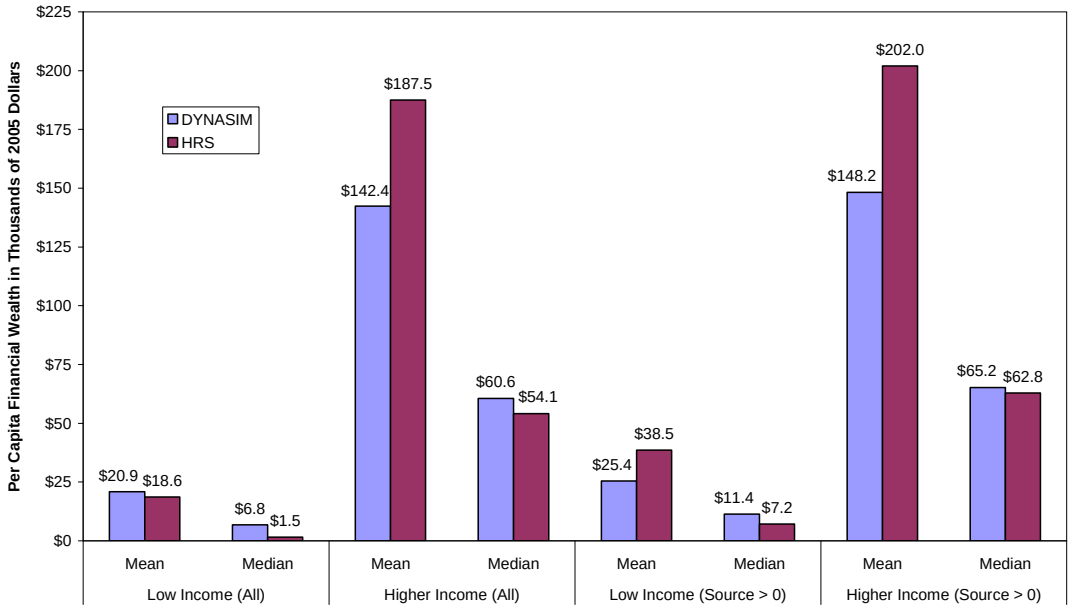
DYNASIM projects financial wealth (i.e., vehicle; other real estate; farm and business equity; stock, mutual fund, and bond values; and checking, savings, money market, and certificate of deposit account balances, less unsecured debt) on the basis of historical patterns of wealth accumulation. Initial financial wealth is based on self-reported data in the SIPP. Then the Panel Study of Income Dynamics (PSID) is used to estimate wealth from the age at the SIPP interview to age 50, the HRS is used to estimate asset accumulations from age 51 to retirement, and the SIPP is used to estimate asset spend-down from retirement until death. Because of large differences in individual saving behavior, longitudinal data are vital for estimating wealth changes over time. The PSID provides the best source of longitudinal wealth data for younger ages, and the HRS provides the best source of longitudinal wealth data for families near retirement. DYNASIM projects financial wealth using a random-effects model that accounts for the heterogeneity that is typical of wealth measures. The model is estimated separately by marital status, with key predictors being age of household head, race, family size, birth cohort, dual-earner status, pension coverage, and earnings.

DYNASIM computes income from financial assets (i.e., financial income) by determining the real (price-indexed) annuity a family could buy if it annuitized 80 percent of the total savings amount. The annuity value calculated is used for that year's imputation of income from financial assets only. The annuity is recalculated each year to reflect changes in wealth amounts, based on the model of wealth spend-down, and changes in life expectancy, given that the individual has attained an additional year of age. For married couples, DYNASIM assumes a 50 percent survivor annuity.

Figure 2 compares the financial wealth of boomers in DYNASIM and the HRS. Overall median financial wealth is slightly higher in DYNASIM than in the HRS for both low- and higher-income boomers. The pattern is similar for boomers with financial wealth; however, the differences between DYNASIM and the HRS become smaller. For example, typical low-income boomers with financial wealth have $11,400 in DYNASIM and $7,200 in the HRS. Typical higher-income boomers with financial wealth have $65,200 in DYNASIM and $62,800 in the HRS. To validate the resources available to retirees, we also consider the financial wealth of

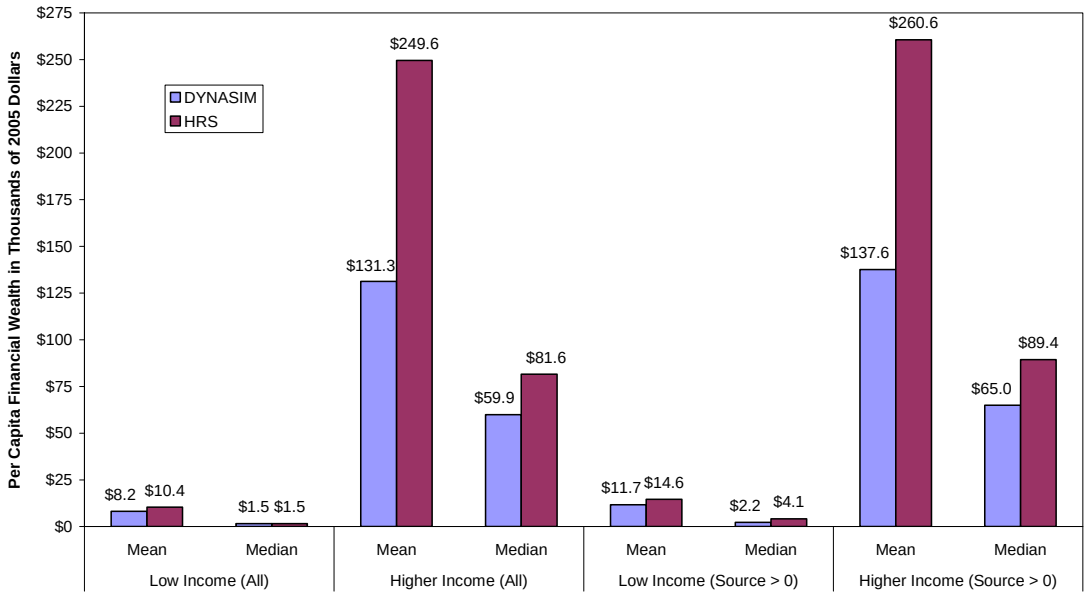
adults ages 62 and older. Among adults ages 62 and older, median financial wealth is lower in DYNASIM than in the HRS (figure 3).

Figure 2. Per Capita Financial Wealth in 2004 for Boomers, by Income Level



Notes: Sample includes adults born 1946-1953. Low-income adults have per capita income at or below the 20th percentile of the income distribution. Higher-income adults have per capita income above the 20th percentile of the income distribution. Results are for all adults, and those with positive financial wealth (source > 0).
Source: Authors' tabulations of DYNASIM3 and the 2004 Health and Retirement Study (HRS).

Figure 3. Per Capita Financial Wealth in 2004 for Adults Ages 62 and Older in 2003, by Income Level



Notes: Sample includes adults ages 62+ in 2003. Low-income adults have per capita income at or below the 20th percentile of the income distribution. Higher-income adults have per capita income above the 20th percentile of the income distribution. Results are for all adults, and those with positive financial wealth (source > 0).
Source: Authors' tabulations of DYNASIM3 and the 2004 Health and Retirement Study (HRS).

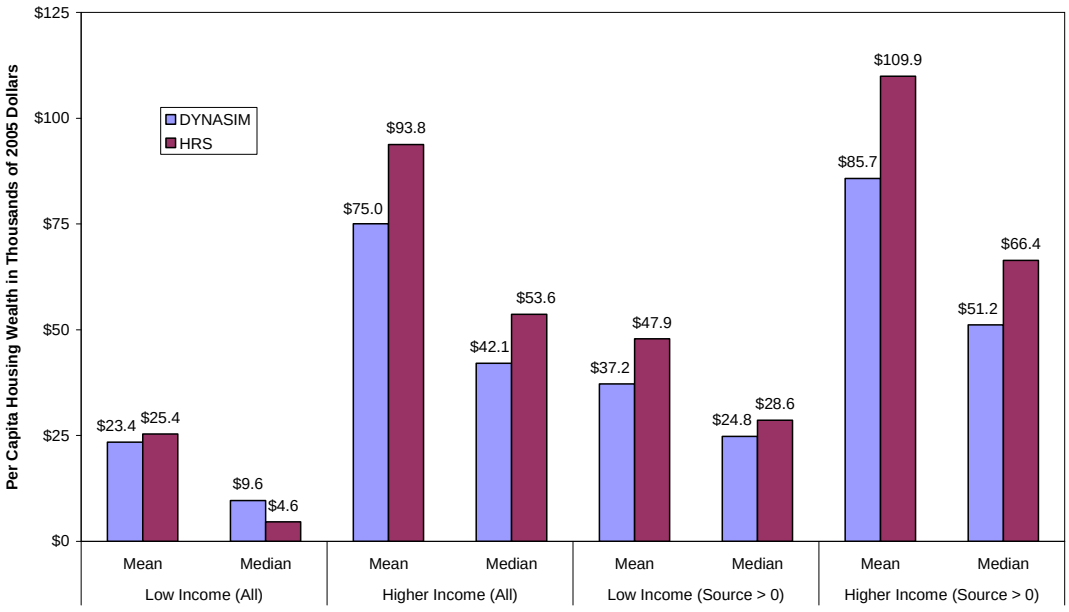
The differences are quite small for low-income boomers with financial wealth (compare $2,200 in DYNASIM with $4,100 in the HRS), but relatively larger for higher-income boomers with financial wealth (compare $65,000 in DYNASIM with $89,400 in the HRS).

Housing Wealth

Housing equity is estimated using the same data sources as those used to estimate financial wealth. DYNASIM predicts home sales for families who own a home, and home purchases for families who do not using hazard models based on starting values in the SIPP. For families projected to own a home, DYNASIM projects housing wealth using a random-effects model. The model is estimated separately by marital status, with key predictors being age of household head, race, family size, birth cohort, dual-earner status, pension coverage, and earnings.[10] DYNASIM computes imputed rental income as 3 percent of housing equity. This computation captures the amount by which homeowners are better off than nonhomeowners.

Homeownership rates among low-income boomers are significantly higher in DYNASIM than in the HRS (appendix table A1). Among low-income boomers, median per capita housing wealth of homeowners is projected to be only $3,800 less in DYNASIM than what is reported in the HRS (figure 4). In contrast, homeownership rates among higher-income boomers are similar in DYNASIM and the HRS (appendix table A2). Among higher-income boomers, median per capita housing wealth of homeowners is projected to be $15,200 less in DYNASIM than what is reported in the HRS (figure 4).

Figure 4. Per Capita Housing Wealth in 2004 for Boomers, by Income Level



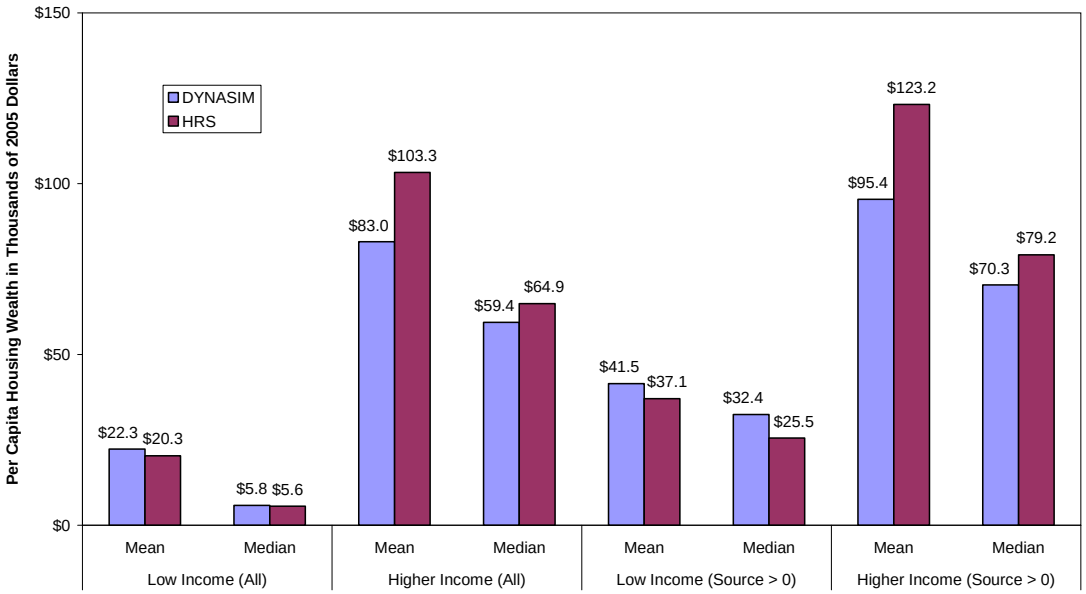
Notes: Sample includes adults born 1946-1953. Low-income adults have per capita income at or below the 20th percentile of the income distribution. Higher-income adults have per capita income above the 20th percentile of the income distribution. Results are for all adults, and those with positive housing wealth (source > 0).
Source: Authors' tabulations of DYNASIM3 and the 2004 Health and Retirement Study (HRS).

[10] See chapter 6 of Toder et al. (2002) for more detail on the estimation equations that were used to project financial wealth and housing wealth, including a discussion of the projection trends by cohort.

Beginning in 2001, several years of extremely low mortgage rates increased the demand for housing, resulting in large gains in housing wealth. While these gains are captured in the HRS data, they are not reflected in DYNASIM. Although this validation may raise concerns about projections of housing wealth in DYNASIM, the housing market is very cyclical, and housing values are not likely to continue increasing. In fact, the earlier trend has already reversed. Higher interest rates in the face of economic recovery and a softening of the housing market has led to a slump in housing values.

A different pattern emerges for low-income adults ages 62 and older compared with low-income boomers (figure 5). Not only are low-income older adults just as likely to be homeowners in DYNASIM as they are in the HRS (appendix table A3), but median per capita housing wealth is $6,900 higher in DYNASIM than in the HRS for low-income older adults who are homeowners. A similar pattern emerges for higher-income adults ages 62 and older compared with higher-income boomers. That is, median per capita housing wealth is $8,900 lower in DYNASIM than in the HRS for higher-income older adults who are homeowners.

Figure 5. Per Capita Housing Wealth in 2004 for Adults Ages 62 and Older in 2003, by Income Level



Notes: Sample includes adults ages 62+ in 2003. Low-income adults have per capita income at or below the 20th percentile of the income distribution. Higher-income adults have per capita income above the 20th percentile of the income distribution. Results are for all adults, and those with positive housing wealth (source > 0).
Source: Authors' tabulations of DYNASIM3 and the 2004 Health and Retirement Study (HRS).

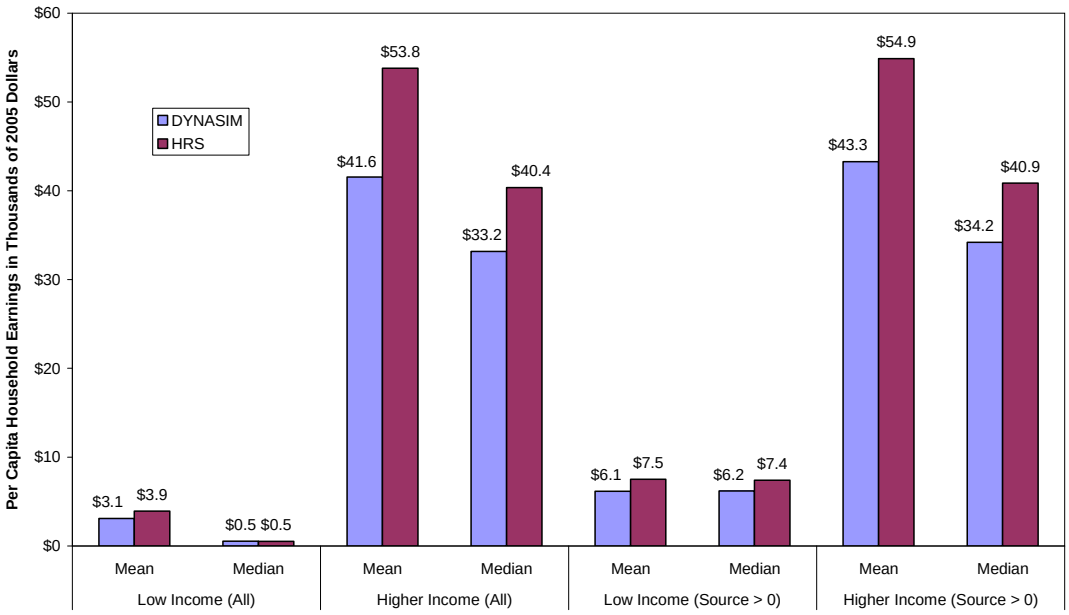
Earnings

DYNASIM earnings include historic individual earnings from 1951 to 1992 and projected earnings from 1993 to 2050. These historical data are based on earnings records that are statistically matched from longitudinal earnings histories taken from the 1968–1994 PSID and the 1973 March CPS matched to the Social Security Administration Summary Earnings

Record.[11] Projected labor supply and earnings are based on a complex set of regressions from the PSID and the National Longitudinal Survey of Youth (NLSY) and calibrated to 2005 Social Security Office of the Chief Actuary (OCACT) assumptions about future labor force participation and wage growth.

Mean and median household earnings of boomers are higher in the HRS than in DYNASIM (figure 6). Among boomers with earnings, median household earnings are only $1,200 higher in the HRS than in DYNASIM for those with low income, but $6,700 higher in the HRS than in DYNASIM for those with higher income. At older ages, however, median household earnings are higher in DYNASIM than in the HRS for both low- and higher-income adults with household earnings (figure 7). The differences are only $1,100 for low-income adults, but $3,400 for higher-income adults.

Figure 6. Per Capita Household Earnings in 2003 for Boomers, by Income Level



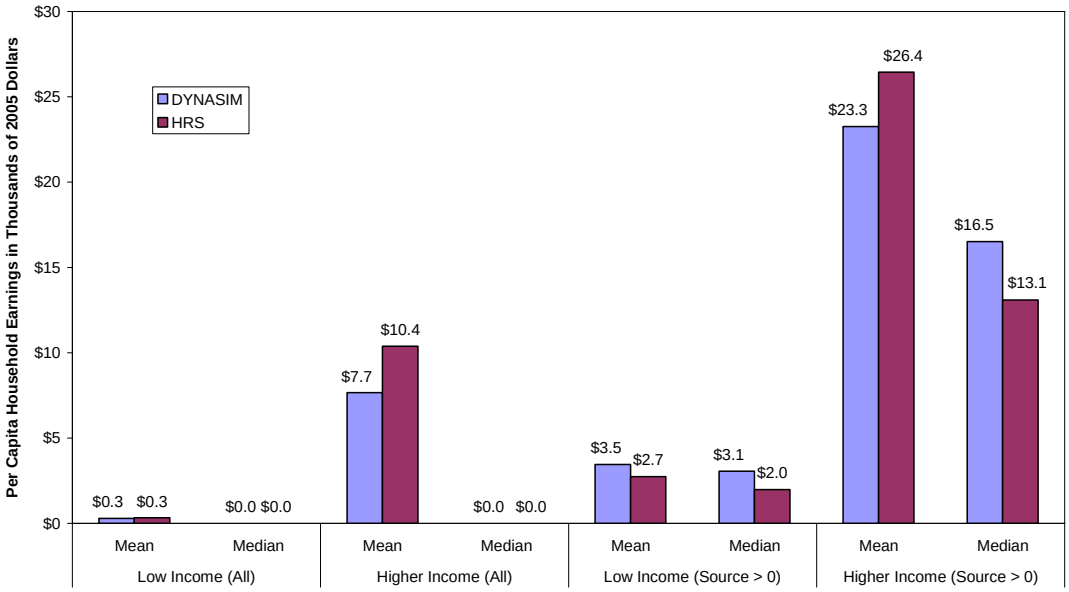
Notes: Sample includes adults born 1946-1953. Low-income adults have per capita income at or below the 20th percentile of the income distribution. Higher-income adults have per capita income above the 20th percentile of the income distribution. Results are for all adults, and those with positive household earnings (source > 0).
Source: Authors' tabulations of DYNASIM3 and the 2004 Health and Retirement Study (HRS).

SSI Benefits

To project SSI benefits, DYNASIM first determines SSI eligibility on the basis of filing unit (individual versus couple), living arrangements, disability status (for those ages 62 to 64), and state of residence. Once the model determines eligibility, it estimates benefit take-up using SIPP data from the early 1990s linked to Social Security administrative records. Key predictors in the estimation include personal characteristics, state supplements, and resources. Model parameters are calibrated so that the model's predictions match historical participation patterns. Finally, the model uses an algorithmic approach to assign annual benefit levels given take-up.

[11] Smith, Scheuren, and Berk (2001) show that these earnings histories match up quite well with actual earnings histories that are available on a confidential basis at the Social Security Administration.

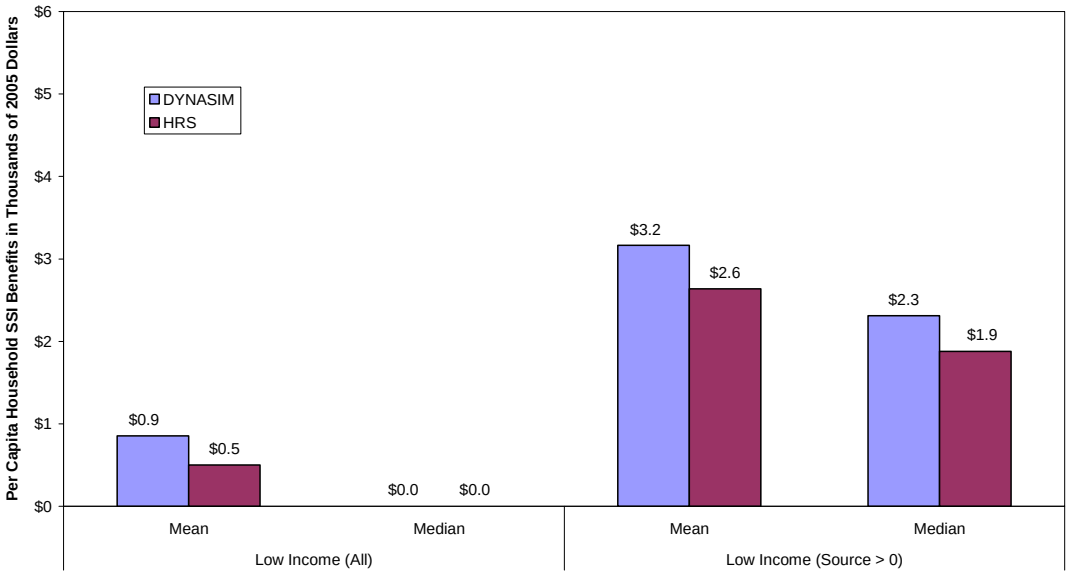
Figure 7. Per Capita Household Earnings in 2003 for Adults Ages 62 and Older, by Income Level



Notes: Sample includes adults ages 62+ in 2003. Low-income adults have per capita income at or below the 20th percentile of the income distribution. Higher-income adults have per capita income above the 20th percentile of the income distribution. Results are for all adults, and those with positive household earnings (source > 0).
Source: Authors' tabulations of DYNASIM3 and the 2004 Health and Retirement Study (HRS).

Figure 8 compares the SSI benefits of low-income adults ages 62 and older in DYNASIM and the HRS. DYNASIM projects higher benefits than those reported on the HRS, but the differences are relatively small. For example, among low-income adults receiving SSI benefits, median benefits are $2,300 in DYNASIM and $1,900 in the HRS.

Figure 8. Per Capita Household SSI Benefits in 2003 for Low-Income Adults Ages 62 and Older, by Income Level



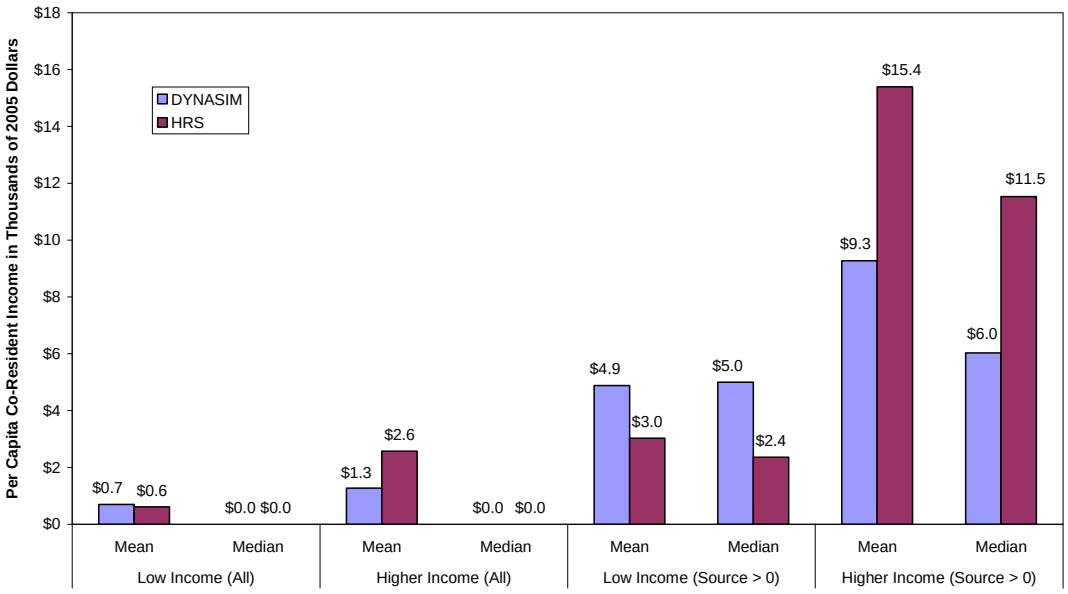
Notes: Sample includes low-income adults ages 62+ in 2003. Low-income adults have per capita income at or below the 20th percentile of the income distribution. Higher-income adults have per capita income above the 20th percentile of the income distribution. Results are for all adults, and those with positive household SSI (source > 0).
Source: Authors' tabulations of DYNASIM3 and the 2004 Health and Retirement Study (HRS).

Co-resident Income

DYNASIM projects co-resident income for adults ages 62 and older. In order to project co-resident income, DYNASIM first projects co-residence in the SIPP using a discrete-time event history model that accounts for both economic and demographic characteristics (including the number of children an individual has had). For those projected to co-reside, DYNASIM imputes their characteristics by statistically matching DYNASIM co-residents with current co-residing aged individuals in the baseline SIPP (donors). The advantage of the statistical matching technique is that it preserves the correlation between family composition and total family income. The SIPP donor pool is divided into 16 groups based on marital status, homeownership, nativity, and kin availability. For each DYNASIM sample member living in shared accommodations in a given year, the match finds the SIPP respondent in the same group whose per capita income is closest to the DYNASIM individual. The selected SIPP respondent donates the income of other household members.

Among adults ages 62 and older living in households with co-resident income, different patterns emerge for those with low income and those with higher income (figure 9). Among low-income adults, median per capita co-resident income is higher in DYNASIM than in the HRS ($5,000 versus $2,400). Among higher-income adults, median per capita co-resident income is lower in DYNASIM than in the HRS ($6,000 versus $11,500). Co-resident income in the HRS is measured by starting with the total income of the household and subtracting out the contributions of the respondent and spouse. It is possible that this measure of co-resident income captures different sources than in DYNASIM (which is based on the SIPP).

