# Will Living Standards Decline for Future Retirees?

**Evidence from DYNASIM4**

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**The financial challenges facing the next generation of retirees are well known. Social Security's full retirement age, which had been 65 since the program started paying benefits in 1940, increased to 66 for those now reaching retirement and will rise to 67 for those born after 1959, cutting payments for all new beneficiaries. Employer-sponsored defined-benefit (DB) pension plans, which guarantee retirees a lifetime stream of cash benefits, have largely been supplanted by defined-contribution (DC) retirement plans, such as 401(k) accounts. The newer DC plans generate substantial retirement income only if workers choose to make significant contributions to their accounts each pay period, invest the funds prudently, resist the temptation to dip into their accounts before they retire, and manage their funds wisely after they retire. As people live longer, their retirement savings must last longer. But wages for the majority of male workers have stagnated over the past few decades, leaving fewer financial resources that can be set aside for retirement.**

Other trends, however, are more encouraging. Women are now working and earning more than in earlier generations, partly offsetting men's declining labor market fortunes. Women's higher earnings boost family incomes and enable women to amass Social Security credits and 401(k) accounts in their own names. Because Social Security benefits are partly tied to the growth in average earnings across the workforce, strong wage growth among the nation's top earners has boosted Social Security payments to beneficiaries at all income levels, despite sluggish earnings growth among low- and moderate-wage workers. Americans now in their fifties and sixties are better educated than ever and

healthier than previous generations. As a result, many older people are working longer, earning more over their career, and saving more for retirement.

How will these conflicting trends play out? Sifting through the evidence, this brief shows how changing patterns of lifetime earnings, retirement plan participation, and wealth accumulation outside of retirement plans will combine to shape future economic well-being at age 70, when most have retired and accrued all their retirement savings. We use the Urban Institute's Dynamic Simulation of Income Model 4 (DYNASIM4) to compare outcomes for four birth cohorts: pre-boomers, born between 1936 and 1945; early boomers, born between 1946 and 1955; late boomers, born between 1956 and 1965; and Gen Xers, born between 1966 and 1975.[1] Our projected outcomes run from 2006, when the oldest pre-boomers turned 70, to 2045, when the youngest Gen Xers will turn 70. We report all dollar amounts in inflation-adjusted 2018 dollars.

The results from our projections are mixed. As economic growth raises future earnings and retirement benefits, boomers and Gen Xers will receive more income at age 70 than pre-boomers. That income, however, will replace a smaller share of their preretirement earnings because of the increase in the Social Security retirement age and the loss of DB pensions. We project that if retirees spend most of their financial wealth, 31 percent of Gen Xers will be unable to maintain their preretirement living standards compared with 26 percent of early boomers. If retirees do not spend any of their financial assets, 38 percent of Gen Xers and 32 percent of pre-boomers will be at risk of having their retirement resources fall short. Rising out-of-pocket expenditures on medical care and long-term services and supports could further undermine future retirement security.

# Changing Demographics

Shifting demographics will shape future retirement income security. Older Americans are living longer. Between 1980 and 2015, life expectancy at age 62 increased four years for men and two years for women.[2] Reduced mortality is a significant achievement, although the gains have been concentrated among well-educated and high-income Americans (Bosworth, Burtless, and Zhang 2016; Meara, Richards, and Cutler 2008; National Academies of Sciences, Engineering, and Medicine 2015; Waldron 2007, 2013). Longer life expectancy has lengthened retirements, even though many people are working longer. Longer retirements in turn raise the cost of Social Security and DB pensions and mean that retirees' savings must last longer.

Lower mortality reflects better health at older ages and greater investments in health care. Between 1982 and 2017, the share of Americans ages 65 to 74 reporting fair or poor health fell from 35 to 18 percent.[3] Whether this trend will continue, however, is unclear. The gains occurred mostly before 2000, and disability rates are now increasing for people in their forties and fifties (Johnson 2018). Nonetheless, the Social Security trustees project that age-62 life expectancy will increase another 2.8 years for men and 2.4 years for women by 2050.[4] Many other analysts predict that future generations will live even longer (2015 Technical Panel on Assumptions and Methods 2015), despite some recent setbacks in mortality gains at younger ages (Case and Deaton 2015; Kochanek et al. 2017).

Marriage, divorce, and widowhood patterns are also changing and will influence financial security at older ages. Singles forgo the financial security of a second paycheck during working ages and the cost savings from shared expenses, and retirees often lose some of their spouse's Social Security and DB pension benefits when they become widowed or divorced. As a result, widowed, divorced, and never-married seniors have much higher poverty rates than married couples (Social Security Administration 2016).