Figure 9. Per Capita Co-Resident Income in 2003 for Adults Ages 62 and Older, by Income Level



Notes: Sample includes adults ages 62+ in 2003. Low-income adults have per capita income at or below the 20th percentile of the income distribution. Higher-income adults have per capita income above the 20th percentile of the income distribution. Results are for all adults, and those with positive co-resident income (source > 0).
Source: Authors' tabulations of DYNASIM3 and the 2004 Health and Retirement Study (HRS).

Social Security Benefits

DYNASIM also includes a detailed Social Security benefit calculator that uses earnings and marital histories to estimate Social Security benefits—retired worker, spouse, or survivor benefits. The current benefit calculator is based on the 2005 OCACT assumptions about future price and wage growth. In each year, from the projected year of first benefit receipt until the projected year of death, DYNASIM computes a respondent's Social Security benefit that reflects his or her earnings and marital history at that point in time. The calculator first establishes benefit eligibility based on personal characteristics such as age, number of covered quarters, disability status, marital status, and length of marriage. For those who qualify, the model computes Social Security benefits—retired worker, spouse, divorced spouse, or survivor benefits. The calculator then checks an individual's take-up age against his or her normal retirement age (NRA), reducing benefits for those who retire before their NRA and increasing benefits for those who retire later. Social Security estimates are based on the assumption that current-law benefits will be payable throughout the projection period. However, the Social Security OASDI trust funds are projected to be exhausted by 2041, and OCACT estimates that current and future benefits would need to be reduced by 11.5 percent starting in 2008 in order for the trust funds to remain solvent (Board of Trustees 2008). If the benefit cuts are delayed, the average percentage reduction to achieve long-term solvency would need to be larger. Our Social Security wealth estimates are based on the assumption that future retirees will receive the current-law benefits they were promised, not the benefits that current trust fund receipts will finance in the long run.

Mean and median per capita household Social Security benefits of adults ages 62 and older are higher in DYNASIM than in the HRS, regardless of the sample (figure 10). The differences, however, are less than $1,000. For example, low-income adults ages 62 and older with Social Security benefits have median benefits of $6,400 in DYNASIM and $6,000 in the HRS. Higher-income adults ages 62 and older with Social Security benefits have median benefits of $10,400 in DYNASIM and $9,700 in the HRS.

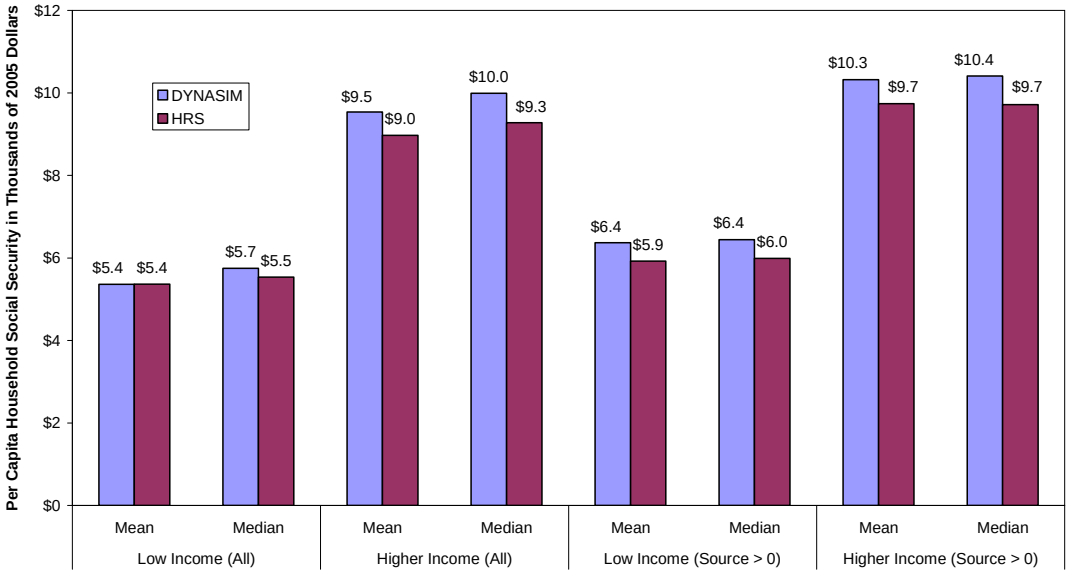
DB Pensions and Retirement Accounts

DYNASIM projects pension amounts in DB plans and DC plans, as well as from IRA and Keogh plans. Pensions are based on an individual's entire work history (real and simulated) up to the projected retirement date. Baseline information regarding pension coverage on current and past jobs comes from SIPP self-reports. To impute future job changes and pension coverage on future jobs, DYNASIM incorporates data on synthetic work histories from the Policy Simulation Group's PENSIM model, developed for the Department of Labor, Pension and Welfare Benefits Administration.[12]

DYNASIM next projects pension benefits from past, current, and future jobs. In general, DB plan benefits are projected using pension plan formulas from the Pension Benefit Guarantee Corporation (PBGC) Pension Insurance Modeling System (PIMS).

[12] See Holmer, Janney, and Cohen (2004) for more detail on the PENSIM model.

Figure 10. Per Capita Household Social Security in 2003 for Adults Ages 62 and Older, by Income Level



Notes: Sample includes adults ages 62+ in 2003. Low-income adults have per capita income at or below the 20th percentile of the income distribution. Higher-income adults have per capita income above the 20th percentile of the income distribution. Results are for all adults, and those with positive household Social Security (source > 0).
Source: Authors' tabulations of DYNASIM3 and the 2004 Health and Retirement Study (HRS).

DC account balances are projected using self-reported information on the SIPP regarding account balances and contribution rates, as well as asset allocations and future contribution rates that vary by age according to Employee Benefit Research Institute/Investment Company Institute (EBRI/ICI) data on 401(k) asset allocations (VanDerhei et al. 1999). DYNASIM varies the proportion of contributions and balances allocated to equities by age category. Then, every five years, the model rebalances the portfolios according to the allocation strategy for the individual's attained age category. For example, individuals in their 20s will hold about 76 percent of their portfolio in stocks and 24 percent in bonds. In their 60s, they will hold about 53 percent of their portfolio in stocks and 47 percent in bonds, reflecting the reduced ability to bear risk as retirement approaches. Subsequent contributions are allocated to match the allocation strategy of the attained age, if different.

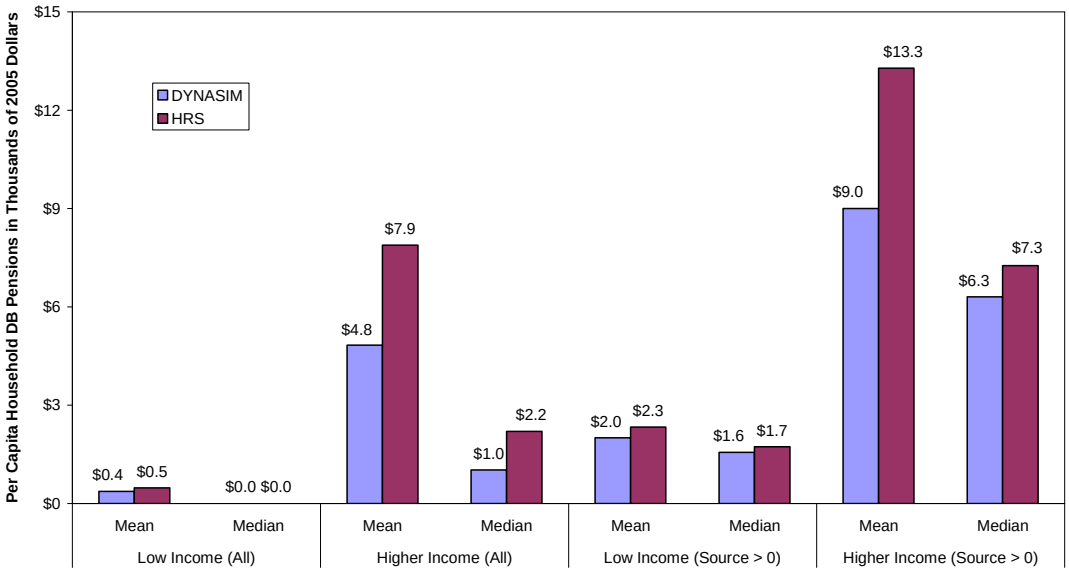
DYNASIM accumulates DC account balances using historical price changes and historical returns for stocks and bonds. Investment experience varies for each individual by setting the rates stochastically, using historical standard deviations. For years after 2007, DYNASIM assumes a CPI growth rate of 2.8 percent (based on the 2005 OCACT assumptions), a nominal rate of return for stocks of 9.5 percent, a nominal rate of return for corporate bonds of 6.4 percent, and a nominal rate of return for government bonds of 5.9 percent. Future rates of return for individuals vary by a standard deviation of 17.28 percent for stocks and 2.14 percent for bonds. One percent is subtracted from each of the stock and bond real rates of return to reflect administrative costs.

The SIPP also includes information regarding IRA/Keogh account balances and contributions. Similar to DC plans, IRA/Keogh account balances are accumulated to the retirement date, along with any new contributions and interest earnings. IRA/Keogh contribution

rates are allowed to vary over time by age and earnings, using the same method used for DC plans. IRA/Keogh contributions are capped according to legal limits that vary by year. IRA/Keogh assets are allocated the same way as DC assets, and rates of return are set stochastically using the same method as that used for DC plans. Only those with IRA/Keogh coverage at the time of the SIPP interview have IRAs/Keoghs. No new IRA/Keogh participation is simulated in DYNASIM.

Finally, we examine how per capita household DB pension benefits compare in DYNASIM and the HRS (figure 11). In general, the benefits of adults ages 62 and older are lower in DYNASIM than in the HRS. As with financial and housing wealth, the distribution is fairly skewed toward the high end, and the differences between DYNASIM and the HRS are largest at the mean. However, differences between the data sources are much smaller at the median. For example, median benefits over all low-income adults are zero in both data sources. Median benefits over all higher-income adults are $1,000 in DYNASIM and $2,200 in the HRS. Because relatively few adults have pension benefits, these differences increase slightly when we focus only on those with pension benefits. For example, median benefits of low-income adults with pensions are $1,600 in DYNASIM and $1,700 in the HRS. Median benefits of higher-income adults with pensions are $6,300 in DYNASIM and $7,300 in the HRS.

Figure 11. Per Capita Household DB Pensions in 2003 for Adults Ages 62 and Older, by Income Level

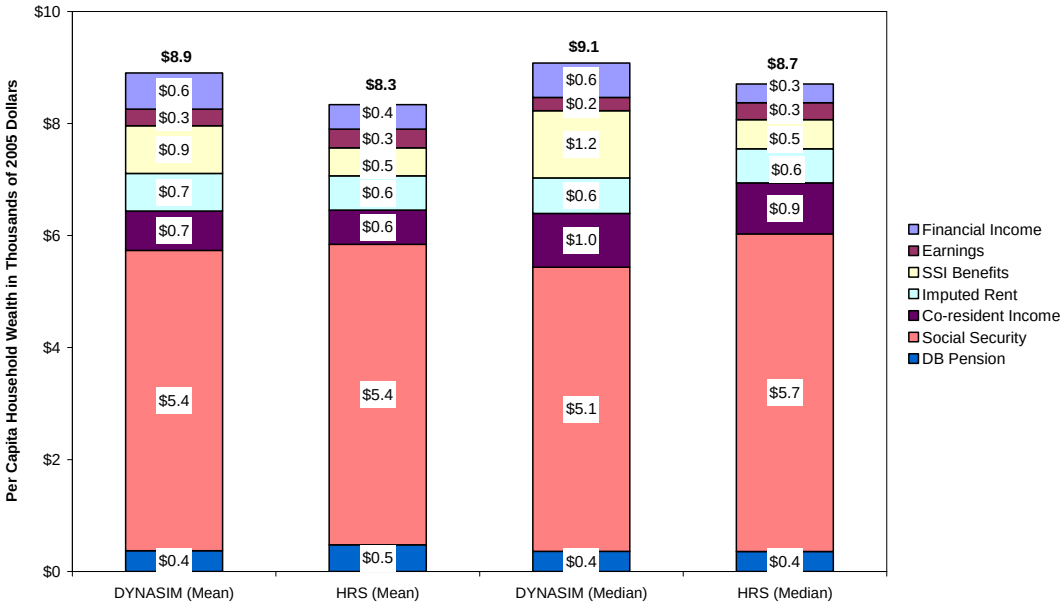


Notes: Sample includes adults ages 62+ in 2003. Low-income adults have per capita income at or below the 20th percentile of the income distribution. Higher-income adults have per capita income above the 20th percentile of the income distribution. Results are for all adults, and those with positive household DB pensions (source > 0).
Source: Authors' tabulations of DYNASIM3 and the 2004 Health and Retirement Study (HRS).

By aggregating the income sources just described, we can compare mean and median per capita household income in DYNASIM and the HRS for low- and higher-income adults ages 62 and older. Among low-income adults, DYNASIM projects per capita household income to be $8,900 at the mean and $9,100 at the median (figure 12). HRS reported income is $8,300 at the mean and $8,700 at the median. Although the estimates of household income are very similar in the two data sources, the relative importance of income sources differs. Low-income adults in

DYNASIM receive a significantly larger share of their median household income from SSI benefits (13 versus 6 percent) and a significantly smaller share of their median household income from Social Security benefits (56 versus 65 percent) than their counterparts in the HRS (appendix table A3).

Figure 12. Sources of Per Capita Household Income in 2003 for Low-Income Adults Ages 62 and Older



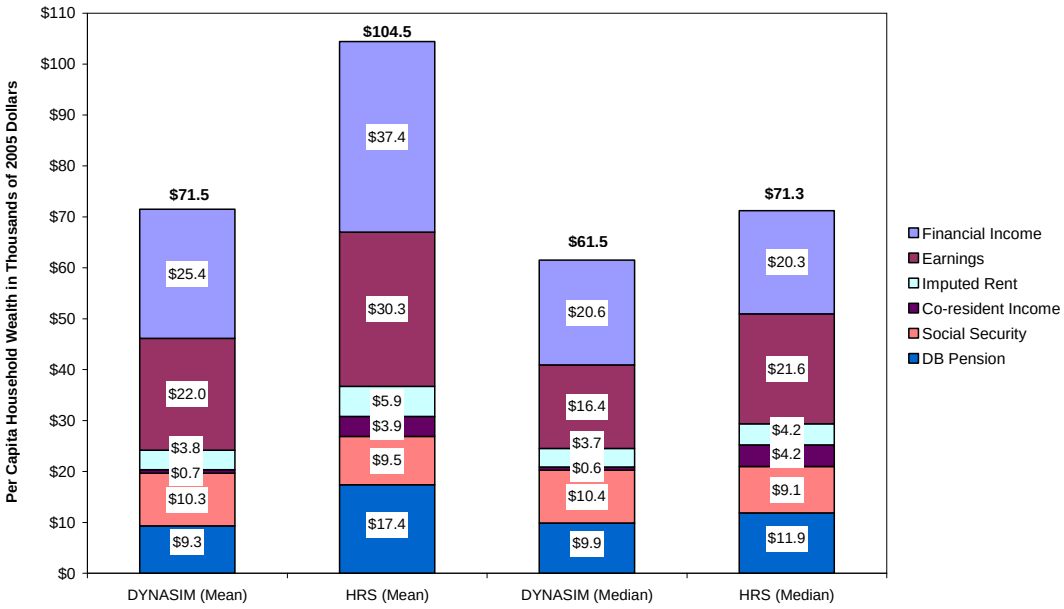
Notes: Sample includes low-income adults ages 62+ in 2003. Low-income adults have per capita income at or below the 20th percentile of the income distribution.
Source: Authors' tabulations of DYNASIM3 and the 2004 Health and Retirement Study (HRS). See appendix table A3 for details.

Among higher-income adults, median per capita household income is $61,500 in DYNASIM and $71,300 in the HRS (figure 13). Driving much of this difference are earnings and co-resident income. Typical higher-income adults are projected to have only $16,400 of household earnings in DYNASIM, but $21,600 of household earnings in the HRS. Furthermore, DYNASIM projects that typical higher-income adults will receive $600 or 1 percent of their household income from co-residents (appendix table A4). In the HRS, typical higher-income adults report receiving $4,200 or 6 percent of their household income from co-residents.

In evaluating differences between DYNASIM and the HRS, it is important to keep in mind the focus of each of these data sources. (In the case of DYNASIM, SIPP is the baseline survey.) Researchers commonly regard the HRS as one of the premier sources of information regarding the demographics, health status, and income and assets of Americans ages 51 and older. The quality of wealth and income information in the HRS is considered to be one of its strengths. The survey collects information on a wide range of different sources of wealth and income, prompting respondents to report all their economic resources. The survey also uses bracketing techniques when collecting economic data, asking respondents to report amounts in ranges if they are unable to provide precise amounts. These techniques have been shown to raise response rates and improve the quality of survey data on income and assets.

The SIPP, on the other hand, has been shown to underestimate household wealth relative to other data sources. However, this limitation mostly affects estimates of high-income households and the types of assets that they hold (Czajka, Jacobson, and Cody 2003). In fact, the SIPP is considered one of the best sources of data on low-income households—the focus of this study.

Figure 13. Sources of Per Capita Household Income in 2003 for Higher-Income Adults Ages 62 and Older



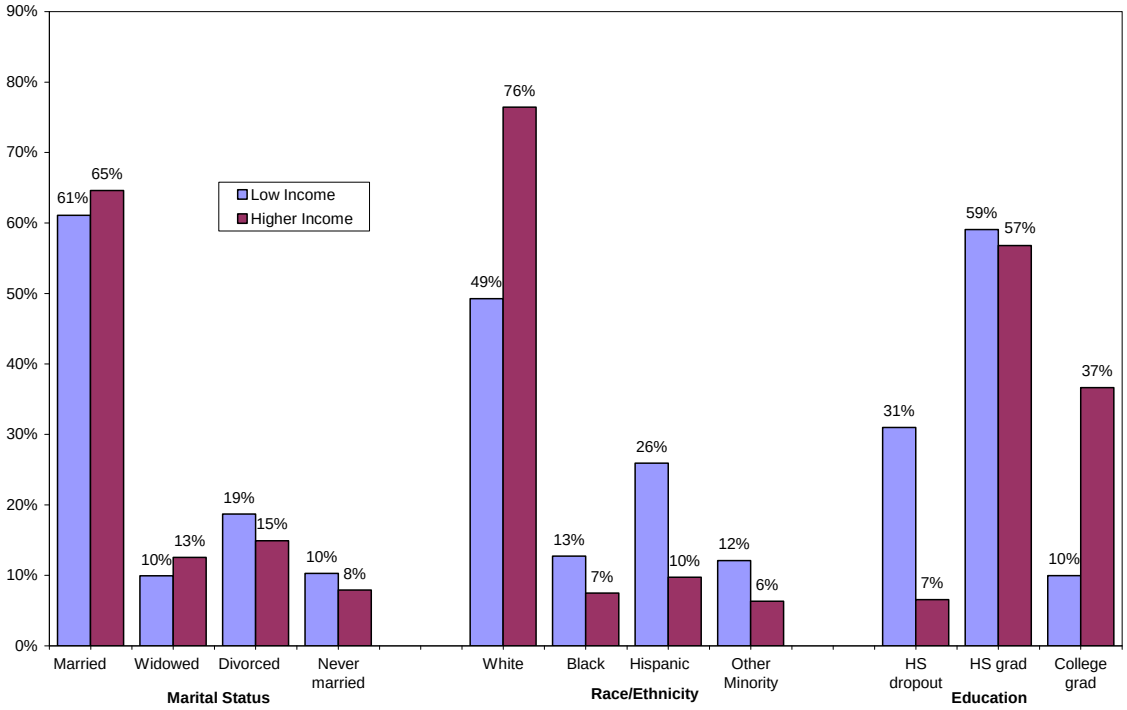
Notes: Sample includes higher-income adults ages 62+ in 2003. Higher-income adults have per capita income above the 20th percentile of the income distribution.
Source: Authors' tabulations of DYNASIM3 and the 2004 Health and Retirement Study (HRS). See appendix table A4 for details.

V. Who Are the Low-Income Boomers?

Using DYNASIM, figure 14 shows how the characteristics of low-income boomers are expected to differ from those of higher-income boomers. Low-income boomers have marital characteristics similar to higher-income boomers; however, they are significantly less likely than higher-income boomers to be white non-Hispanic and college graduates. Instead, they are more likely to be black non-Hispanic, Hispanic, other minority (a group that combines Asians and Native Americans), and high school dropouts. Only 49 percent of those with low income are white non-Hispanic, and 10 percent are college educated, compared with 76 and 37 percent of their higher-income counterparts.

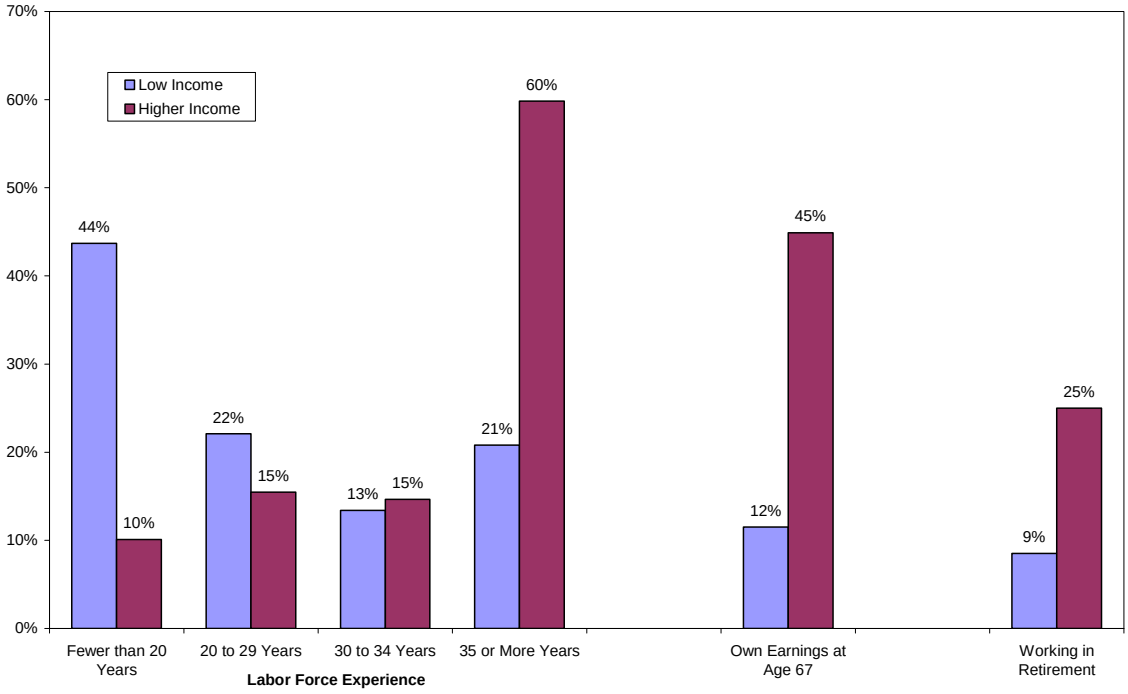
Low-income boomers' work histories also differ significantly from higher-income boomers (figure 15). For example, 44 percent of low-income boomers, but only 10 percent of higher-income boomers, have fewer than 20 years of work experience between ages 22 and 62. In contrast, only 21 percent of low-income boomers, but 60 percent of higher-income boomers, have 35 or more years of work experience.

Figure 14. Characteristics of Boomers at Age 67, by Income Level



Notes: Sample includes adults born 1946-1965. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution. Higher-income adults have per capita income at age 67 above the 20th percentile of the income distribution.
Source: Authors' tabulations of DYNASIM3. See appendix table A5 for details.

Figure 15. Work History of Boomers at Age 67, by Income Level

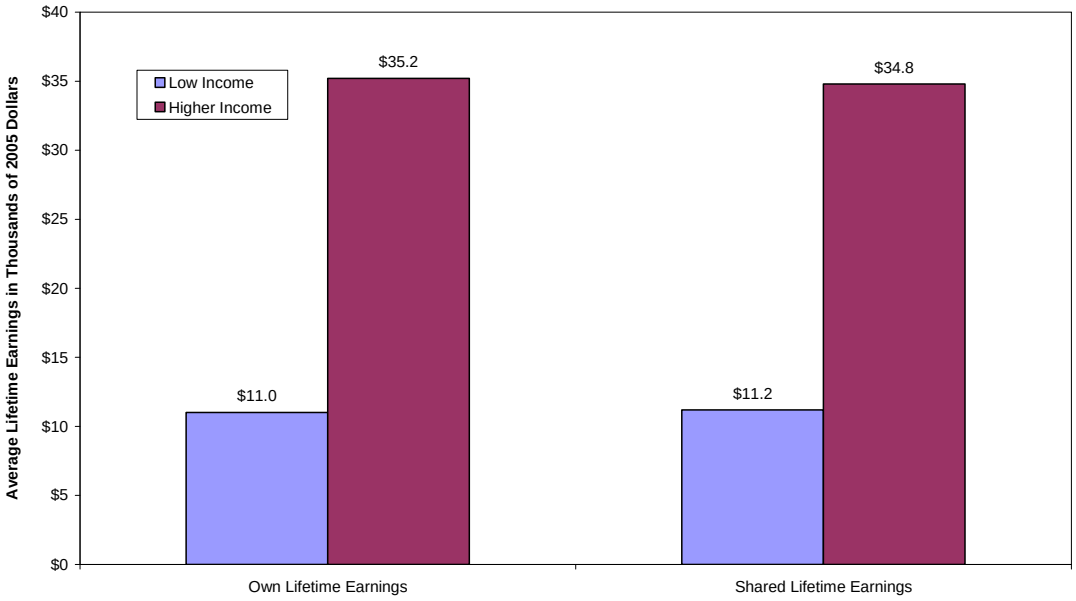


Notes: Sample include adults born 1946-1965. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution. Higher-income adults have per capita income at age 67 above the 20th percentile of the income distribution.
Source: Authors' tabulations of DYNASIM3. See appendix table A6 for details.

Further, low-income boomers are less likely than higher-income boomers to work at older ages. Only 12 percent of low-income boomers, but 45 percent of higher-income boomers, have earnings at age 67, including people working in preretirement and postretirement jobs.[13] In fact, only 9 percent of low-income boomers are projected to have earnings beyond their projected retirement age. In comparison, 25 percent of higher-income boomers will likely work in retirement.[14]

Fewer years working and lower earnings will lead to significantly lower average lifetime earnings for low-income boomers. Both own and shared average lifetime earnings of low-income boomers are less than one-third the corresponding average lifetime earnings of higher-income boomers (figure 16).