As men's life expectancy rises, the gender gap in mortality will shrink and widowhood will become less common among older women. Our projections indicate that only 16 percent of late-boomer and Gen-X women will be widowed at age 70, down from 23 percent among pre-boomer women (figure 1). Falling marriage rates, especially among women born after 1955, will increase the share of women in recent generations who never marry by age 70. Divorced women who did not remarry will make up a growing portion of the older female population through the late-boomer generation, reflecting the 1970s surge in the divorce rate (Kreider and Ellis 2011). The subsequent decline in the divorce rate will reduce the share of older Gen-X women who are divorced, although our projections show that divorced women will remain more common in that generation than in the pre-boomer generation. Combining these trends, we project that the share of 70-year-old women who are married will fall as we move from the pre-boomers to the boomers and then will rebound for Gen Xers.

FIGURE 1
**Marital Status at Age 70, Women (%)**
*By birth cohort*
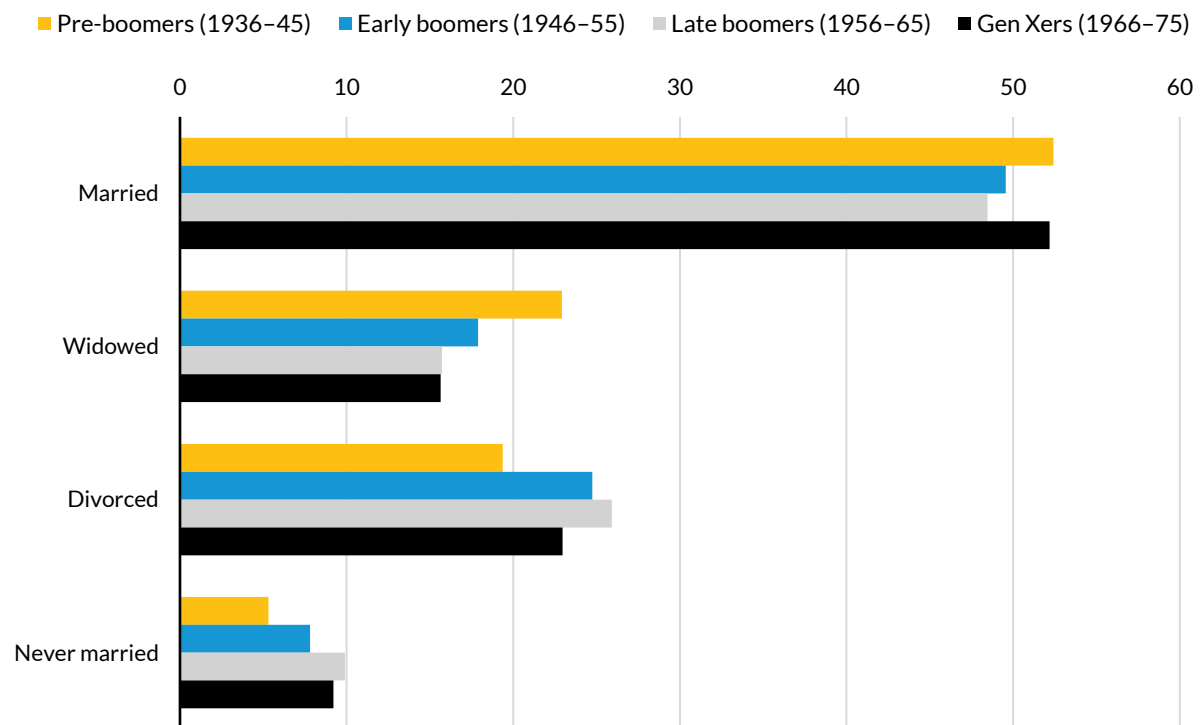


Source: DYNASIM4, ID961.

Trends in marital patterns are similar for men, except we do not project declines in the share of older men who are widowed (figure 2). Our projections show that late boomer and Gen-X men are more likely to be divorced or widowed at age 70 than pre-boomer men. As a result, the share of men married at age 70 will be lower for late boomers and Gen Xers than for pre-boomers.