Figure 16. Average Lifetime Earnings Between Ages 22 and 62 of Boomers, by Income Level



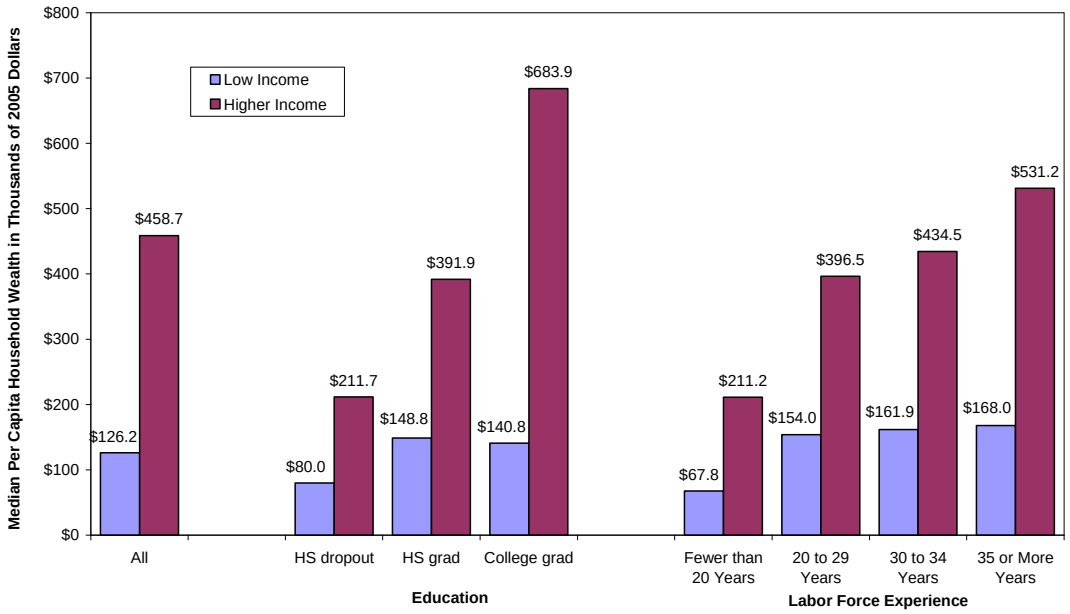
Notes: Sample includes adults born 1946-1965. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution. Higher-income adults have per capita income at age 67 above the 20th percentile of the income distribution.
Source: Authors' tabulations of DYNASIM3. See appendix table A6 for details.

Typical low-income boomers also will have a little more than one-quarter the wealth and income of typical higher-income boomers (figures 17 and 18). Wealth and income differences between low- and higher-income boomers are expected to be especially large for other minority groups (appendix table A7), college graduates, and those with 35 or more years of labor force experience. Mostly this reflects large within-group differences in wealth and income among higher-income boomers.

[13] Retirement age represents the age at which workers experience at least a 50 percent drop in earnings compared with their average earnings between ages 45 and 50. (The drop in earnings must last for at least two years.) Defining the retirement age this way allows DYNASIM to simulate more gradual transitions to full retirement.
[14] That is, 25 percent of higher-income boomers are working at age 67 but have already retired (based on the criteria in the previous footnote). Another 20 percent of higher-income boomers are working at 67 but are not retired. Combined, 45 percent of higher-income boomers are working at age 67.

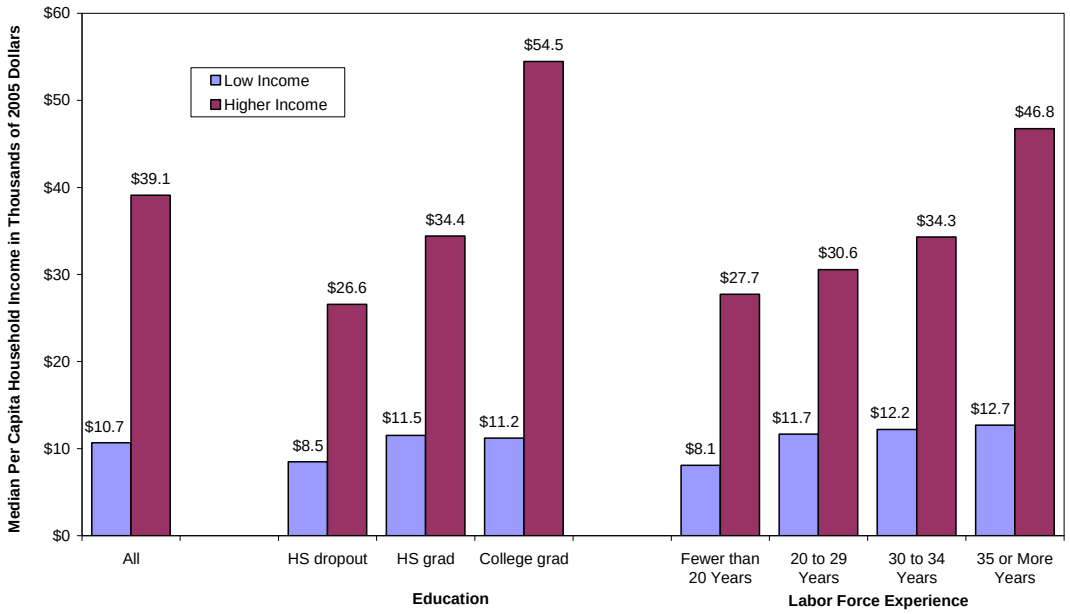
Somewhat surprising is how little difference we see in the wealth and income of low-income boomers with 20 to 29 years, 30 to 34 years, and 35 or more years of work experience.

Figure 17. Median Per Capita Household Wealth of Boomers at Age 67, by Income Level



Notes: Sample includes adults born 1946-1965. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution. Higher-income adults have per capita income at age 67 above the 20th percentile of the income distribution.
Source: Authors' tabulations of DYNASIM3. See appendix table A7 for details.

Figure 18. Median Per Capita Household Income of Boomers at Age 67, by Income Level

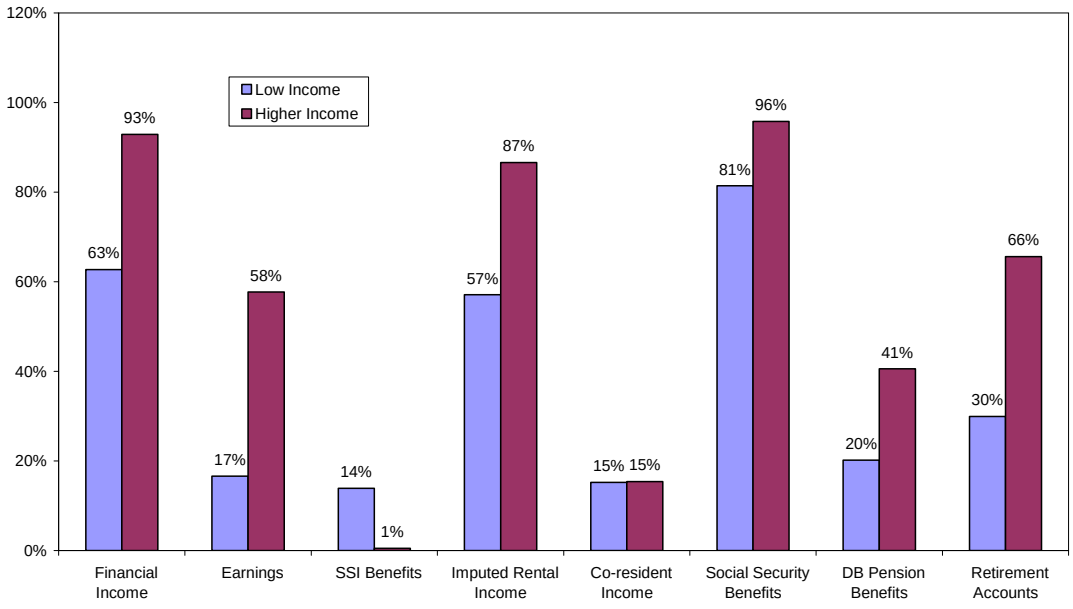


Notes: Sample includes adults born 1946-1965. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution. Higher-income adults have per capita income at age 67 above the 20th percentile of the income distribution.
Source: Authors' tabulations of DYNASIM3. See appendix table A7 for details.

In particular, one would expect Social Security wealth and benefits to increase with labor force experience. One explanation for this finding may be that some low-income boomers have high wages for only a few years and others have low wages for many years, which reduces the effect of work on wealth and income.

When analyzing household wealth and income, it is important to consider their sources. As already noted, low-income boomers are less likely than higher-income boomers to have their own earnings at age 67. Low-income boomers are also less likely than higher-income boomers to have most other sources of household income (figure 19). They are significantly less likely to have financial income (63 versus 93 percent) and less likely to be homeowners (57 versus 87 percent). Not surprisingly, given their earning and work histories, they are also less likely to have pensions. Only 20 percent of low-income boomers are projected to have DB pensions and 30 percent to have retirement accounts. In contrast, 41 percent of higher-income boomers are projected to have DB pensions and 66 percent to have retirement accounts. As expected, low-income boomers are significantly more likely than higher-income boomers to have means-tested SSI benefits (14 versus 1 percent). However, low-income boomers are just as likely as higher-income boomers to have income from nonspouse co-residing household members (15 percent).

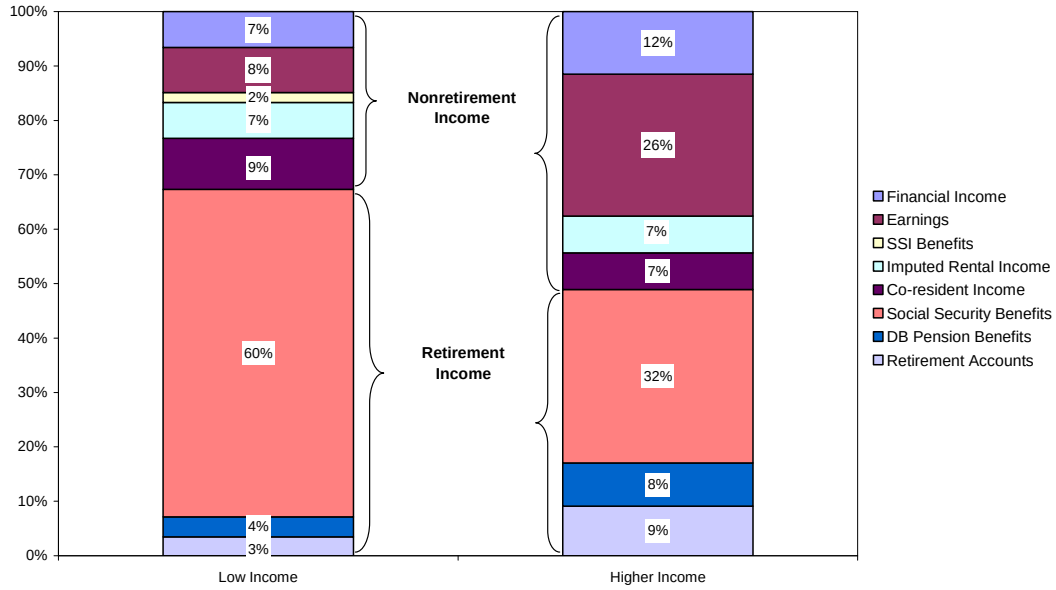
Figure 19. Percent of Boomers with Income Sources at Age 67, by Income Level



Notes: Sample includes adults born 1946-1965. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution. Higher-income adults have per capita income at age 67 above the 20th percentile of the income distribution.
Source: Authors' tabulations of DYNASIM3. See appendix table A8 for details.

Nonretirement income sources, such as financial income, earnings, SSI benefits, imputed rental income, and co-resident income, make up only 33 percent of low-income boomers' household income, but 52 percent of higher-income boomers' household income (figure 20). This largely reflects the greater importance of earnings (26 versus 8 percent of household income) to the economic security of higher-income boomers than to low-income boomers.

Figure 20. Sources of Median Per Capita Household Income of Boomers at Age 67, by Income Level



Notes: Sample includes adults born 1946-1965. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution. Higher-income adults have per capita income at age 67 above the 20th percentile of the income distribution. Percentages may not sum to 100 percent due to rounding.
Source: Authors' tabulations of DYNASIM3. See appendix table A8 for details.

Retirement income sources, specifically Social Security benefits, DB pension benefits, and income from retirement accounts, comprise 67 percent of low-income boomers' household income, but only 49 percent of higher-income boomers' household income. Social Security alone will amount to 60 percent of low-income boomers' household income, compared with only 32 percent of higher-income boomers' household income. Note, however, that Social Security benefits are only $6,400 for typical low-income boomers, but are $12,500 for typical higher-income boomers (appendix table A8).

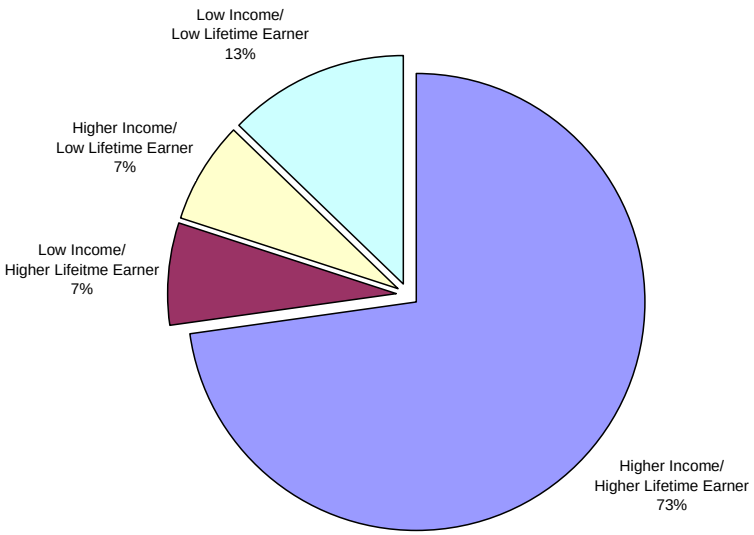
VI. The Relationship Between Income at Age 67 and Lifetime Earnings

Lifetime earnings are highly correlated with income at retirement. The ability to save both in and out of employer-sponsored and other tax-deferred retirement plans is greater for workers with higher earnings. Private pensions and Social Security benefits are based on earnings, so individuals effectively finance a large part of their retirement income out of wages earned over their lifetime.[15] But not all individuals with low income at age 67 have histories of low earnings, and not all low-lifetime-earners end up with low income. Overall, 14 percent of boomers will experience income mobility over their lifetime (figure 21). That is, 7 percent of boomers with low lifetime earnings will attain higher income at age 67, and another 7 percent of boomers with higher lifetime earnings will end up with low income at age 67. The other 86 percent of boomers will have low lifetime earnings and low income at age 67 (13 percent), or higher lifetime earnings and higher income at age 67 (73 percent). This means that more than a

[15] Even those who save nothing on their own are likely to be entitled to Social Security benefits because of spousal auxiliary benefits and widow(er) benefits.

third of boomers with low lifetime earnings will have higher incomes in retirement and more than a third of boomers with low incomes in retirement will have had higher lifetime earnings.

Figure 21. Distribution of Boomers at Age 67 by Income Level and Lifetime Earnings Level



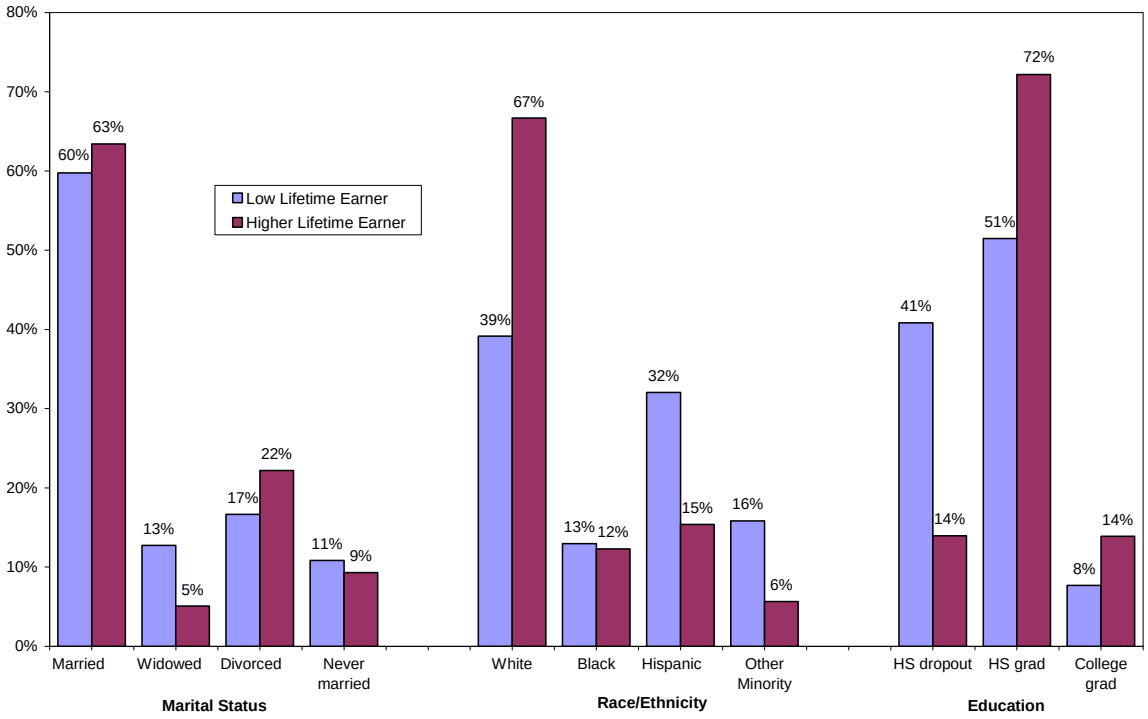
Notes: Sample includes adults born 1946-1965. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution. Higher-income adults have per capita income at age 67 above the 20th percentile of the income distribution. Low-lifetime-earner adults have shared lifetime earnings at or below the 20th percentile of the shared lifetime earnings distribution. Higher-lifetime-earner adults have shared lifetime earnings above the 20th percentile of the shared lifetime earnings distribution.
Source: Authors' tabulations of DYNASIM3.

Lifetime Earnings of Low-Income Boomers

This section examines factors that might lead higher-lifetime-earners to end up with low income at retirement (downward mobility). Among low-income boomers, higher-lifetime-earners are more likely than low-lifetime-earners to be male (appendix table A9), married, divorced, white non-Hispanic, and high school and college graduates (figure 22). As expected, low-income/higher-lifetime-earners are projected to have more labor force experience than low-income/low-lifetime-earners—spending an average of 13 more years working between ages 22 and 62 (figure 23). As a result, their own lifetime earnings will be more than three times those of low-income/low-lifetime-earners (compare $19,500 for low-income/higher-lifetime-earners with $6,000 for low-income/low-lifetime-earners). However, they are less than half as likely as low-income/low-lifetime-earners to still be working at age 67 and less than half as likely to work after they retire.

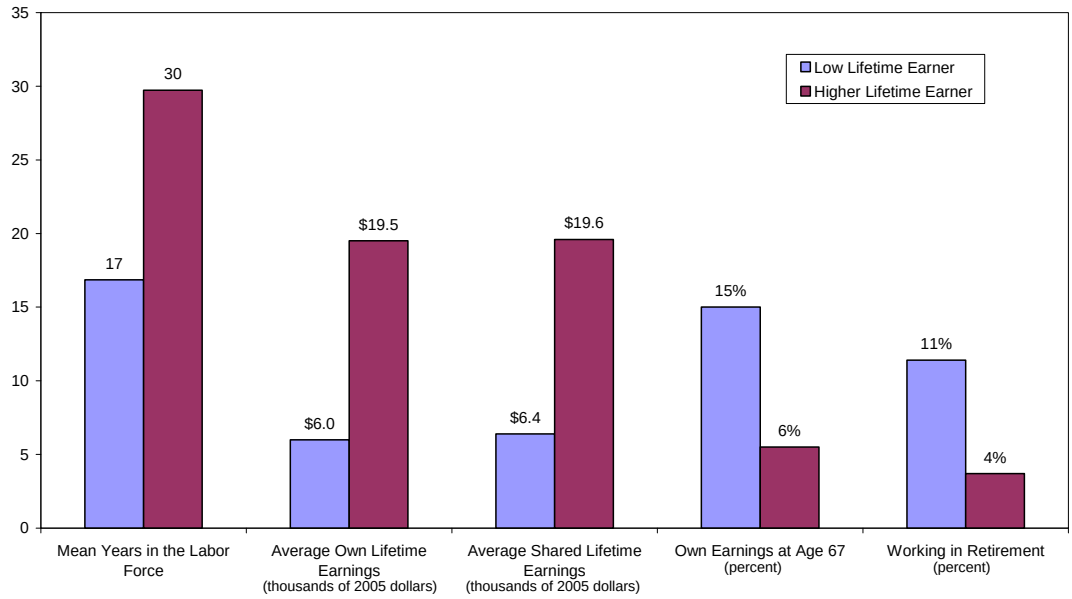
Among low-income boomers, higher-lifetime-earners have close to twice the wealth and 1.5 times the income of low-lifetime-earners. Wealth and income differences between low-income/low-lifetime-earners and low-income/higher-lifetime-earners are largest for other minority groups, high school dropouts, and those with fewer than 20 years of labor force experience (figures 24 and 25).

Figure 22. Characteristics of Low-Income Boomers at Age 67, by Lifetime Earnings Level



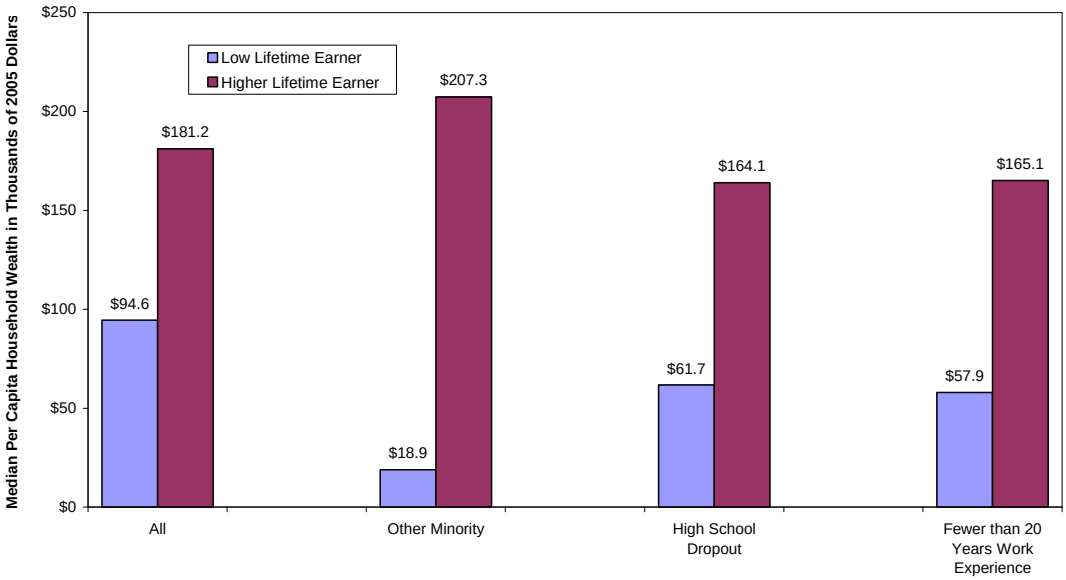
Notes: Sample includes low-income adults born 1946-1965. Low-income adults have per capita income at age 67 at or below the 20"' percentile of the income distribution. Low-lifetime-earner adults have shared lifetime earnings at or below the 20th percentile of the shared lifetime earnings distribution. Higher-lifetime-earner adults have shared lifetime earnings above the 20th percentile of the shared lifetime earnings distribution.
Source: Authors' tabulations of DYNASIM3. See appendix table A9 for details.

Figure 23. Work History of Low-Income Boomers at Age 67, by Lifetime Earnings Level



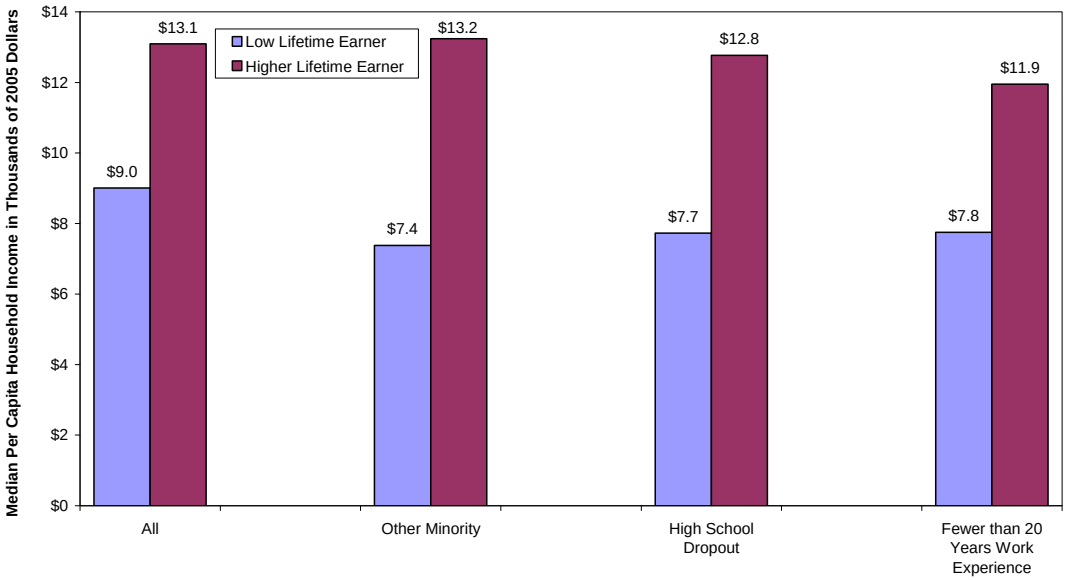
Notes: Sample includes low-income adults born 1946-1965. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution. Low-lifetime-earner adults have shared lifetime earnings at or below the 20th percentile of the shared lifetime earnings distribution. Higher-lifetime-earner adults have shared lifetime earnings above the 20th percentile of the shared lifetime earnings distribution.
Source: Authors' tabulations of DYNASIM3. See appendix table A10 for details.

Figure 24. Median Per Capita Household Wealth of Low-Income Boomers at Age 67, by Lifetime Earnings Level



Notes: Sample includes low-income adults born 1946-1965. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution. Low-lifetime-earner adults have shared lifetime earnings at or below the 20th percentile of the shared lifetime earnings distribution. Higher-lifetime-earner adults have shared lifetime earnings above the 20th percentile of the shared lifetime earnings distribution.
Source: Authors' tabulations of DYNASIM3. See appendix table A11 for details.