FIGURE 2

**Marital Status at Age 70, Men (%)**

*By birth cohort*

■ Pre-boomers (1936–45)   ■ Early boomers (1946–55)   ■ Late boomers (1956–65)   ■ Gen Xers (1966–75)
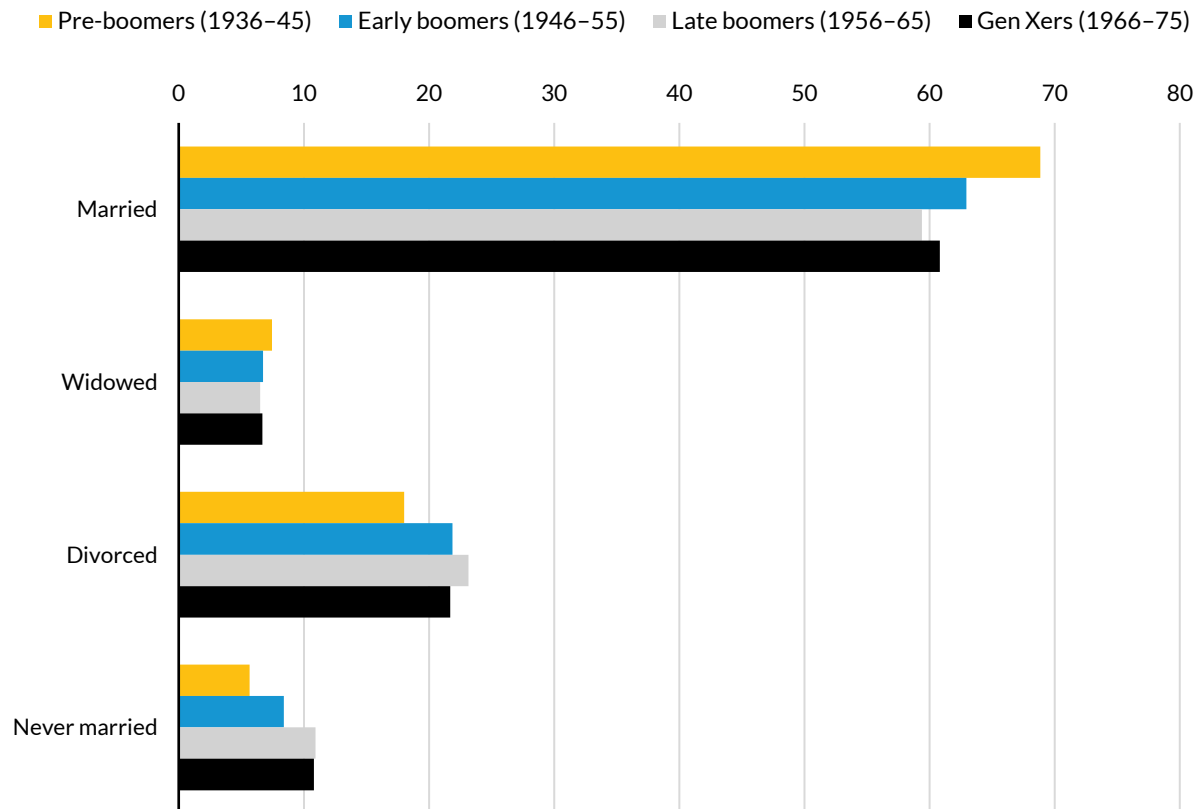


**Source:** DYNASIM4, ID961.

Higher educational attainment by boomers and later generations should enhance their financial security. Education boosts earnings and helps qualify workers for less physically demanding jobs, promoting work at older ages. The rise in college attendance that began in the late 1960s (National Center for Education Statistics 1994, 2016) increases the projected share of Gen Xers with a bachelor's degree to 35 percent, up from 26 percent for pre-boomers (figure 3). We project that only 12 percent of Gen Xers who survive to age 70 fail to complete high school, compared with 18 percent for pre-boomers.

FIGURE 3
**Educational Attainment at Age 70 (%)**

*By birth cohort*

■ Pre-boomers (1936–45)  ■ Early boomers (1946–55)  ■ Late boomers (1956–65)  ■ Gen Xers (1966–75)
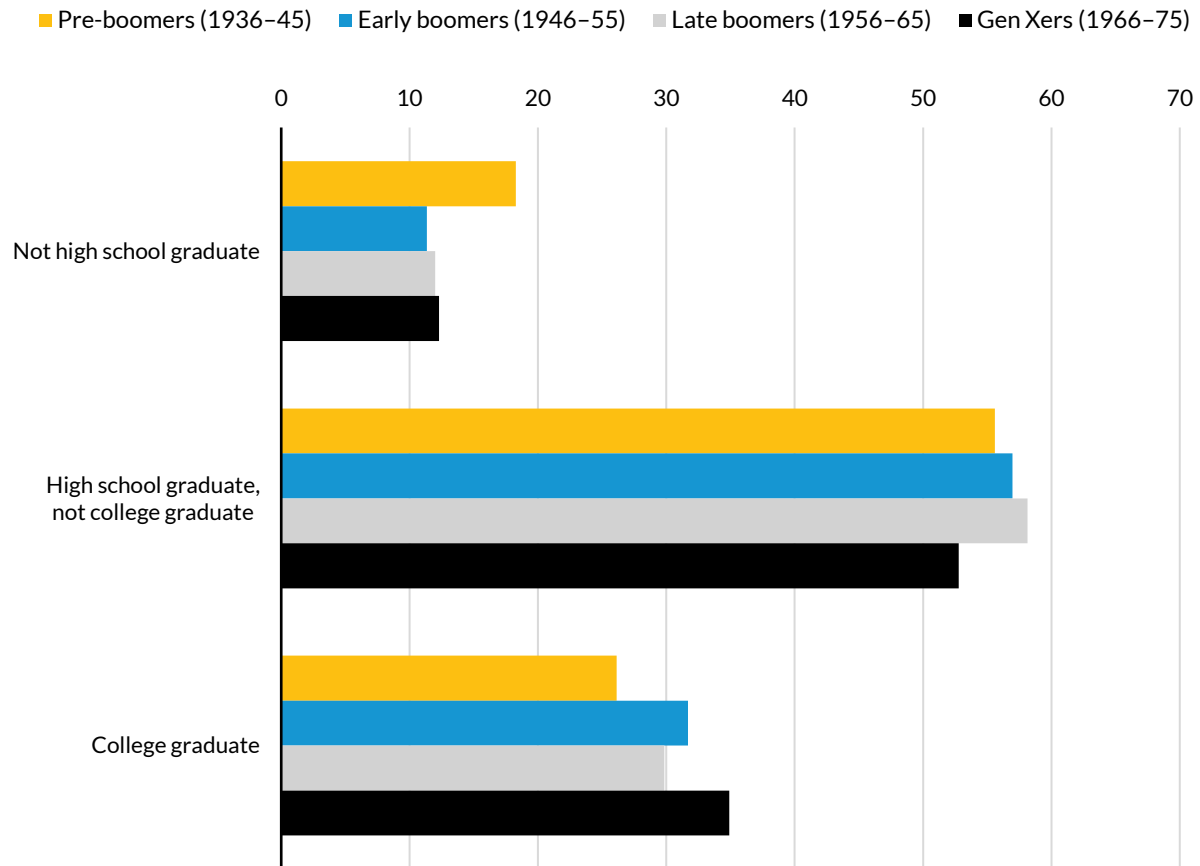


**Source:** DYNASIM4, ID961.
**Notes:** College graduates include only those people with a four-year degree or more.

# Lifetime Earnings

Retirement incomes depend critically on how much people worked and earned when they were younger. Higher lifetime earnings mean more Social Security and—for those with coverage—larger pensions and retirement account balances. It also means the ability to save more outside of retirement accounts.

The employment rate for women grew dramatically over the past generation. Between 1972 and 2018, the share of women ages 25 to 54 participating in the labor force (either working or looking for work) increased from 52 percent to 75 percent. Over the same period, their male counterparts scaled back their work, with labor force participation rates falling from 95 percent to 90 percent as job opportunities for low-skilled men eroded.[5]

Older men and women are both working more. Between 1992 and 2018, labor force participation rates at ages 62 to 69 increased from 35 to 46 percent for men and from 22 to 37 percent for women.[6] This growth reflects higher educational levels among older workers, changes in Social Security rules that increased work incentives, and erosion of DB pensions and retiree health insurance coverage from private-sector employers (Friedberg and Webb 2005; Gustman and Steinmeier 2015; Johnson, Davidoff, and Perese 2003; Mermin, Johnson, and Murphy 2007; Song and Manchester 2007). Further, older women's employment growth reflects the aging of a generation of women that always had higher labor force participation levels than previous generations.

These trends will significantly boost lifetime employment for boomer and Gen-X women. By age 70, according to our projections, the median length of lifetime employment will reach 37 years for Gen-X women, compared with 31 years for pre-boomer women (figure 4). By contrast, a typical Gen-X man will have worked 42 years by age 70, one year less than a typical pre-boomer man.