Figure 25. Median Per Capita Household Income of Low-Income Boomers at Age 67, by Lifetime Earnings Level



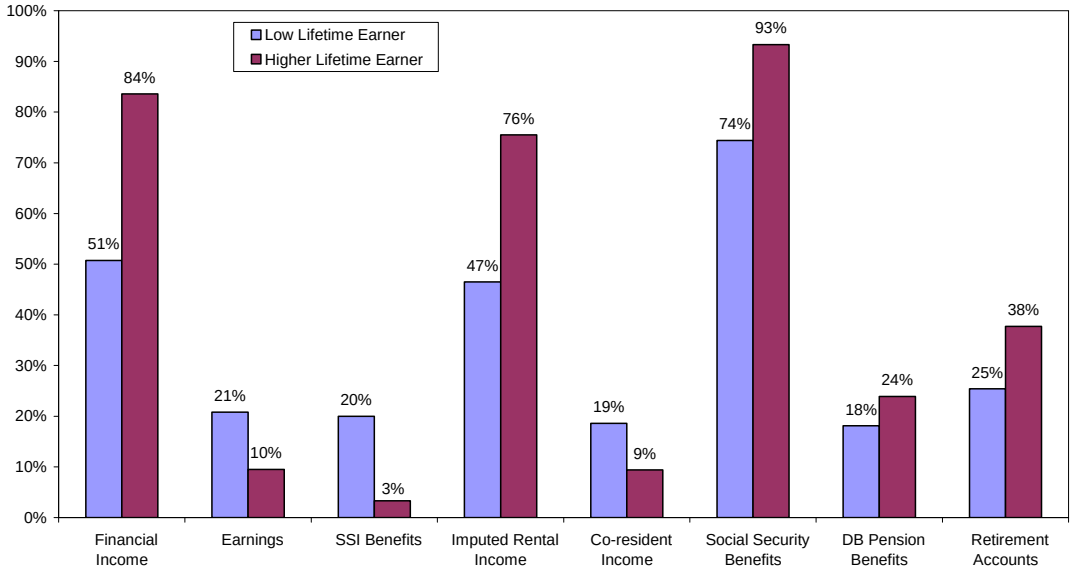
Notes: Sample includes low-income adults born 1946-1965. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution. Low-lifetime-earner adults have shared lifetime earnings at or below the 20th percentile of the shared lifetime earnings distribution. Higher-lifetime-earner adults have shared lifetime earnings above the 20th percentile of the shared lifetime earnings distribution.
Source: Authors' tabulations of DYNASIM3. See appendix table A11 for details.

Low-income/higher-lifetime-earners are more likely than low-income/low-lifetime-earners to have most sources of wealth (appendix table A12). Among low-income boomers, 84 percent of higher-lifetime-earners have financial assets compared with only 51 percent of low-lifetime-earners, and 76 percent of higher-lifetime-earners are homeowners compared with only

47 percent of low-lifetime-earners. Given the intermittent work histories and lower earnings of low-lifetime-earners, it is not surprising that higher-lifetime-earners are also more likely to have those sources of wealth that depend directly on earnings, including Social Security, DB pensions, and retirement accounts. However, the relative importance of nonretirement and retirement wealth sources is very similar for higher-lifetime-earners and low-lifetime-earners—with about 24 to 26 percent of total household wealth coming from nonretirement wealth sources and the other 74 to 76 percent coming from retirement wealth sources (appendix table A12).

Turning to the sources of income at age 67 among low-income boomers, we find that only 10 percent of higher-lifetime-earners have household earnings (their own or their spouse's) compared with 21 percent of low-lifetime-earners (figure 26). Also, given their relatively higher income, higher-lifetime-earners are about seven times less likely to receive SSI benefits than low-lifetime-earners (compare 3 percent of higher-lifetime-earners with 20 percent of low-lifetime-earners). Finally, low-income/higher-lifetime-earner boomers are less than half as likely to have co-resident income as low-income/low-lifetime-earner boomers (9 versus 19 percent).

Figure 26. Percent of Low-Income Boomers with Income Sources at Age 67, by Lifetime Earnings Level

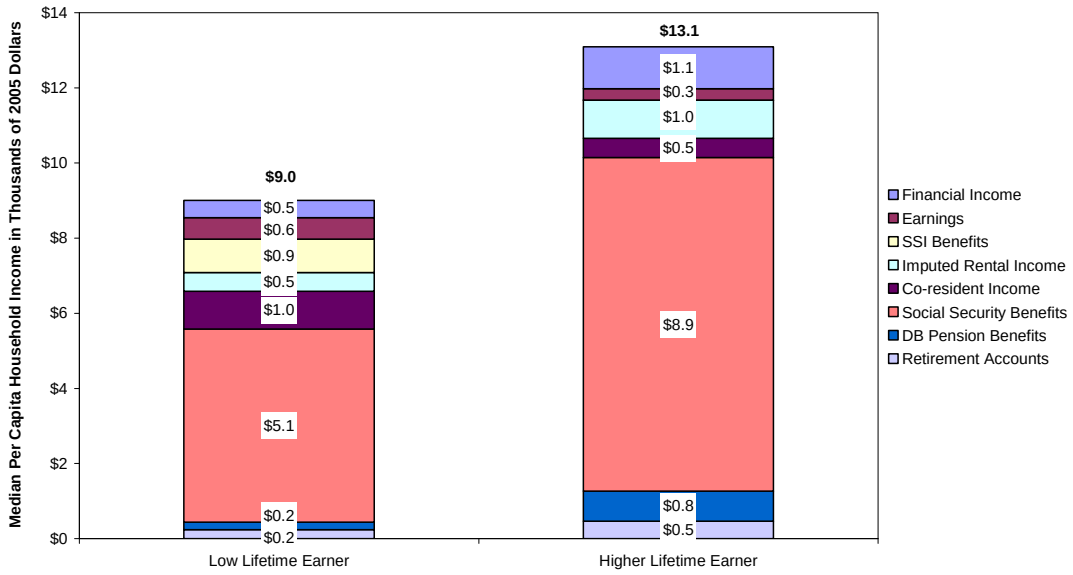


Notes: Sample includes low-income adults born 1946-1965. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution. Low-lifetime-earner adults have shared lifetime earnings at or below the 20th percentile of the shared lifetime earnings distribution. Higher-lifetime-earner adults have shared lifetime earnings above the 20th percentile of the shared lifetime earnings distribution.
Source: Authors' tabulations of DYNASIM3. See appendix table A12 for details.

These particular income sources do not amount to very much ($1,000 or less) for either higher-lifetime-earners or low-lifetime-earners. What drives most of the differences in household income between low-income/higher-lifetime-earners and low-income/low-lifetime-earners is Social Security (figure 27). Typical low-income/higher-lifetime-earners will likely receive about $8,900 in Social Security benefits, compared with about $5,100 for typical low-income/low-lifetime-earners. If low-income/low-lifetime-earners received as much in Social Security as low-income/higher-lifetime-earners, the household income differences between the two groups would drop from $4,100 to only $300. So higher-lifetime-earners remain better off than low-lifetime-earners at age 67 because of their work and earnings at younger ages, not their work and earnings

at older ages. In fact, stopping work early is the one factor we have identified that is associated with individuals having low income at age 67, even when they have relatively high lifetime earnings.

Figure 27. Sources of Median Per Capita Household Income of Low-Income Boomers at Age 67, by Lifetime Earnings Level



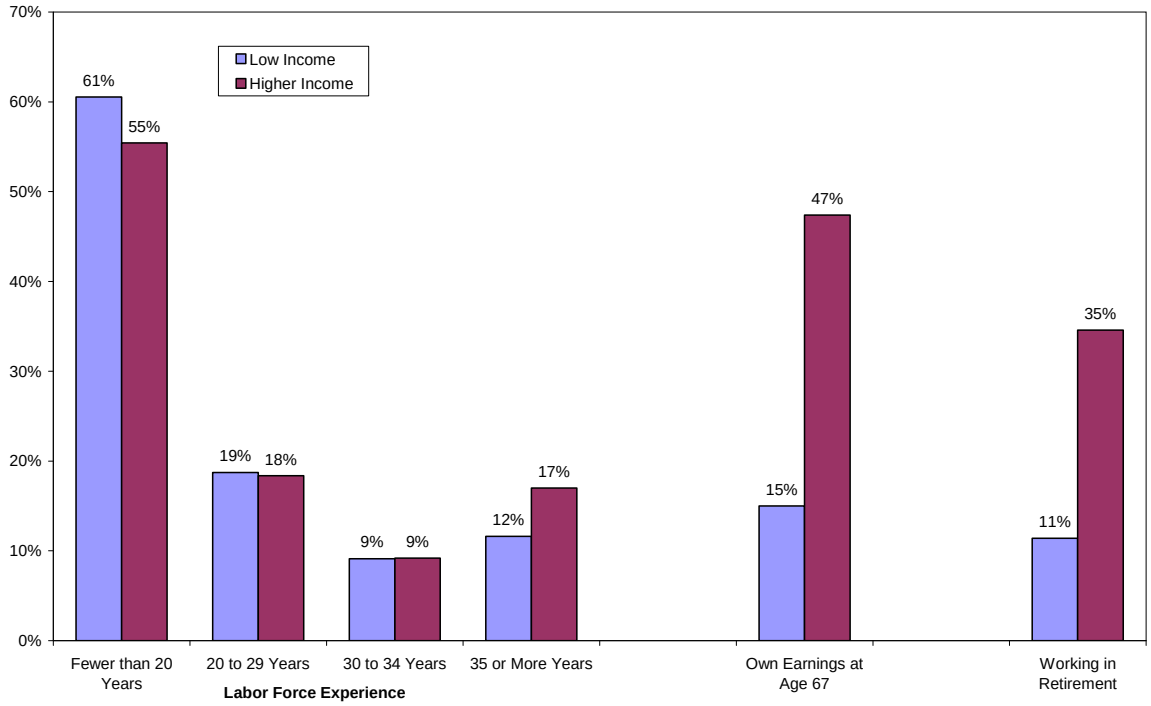
Notes: Sample includes low-income adults born 1946-1965. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution. Low-lifetime earners have shared lifetime earnings at or below the 20th percentile of the shared lifetime earnings distribution. Higher-lifetime-earners have shared lifetime earnings above the 20th percentile of the shared lifetime earnings distribution. Income sources may not sum to household totals due to rounding.
Source: Authors' tabulations of DYNASIM3. See appendix table A12 for details.

Income at Age 67 among Low-lifetime-earner Boomers

Next we examine boomers who have low average lifetime earnings to see how they fare at age 67. Most low-lifetime-earner boomers will end up with low household income, but about 35 percent will retire with higher household income (upward mobility). Within the group of low-lifetime-earner boomers, demographic differences between those who end up with low income and those who end up with higher income at retirement are generally small, with the exception of marital status and education (appendix table A13). For example, only 50 percent of low-lifetime-earner boomers with higher income are married compared with 60 percent of low-lifetime-earner boomers with low income, and only 29 percent of low-lifetime-earners with higher income are high school dropouts compared with 41 percent of low-lifetime-earner boomers with low income.

Although their work and earnings histories between ages 22 and 62 are very similar, low-lifetime-earner boomers with low income and low-lifetime-earner boomers with higher income have strikingly different work patterns at older ages (figure 28). Only 15 percent of low-lifetime-earner/low-income boomers work at age 67, and 11 percent work during retirement. In contrast, 47 percent of low-lifetime-earner/higher-income boomers work at age 67, and 35 percent work during retirement. Clearly, work at older ages is an important factor in helping boomers with low lifetime earnings escape low income at age 67.

Figure 28. Work History of Low-Lifetime-Earner Boomers at Age 67, by Income Level



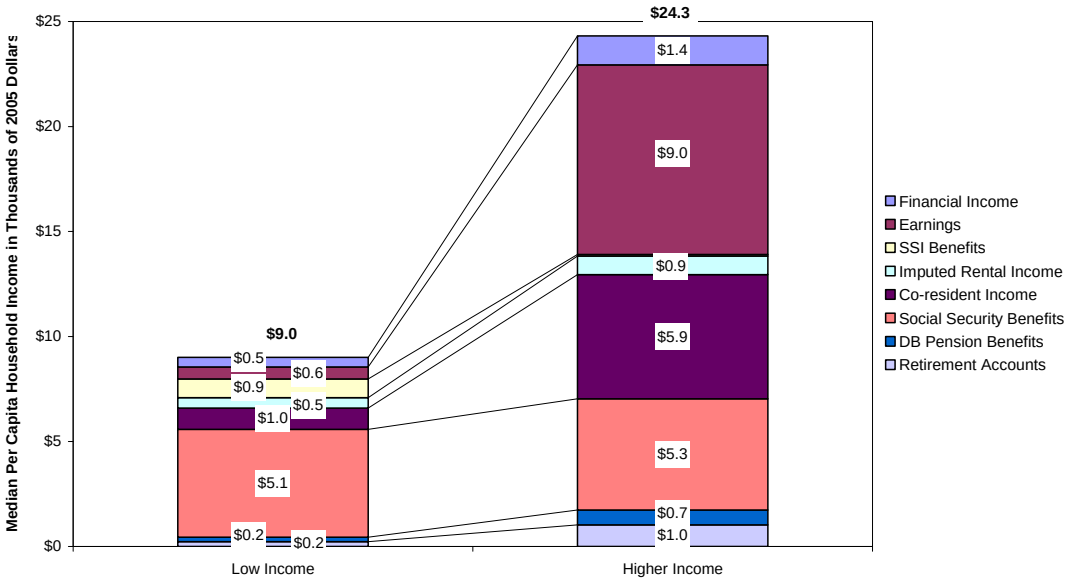
Notes: Sample includes low-lifetime-earner adults born 1946-1965. Low-lifetime-earner adults have shared lifetime earnings at or below the 20th percentile of the shared lifetime earnings distribution. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution. Higher-income adults have per capita income at age 67 above the 20th percentile of the income distribution.
Source: Authors' tabulations of DYNASIM3. See appendix table A14 for details.

Among low-lifetime-earners, those with low income are expected to amass $94,600 in household wealth. In contrast, those with higher income will accrue $147,700 in household wealth (appendix table A15). Median income will be about $9,000 for low-lifetime-earner/low-income boomers and $24,300 for low-lifetime-earner/higher-income boomers. Much of the difference in resources at age 67 is driven by earnings and co-resident income (figure 29). Low-lifetime-earner/low-income boomers will receive only $600 or 6 percent of their household income from earnings, compared with $9,000 or 37 percent for low-lifetime-earner/higher-income boomers. Low-lifetime-earners with low income will receive only $1,000 or 11 percent of their household income from co-residents, compared with $5,900 or 24 percent for low-lifetime-earners with higher income. This finding suggests that low-lifetime-earners can improve their economic well-being at retirement by continuing to work at older ages (or having a spouse who continues to work), or by moving in with someone else who provides economic support.

Summary—The Relationship between Income at Age 67 and Lifetime Earnings

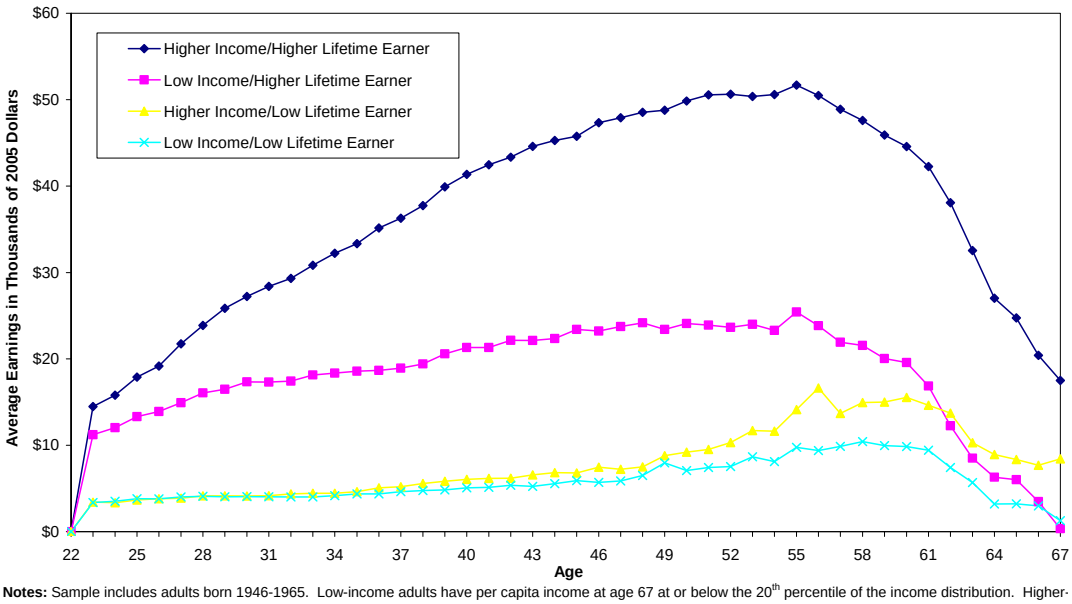
The next set of figures summarizes the relationship between income at age 67 and lifetime earnings. Figure 30 depicts age-earnings profiles of boomers. Among low-lifetime-earners, higher-income retirees have roughly the same or slightly higher earnings than low-income retirees up to age 50, but significantly higher earnings after age 50. Those who do well in retirement are those whose earnings continue to rise after age 50.

Figure 29. Sources of Median Per Capita Household Income of Low-Lifetime-Earner Boomers at Age 67, by Income Level



Notes: Sample includes low-lifetime-earner adults born 1946-1965. Low-lifetime-earner adults have shared lifetime earnings at or below the 20th percentile of the shared lifetime earnings distribution. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution. Higher-income adults have per capita income at age 67 above the 20th percentile of the income distribution. Income sources may not sum to household totals due to rounding.
Source: Authors' tabulations of DYNASIM3. See appendix table A16 for details.

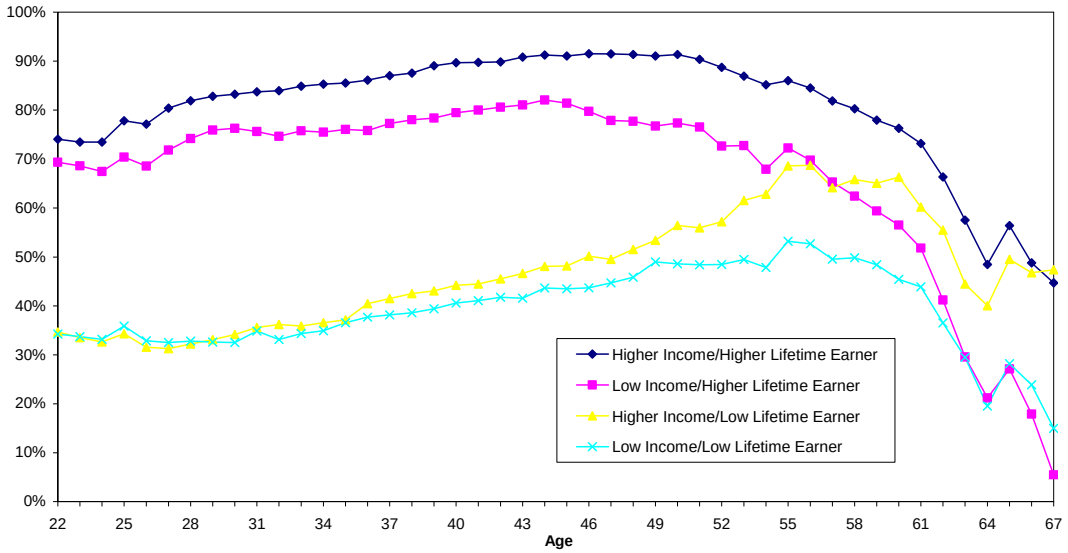
Figure 30. Age-Earnings Profiles of Boomers by Income Level and Lifetime Earnings Level



Notes: Sample includes adults born 1946-1965. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution. Higher-income adults have per capita income at age 67 above the 20th percentile of the income distribution. Low-lifetime-earner adults have shared lifetime earnings at or below the 20th percentile of the shared lifetime earnings distribution. Higher-lifetime-earner adults have shared lifetime earnings above the 20th percentile of the shared lifetime earnings distribution.
Source: Authors' tabulations of DYNASIM3.

Figure 31 plots labor force participation rates (defined as positive earnings) of boomers. Through most of their working lives, low-lifetime-earners with higher income will be slightly more likely to work than low-lifetime-earners with low income. However, the gap in labor force participation rates between the two groups is expected to increase dramatically starting around age 50. At the same time, the gap in labor force participation rates between low-income boomers with higher lifetime earnings and those with low lifetime earnings is expected to decrease so dramatically that by age 67 low-income boomers with higher lifetime earnings will be three times less likely to work than their low-lifetime-earning counterparts.

Figure 31. Labor Force Participation Rates of Boomers by Age, Income Level, and Lifetime Earnings Level

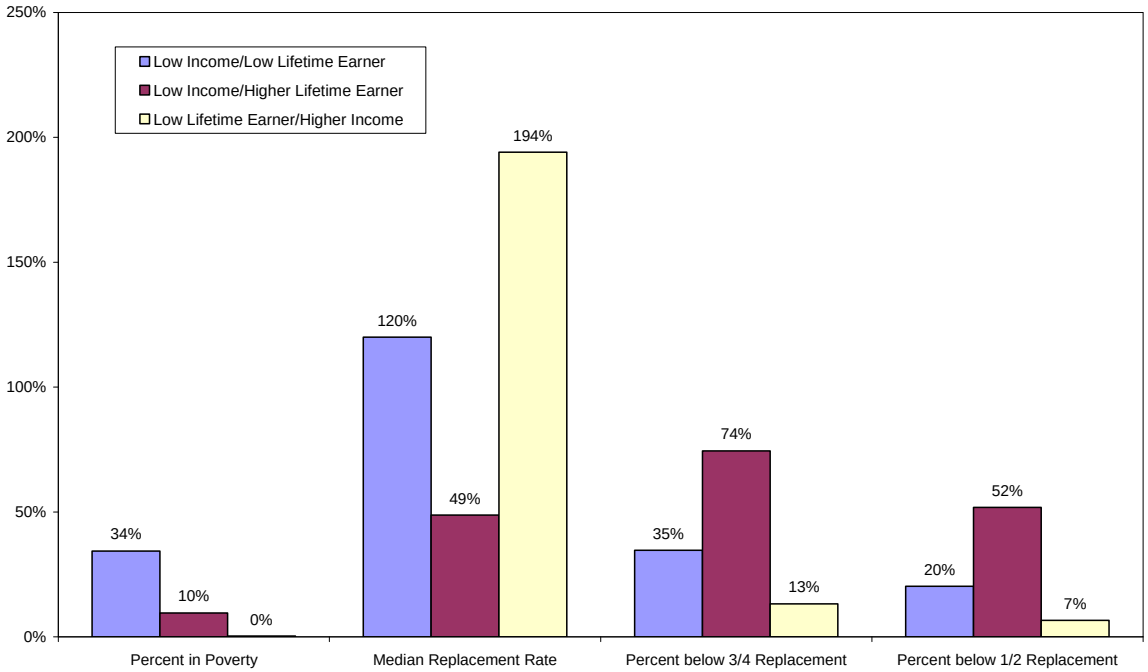


Notes: Sample includes adults born 1946-1965. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution. Higher-income adults have per capita income at age 67 above the 20th percentile of the income distribution. Low-lifetime-earner adults have shared lifetime earnings at or below the 20th percentile of the shared lifetime earnings distribution. Higher-lifetime-earner adults have shared lifetime earnings above the 20th percentile of the shared lifetime earnings distribution.
Source: Authors' tabulations of DYNASIM3.

Figure 32 summarizes how income at retirement and lifetime earnings relate to economic well-being and retirement adequacy at age 67. First, low-income boomers with low lifetime earnings are the poorest of the poor. As noted above, they are projected to have less wealth and income than low-income boomers with higher lifetime earnings (see figures 24 and 25). Consequently, the poverty rate of low-income/low-lifetime-earners will be more than three times the poverty rate of low-income/higher-lifetime-earners (compare 34 percent with 10 percent). Virtually no low-lifetime-earners with higher income will be poor.

Compared with low-income/low-lifetime-earner boomers, low-income/higher-lifetime-earner boomers experience a relative decline in economic status between working years and retirement because their lifetime earnings are considerably higher than their income at age 67. In contrast, low-lifetime-earner/higher-income boomers experience a relative increase in economic status between working years and retirement because their income at age 67 is considerably higher than their lifetime earnings. These differences in income mobility are reflected in their different replacement rates.

Figure 32. Economic Well-Being of Boomers at Age 67, by Income Level and Lifetime Earnings Level



Notes: Sample includes adults born 1946-1965. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution. Higher-income adults have per capita income at age 67 above the 20th percentile of the income distribution. Low-lifetime-earner adults have shared lifetime earnings at or below the 20th percentile of the shared lifetime earnings distribution. Higher-lifetime-earner adults have shared lifetime earnings above the 20th percentile of the shared lifetime earnings distribution.
Source: Authors' tabulations of DYNASIM3. See appendix table A17 for details.

Typical low-income/higher-lifetime-earner boomers are expected to have replacement rates of only 49 percent at age 67, compared with 120 percent for typical low-income/low-lifetime-earner boomers and 194 percent for typical low-lifetime-earner/higher-income boomers. To give this some perspective, nearly three-quarters of low-income boomers with higher lifetime earnings will have replacement rates of less than 75 percent, compared with only about one-third of low-income boomers with low lifetime earnings and one-eighth of low-lifetime-earner boomers with higher incomes.

VII. How Will Low-Income Retirees Change Over Time?

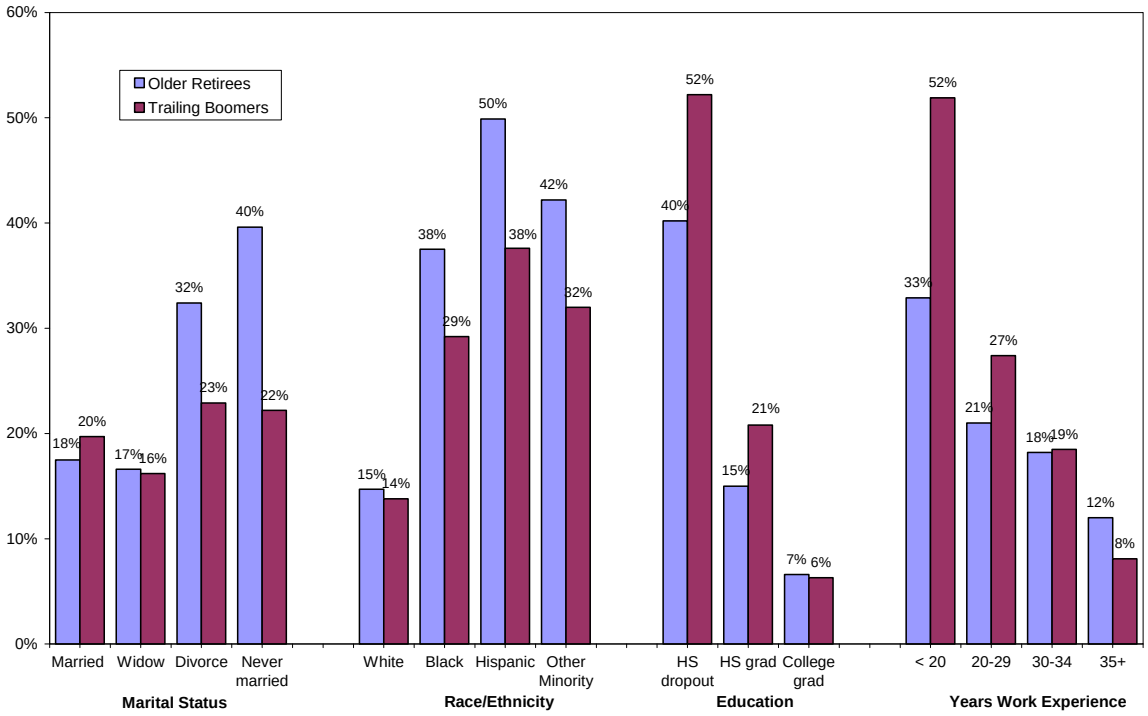
Next, we compare low-income boomers' retirement prospects with those of previous generations, namely older retirees (born 1926–1935) and younger retirees (born 1936–1945). Because the boomer cohort includes individuals born over a 19-year period, those born in early years will have grown up in a very different era than those born in later years. For this reason, we report results separately for leading boomers (born 1946–1955) and trailing boomers (born 1956–1965).[16]

Figure 33 examines how the proportion of low-income adults is expected to change over time for different subgroups. Divorced and never-married adults, non-Hispanic blacks,

[16] Boomers are typically represented as those born between 1946 and 1964. For analytical purposes, however, we define the boomer cohort as those born between 1946 and 1965.