FIGURE 4

**Median Number of Years Employed by Age 70**

*By birth cohort*

■ Pre-boomers (1936–45)　　■ Early boomers (1946–55)　　■ Late boomers (1956–65)　　■ Gen Xers (1966–75)
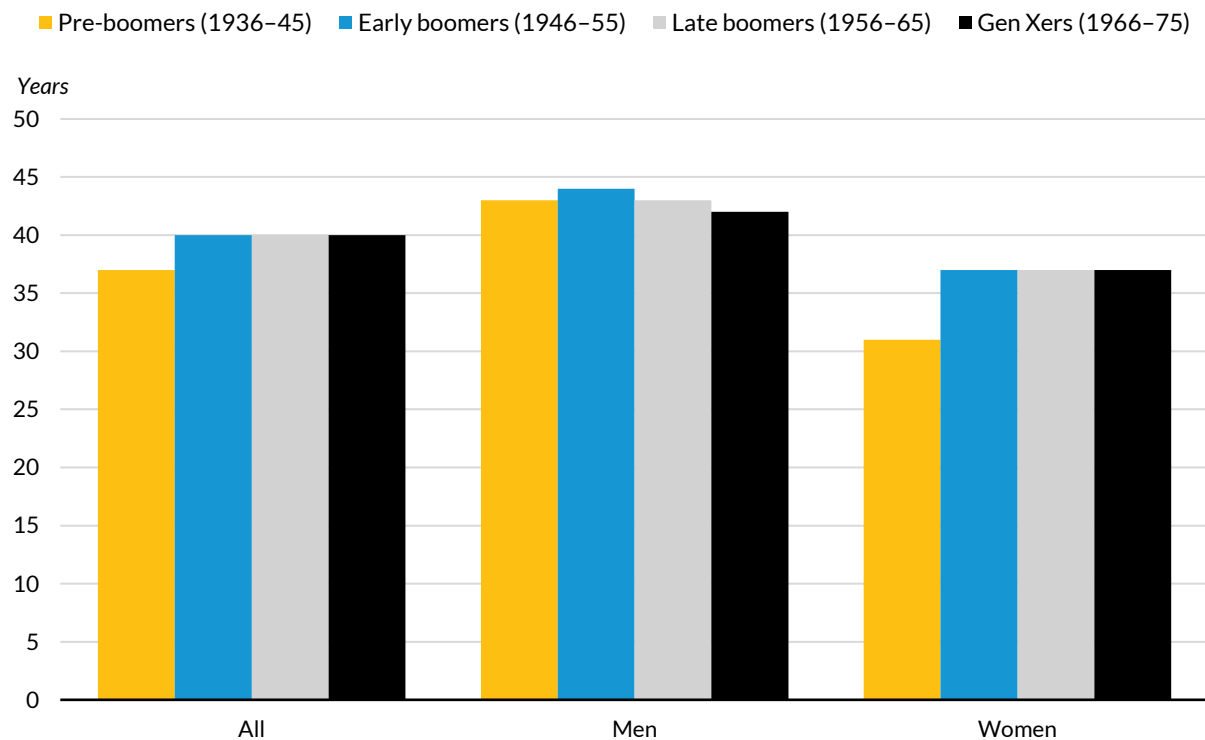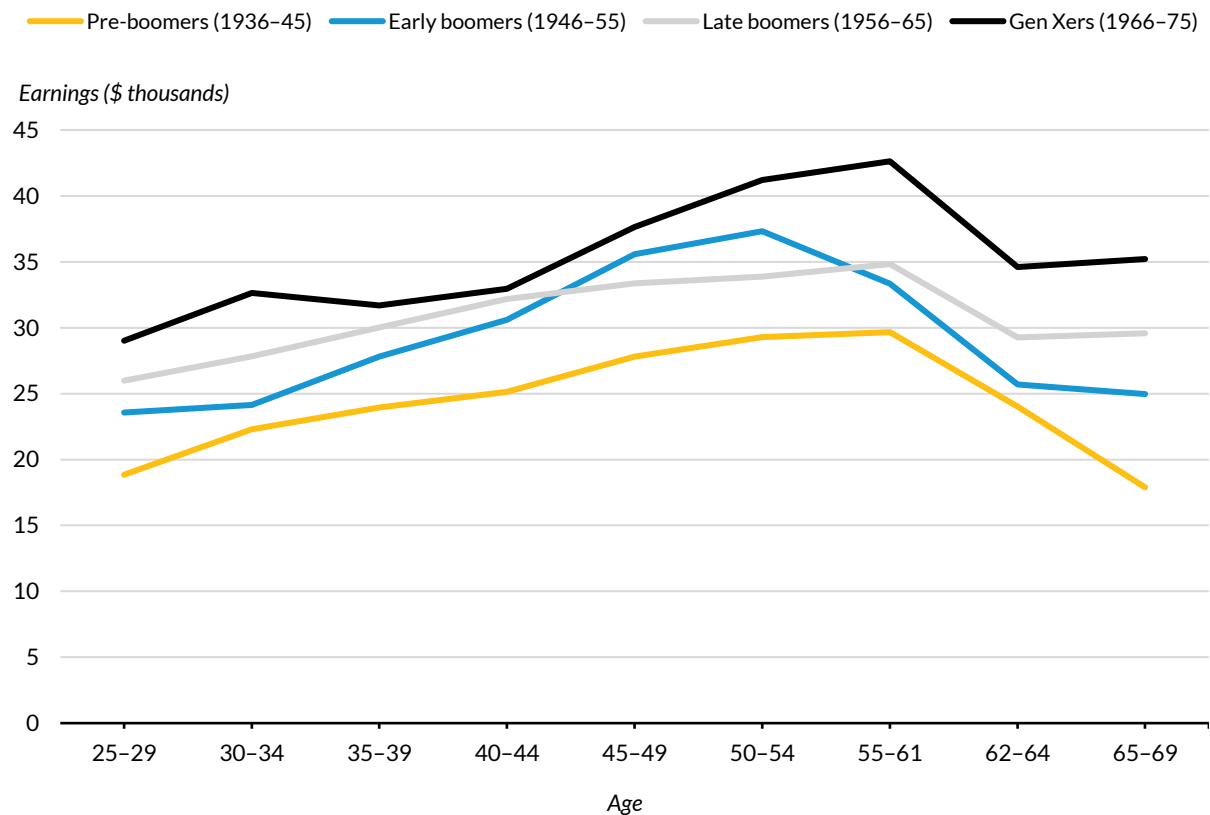


**Source:** DYNASIM4, ID961.

More recent cohorts of employed women are also being paid more than their predecessors. Employed late-boomer women ages 40 to 44 earn 28 percent more a year in inflation-adjusted dollars than their pre-boomer counterparts ($32,200 versus $25,100); Gen-X women earn 31 percent more

($32,900; figure 5). However, median earnings have been falling or stagnant for men. At ages 40 to 44, median earnings for employed men were 4 percent lower for late boomers than pre-boomers ($55,700 versus $58,000) and 12 percent lower for Gen-X men ($51,100; figure 6). The long-term stagnation in men's median earnings, which has been widely debated among scholars and policymakers, has been driven by the scarcity of well-paying jobs for men with no more than a high school diploma.

**Median Annual Earnings for Employed Women**
*By birth cohort (thousands of constant 2018 dollars)*



Legend: Pre-boomers (1936–45) — Early boomers (1946–55) — Late boomers (1956–65) — Gen Xers (1966–75)
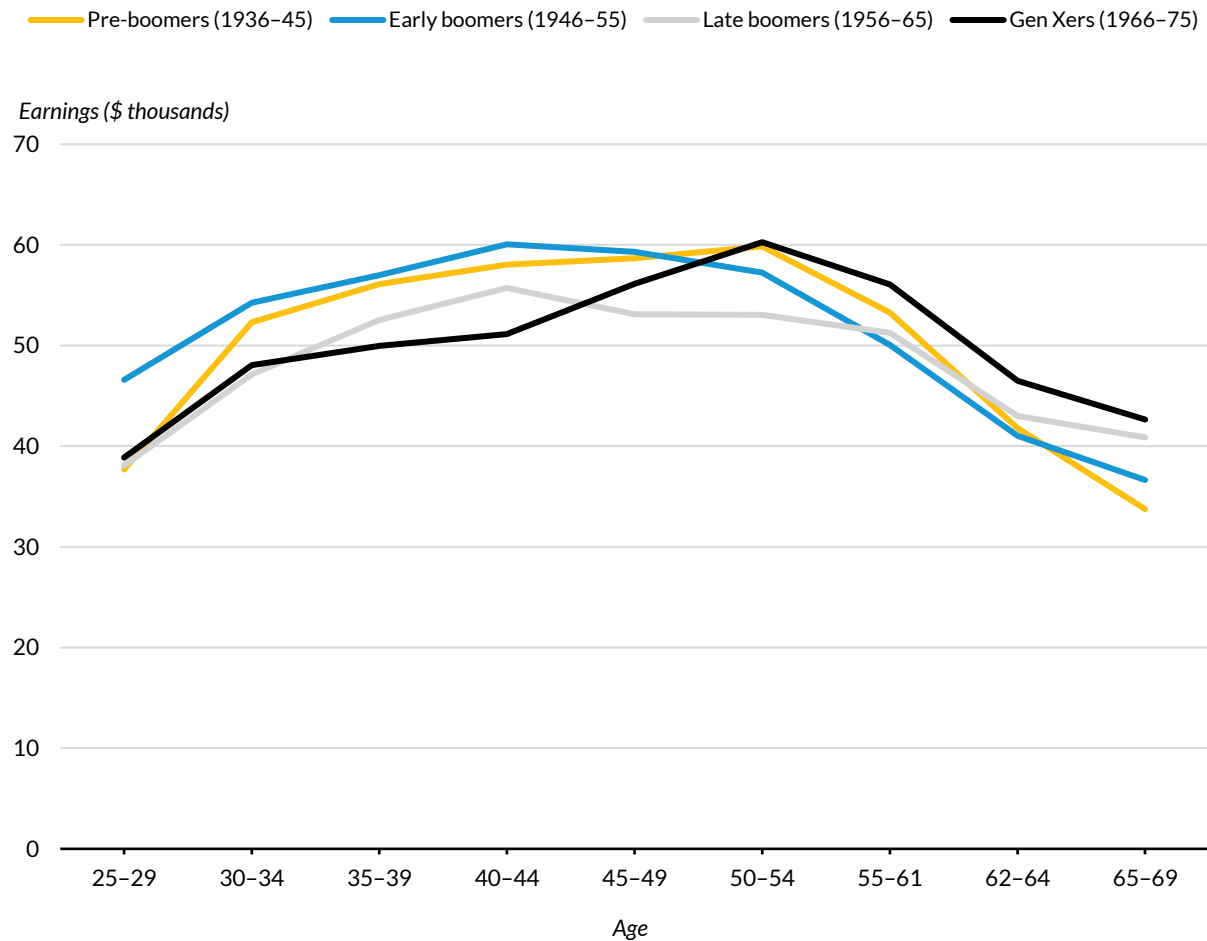
**Source:** DYNASIM4, ID961.

Gen X earnings projections after age 50 depend on how fast we assume wages will grow in the future. The current analysis follows the Social Security trustees' assumptions, which set long-term average real wage growth at 1.2 percent a year and even higher for 2018 to 2028 (Board of Trustees 2018). This growth rate seems optimistic because average wages grew only 0.8 percent a year over the past 50 years. Nonetheless, the trustees' assumed growth rate implies that at ages 50 to 54, median earnings for employed Gen-X men will about equal median earnings for pre-boomer men and exceed median earnings for late-boomer men by 14 percent. For employed women ages 50 to 54, our projections show that median earnings for Gen-X women will exceed the median for pre-boomer women by 41 percent and the median for late-boomer women by 22 percent.