Hispanics, other minorities, and those with 35 or more years of labor force experience are all less likely to be low income in the future. In contrast, high school dropouts, high school graduates, and retirees with fewer than 30 years of work experience are significantly more likely to be low income among trailing boomers than among older retirees. For example, 52 percent of high school dropouts and 21 percent of high school graduates in the trailing boomer cohort are projected to have low income at age 67, compared with 40 percent of high school dropouts and 15 percent of high school graduates in the older retiree birth cohort. The trend in higher education over time will put people without college degrees at much more of a relative disadvantage in the future than in previous years.

Figure 33. Proportion of Low-Income Adults at Age 67, by Birth Cohort

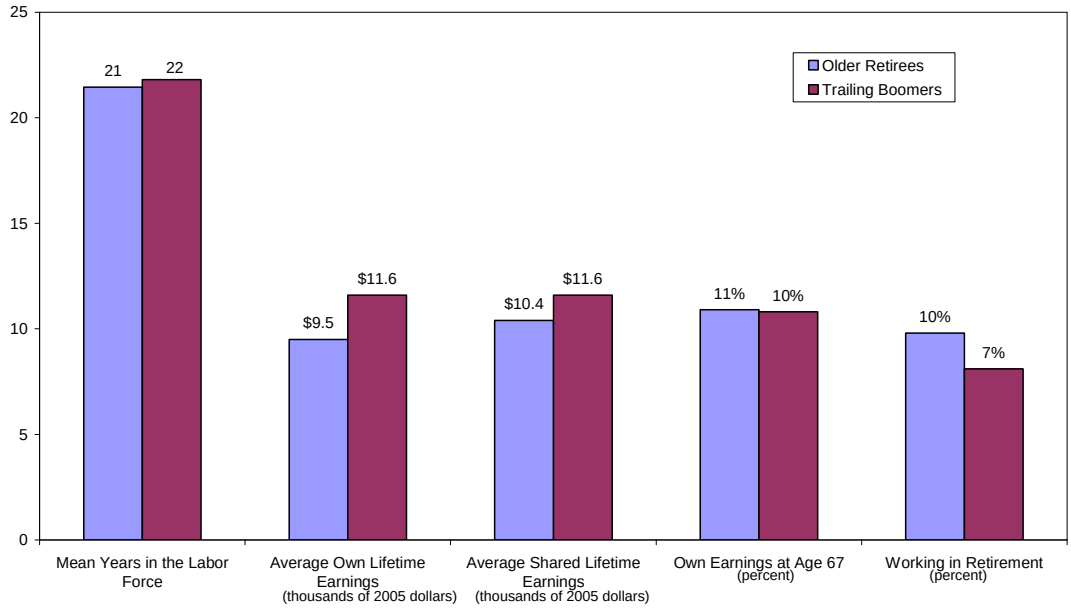


Notes: Older retirees include low-income adults born 1926-1935. Trailing boomers include low-income adults born 1956-1965. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution of their respective birth cohorts.
Source: Authors' tabulations of DYNASIM3. See appendix table A18 for details.

The composition of low-income older Americans is projected to change over time in the same way as the composition of the older population as a whole. (Butrica, Iams, and Smith (2007) and Butrica and Uccello (2004) describe the composition of future retirees.) That is, future low-income retirees are more likely than current low-income retirees to be never married, Hispanic, other minority, and either high school or college educated (appendix table A19). Although their average lifetime earnings (in 2005 dollars) are projected to increase slightly over time, future generations of low-income Americans are less likely than previous generations to work at older ages (figure 34).

Among older adults with low income, median per capita household wealth is projected to increase from $90,900 for older retirees to $102,500 for younger retirees, $114,800 for leading boomers, and $136,100 for trailing boomers (appendix table A21).

Figure 34. Work History of Low-Income Adults at Age 67, by Birth Cohort



Notes: Older retirees include low-income adults born 1926-1935. Trailing boomer includes low-income adults born 1956-1965. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution of their respective birth cohorts.
Source: Authors' tabulations of DYNASIM3. See appendix table A20 for details.

Over time, never-married women and divorced men, other minority groups, college graduates, and those with 30 to 34 years of labor force experience will enjoy the largest gains in household wealth. In contrast, white non-Hispanics and those with the least work experience will have the smallest percentage gains in household wealth.

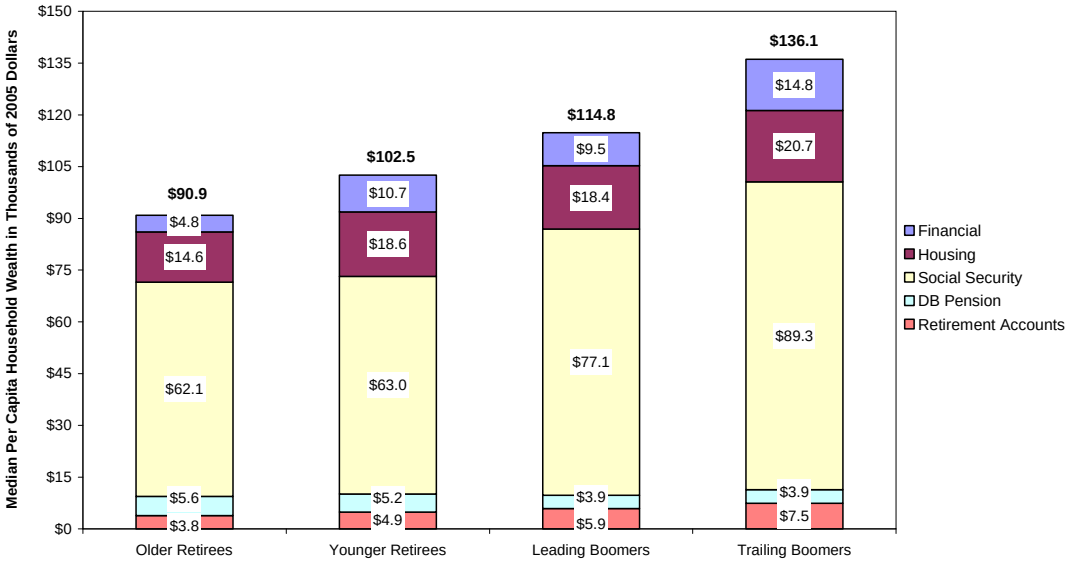
Considering how the sources of household wealth may change over time, we find that future low-income retirees are less likely to have financial wealth and more likely to have housing wealth at age 67 than today's older low-income retirees (appendix table A22). Future low-income retirees are also nearly twice as likely as today's older low-income retirees to have retirement accounts—compare 29 to 31 percent of boomer retirees with only 17 percent of older retirees.

Over time, the largest source of retirement wealth and of growth in retirement wealth will be Social Security; however, financial assets will play an increasingly important role (figure 35). Median financial wealth is projected to increase by 3.1 times, from $4,800 for older retirees to $14,800 for trailing boomers, while median Social Security wealth is projected to increase by only 1.4 times, from $62,100 for older retirees to $89,300 for trailing boomers. As a result, financial wealth will represent a larger share of total household wealth for future retirees than for older retirees, while Social Security wealth will represent a slightly smaller share of total household wealth (appendix table A22).

Although low-income older adults have very little private pension wealth compared with higher-income adults, they are still affected by the changing pension landscape. As a result of the shift from DB plans to DC plans, we project that their share of total wealth from DB pensions

will decrease from 6 to 3 percent, while their share from retirement accounts will increase slightly from 4 to 5 percent (appendix table A22).

Figure 35. Sources of Median Per Capita Household Wealth of Low-Income Adults at Age 67, by Birth Cohort



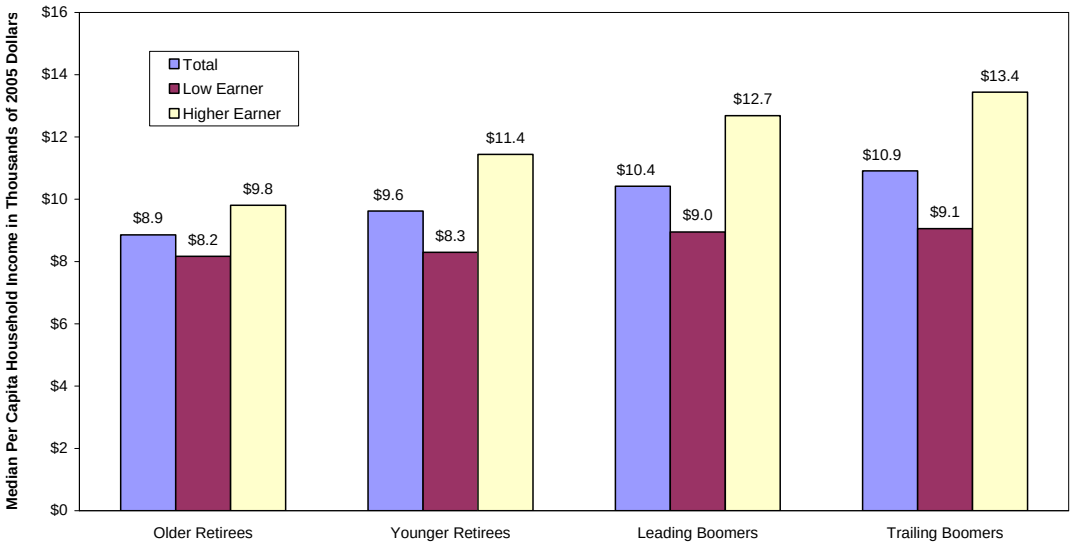
Notes: Older retirees include low-income adults born 1926-1935. Younger retirees include low-income adults born 1936-1945. Leading boomers include low-income adults born 1946-1955. Trailing boomers include low-income adults born 1956-65. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution of their respective birth cohorts. Income sources may not sum to household totals due to rounding.
Source: Authors' tabulations of DYNASIM3. See appendix table A22 for details.

Among low-income retirees, median household wealth is projected to increase between cohorts by 50 percent. In comparison, median household income is projected to increase by only 22 percent, from $8,900 for older retirees to $9,600 to younger retirees, $10,400 for leading boomers, and $10,900 for trailing boomers (appendix table A23).

Although future low-income retirees are expected to have more income at age 67 than previous generations of low-income retirees, most of the gains will go to low-income retirees with higher lifetime earnings rather than those with low lifetime earnings. Median household income is projected to increase between cohorts by only 11 percent for low-lifetime-earners, but 37 percent for higher-lifetime-earners (figure 36). Consequently, higher-lifetime-earners have only 1.20 times more household income than low-lifetime-earners among today's low-income older retirees, but will have 1.47 times more household income than low-lifetime-earners among low-income trailing boomers.

In addition to income from the wealth sources just described, some retirees have income from earnings, SSI benefits, and co-resident income. Among low-income older retirees, 17 percent have household earnings (their own or their spouse's), 25 percent have SSI benefits, and 15 percent have co-resident income (appendix table A24).

Figure 36. Median Per Capita Household Income of Low-Income Adults at Age 67, by Lifetime Earnings Level and Birth Cohort



Notes: Older retirees include low-income adults born 1926-1935. Younger retirees include low-income adults born 1936-1945. Leading boomers include low-income adults born 1946-1955. Trailing boomers include low-income adults born 1956-65. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution of their respective birth cohorts. Low-earner adults have shared lifetime earnings at or below the 20th percentile of the shared lifetime earnings distribution. Higher-earner adults have shared lifetime earnings above the 20th percentile of the shared lifetime earnings distribution.
Source: Authors' tabulations of DYNASIM3.

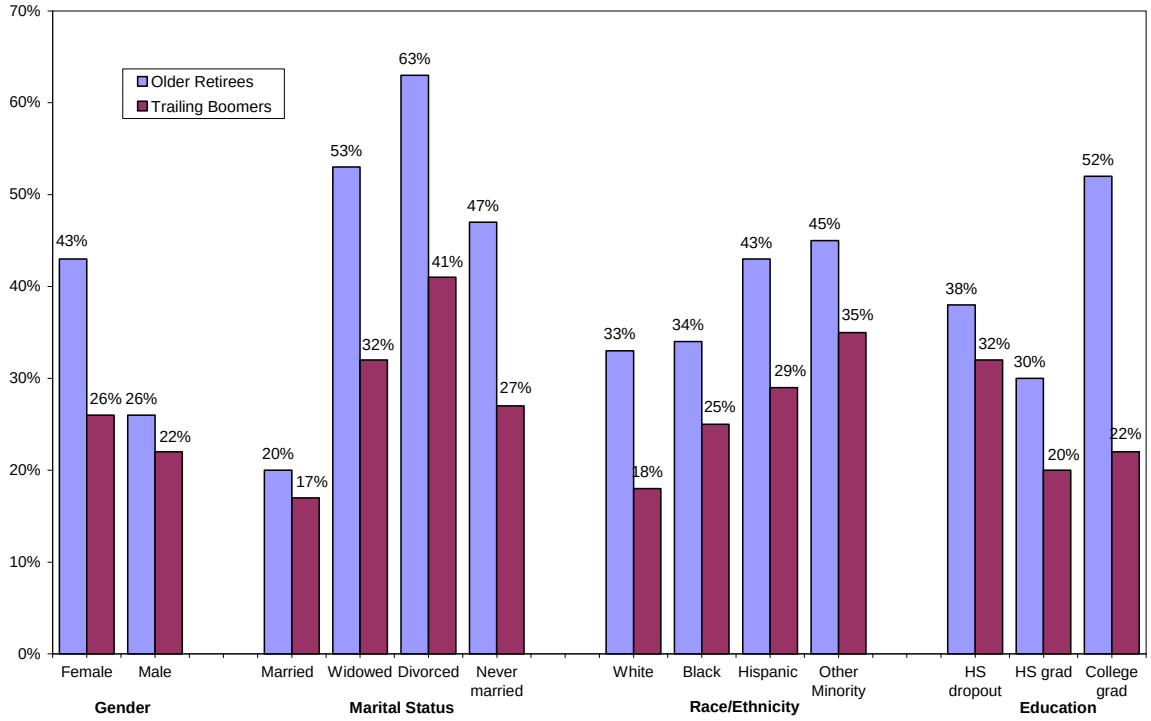
The share of low-income retirees with earnings is projected to increase slightly over time through the leading boomer cohort and then to decrease in the trailing boomer cohort, and the share with SSI benefits is projected to decline by more than half, from 25 percent among older retirees to only 12 percent among trailing boomers. Although SSI indexes the maximum benefit to yearly changes in living costs, the asset-level limits have remained constant since 1989. As wages and prices increase over time, fewer individuals qualify for the program because their assets have increased to well above the asset-level limits. Finally, the share of low-income retirees with co-resident income is projected to increase slightly over time through the leading boomer cohort and then to decrease in the trailing boomer cohort.

The projected increase in household income between older retirees and boomer cohorts will reduce future retiree poverty rates. Overall poverty rates of low-income retirees are projected to decrease from 36 percent among older retirees to 32 percent among younger retirees, 27 percent among leading boomers, and 24 percent among trailing boomers (appendix table A25). The decline in poverty largely reflects past and projected future growth in real wages, as discussed earlier. Individuals will grow out of poverty because their earnings, and consequently their Social Security benefits and pensions, will increase more quickly than the poverty thresholds (which are indexed to price growth).

All demographic subgroups will experience declines in poverty over time, and subgroups with the highest poverty among older retirees will enjoy the largest reductions. For example, the poverty rate of low-income women is projected to decline from 43 percent for older retirees to 26 percent for trailing boomers (figure 37). In addition, poverty rates of unmarried and college-educated low-income retirees are expected to decline by 20 and 30 percentage points, respectively, over time. Nevertheless, certain boomer subgroups will remain especially

vulnerable, including those who are divorced, who are other minority, individuals without high school degrees, and those with fewer than 20 years in the labor force (appendix table A25).

Figure 37. Poverty Rates of Low-Income Adults at Age 67, by Birth Cohort

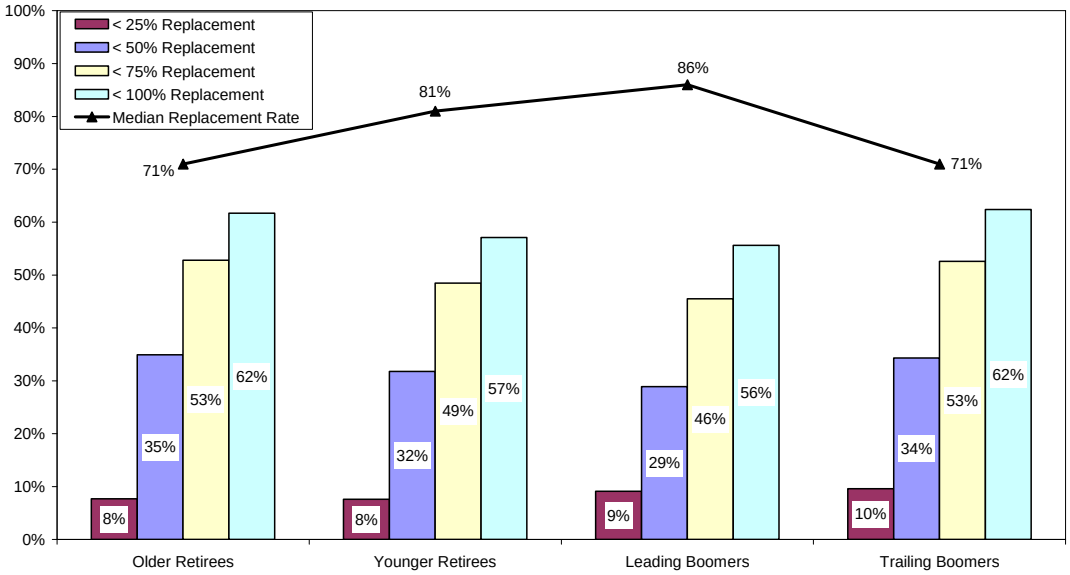


Notes: Older retirees include low-income adults born 1926-1935. Trailing boomers include low-income adults born 1956-1965. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution of their respective birth cohorts.
Source: Authors' tabulations of DYNASIM3. See appendix table A25 for details.

Median replacement rates are projected to increase for low-income retirees, from 71 percent among older retirees to 81 percent among younger retirees and 86 percent among leading boomers, but then to drop sharply to 71 percent among trailing boomers (figure 38). This finding suggests that for trailing boomers, household income at retirement will not rise as much as preretirement earnings, relative to prior cohorts.

Economically disadvantaged individuals often have high income replacement rates because both the progressive Social Security retirement benefit formula and SSI benefits replace a larger share of earnings for them than they do for middle-income and higher-income individuals. It is not surprising, then, that among low-income older retirees, replacement rates are highest for a number of economically vulnerable subgroups, including widowed women, Hispanics, and high school dropouts (appendix table A26). In contrast, replacement rates are lowest for married men and those with many years of work experience, in addition to economically vulnerable never-married men. Over time, different subgroups will experience different trends in income and earnings. As a result, among low-income trailing boomers, replacement rates are highest for never-married men and black non-Hispanics, in addition to high school dropouts. In contrast, replacement rates are lowest for divorced women, widowed men, and white non-Hispanics.

Figure 38. Distribution of Replacement Rates for Low-Income Adults at Age 67, by Birth Cohort

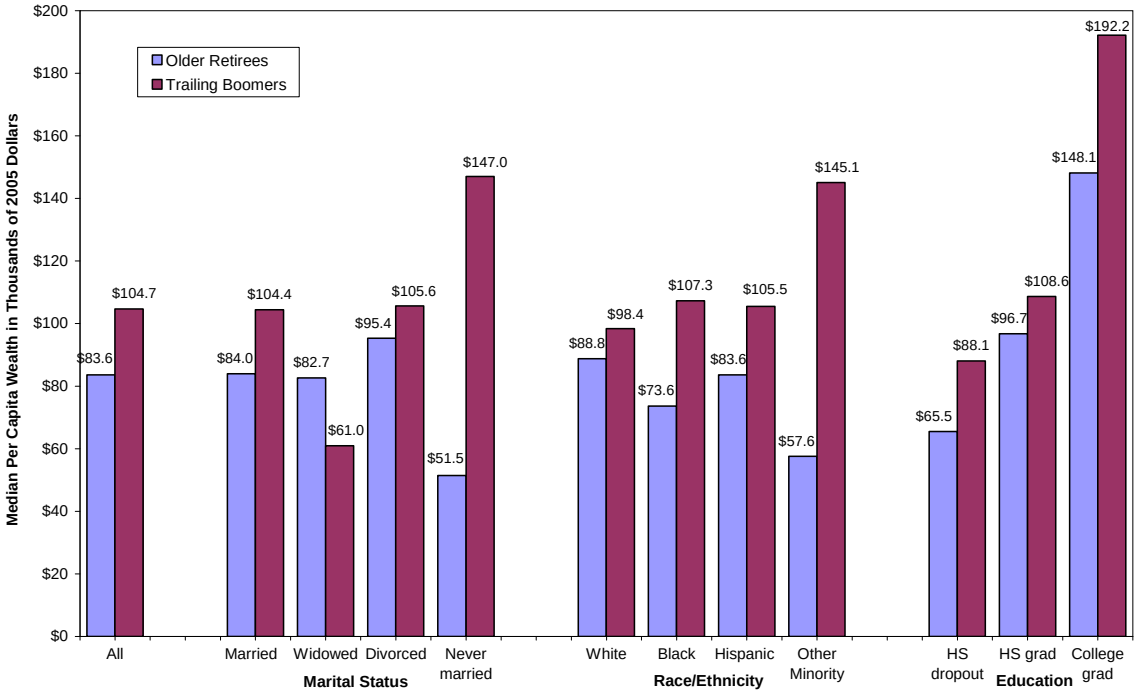


Notes: Older retirees include low-income adults born 1926-1935. Younger retirees include low-income adults born 1936-1945. Leading boomers include low-income adults born 1946-1955. Trailing boomers include low-income adults born 1956-65. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution of their respective birth cohorts.
Source: Authors' tabulations of DYNASIM3. See appendix tables A26 and A27 for details.

As mentioned earlier, financial planners often recommend that retirees have enough income to replace 70 to 90 percent of their preretirement earnings. Figure 38 shows that around half of retirees in all cohorts do not have enough household income to replace 75 percent of their average shared earnings between ages 50 and 54, and around a third do not have enough household income to replace even 50 percent of their preretirement earnings.

How much additional wealth would it take for low-income retirees to reach and maintain replacement rates of 75 percent in retirement? The median per capita amount of wealth ranges from $83,600 for older retirees to $104,700 for trailing boomers (figure 39). Among trailing boomers, college graduates are expected to fall short of a lifetime 75 percent replacement rate by $192,200, never-married adults will fall short by $147,000, and other minority groups will need $145,100 more wealth. In contrast, typical widowed adults will likely need only $61,000 to preserve a 75 percent replacement rate.

Figure 39. Median Additional Per Capita Wealth Needed to Attain and Maintain 75% Replacement Rates in Retirement for Low-Income Adults, by Birth Cohort



Notes: Older retirees include low-income adults born 1926-1935. Trailing boomers include low-income adults born 1956-1965. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution of their respective birth cohorts.
Source: Authors' tabulations of DYNASIM3. See appendix table A28 for details.

VIII. Possible Ways to Increase Low-Income Boomers' Retirement Living Standards

In this section, we consider how low-income boomers might increase their retirement income adequacy by saving more during their work years, working longer at older ages, or working consistently throughout their work lives. We hold the income sources that are not directly affected by the simulations at their baseline levels. Consequently, we show the smallest impact of saving more, working longer, and working consistently on retirement resources and adequacy.[17]

Saving More (Increased Savings)

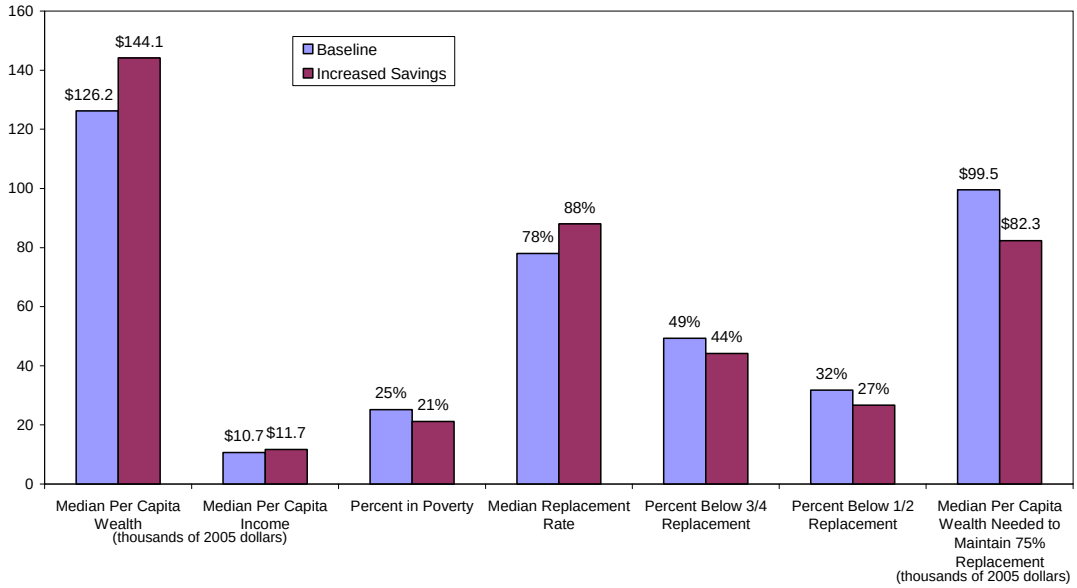
First, we consider how saving 1 percent of wages into investment accounts every year from age 25 to age 66 will increase low-income boomers' retirement resources, independent of their target replacement rates. These investment accounts are designed exactly as the DC retirement accounts in DYNASIM, and are subject to the same rates of return. In the event of divorce, the couple splits the total savings accumulated during the marriage. Upon the death of a spouse, the surviving spouse inherits all the savings accumulated during the marriage. At age 67, the account balances are converted into an income stream similar to how DYNASIM generates

[17] The work simulations, in particular, would increase financial assets if people were to save some of their earnings. Since our simulations hold financial assets at their baseline level, we are likely understating their impact on retirement resources at age 67.

income from financial wealth. The simulation holds all other income sources (e.g., financial income, earnings, SSI benefits, imputed rental income, co-resident income, Social Security benefits, DB pension benefits, and retirement accounts) at their baseline levels.

If low-income boomers saved 1 percent of their wages every year from age 25 to age 66, median wealth per person would increase by 14 percent—from $126,200 to $144,100—and median income would increase by 9 percent—from $10,700 to $11,700 (figure 40). This seems like a small effect given the popular notion that saving even 1 percent of one's pay can create sizable wealth over a lifetime. However, there are a couple of things to keep in mind. First, the examples usually cited assume that everyone gets the same historical rates of return. That is, for a given year, everyone wins if the returns are positive and everyone loses if the returns are negative. In the real world, there will be winners and losers in each year. Second, the timing of earnings can make a huge difference in future wealth. For example, suppose there are three individuals whose lifetime earnings average $25,000. Person A had $25,000 in every year. Person B began his career with low earnings and ended his career with high earnings. Person C began his career with high earnings and ended his career with low earnings. Even assuming the individuals all face the same rate of return on their investment in each year (i.e., there is no individual variation in rates of return), future wealth would be highest for person C, followed by person A, and then person B because compound interest produces more benefits for those with higher earnings earlier in life.

Figure 40. Economic Well-Being of Low-Income Boomers at Age 67 Due to Increased Savings



Notes: Sample includes low-income adults born 1946-1965. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution. The "increased savings" scenario assumes that boomers had saved 1 percent of their wages every year from age 25 to age 66.
Source: Authors' tabulations of DYNASIM3. See appendix table A29 for details.

Although this savings produces a relatively small increase in income, it is enough to reduce poverty by 4 percentage points, from 25 to 21 percent, and increase the median income replacement rate by 10 percentage points, from 78 to 88 percent. By increasing their savings, fewer low-income boomers would fall below a 75 percent replacement rate. Under the baseline,

49 percent of low-income boomers would replace less than three-quarters of their preretirement income. Under the simulation, this percentage would decline to 44 percent. Likewise, the share of boomers who replace less than half of their preretirement income would decline from 32 percent under the baseline to 27 percent under the simulation. As a result, the median additional wealth required for low-income boomers to reach and maintain replacement rates of 75 percent in retirement is expected to decline by 17 percent, from $99,500 under the baseline to only $82,300 under the simulation.

Working Longer (Increased Work)

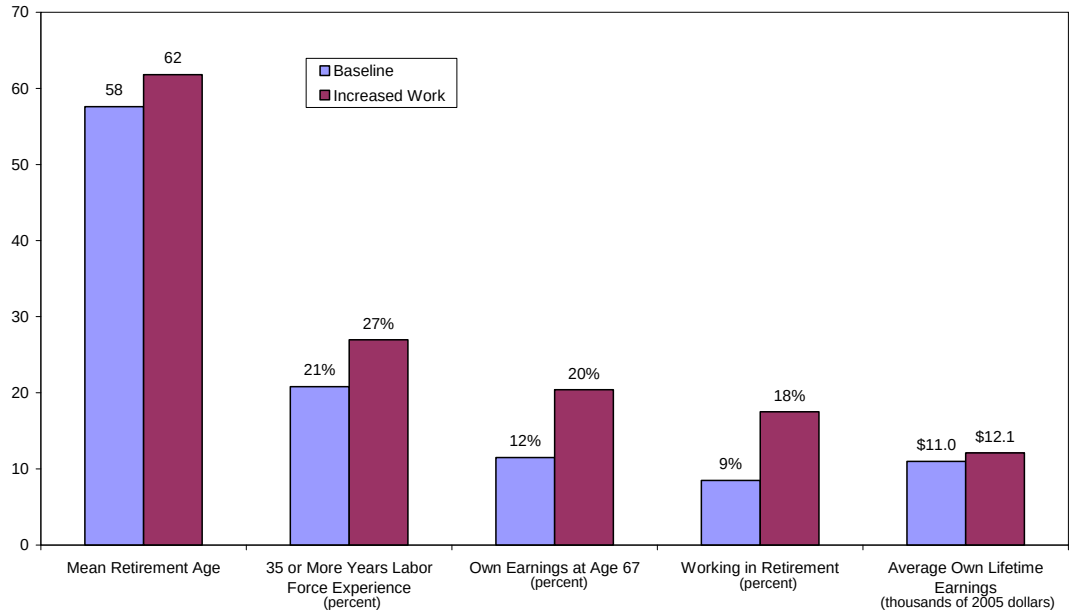
Another possible way to increase retirement income adequacy is to delay retirement. To simulate the effects of delayed retirement, we increase the retirement age predicted by DYNASIM (which is a function of demographic and economic characteristics, disability status, and Social Security policy parameters) by five years for those who retire before age 62, or to age 67 for those who retire between ages 62 and 67. We then insert the worker's preretirement earnings, indexed by wage growth, in each simulated extra year of work. We also shift the worker's original postretirement earnings to reflect his or her additional work effort. We do not adjust the retirement age or earnings of individuals who are projected to retire at age 67 or later, or individuals who are already retired in 1993 (the first year of DYNASIM projections). After adjusting the retirement age and earnings, we let the model reestimate pensions. Because the Social Security retirement earnings test may deter workers from claiming benefits, we allow the model to reestimate the age at which they take up their Social Security benefits.[18] The model then recomputes Social Security benefits. The simulation holds all other income sources (e.g., financial income, SSI benefits, imputed rental income, and co-resident income) at their baseline levels.

If low-income boomers delayed their retirement by as many as five years, the mean retirement age would increase from 58 to 62 (figure 41). Additionally, the share with 35 or more years of work experience would increase from 21 to 27 percent, the share with their own earnings at age 67 would increase from 12 to 20 percent, and the share working in retirement would increase from 9 to 18 percent. But tacking a few more years to the end of one's career has a relatively modest effect on lifetime earnings between ages 22 and 62—raising average own lifetime earnings by only 10 percent, from $11,000 to $12,100.

Delaying retirement by a few years increases household wealth at age 67 by way of Social Security benefits, DB pension benefits, and retirement saving accounts, but the boost in median household wealth is expected to be only 5 percent, from $126,200 to $132,600 (figure 42). More important, delaying retirement will raise median household income by 13 percent, from $10,700 to $12,100, because of the additional earnings that working generates, on top of the increased income from Social Security, DB pensions, and retirement accounts.

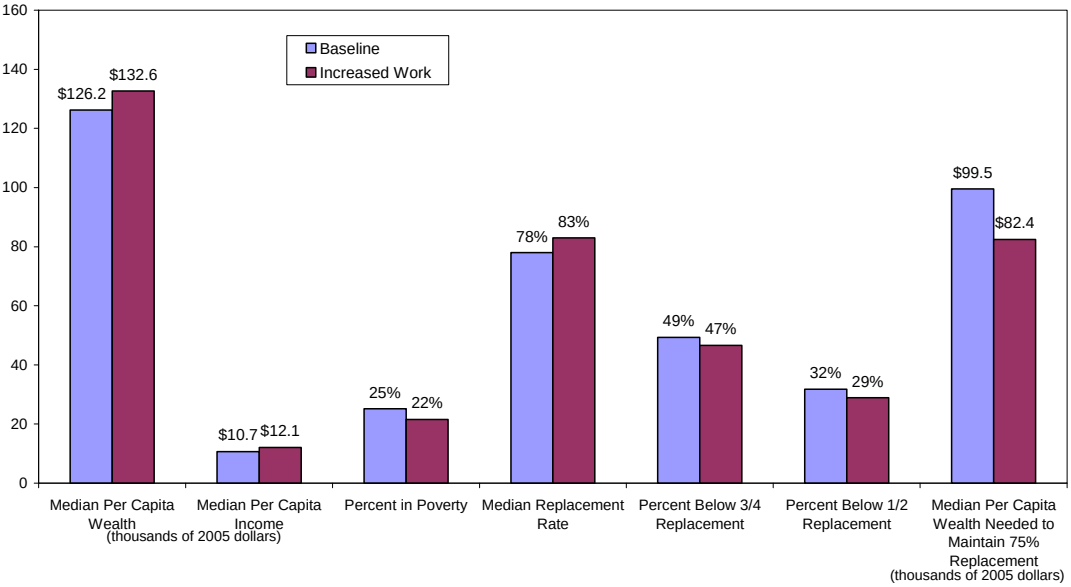
[18] For Social Security beneficiaries below the NRA, Social Security withholds $1 in benefits for every $2 of earnings in excess of the exempt amount—$13,560 in 2008. The reduction in benefits is offset by higher future benefits.

Figure 41. Work History of Low-Income Boomers at Age 67 Due to Increased Work



Notes: Sample includes low-income adults born 1946-1965. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution. The "increased work" scenario assumes that boomers delay retirement by 5 years or until age 67-whichever results in fewer years of additional work.
Source: Authors' tabulations of DYNASIM3. See appendix table A30 for details.

Figure 42. Economic Well-Being of Low-Income Boomers at Age 67 Due to Increased Work



Notes: Sample includes low-income adults born 1946-1965. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution. The "increased work" scenario assumes that boomers delay retirement by 5 years or until age 67-whichever results in fewer years of additional work.
Source: Authors' tabulations of DYNASIM3. See appendix table A29 for details.

Working an extra five years does slightly less for low-income boomers than saving 1 percent of earnings throughout their career; it reduces their poverty rate by 3 (instead of 4) percentage points, to 22 percent, and raises their median income replacement rate by 5 (instead of 10) percentage points, to 83 percent. As a result, the share of boomers replacing less than 75

percent of their preretirement income would drop by 2 (instead of 5) percentage points, to 47 percent. For low-income boomers whose replacement rates were less than 75 percent under the baseline, both working longer and saving more reduce the additional wealth needed to maintain a 75 percent replacement rate throughout retirement by 17 percent from the baseline.

Working More Continuously (Increased Earnings)

In another simulation, we consider how low-income boomers' economic well-being would improve if they had continuous work histories between age 22 and the year prior to retirement. To do this, we reassign zero earnings to be a previous year's positive earnings, indexed by wage growth.[19] Again, we do not adjust the earnings of individuals who are already retired in 1993. We also do not adjust anyone's original retirement age. After adjusting earnings, we let the model reestimate pensions and Social Security benefits. The simulation holds all other income sources (e.g., financial income, SSI benefits, imputed rental income, and co-resident income) at their baseline levels.

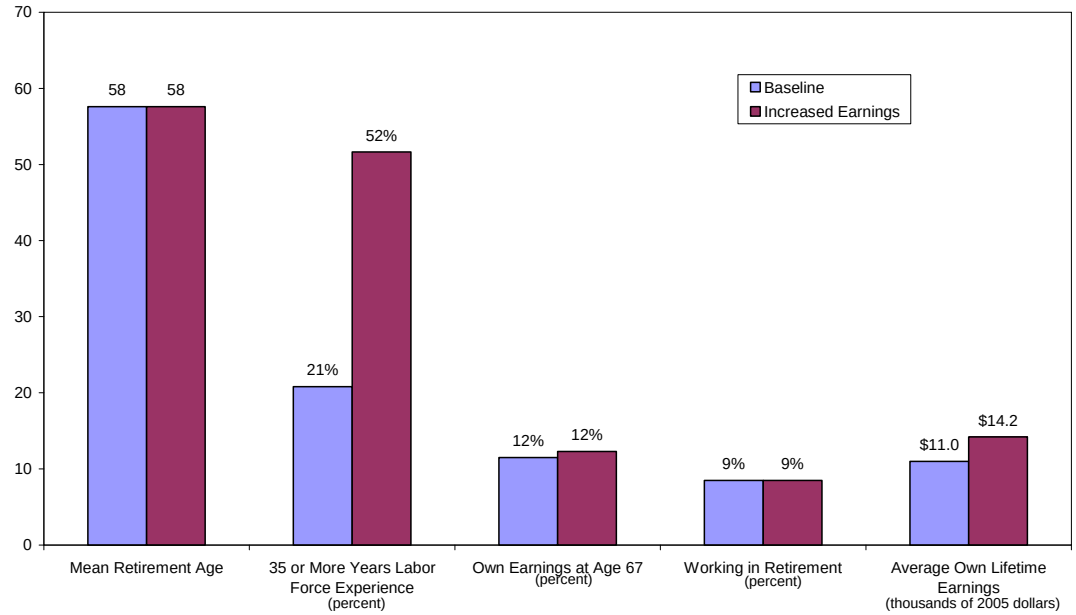
If low-income boomers worked more continuously between age 22 and the year prior to retirement (at the same earnings of adjoining working years), the share with 35 or more years of work experience would increase from 21 to 52 percent (figure 43). But because the simulation does not change the retirement behavior of low-income boomers, the mean retirement age and the share working in retirement is the same under the baseline and alternative scenarios. However, the simulation increases average lifetime earnings by 29 percent—from $11,000 to $14,200.

Despite the relatively large increase in average lifetime earnings, this simulation has the smallest impact on household wealth and income at age 67, increasing median wealth and median income by only 1 percent (figure 44). In addition, working more continuously actually reduces the median replacement rate from 78 to 74 percent because preretirement earnings (the denominator) increase by more than household income (the numerator). As a result, more low-income boomers will fall below a 75 percent replacement rate. Also, the typical low-income boomer with less than 75 percent replacement would need an additional 10 percent in per capita wealth to catch up and maintain a 75 percent replacement rate throughout retirement.

Another way to gauge the success of these simulations toward improving the retirement prospects of low-income boomers is to consider how many would be lifted above the threshold that categorized them as low income under the baseline. By saving 1 percent of wages every year from age 25 to age 66, 15 percent of low-income boomers would be lifted above the baseline low-income threshold (figure 45). This estimate would increase to 22 percent if low-income boomers delayed their retirement by as many as five years or until age 67. Finally, only 5 percent of low-income boomers would be lifted above the baseline low-income threshold if they worked more consistently in the years prior to their retirement.

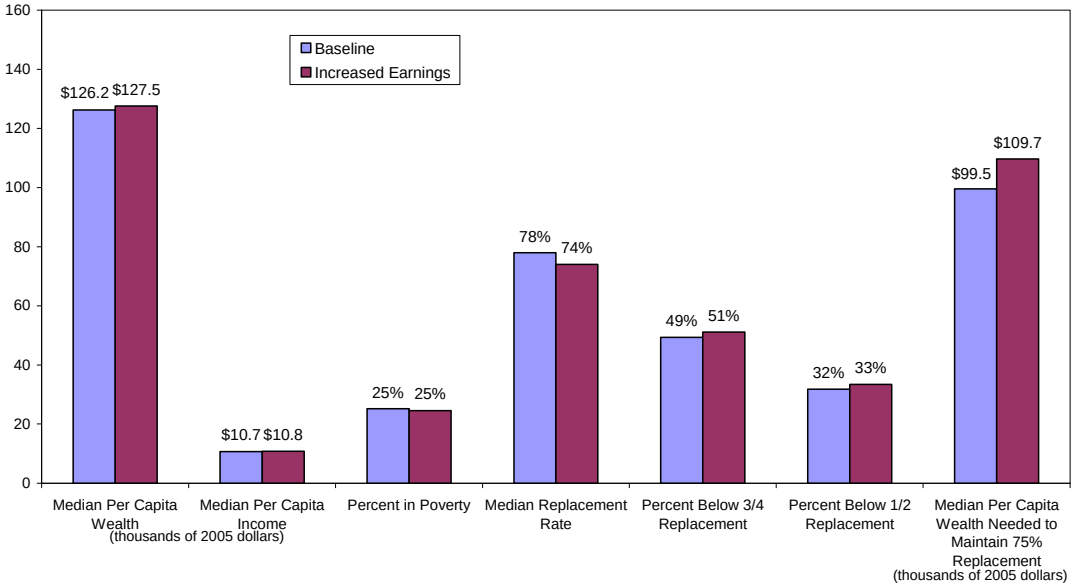
[19] We perform this simulation on individuals with at least one year of earnings, regardless of their age or level of earnings.

Figure 43. Work History of Low-Income Boomers at Age 67 Due to Increased Earnings



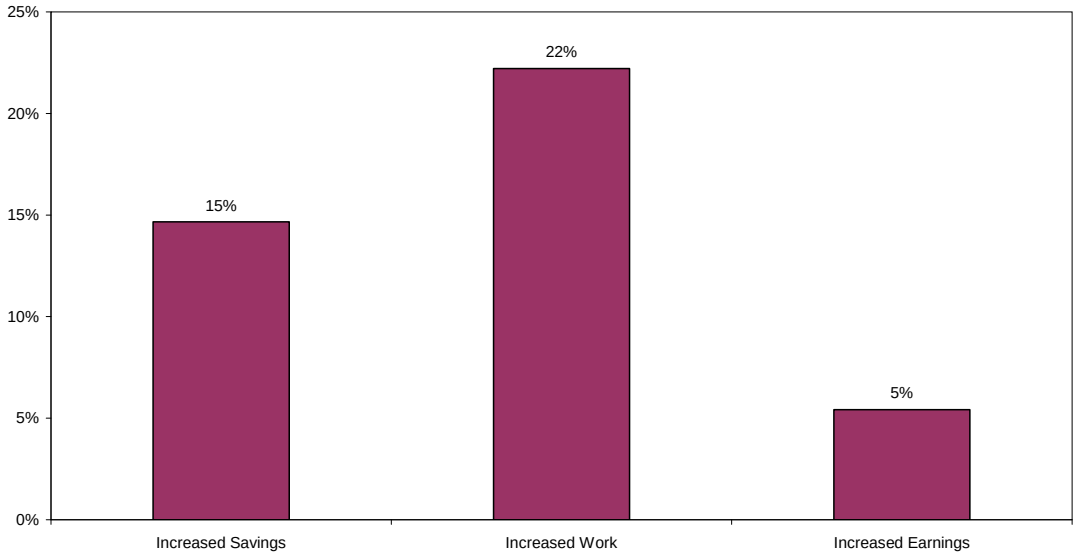
Notes: Sample includes low-income adults born 1946-1965. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution. The "increased earnings" scenario assumes that boomers had continuous work histories between age 22 and the year prior to retirement.
Source: Authors' tabulations of DYNASIM3. See appendix table A30 for details.

Figure 44. Economic Well-Being of Low-Income Boomers at Age 67 Due to Increased Earnings



Notes: Sample includes low-income adults born 1946-1965. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution. The "increased earnings" scenario assumes that boomers had continuous work histories between age 22 and the year prior to retirement.
Source: Authors' tabulations of DYNASIM3. See appendix table A29 for details.

Figure 45. Percent of Low-Income Boomers at Age 67 Who Become Higher-Income Due to Increased Savings, Work, or Earnings



Notes: Sample includes low-income adults born 1946-1965. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution. The "increased savings" scenario assumes that boomers had saved 1 percent of their wages every year from age 25 to age 66. The "increased work" scenario assumes that boomers delay retirement by 5 years or until age 67-whichever results in fewer years of additional work. The "increased earnings" scenario assumes that boomers had continuous work histories between age 22 and the year prior to retirement.
Source: Authors' tabulations of DYNASIM3. See appendix table A29 for details.

IX. Conclusion

Whether the boomer generation is saving enough for retirement has been an ongoing concern. In comparison, the retirement preparedness of low-income boomers has received relatively little attention. This study uses the Urban Institute's DYNASIM model to project wealth and income at retirement for low-income boomers. A consistent finding is the importance of work and earnings, at both younger and older ages, for retirement security. Low-income boomers are projected to spend less time in the labor force and have significantly lower average lifetime earnings than higher-income boomers. As a result, they will have lower private pensions and Social Security benefits at retirement because these benefit formulas depend on earnings. In addition, low-income boomers are less likely to work at older ages and have considerably lower household earnings at age 67 than their higher-income counterparts. Consequently, typical low-income boomers are projected to have a little more than one-quarter the per capita household income of typical higher-income boomers.

Many low-income boomers have low career earnings and sporadic work histories, but high career earnings and continuous work histories do not guarantee retirement security. A number of higher-lifetime-earners will end up with low income at retirement, but will still be better off on average than low-lifetime-earners with low income at retirement. Among low-income boomers, those with higher lifetime earnings will receive 75 percent more Social Security benefits and consequently have much higher wealth and income at retirement than those with low lifetime earnings. Only 10 percent of higher-lifetime-earners are projected to be poor at age 67, compared with 34 percent of low-lifetime-earners. If, however, low-lifetime-earners received as much in Social Security as higher-lifetime-earners, the household income differences between the two groups would drop from $4,100 to only $300. Even for these two groups of

low-income boomers, lifetime earnings remain an important determining factor in their retirement prospects.

Although the majority of low-wage workers will enter retirement with very little income, more than one in three will end up with relatively higher income. Low-lifetime-earners who improve their economic well-being at retirement mostly do so by continuing to work at older ages (or having a spouse who continues to work), or by moving in with someone else who provides economic support.

Among low-lifetime-earner boomers, those with low income at age 67 have strikingly different work patterns at older ages than those with higher income at age 67. Only 15 percent of low-lifetime-earners with low-income work at age 67, and 11 percent work during retirement. In contrast, 47 percent of low-lifetime-earners with higher-income work at age 67, and 35 percent continue working after retirement. These differences in work patterns contribute to differences in household earnings. Among low-lifetime-earner boomers, low-income retirees will receive only $600, or 6 percent of their household income, from earnings, compared with $9,000, or 37 percent, for higher-income retirees.

Co-residence is the other major factor that helps low-lifetime-earner boomers escape low income at retirement. Low-lifetime-earners with low income will get only $1,000 or 11 percent of their household income from nonspouse co-residing household members, while those with higher income are expected to receive on average $5,600 or 24 percent of their household income from co-residents. As a result, poverty rates at age 67 among low-lifetime-earners are expected to be 34 percent for those with low income and zero for those with higher income.

The importance of earnings to retirement security persists over time. Compared with previous generations, low-income boomers will have higher wealth, high income, and lower poverty rates. However, nearly all the gains in income over time are for low-income retirees with higher lifetime earnings. Low-income retirees with low lifetime earnings fare only slightly better in retirement among trailing boomers than older retirees.

We also considered how saving more, working longer, or working consistently might improve the retirement security of low-income boomers. If low-income boomers saved 1 percent of their wages every year from age 25 to age 66 or delayed their retirement by as many as five years, they could increase their future household wealth and income, reduce their chances of being poor, and increase their replacement rates. If low-income boomers worked more consistently in the years prior to their retirement, their future household wealth and income would increase so slightly that it would not change their projected poverty rates, and their projected replacement rates would fall because retirement income would rise less than preretirement earnings. To put these results into perspective, the proportion of low-income boomers who would be lifted above the threshold that previously categorized them as low-income is 22 percent if they worked five years longer, 15 percent if they saved an additional 1 percent of their annual earnings, and only 5 percent if they worked more consistently.

It is important to keep in mind that our analyses focus on retirement wealth and income at the relatively young age of 67. Butrica (2007) finds that more than two-fifths of retirees will

have significantly less income at age 80 than they did at age 67 due to changes in marital status, health status, living arrangements, or work status. Retirees who become widowed or divorced between ages 67 and 80 will experience a decline in median income of 35 to 37 percent, while those who quit working between these same ages will face a 24 to 25 percent decline in their median income.

The need for Social Security reform is well known. If not carefully designed, benefit reductions could significantly affect the well-being of low-income retirees. Proposals such as raising the maximum taxable Social Security earnings or reducing Social Security replacement rates for higher-wage workers could improve the solvency of the Social Security system without hurting low-wage workers or low-income retirees. Although not cost neutral, instituting minimum Social Security benefits is one way to mitigate the negative impact of potential Social Security benefit cuts on low-income retirees.

Any reduction in future Social Security benefits means that retirees will be forced to rely more heavily on private savings. However, current tax incentives for private pensions and individual retirement savings disproportionately benefit higher-income workers. Not only are higher-income workers more likely to be covered by an employer pension plan or to contribute to tax-deferred retirement saving accounts, but they also receive a larger tax subsidy per dollar of contribution than workers in lower income tax rate brackets. Proposals such as mandating defined contribution pensions and making the saver's credit refundable could increase pension coverage and encourage saving among low-income workers.[20] Cutting back existing tax expenditures could pay for any expansion of credits or incentives for low-wage workers to save. For example, the contribution limits on IRAs and 401(k) plans could be lowered without hurting low-income people.

The safety net for retirees also could be improved by reforming the SSI program. Increasing the asset limit to reflect changes in the cost of living since it was set at a fixed level in 1972 would allow more seniors to qualify for this safety-net benefit. Increasing the maximum benefit to the poverty threshold would allow the program to fulfill its mission of protecting elderly and disabled adults from economic hardship.

[20] The saver's credit is a federal tax credit that matches contributions to retirement savings accounts by low-income workers. Currently, the credit is nonrefundable, which means that it does not result in any additional incentive to save for many tax-filing units (Orszag and Hall 2003). One way to address this is by making the saver's credit refundable so that low-income taxpayers without tax liability could benefit from it (Gale, Iwry, and Orszag 2005; Toder 2005).

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Table A1. Per Capita Household Wealth and Income of Low-Income Boomers from DYNASIM and the HRS, by Source

	DYNASIM			HRS		
	Percent with Income	Mean (000s)	Share of Mean	Percent with Income	Mean (000s)	Share of Mean
Total Wealth	92%	$44.3	100%	74%	$44.0	100%
Financial Wealth	83	20.9	47	66	18.6	42
Housing Wealth	63	23.4	53	54	25.4	58
Total Income	97	$6.1	100%	88	$6.2	100%
Financial Income	83	1.0	16	66	0.4	6
Earnings	50	3.1	51	53	3.9	63
Imputed Rental Income	63	0.7	12	54	0.8	12
Social Security Benefits	18	1.1	18	13	0.7	12
DB Pension Benefits	8	0.2	4	9	0.4	7

	DYNASIM			HRS		
	Percent with Income	Median (000s)	Share of Median	Percent with Income	Median (000s)	Share of Median
Total Wealth	92%	$27.1	100%	74%	$12.1	100%
Financial Wealth	83	12.9	48	66	4.5	38
Housing Wealth	63	14.2	52	54	7.5	62
Total Income	97	$6.3	100%	88	$6.1	100%
Financial Income	83	1.1	17	66	0.6	9
Earnings	50	3.1	49	53	2.7	45
Imputed Rental Income	63	0.8	12	54	1.0	16
Social Security Benefits	18	1.1	17	13	1.7	27
DB Pension Benefits	8	0.3	4	9	0.2	3

Notes: Sample includes adults born 1946-1953. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution. The median value is measured as the mean value between the 40th and 60th percentiles of the distribution. Dollar amounts are expressed in 2005 dollars.

Source: Authors' tabulations of DYNASIM3 (see text for details) and the 2004 Health and Retirement Study (HRS).