FIGURE 6

**Median Annual Earnings for Employed Men**

*By birth cohort (thousands of constant 2018 dollars)*

— Pre-boomers (1936–45)  — Early boomers (1946–55)  — Late boomers (1956–65)  — Gen Xers (1966–75)

*Earnings ($ thousands)*



Age

**Source:** DYNASIM4, ID961

# Retirement Incomes

Although more retirees will rely on earnings to augment their incomes at age 70 and beyond, most will still rely primarily on traditional sources of retirement income. Social Security historically has provided the bulk of retirement income (Bee and Mitchell 2017), at least for lower- and moderate-income retirees, and will continue to play this role for boomers and Gen Xers. Many will receive some income from employer retirement plans, although DB pensions are being replaced by riskier 401(k)-type plans. Most boomers and Gen Xers also will have some other financial assets and housing equity. Whether these income sources will adequately replace preretirement income, though, depends on how much retirees will spend, especially on medical care and long-term services and supports.

## Social Security

Social Security will continue to be the primary income source for retirees, despite the ongoing debate over its financing. The system now spends more than it collects in revenue, but benefits are paid for through 2033—according to the Social Security trustees' latest projections—by a reserve fund built up mostly between 1988 and 2008, when tax revenues far outpaced benefit payments (Board of Trustees 2018). If nothing is done to close Social Security's financing gap, the trustees project that benefits will have to be cut by about one-quarter. Our analysis assumes Congress closes the financing gap solely by raising revenues, leaving benefit computations unchanged.

FIGURE 7

**Social Security Benefit Type at Age 70 for Female Beneficiaries (%)**
*By birth cohort*
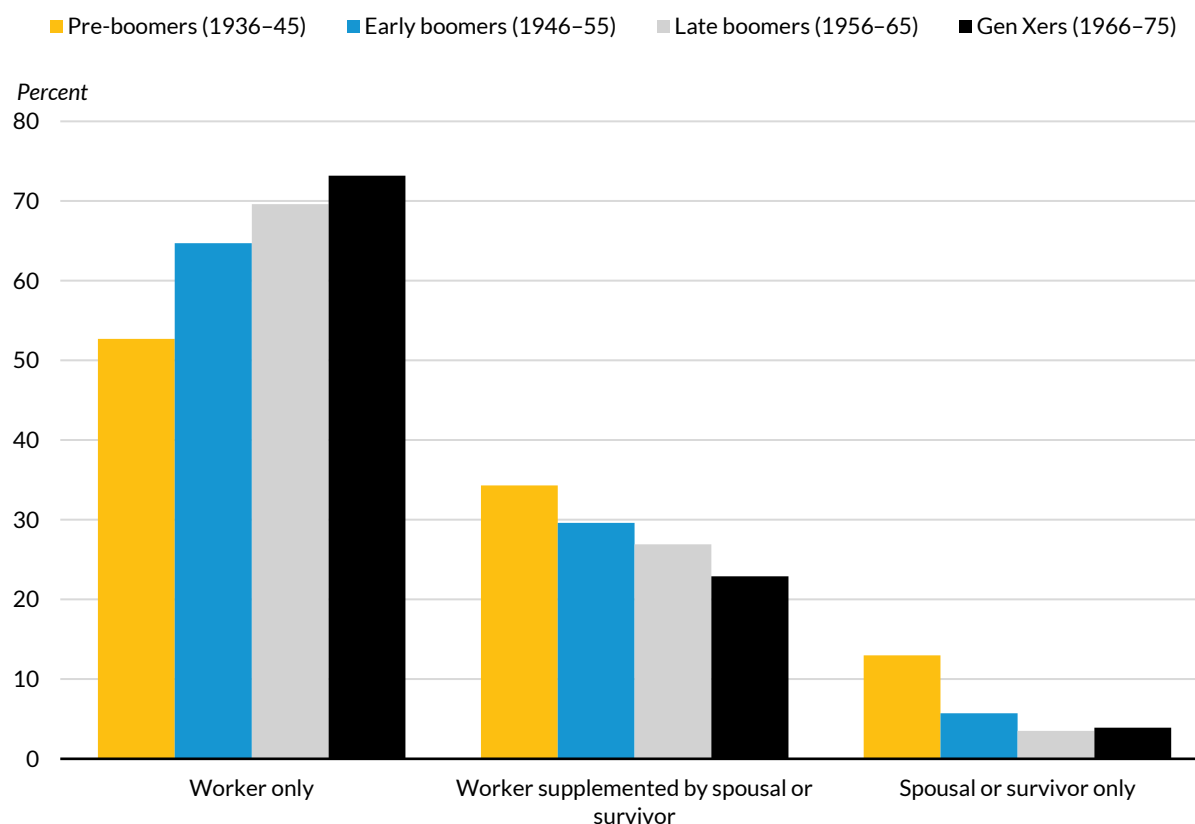