Table A2. Per Capita Household Wealth and Income of Higher-Income Boomers from DYNASIM and the HRS, by Source

	DYNASIM			HRS		
	Percent with Income	Mean (000s)	Share of Mean	Percent with Income	Mean (000s)	Share of Mean
Total Wealth	100%	$461.4	100%	99%	$662.5	100%
Financial Wealth	100	335.4	73	97	475.5	72
Housing Wealth	96	126.0	27	94	187.0	28
Total Income	100%	$105.8	100%	100	$133.9	100%
Financial Income	100	15.4	15	97	12.9	10
Earnings	100	85.5	81	100	113.1	84
Imputed Rental Income	96	3.8	4	94	5.6	4
Social Security Benefits	4	0.3	0	2	0.2	0
DB Pension Benefits	9	0.8	1	10	2.2	2

	DYNASIM			HRS		
	Percent with Income	Median (000s)	Share of Median	Percent with Income	Median (000s)	Share of Median
Total Wealth	100%	$331.9	100%	99%	$370.3	100%
Financial Wealth	100	205.6	62	97	234.3	63
Housing Wealth	96	126.4	38	94	136.0	37
Total Income	100%	$90.4	100%	100	$103.5	100%
Financial Income	100	11.8	13	97	8.8	8
Earnings	100	74.3	82	100	87.8	85
Imputed Rental Income	96	3.6	4	94	4.4	4
Social Security Benefits	4	0.1	0	2	0.1	0
DB Pension Benefits	9	0.7	1	10	2.4	2

Notes: Sample includes adults born 1946-1953. Higher-income adults have per capita income at age 67 above the 20th percentile of the income distribution. The median value is measured as the mean value between the 40th and 60th percentiles of the distribution. Dollar amounts are expressed in 2005 dollars.

Source: Authors' tabulations of DYNASIM3 (see text for details) and the 2004 Health and Retirement Study (HRS).

Table A3. Per Capita Household Wealth and Income of Low-Income Adults Ages 62 and Older from DYNASIM and the HRS, by Source

	DYNASIM			HRS		
	Percent with Income	Mean (000s)	Share of Mean	Percent with Income	Mean (000s)	Share of Mean
Total Wealth	84%	$30.5	100%	84%	$30.7	100%
Financial Wealth	77	8.2	27	75	10.4	34
Housing Wealth	54	22.3	73	55	20.3	66
Total Income	100%	$8.9	100%	100	$8.3	100%
Financial Income	77	0.6	7	75	0.4	5
Earnings	9	0.3	3	12	0.3	4
SSI Benefits	27	0.9	10	19	0.5	6
Imputed Rental Income	54	0.7	8	55	0.6	7
Co-Resident Income	14	0.7	8	24	0.6	7
Social Security Benefits	84	5.4	60	91	5.4	64
DB Pension Benefits	19	0.4	4	21	0.5	6

	DYNASIM			HRS		
	Percent with Income	Median (000s)	Share of Median	Percent with Income	Median (000s)	Share of Median
Total Wealth	84%	$17.1	100%	84%	$13.0	100%
Financial Wealth	77	5.7	33	75	4.7	36
Housing Wealth	54	11.4	67	55	8.3	64
Total Income	100%	$9.1	100%	100	$8.7	100%
Financial Income	77	0.6	7	75	0.3	4
Earnings	9	0.2	3	12	0.3	3
SSI Benefits	27	1.2	13	19	0.5	6
Imputed Rental Income	54	0.6	7	55	0.6	7
Co-Resident Income	14	1.0	11	24	0.9	10
Social Security Benefits	84	5.1	56	91	5.7	65
DB Pension Benefits	19	0.4	4	21	0.4	4

Notes: Sample includes low-income adults ages 62 and older in 2003. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution. The median value is measured as the mean value between the 40th and 60th percentiles of the distribution. Dollar amounts are expressed in 2005 dollars.

Source: Authors' tabulations of DYNASIM3 (see text for details) and the 2004 Health and Retirement Study (HRS).

Table A4. Per Capita Household Wealth and Income of Higher-Income Adults Ages 62 and Older from DYNASIM and the HRS, by Source

	DYNASIM			HRS		
	Percent with Income	Mean (000s)	Share of Mean	Percent with Income	Mean (000s)	Share of Mean
Total Wealth	100%	$459.5	100%	99%	$885.3	100%
Financial Wealth	99	331.9	72	99	687.3	78
Housing Wealth	93	127.7	28	89	198.0	22
Total Income	100	$71.5	100%	100	$104.5	100%
Financial Income	99	25.4	35	99	37.4	36
Earnings	58	22.0	31	56	30.3	29
SSI Benefits	0	0.0	0	1	0.0	0
Imputed Rental Income	93	3.8	5	89	5.9	6
Co-Resident Income	6	0.7	1	12	3.9	4
Social Security Benefits	85	10.3	14	85	9.5	9
DB Pension Benefits	57	9.3	13	59	17.4	17

	DYNASIM			HRS		
	Percent with Income	Median (000s)	Share of Median	Percent with Income	Median (000s)	Share of Median
Total Wealth	100%	$374.2	100%	99%	$539.1	100%
Financial Wealth	99	246.5	66	99	370.9	69
Housing Wealth	93	127.8	34	89	168.2	31
Total Income	100	$61.5	100%	100	$71.3	100%
Financial Income	99	20.6	33	99	20.3	28
Earnings	58	16.4	27	56	21.6	30
SSI Benefits	0	0.0	0	1	0.1	0
Imputed Rental Income	93	3.7	6	89	4.2	6
Co-Resident Income	6	0.6	1	12	4.2	6
Social Security Benefits	85	10.4	17	85	9.1	13
DB Pension Benefits	57	9.9	16	59	11.9	17

Notes: Sample includes adults ages 62 and older in 2003. Higher-income adults have per capita income at age 67 above the 20th percentile of the income distribution. The median value is measured as the mean value between the 40th and 60th percentiles of the distribution. Dollar amounts are expressed in 2005 dollars.

Source: Authors' tabulations of DYNASIM3 (see text for details) and the 2004 Health and Retirement Study (HRS).

Table A5. Characteristics of Boomers at Age 67 by Income Level

	Low Income	Higher Income
All	100%	100%
Gender		
Female	54	54
Male	46	46
Marital Status		
Married	61	65
Widowed	10	13
Divorced	19	15
Never married	10	8
Gender and Marital Status		
Female: Married	30	31
Female: Widowed	8	10
Female: Divorced	11	9
Female: Never married	5	4
Male: Married	32	34
Male: Widowed	2	3
Male: Divorced	7	6
Male: Never married	5	4
Race/Ethnicity		
White, non-Hispanic	49	76
Black, non-Hispanic	13	7
Hispanic	26	10
Other minority	12	6
Education		
High school dropout	31	7
High school graduate	59	57
College graduate	10	37

Notes: Sample includes adults born 1946-1965. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution. Higher-income adults have per capita income at age 67 above the 20th percentile of the income distribution.

Source: Authors' tabulations of DYNASIM3 (see text for details).

Table A6. Work History of Boomers at Age 67 by Income Level

	Low Income	Higher Income
Labor Force Experience	100%	100%
Fewer than 20 years	44	10
20 to 29 years	22	15
30 to 34 years	13	15
35 or more years	21	60
MEAN VALUES		
Share with earnings at 67 (own)	12%	45%
Share working in retirement	9%	25%
Years in the labor force	22	33
Number of work spells	3	3
Lifetime earnings (own)	$11,000	$35,200
Lifetime earnings (shared)	$11,200	$34,800
Retirement age	58	62

Notes: Sample includes adults born 1946-1965. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution. Higher-income adults have per capita income at age 67 above the 20th percentile of the income distribution. Labor force experience, years in the labor force, and number of work spells are all based on earnings between ages 22 and 62. Own lifetime earnings is the average of an individual's wage-indexed earnings between ages 22 and 62. Shared lifetime earnings is the average of wage-indexed shared earnings between ages 22 and 62, where shared earnings are half the total earnings of the couple in the years when the individual is married and his or her own earnings in years when not married. Retirement age represents the age at which a worker experiences at least a 50 percent drop in earnings compared with average earnings earned between ages 45 and 50. (The drop in earnings must last for at least two years.) Individuals without earnings between ages 45 and 50 are excluded from the calculation of mean retirement age. Dollar amounts are expressed in 2005 dollars.

Source: Authors' tabulations of DYNASIM3 (see text for details).

Table A7. Median Per Capita Household Resources of Boomers at Age 67 by Income Level (thousands)

	Low Income		Higher Income	
	Wealth	**Income**	**Wealth**	**Income**
All	$126.2	$10.7	$458.7	$39.1
Gender				
Female	138.0	10.6	467.9	37.3
Male	113.0	10.7	448.0	41.3
Marital Status				
Married	125.8	10.7	467.3	39.9
Widowed	143.1	11.1	487.1	37.9
Divorced	129.8	10.5	426.5	36.8
Never married	104.4	10.4	398.6	39.1
Gender and Marital Status				
Female: Married	137.7	10.5	492.9	38.4
Female: Widowed	146.1	10.9	471.6	36.7
Female: Divorced	143.5	10.6	397.9	34.1
Female: Never married	116.8	10.5	404.3	38.3
Male: Married	114.6	10.8	443.9	41.2
Male: Widowed	135.3	12.1	545.7	43.3
Male: Divorced	108.4	10.4	468.8	42.6
Male: Never married	94.7	10.4	393.2	39.7
Race/Ethnicity				
White, non-Hispanic	160.1	11.8	505.5	42.0
Black, non-Hispanic	110.2	10.8	305.3	31.9
Hispanic	89.6	9.0	296.8	29.6
Other minority	45.5	8.1	385.7	36.4
Education				
High school dropout	80.0	8.5	211.7	26.6
High school graduate	148.8	11.5	391.9	34.4
College graduate	140.8	11.2	683.9	54.5
Labor Force Experience				
Fewer than 20 years	67.8	8.1	211.2	27.7
20 to 29 years	154.0	11.7	396.5	30.6
30 to 34 years	161.9	12.2	434.5	34.3
35 or more years	168.0	12.7	531.2	46.8

Notes: Sample includes adults born 1946-1965. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution. Higher-income adults have per capita income at age 67 above the 20th percentile of the income distribution. The median value is measured as the mean value between the 40th and 60th percentiles of the distribution. Dollar amounts are expressed in 2005 dollars.

Source: Authors' tabulations of DYNASIM3 (see text for details).

Table A8. Median Per Capita Household Resources of Boomers at Age 67 by Source and Income Level

	Low Income			Higher Income		
	Percent with Wealth	Median Wealth (000s)	Share of Median Wealth	Percent with Wealth	Median Wealth (000s)	Share of Median Wealth
Total Wealth	89%	$126.2	100%	99%	$458.7	100%
Nonretirement Wealth	75	32.3	26	97	148.5	32
Financial	63	12.1	10	93	71.8	16
Housing	58	20.2	16	87	76.7	17
Retirement Wealth	88	93.9	74	99	310.3	68
Social Security	84	83.4	66	98	213.4	47
DB Pension	22	3.9	3	50	42.5	9
Retirement Accounts	30	6.7	5	66	54.4	12

	Low Income			Higher Income		
	Percent with Income	Median Income (000s)	Share of Median Income	Percent with Income	Median Income (000s)	Share of Median Income
Total Income	96%	$10.7	100%	100%	$39.1	100%
Nonretirement Income	89	3.5	33	100	20.0	51
Financial Income	63	0.7	7	93	4.5	12
Earnings	17	0.9	8	58	10.2	26
SSI Benefits	14	0.2	2	1	0.0	0
Imputed Rental Income	57	0.7	7	87	2.6	7
Co-resident Income	15	1.0	9	15	2.6	7
Retirement Income	87	7.2	67	98	19.1	49
Social Security Benefits	81	6.4	60	96	12.5	32
DB Pension Benefits	20	0.4	4	41	3.1	8
Retirement Accounts	30	0.4	3	66	3.6	9

Notes: Sample includes adults born 1946-1965. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution. Higher-income adults have per capita income at age 67 above the 20th percentile of the income distribution. The median value is measured as the mean value between the 40th and 60th percentiles of the distribution. Dollar amounts are expressed in 2005 dollars.

Source: Authors' tabulations of DYNASIM3 (see text for details).

Table A9. Characteristics of Low-Income Boomers at Age 67 by Lifetime Earnings Level

	All	Low Lifetime Earner	Higher Lifetime Earner
All	100%	100%	100%
Gender			
Female	54	56	50
Male	46	44	50
Marital Status			
Married	61	60	63
Widowed	10	13	5
Divorced	19	17	22
Never married	10	11	9
Gender and Marital Status			
Female: Married	30	30	28
Female: Widowed	8	10	4
Female: Divorced	11	10	13
Female: Never married	5	5	5
Male: Married	32	29	35
Male: Widowed	2	3	1
Male: Divorced	7	7	9
Male: Never married	5	5	5
Race/Ethnicity			
White, non-Hispanic	49	39	67
Black, non-Hispanic	13	13	12
Hispanic	26	32	15
Other minority	12	16	6
Education			
High school dropout	31	41	14
High school graduate	59	51	72
College graduate	10	8	14

Notes: Sample includes low-income adults born 1946-1965. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution. Low-lifetime-earner adults have shared lifetime earnings at or below the 20th percentile of the shared lifetime earnings distribution. Higher-lifetime-earner adults have shared lifetime earnings above the 20th percentile of the shared lifetime earnings distribution.

Source: Authors' tabulations of DYNASIM3 (see text for details).

Table A10. Work History of Low-Income Boomers at Age 67, by Lifetime Earnings Level

	Low Lifetime Earner	Higher Lifetime Earner
Labor Force Experience	100%	100%
Fewer than 20 years	61	15
20 to 29 years	19	28
30 to 34 years	9	21
35 or more years	12	37
MEAN VALUES		
Share with earnings at 67 (own)	15%	6%
Share working in retirement	11%	4%
Years in the labor force	17	30
Number of work spells	3	3
Lifetime earnings (own)	$6,000	$19,500
Lifetime earnings (shared)	$6,400	$19,600
Retirement age	57	58

Notes: Sample includes low-income adults born 1946-1965. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution. Low-lifetime-earner adults have shared lifetime earnings at or below the 20th percentile of the shared lifetime earnings distribution. Higher-lifetime-earner adults have shared lifetime earnings above the 20th percentile of the shared lifetime earnings distribution. Labor force experience, years in the labor force, and number of work spells are all based on earnings between ages 22 and 62. Own lifetime earnings is the average of an individual's wage-indexed earnings between ages 22 and 62. Shared lifetime earnings is the average of wage-indexed shared earnings between ages 22 and 62, where shared earnings are half the total earnings of the couple in the years when the individual is married and his or her own earnings in years when not married. Retirement age represents the age at which a worker experiences at least a 50 percent drop in earnings compared with average earnings earned between ages 45 and 50. (The drop in earnings must last for at least two years.) Individuals without earnings between ages 45 and 50 are excluded from the calculation of mean retirement age. Dollar amounts are expressed in 2005 dollars.

Source: Authors' tabulations of DYNASIM3 (see text for details).

Table A11. Median Per Capita Household Resources of Low-Income Boomers at Age 67 by Lifetime Earnings Level (thousands)

	Low Lifetime Earner		Higher Lifetime Earner	
	Wealth	**Income**	**Wealth**	**Income**
All	$94.6	$9.0	$181.2	$13.1
Gender				
Female	107.6	9.1	192.6	13.1
Male	78.0	8.9	169.7	13.1
Marital Status				
Married	89.3	8.8	185.3	13.1
Widowed	132.2	10.3	200.2	14.0
Divorced	91.0	8.6	173.7	12.8
Never married	82.0	9.0	159.7	13.0
Gender and Marital Status				
Female: Married	104.6	8.7	192.1	13.2
Female: Widowed	133.5	10.2	213.9	13.8
Female: Divorced	105.4	9.0	191.5	12.6
Female: Never married	82.4	9.0	186.4	13.1
Male: Married	73.2	9.0	179.3	13.0
Male: Widowed	129.7	10.7	171.0	14.4
Male: Divorced	63.3	7.9	150.9	13.0
Male: Never married	82.1	8.9	129.5	12.8
Race/Ethnicity				
White, non-Hispanic	133.5	10.1	183.6	13.2
Black, non-Hispanic	90.6	9.5	155.3	13.0
Hispanic	71.4	8.2	181.2	12.8
Other minority	18.9	7.4	207.3	13.2
Education				
High school dropout	61.7	7.7	164.1	12.8
High school graduate	117.9	10.0	183.2	13.2
College graduate	89.8	9.4	186.5	12.8
Labor Force Experience				
Fewer than 20 years	57.9	7.8	165.1	11.9
20 to 29 years	131.1	10.5	181.0	13.0
30 to 34 years	139.2	10.6	184.6	13.2
35 or more years	138.2	11.1	184.1	13.4

Notes: Sample includes low-income adults born 1946-1965. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution. Low-lifetime-earner adults have shared lifetime earnings at or below the 20th percentile of the shared lifetime earnings distribution. Higher-lifetime-earner adults have shared lifetime earnings above the 20th percentile of the shared lifetime earnings distribution. The median value is measured as the mean value between the 40th and 60th percentiles of the distribution. Dollar amounts are expressed in 2005 dollars.

Source: Authors' tabulations of DYNASIM3 (see text for details).

Table A12. Median Per Capita Household Resources of Low-Income Boomers at Age 67 by Source and Lifetime Earnings Level

	Low Lifetime Earner			Higher Lifetime Earner		
	Percent with Wealth	Median Wealth (000s)	Share of Median Wealth	Percent with Wealth	Median Wealth (000s)	Share of Median Wealth
Total Wealth	84%	$94.6	100%	98%	$181.2	100%
Nonretirement Wealth	64	22.6	24	94	47.3	26
Financial	51	7.5	8	84	18.5	10
Housing	47	15.2	16	76	28.8	16
Retirement Wealth	82	72.0	76	97	133.9	74
Social Security	77	64.0	68	95	118.2	65
DB Pension	20	3.6	4	26	7.3	4
Retirement Accounts	25	4.3	5	38	8.4	5

	Low Lifetime Earner			Higher Lifetime Earner		
	Percent with Income	Median Income (000s)	Share of Median Income	Percent with Income	Median Income (000s)	Share of Median Income
Total Income	93%	$9.0	100%	100%	$13.1	100%
Nonretirement Income	84	3.4	38	98	3.0	23
Financial Income	51	0.5	5	84	1.1	9
Earnings	21	0.6	6	10	0.3	2
SSI Benefits	20	0.9	10	3	0.0	0
Imputed Rental Income	47	0.5	6	76	1.0	8
Co-resident Income	19	1.0	11	9	0.5	4
Retirement Income	81	5.6	62	97	10.1	77
Social Security Benefits	74	5.1	57	93	8.9	68
DB Pension Benefits	18	0.2	2	24	0.8	6
Retirement Accounts	25	0.2	3	38	0.5	4

Notes: Sample includes low-income adults born 1946-1965. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution. Low-lifetime-earner adults have shared lifetime earnings at or below the 20th percentile of the shared lifetime earnings distribution. Higher-lifetime-earner adults have shared lifetime earnings above the 20th percentile of the shared lifetime earnings distribution. The median value is measured as the mean value between the 40th and 60th percentiles of the distribution. Dollar amounts are expressed in 2005 dollars.

Source: Authors' tabulations of DYNASIM3 (see text for details).

Table A13. Characteristics of Low-Lifetime-Earner Boomers at Age 67 by Income Level

	All	Low Income	Higher Income
All	100%	100%	100%
Gender			
Female	58	56	61
Male	42	44	39
Marital Status			
Married	56	60	50
Widowed	15	13	19
Divorced	18	17	21
Never married	11	11	11
Gender and Marital Status			
Female: Married	28	30	23
Female: Widowed	12	10	16
Female: Divorced	12	10	16
Female: Never married	6	5	7
Male: Married	29	29	27
Male: Widowed	3	3	3
Male: Divorced	6	7	5
Male: Never married	5	5	4
Race/Ethnicity			
White, non-Hispanic	40	39	42
Black, non-Hispanic	13	13	12
Hispanic	31	32	29
Other minority	16	16	16
Education			
High school dropout	36	41	29
High school graduate	55	51	62
College graduate	8	8	9

Notes: Sample includes low-lifetime-earner adults born 1946-1965. Low-lifetime-earner adults have shared lifetime earnings at or below the 20th percentile of the shared lifetime earnings distribution. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution. Higher-income adults have per capita income at age 67 above the 20th percentile of the income distribution.

Source: Authors' tabulations of DYNASIM3 (see text for details).

Table A14. Work History of Low-Lifetime-Earner Boomers at Age 67, by Income Level

	Low Income	Higher Income
Labor Force Experience	100%	100%
Fewer than 20 years	61	55
20 to 29 years	19	18
30 to 34 years	9	9
35 or more years	12	17
MEAN VALUES		
Share with earnings at 67 (own)	15%	47%
Share working in retirement	11%	35%
Years in the labor force	17	19
Number of work spells	3	3
Lifetime earnings (own)	$6,000	$7,700
Lifetime earnings (shared)	$6,400	$8,400
Retirement age	57	59

Notes: Sample includes low-lifetime-earner adults born 1946-1965. Low-lifetime-earner adults have shared lifetime earnings at or below the 20th percentile of the shared lifetime earnings distribution. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution. Higher-income adults have per capita income at age 67 above the 20th percentile of the income distribution. Labor force experience, years in the labor force, and number of work spells are all based on earnings between ages 22 and 62. Own lifetime earnings is the average of an individual's wage-indexed earnings between ages 22 and 62. Shared lifetime earnings is the average of wage-indexed shared earnings between ages 22 and 62, where shared earnings are half the total earnings of the couple in the years when the individual is married and his or her own earnings in years when not married. Retirement age represents the age at which a worker experiences at least a 50 percent drop in earnings compared with average earnings earned between ages 45 and 50. (The drop in earnings must last for at least two years.) Individuals without earnings between ages 45 and 50 are excluded from the calculation of mean retirement age. Dollar amounts are expressed in 2005 dollars.

Source: Authors' tabulations of DYNASIM3 (see text for details).

Table A15. Median Per Capita Household Resources of Low-Lifetime-Earner Boomers at Age 67, by Income Level (thousands)

	Low Income		Higher Income	
	Wealth	**Income**	**Wealth**	**Income**
All	$94.6	$9.0	$147.7	$24.3
Gender				
Female	107.6	9.1	161.0	23.7
Male	78.0	8.9	134.4	25.2
Marital Status				
Married	89.3	8.8	151.5	24.4
Widowed	132.2	10.3	240.7	25.4
Divorced	91.0	8.6	98.9	23.4
Never married	82.0	9.0	89.2	23.6
Gender and Marital Status				
Female: Married	104.6	8.7	194.4	22.8
Female: Widowed	133.5	10.2	243.1	25.5
Female: Divorced	105.4	9.0	91.0	23.2
Female: Never married	82.4	9.0	66.0	23.8
Male: Married	73.2	9.0	128.7	25.5
Male: Widowed	129.7	10.7	226.9	25.3
Male: Divorced	63.3	7.9	148.4	24.4
Male: Never married	82.1	8.9	146.0	23.4
Race/Ethnicity				
White, non-Hispanic	133.5	10.1	222.1	23.0
Black, non-Hispanic	90.6	9.5	110.1	21.6
Hispanic	71.4	8.2	107.1	25.1
Other minority	18.9	7.4	86.8	29.8
Education				
High school dropout	61.7	7.7	82.8	24.9
High school graduate	117.9	10.0	173.7	23.8
College graduate	89.8	9.4	233.4	26.0
Labor Force Experience				
Fewer than 20 years	57.9	7.8	99.0	26.2
20 to 29 years	131.1	10.5	205.8	22.8
30 to 34 years	139.2	10.6	250.9	22.3
35 or more years	138.2	11.1	220.6	21.8

Notes: Sample includes low-lifetime-earner adults born 1946-1965. Low-lifetime-earner adults have shared lifetime earnings at or below the 20th percentile of the shared lifetime earnings distribution. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution. Higher-income adults have per capita income at age 67 above the 20th percentile of the income distribution. The median value is measured as the mean value between the 40th and 60th percentiles of the distribution. Dollar amounts are expressed in 2005 dollars.

Source: Authors' tabulations of DYNASIM3 (see text for details).

Table A16. Median Per Capita Household Resources of Low-Lifetime-Earner Boomers at Age 67 by Source and Income Level

	Low Income			Higher Income		
	Percent with Wealth	Median Wealth (000s)	Share of Median Wealth	Percent with Wealth	Median Wealth (000s)	Share of Median Wealth
Total Wealth	84%	$94.6	100%	92%	$147.7	100%
Nonretirement Wealth	64	22.6	24	73	33.2	22
Financial	51	7.5	8	62	13.6	9
Housing	47	15.2	16	55	19.6	13
Retirement Wealth	82	72.0	76	91	114.5	78
Social Security	77	64.0	68	89	94.8	64
DB Pension	20	3.6	4	29	9.0	6
Retirement Accounts	25	4.3	5	40	10.7	7

	Low Income			Higher Income		
	Percent with Income	Median Income (000s)	Share of Median Income	Percent with Income	Median Income (000s)	Share of Median Income
Total Income	93%	$9.0	100%	100%	$24.3	100%
Nonretirement Income	84	3.4	38	99	17.3	71
Financial Income	51	0.5	5	62	1.4	6
Earnings	21	0.6	6	63	9.0	37
SSI Benefits	20	0.9	10	5	0.1	0
Imputed Rental Income	47	0.5	6	54	0.9	4
Co-resident Income	19	1.0	11	34	5.9	24
Retirement Income	81	5.6	62	85	7.0	29
Social Security Benefits	74	5.1	57	82	5.3	22
DB Pension Benefits	18	0.2	2	23	0.7	3
Retirement Accounts	25	0.2	3	40	1.0	4

Notes: Sample includes low-lifetime-earner adults born 1946-1965. Low-lifetime-earner adults have shared lifetime earnings at or below the 20th percentile of the shared lifetime earnings distribution. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution. Higher-income adults have per capita income at age 67 above the 20th percentile of the income distribution. The median value is measured as the mean value between the 40th and 60th percentiles of the distribution. Dollar amounts are expressed in 2005 dollars.

Source: Authors' tabulations of DYNASIM3 (see text for details).

Table A17. Summary Measures of Economic Well-Being for Boomers at Age 67 by Income Level and Lifetime Earnings

	Low Income		Low Lifetime Earner	
	Low Lifetime Earner	Higher Lifetime Earner	Low Income	Higher Income
Median Per Capita Wealth (thousands)	$94.6	$181.2	$94.6	$147.7
Median Per Capita Income (thousands)	$9.0	$13.1	$9.0	$24.3
Percent in Poverty	34	10	34	0
Median Replacement Rate	120	49	120	194
Percent Below 3/4 Replacement	35	74	35	13
Percent Below 1/2 Replacement	20	52	20	7

Notes: Sample includes older adults born 1946-1965. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution. Higher-income adults have per capita income at age 67 above the 20th percentile of the income distribution. Low-lifetime-earner adults have shared lifetime earnings at or below the 20th percentile of the shared lifetime earnings distribution. Higher-lifetime-earner adults have shared lifetime earnings above the 20th percentile of the shared lifetime earnings distribution. Replacement rates are calculated as the ratio of per capita income (excluding imputed rent and co-resident income) at age 67 to average shared earnings between ages 50 to 54. The median value is measured as the mean value between the 40th and 60th percentiles of the distribution. Dollar amounts are expressed in 2005 dollars.

Source: Authors' tabulations of DYNASIM3 (see text for details).

Table A18. Proportion of Low-Income Adults at Age 67 by Birth Cohort

	Older Retirees	Younger Retirees	Leading Boomers	Trailing Boomers
	1926-1935	1936-1945	1946-1955	1956-1965
All	20%	20%	20%	20%
Gender				
Female	21	22	20	20
Male	19	18	20	20
Marital Status				
Married	18	18	19	20
Widowed	17	18	17	16
Divorced	32	27	25	23
Never married	40	33	28	22
Gender and Marital Status				
Female: Married	17	18	19	20
Female: Widowed	17	20	18	16
Female: Divorced	37	31	25	22
Female: Never married	48	36	27	23
Male: Married	18	17	18	19
Male: Widowed	14	10	14	19
Male: Divorced	24	22	25	24
Male: Never married	26	29	29	21
Race/Ethnicity				
White, non-Hispanic	15	14	14	14
Black, non-Hispanic	38	36	31	29
Hispanic	50	46	43	38
Other minority	42	44	33	32
Education				
High school dropout	40	49	57	52
High school graduate	15	18	20	21
College graduate	7	7	6	6
Labor Force Experience				
Fewer than 20 years	33	44	52	52
20 to 29 years	21	23	25	27
30 to 34 years	18	19	19	19
35 or more years	12	9	8	8

Notes: Sample includes older adults born 1926-1965. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution of their respective birth cohorts.

Source: Authors' tabulations of DYNASIM3 (see text for details).

Table A19. Characteristics of Low-Income Adults at Age 67 by Birth Cohort

	Older Retirees	Younger Retirees	Leading Boomers	Trailing Boomers
	1926-1935	1936-1945	1946-1955	1956-1965
All	100%	100%	100%	100%
Gender				
Female	57	58	54	53
Male	43	42	46	47
Marital Status				
Married	57	59	60	62
Widowed	16	12	10	10
Divorced	18	20	20	18
Never married	9	8	10	11
Gender and Marital Status				
Female: Married	24	29	29	30
Female: Widowed	13	11	8	7
Female: Divorced	13	14	12	10
Female: Never married	7	5	5	5
Male: Married	33	31	31	32
Male: Widowed	2	1	2	2
Male: Divorced	5	6	7	7
Male: Never married	2	4	5	5
Race/Ethnicity				
White, non-Hispanic	60	53	51	47
Black, non-Hispanic	16	14	12	13
Hispanic	16	22	25	27
Other minority	8	12	11	13
Education				
High school dropout	52	38	32	30
High school graduate	42	53	58	60
College graduate	6	9	10	10

Notes: Sample includes low-income adults born 1926-1965. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution of their respective birth cohorts.

Source: Authors' tabulations of DYNASIM3 (see text for details).

Table A20. Work History of Low-Income Adults at Age 67 by Birth Cohort

	Older Retirees	Younger Retirees	Leading Boomers	Trailing Boomers
	1926-1935	**1936-1945**	**1946-1955**	**1956-1965**
Labor Force Experience	100%	100%	100%	100%
Fewer than 20 years	42	45	44	43
20 to 29 years	22	21	22	22
30 to 34 years	13	14	14	13
35 or more years	24	20	20	22
MEAN VALUES				
Share with earnings at 67 (own)	11%	13%	12%	11%
Share working in retirement	10%	10%	9%	8%
Years in the labor force	21	21	21	22
Number of work spells	2	3	3	3
Lifetime earnings (own)	$9,500	$9,900	$10,200	$11,600
Lifetime earnings (shared)	$10,400	$10,800	$10,800	$11,600
Retirement age	58	57	58	58

Notes: Sample includes low-income adults born 1926-1965. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution of their respective birth cohorts. Labor force experience, years in the labor force, and number of work spells are all based on earnings between ages 22 and 62. Own lifetime earnings is the average of an individual's wage-indexed earnings between ages 22 and 62. Shared lifetime earnings is the average of wage-indexed shared earnings between ages 22 and 62, where shared earnings are half the total earnings of the couple in the years when the individual is married and his or her own earnings in years when not married. Retirement age represents the age at which a worker experiences at least a 50 percent drop in earnings compared with average earnings earned between ages 45 and 50. (The drop in earnings must last for at least two years.) Individuals without earnings between ages 45 and 50 are excluded from the calculation of mean retirement age. Dollar amounts are expressed in 2005 dollars.

Source: Authors' tabulations of DYNASIM3 (see text for details).

Table A21. Median Per Capita Household Wealth of Low-Income Adults at Age 67 by Birth Cohort (thousands)

	Older Retirees	Younger Retirees	Leading Boomers	Trailing Boomers
	1926-1935	1936-1945	1946-1955	1956-1965
All	$90.9	$102.5	$114.8	$136.1
Gender				
Female	98.6	112.5	127.7	146.7
Male	81.5	90.0	100.0	124.1
Marital Status				
Married	101.8	107.3	113.6	136.2
Widowed	94.1	115.0	130.2	157.3
Divorced	78.4	99.5	118.9	139.4
Never married	49.0	65.5	95.4	112.0
Gender and Marital Status				
Female: Married	120.0	121.7	126.3	146.3
Female: Widowed	93.5	116.2	129.8	166.0
Female: Divorced	88.1	108.7	136.5	150.3
Female: Never married	42.3	68.9	109.5	121.4
Male: Married	86.8	94.0	101.6	125.8
Male: Widowed	97.2	113.2	130.7	139.5
Male: Divorced	64.1	83.0	92.2	123.6
Male: Never married	67.5	61.5	87.4	103.1
Race/Ethnicity				
White, non-Hispanic	110.9	135.5	152.5	167.4
Black, non-Hispanic	77.2	81.8	100.3	118.3
Hispanic	52.5	67.2	76.6	102.4
Other minority	6.0	3.7	30.8	61.4
Education				
High school dropout	68.9	72.0	69.6	91.8
High school graduate	118.5	124.1	139.6	156.6
College graduate	92.0	95.6	133.6	146.3
Labor Force Experience				
Fewer than 20 years	66.3	47.7	57.6	77.7
20 to 29 years	101.5	137.1	144.2	161.5
30 to 34 years	104.3	125.0	146.0	179.3
35 or more years	104.0	132.5	164.7	170.7

Notes: Sample includes low-income adults born 1926-1965. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution of their respective birth cohorts. The median value is measured as the mean value between the 40th and 60th percentiles of the distribution. Dollar amounts are expressed in 2005 dollars.

Source: Authors' tabulations of DYNASIM3 (see text for details).

Table A22. Per Capita Household Wealth of Low-Income Adults at Age 67 by Source and Birth Cohort

	Older Retirees	Younger Retirees	Leading Boomers	Trailing Boomers
	1926-1935	1936-1945	1946-1955	1956-1965
A. Percent with Wealth at Age 67				
Total Wealth	94%	88%	89%	89%
Nonretirement Wealth	77	74	75	76
Financial Wealth	70	65	62	63
Housing Wealth	52	52	58	58
Retirement Wealth	88	85	87	88
Social Security	84	78	82	85
DB Pensions	20	23	23	21
Retirement Accounts	17	22	29	31
B. Median Household Wealth at Age 67 (thousands)				
Total Wealth	$90.9	$102.5	$114.8	$136.1
Nonretirement Wealth	19.4	29.3	27.9	35.5
Financial Wealth	4.8	10.7	9.5	14.8
Housing Wealth	14.6	18.6	18.4	20.7
Retirement Wealth	71.5	73.2	86.9	100.6
Social Security	62.1	63.0	77.1	89.3
DB Pensions	5.6	5.2	3.9	3.9
Retirement Accounts	3.8	4.9	5.9	7.5
C. Share of Median Household Wealth at Age 67				
Total Wealth	100%	100%	100%	100%
Nonretirement Wealth	21	29	24	26
Financial Wealth	5	10	8	11
Housing Wealth	16	18	16	15
Retirement Wealth	79	71	76	74
Social Security	68	61	67	66
DB Pensions	6	5	3	3
Retirement Accounts	4	5	5	5

Notes: Sample includes low-income adults born 1926-1965. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution of their respective birth cohorts. The median value is measured as the mean value between the 40th and 60th percentiles of the distribution. Dollar amounts are expressed in 2005 dollars.

Source: Authors' tabulations of DYNASIM3 (see text for details).

Table A23. Median Per Capita Household Income of Low-Income Adults at Age 67 by Birth Cohort (thousands)

	Older Retirees	Younger Retirees	Leading Boomers	Trailing Boomers
	1926-1935	1936-1945	1946-1955	1956-1965
All	$8.9	$9.6	$10.4	$10.9
Gender				
Female	8.9	9.6	10.5	10.7
Male	8.8	9.7	10.3	11.1
Marital Status				
Married	8.9	9.9	10.5	10.9
Widowed	9.4	9.7	10.6	11.8
Divorced	8.6	9.1	10.3	10.8
Never married	8.5	9.1	10.1	10.7
Gender and Marital Status				
Female: Married	9.2	10.0	10.5	10.5
Female: Widowed	9.3	9.8	10.6	11.4
Female: Divorced	8.6	8.9	10.5	10.6
Female: Never married	8.3	8.7	9.8	11.1
Male: Married	8.6	9.7	10.5	11.1
Male: Widowed	9.8	8.7	10.7	12.6
Male: Divorced	8.7	9.7	10.0	11.1
Male: Never married	9.4	9.8	10.3	10.4
Race/Ethnicity				
White, non-Hispanic	9.3	10.7	11.5	12.1
Black, non-Hispanic	8.9	9.6	10.5	11.2
Hispanic	7.9	8.2	8.6	9.3
Other minority	6.9	6.8	7.6	8.6
Education				
High school dropout	8.5	8.6	8.5	8.5
High school graduate	9.4	10.3	11.2	11.9
College graduate	8.4	9.4	10.8	11.6
Labor Force Experience				
Fewer than 20 years	8.1	7.8	7.9	8.2
20 to 29 years	9.1	10.3	11.3	12.0
30 to 34 years	9.2	11.0	11.8	12.5
35 or more years	9.6	11.2	12.5	12.9

Notes: Sample includes low-income adults born 1926-1965. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution of their respective birth cohorts. The median value is measured as the mean value between the 40th and 60th percentiles of the distribution. Dollar amounts are expressed in 2005 dollars.

Source: Authors' tabulations of DYNASIM3 (see text for details).

Table A24. Per Capita Household Income of Low-Income Adults at Age 67 by Source and Birth Cohort

	Older Retirees	Younger Retirees	Leading Boomers	Trailing Boomers
	1926-1935	1936-1945	1946-1955	1956-1965
A. Percent with Income at Age 67				
Total Income	96%	95%	96%	96%
Nonretirement Income	89	89	90	89
Financial Income	70	65	62	63
Earnings	17	18	18	15
SSI Benefits	25	18	16	12
Imputed Rental Income	52	52	57	57
Co-resident Income	15	16	17	14
Retirement Income	85	83	86	87
Social Security Benefits	80	75	80	83
DB Pension Benefits	19	22	21	20
Retirement Accounts	17	22	29	31
B. Median Household Income at Age 67 (thousands)				
Total Income	$8.9	$9.6	$10.4	$10.9
Nonretirement Income	3.3	3.6	3.6	3.4
Financial Income	0.3	0.5	0.6	0.8
Earnings	0.5	1.0	1.0	0.8
SSI Benefits	1.0	0.6	0.3	0.1
Imputed Rental Income	0.6	0.6	0.7	0.7
Co-resident Income	0.8	1.1	1.0	1.0
Retirement Income	5.6	6.0	6.8	7.5
Social Security Benefits	5.0	5.3	6.2	6.7
DB Pension Benefits	0.4	0.4	0.4	0.3
Retirement Accounts	0.2	0.3	0.2	0.5
C. Share of Median Household Income at Age 67				
Total Income	100%	100%	100%	100%
Nonretirement Income	37	38	35	31
Financial Income	4	5	6	7
Earnings	6	10	10	7
SSI Benefits	11	6	3	1
Imputed Rental Income	7	6	6	6
Co-resident Income	10	11	10	9
Retirement Income	63	62	65	69
Social Security Benefits	56	55	59	62
DB Pension Benefits	5	4	4	3
Retirement Accounts	2	3	2	4

Notes: Sample includes low-income adults born 1926-1965. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution of their respective birth cohorts. The median value is measured as the mean value between the 40th and 60th percentiles of the distribution. Dollar amounts are expressed in 2005 dollars.

Source: Authors' tabulations of DYNASIM3 (see text for details).

Table A25. Poverty Rates of Low-Income Adults at Age 67 by Birth Cohort

	Older Retirees	Younger Retirees	Leading Boomers	Trailing Boomers
	1926-1935	1936-1945	1946-1955	1956-1965
All	36%	32%	27%	24%
Gender				
Female	43	37	29	26
Male	26	24	24	22
Marital Status				
Married	20	19	19	17
Widowed	53	48	43	32
Divorced	63	57	42	41
Never married	47	36	28	27
Gender and Marital Status				
Female: Married	20	21	18	17
Female: Widowed	56	47	42	34
Female: Divorced	67	62	44	45
Female: Never married	52	44	32	27
Male: Married	21	18	20	17
Male: Widowed	41	60	43	27
Male: Divorced	50	45	39	36
Male: Never married	32	26	24	27
Race/Ethnicity				
White, non-Hispanic	33	25	19	18
Black, non-Hispanic	34	39	31	25
Hispanic	43	37	34	29
Other minority	45	46	44	35
Education				
High school dropout	38	40	37	32
High school graduate	30	27	22	20
College graduate	52	28	24	22
Labor Force Experience				
Fewer than 20 years	48	46	40	37
20 to 29 years	34	25	20	17
30 to 34 years	31	20	17	12
35 or more years	18	16	11	12

Notes: Sample includes low-income adults born 1926-1965. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution of their respective birth cohorts.

Source: Authors' tabulations of DYNASIM3 (see text for details).

Table A26. Median Replacement Rates of Low-Income Adults at Age 67 by Birth Cohort

	Older Retirees	Younger Retirees	Leading Boomers	Trailing Boomers
	1926-1935	1936-1945	1946-1955	1956-1965
All	71%	81%	86%	71%
Gender				
Female	80	85	83	68
Male	62	75	91	76
Marital Status				
Married	62	71	79	67
Widowed	107	121	124	102
Divorced	72	84	93	69
Never married	98	101	95	89
Gender and Marital Status				
Female: Married	67	73	75	63
Female: Widowed	118	132	156	124
Female: Divorced	70	80	88	61
Female: Never married	*	90	50	64
Male: Married	60	68	83	70
Male: Widowed	74	71	74	67
Male: Divorced	78	99	101	86
Male: Never married	60	125	172	134
Race/Ethnicity				
White, non-Hispanic	61	62	79	68
Black, non-Hispanic	62	83	86	85
Hispanic	165	136	90	70
Other minority	*	*	*	*
Education				
High school dropout	85	109	130	96
High school graduate	60	67	77	67
College graduate	63	111	65	64
Labor Force Experience				
Fewer than 20 years	*	*	187	130
20 to 29 years	68	64	89	68
30 to 34 years	53	54	69	64
35 or more years	47	51	65	61

Notes: Sample includes low-income adults born 1926-1965. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution of their respective birth cohorts. Replacement rates are calculated as the ratio of per capita income (excluding imputed rent and co-resident income) at age 67 to average shared earnings between ages 50 to 54. The median value is measured as the mean value between the 40th and 60th percentiles of the distribution. * denotes unreasonably high replacement rates.

Source: Authors' tabulations of DYNASIM3 (see text for details).

Table A27. Distribution of Replacement Rates for Low-Income Adults at Age 67 by Birth Cohort

	Older Retirees	Younger Retirees	Leading Boomers	Trailing Boomers
	1926-1935	1936-1945	1946-1955	1956-1965
< 25%	8%	8%	9%	10%
< 50%	35	32	29	34
< 75%	53	49	46	53
< 100%	62	57	56	62
< 200%	73	70	72	75

Notes: Sample includes low-income adults born 1926-1965. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution of their respective birth cohorts. Replacement rates are calculated as the ratio of per capita income (excluding imputed rent and co-resident income) at age 67 to average shared earnings between ages 50 to 54.

Source: Authors' tabulations of DYNASIM3 (see text for details).

Table A28. Median Additional Per Capita Wealth Needed to Attain and Maintain 75% Replacement Rates in Retirement for Low-Income Adults, by Birth Cohort (thousands)

	Older Retirees	Younger Retirees	Leading Boomers	Trailing Boomers
	1926-1935	1936-1945	1946-1955	1956-1965
All	$83.6	$87.6	$92.9	$104.7
Gender				
Female	88.5	80.0	98.9	108.3
Male	77.6	97.4	87.2	100.6
Marital Status				
Married	84.0	88.4	94.5	104.4
Widowed	82.7	36.1	57.6	61.0
Divorced	95.4	102.5	86.9	105.6
Never married	51.5	117.3	157.1	147.0
Gender and Marital Status				
Female: Married	78.7	73.2	94.2	102.4
Female: Widowed	97.7	39.5	59.0	74.5
Female: Divorced	109.6	111.6	102.4	117.0
Female: Never married	55.6	122.7	215.6	197.1
Male: Married	89.6	103.1	94.7	106.5
Male: Widowed	40.5	18.0	48.4	45.0
Male: Divorced	42.8	77.0	71.1	93.4
Male: Never married	49.6	111.8	67.6	93.0
Race/Ethnicity				
White, non-Hispanic	88.8	95.9	93.4	98.4
Black, non-Hispanic	73.6	71.2	80.0	107.3
Hispanic	83.6	77.4	83.9	105.5
Other minority	57.6	88.1	144.0	145.1
Education				
High school dropout	65.5	57.1	57.0	88.1
High school graduate	96.7	101.1	97.9	108.6
College graduate	148.1	196.2	212.2	192.2
Labor Force Experience				
Fewer than 20 years	86.9	65.0	105.8	112.8
20 to 29 years	86.6	86.6	65.9	101.8
30 to 34 years	83.1	103.2	84.0	100.3
35 or more years	81.7	98.6	106.2	97.4

Notes: Sample includes low-income adults born 1926-1965 who are below 75% replacement at age 67. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution of their respective birth cohorts. Replacement rates are calculated as the ratio of per capita income (excluding imputed rent and co-resident income) at age 67 to average shared earnings between ages 50 to 54. The median value is measured as the mean value between the 40th and 60th percentiles of the distribution.

Source: Authors' tabulations of DYNASIM3 (see text for details).

Table A29. The Impact of Increased Savings and Work on Measures of Economic Well-Being for Low-Income Boomers at Age 67

		Increased Savings		Increased Work		Increased Earnings	
	Baseline	Level	Change	Level	Change	Level	Change
Median Per Capita Wealth (thousands)	$126.2	$144.1	$17.9	$132.6	$6.4	$127.5	$1.3
Median Per Capita Income (thousands)	$10.7	$11.7	$1.0	$12.1	$1.4	$10.8	$0.1
Percent in Poverty	25	21	-4	22	-3	25	0
Median Replacement Rate	78	88	10	83	5	74	-4
Percent Below 3/4 Replacement	49	44	-5	47	-2	51	2
Percent Below 1/2 Replacement	32	27	-5	29	-3	33	1
Median Per Capita Wealth Needed to Maintain 75% Replacement (thousands)	$99.5	$82.3	-$17.2	$82.4	-$17.1	$109.7	$10.2
Percent Who Become Higher Income		15		22		5	

Notes: Sample includes low-income adults born 1946-1965. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution of their respective birth cohorts. The savings simulation assumes that adults save 1 percent of wages every year until age 67 or retirement. The work simulation assumes that adults who retire before age 62 in the baseline will work another 5 years, and adults who retire at age 62 or later will delay their retirement until age 67. The earnings simulation assumes that adults work continously between age 22 and the year prior to retirement. Replacement rates are calculated as the ratio of per capita income (excluding imputed rent and co-resident income) at age 67 to average shared earnings between ages 50 to 54. The median value is measured as the mean value between the 40th and 60th percentiles of the distribution. Dollar amounts are expressed in 2005 dollars.

Source: Authors' tabulations of DYNASIM3 (see text for details).

Table A30. Work History of Low-Income Boomers at Age 67 by Work Simulation

	Baseline	Increased Work	Increased Earnings
Labor Force Experience	100%	100%	100%
Fewer than 20 years	44	40	24
20 to 29 years	22	19	7
30 to 34 years	13	14	18
35 or more years	21	27	52
MEAN VALUES			
Share with earnings at 67 (own)	12%	20%	12%
Share working in retirement	9%	18%	9%
Years in the labor force	22	23	29
Number of work spells	3	3	2
Lifetime earnings (own)	$11,000	$12,100	$14,200
Lifetime earnings (shared)	$11,200	$12,200	$14,300
Retirement age	58	62	58

Notes: Sample includes adults born 1946-1965. Low-income adults have per capita income at age 67 at or below the 20th percentile of the income distribution. The work simulation assumes that adults who retire before age 62 in the baseline will work another 5 years. Adults who retire at age 62 or later will delay their retirement until age 67. The earnings simulation assumes that adults work continously between age 22 and the year prior to retirement. Labor force experience, years in the labor force, and number of work spells are all based on earnings between ages 22 and 62. Own lifetime earnings is the average of an individual's wage-indexed earnings between ages 22 and 62. Shared lifetime earnings is the average of wage-indexed shared earnings between ages 22 and 62, where shared earnings are half the total earnings of the couple in the years when the individual is married and his or her own earnings in years when not married. Retirement age represents the age at which a worker experiences at least a 50 percent drop in earnings compared with average earnings earned between ages 45 and 50. (The drop in earnings must last for at least two years.) Individuals without earnings between ages 45 and 50 are excluded from the calculation of mean retirement age. Dollar amounts are expressed in 2005 dollars.

Source: Authors' tabulations of DYNASIM3 (see text for details).

Table B1. Summary of Core Processes Modeled in DYNASIM

Process	Data	Form and predictors
Birth	*Estimation:* NLSY (1979–94); VS; *Target:* OCACT	7-equation parity progression model; varies on the basis of marital status; predictors include age, marriage duration, time since last birth; uses vital rates after age 39; sex of newborn assigned by race; probability of multiple birth assigned by age and race
Death	*Estimation:* NLMS (1979–81); VS (1982–97); *Target:* OCACT	3 equations; time trend from Vital Statistics 1982–97; includes socioeconomic differentials; separate process for the disabled based on age, sex, age of disability onset, and disability duration derived from Zayatz (1999)
Schooling	NLSY (1979–94), CPS (Oct. 1995)	10 cross-tabulations based on age, race, sex, and parent's education
Leaving Home	NLSY (1979–94)	3 equations; family size, parental resources, and school and work status are important predictors
First Marriage	NLSY (1979–93)	8 equations; depends on age, education, race, earnings, presence of children (for females); uses vital rates at older ages
Spouse Selection		Closed marriage market (spouse must be selected from among unmarried, opposite-sex persons in the population); match likelihood depends on age, race, education
Remarriage	VS (1990)	Table lookups, separate by sex for widowed and divorced
Divorce	PSID (1985–93)	Couple-level outcome; depends on marriage duration, age and presence of children, earnings of both spouses
Labor Supply and Earnings	*Estimation:* PSID (1980–93); NLSY (1979–89); *Target:* OCACT (LFP, wage/price growth)	Separate participation, hours decisions, wage rates for 16 age-race-sex groups; all equations have permanent and transitory error components; some wage equations correct for selection bias; key predictors include age splines, marital status, number and ages of children, job tenure, education level, region of residence, disability status, schooling status, unemployment level, and age spline–education-level interactions
Disability	SIPP (1990)	Separate entry (by sex)/exit (pooled) equations; include socioeconomic differences (education, marital status, earnings history)
DI Take-up	SIPP (1990–93)	2 separate equations (by sex) predict take-up of those eligible for disabled worker benefits (ages 19 though the normal retirement age); key predictors include age, disability status, education, marital status, recent earnings

Table B1. Summary of Core Processes Modeled in DYNASIM (continued)

Process	Data	Form and predictors
Pensions (DB, DC, IRAs, Keoghs)	BLS (1999-2000); EBRI/ICI; SIPP (1990–93); PENSIM (PSG) and PIMS models (PBGC)	Uses SIPP self-reports on past and current pension coverage with job changes and future coverage simulated using PENSIM; uses PIMS for DB formulas (with separate procedure for DBs from government jobs); DC balances projected using SIPP self-reports of account balances and contribution rates and EBRI/ICI data asset allocations and contribution rates for new participants
Wealth	PSID (1984–94); SIPP (1990–93)	4 random-effects models for ownership/value given ownership separately for housing and nonhousing wealth; additional models for spend-down after first OASDI receipt; key predictors include age, race, marital status, family size, birth cohort, dual-earner status, pension coverage, recent earnings
OASI Take-up	SIPP (1990–93)	Eligibility is deterministic; 3 separate equations (separate for workers by lagged earnings, and auxiliary beneficiaries) predict take-up of those eligible for retired worker benefits (age 62 and older); key predictors include age, disability status, education, marital status, recent earnings, pensions, lifetime earnings, and spouse characteristics; take-up of survivor benefits at 60 and 61 is deterministic (i.e., mandatory if earnings are below the exempt amount)
OASDI Benefits	Rule-based	Sophisticated calculator incorporates entire work and marriage histories, auxiliary benefits for spouses/survivors and former spouses, and the retirement earnings test
SSI Benefits	SIPP (1990–93)	Eligibility is deterministic; 2 equations predict take-up of the aged; key predictors include demographics, state supplement, resources
Living Arrange-ments of the Aged	SIPP (1990–93)	Logistic regression that considers health, resources, and kin availability (number of children ever born); resources of co-residing family members are imputed using donor families sampled from current co-residing aged individuals in SIPP
Immigration	PUMS 1980, 1990, 2000; INS yearbook 2001	Add target number of immigrants based on Dowhan and Duleep (2002), which are based on sex, country of origin, and age at immigration

Abbreviations: BLS = Bureau of Labor Statistics; CPS = Current Population Survey; EBRI = Employee Benefit Research Institute; DB = defined benefit; DC = defined contribution; DI = Disability Insurance; ICI = Investment Company Institute; INS = U.S. Immigration and Naturalization Service; IRA = Individual Retirement Account; LFP = labor force participation; NLMS = National Longitudinal Mortality Study; NLSY = National Longitudinal Survey of Youth; OASDI = Old-Age, Survivors, and Disability Insurance; OASI = Old-Age and Survivors Insurance; OCACT = Office of the Chief Actuary intermediate assumptions; PBGC = Pension Benefit Guarantee Corporation; PIMS = Pension Insurance Modeling System; PSG = Policy Simulation Group; PSID = Panel Study of Income Dynamics; PUMS = Public Use Microdata Sample File; SIPP = Survey of Income and Program Participation; SSI = Supplemental Security Income; VS = U.S. Vital Statistics.