**Source:** DYNASIM4, ID961

Social Security retirement benefits are based on earnings (up to the taxable maximum) over a 35-year period. Retirees who have worked at least 10 years in covered employment qualify for these worker benefits. Those who have not worked enough to qualify on their own can receive a benefit equal to one-half their spouse's benefit (or divorced spouse's benefit, if they had been married for at least 10 years). They may receive their spouse's (or divorced spouse's) full benefit after his or her death. Those

receiving worker benefits smaller than their spouse's collect partial spousal or survivor benefits so that the combined payment equals the full spousal or survivor benefit.

The projections show that growth in women's labor force participation and earnings will boost future Social Security benefits. Seventy-three percent of Gen-X women who collect Social Security will claim only a worker benefit, compared with 53 percent of pre-boomer women (figure 7). Only 4 percent of female Gen X beneficiaries will not have completed the required 10 years of covered employment to qualify for a worker benefit and will receive only spousal or survivor benefits at age 70. The projections indicate that Gen-X women will receive much more Social Security income than their predecessors. Median annual benefits for Gen-X women will be 40 percent higher in inflation-adjusted dollars than those for pre-boomer women and 18 percent higher than those for late boomers ($19,000 compared with $13,200 and $16,100; figure 8). Lifetime Social Security benefits will rise even more rapidly for Gen-X women because they will live longer and collect more monthly benefit checks than their predecessors.

FIGURE 8

**Median Annual Own Annual Social Security Income among Beneficiaries at Age 70**
*By birth cohort (thousands of constant 2018 dollars)*
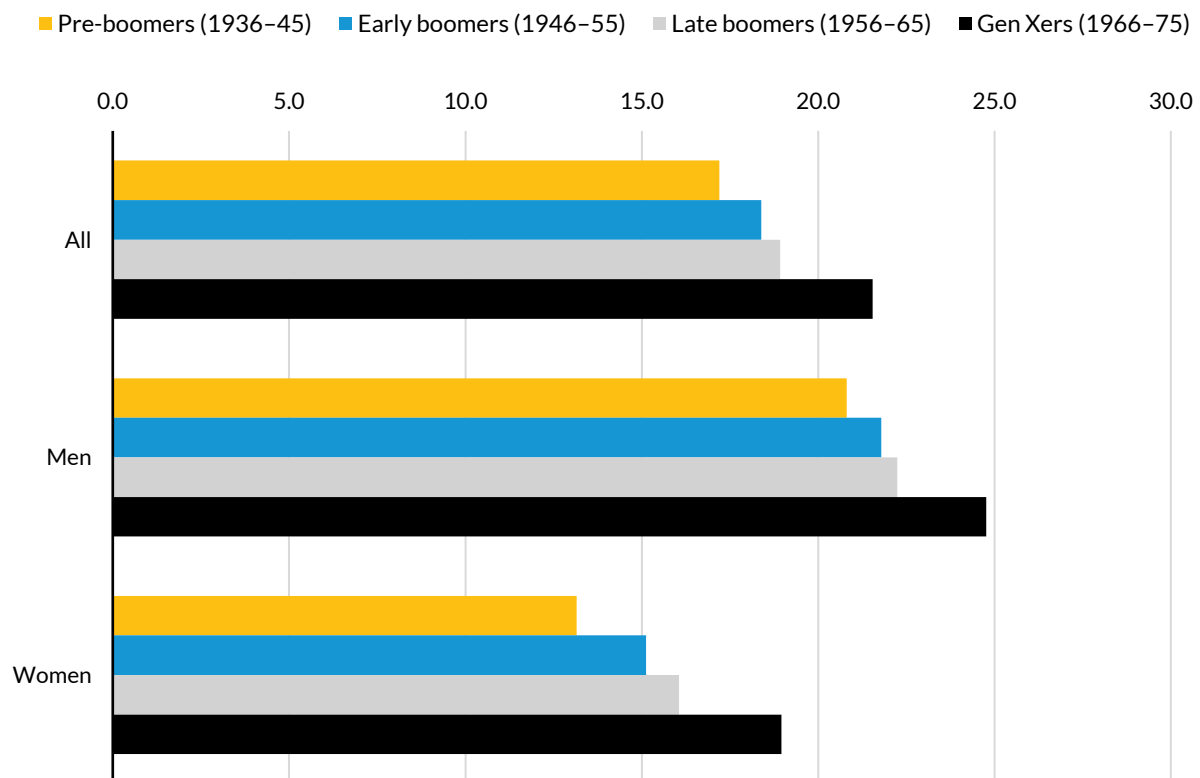


**Source:** DYNASIM4, ID961.
**Notes:** Estimates are rounded to the nearest $100.

Future benefits for boomers and Gen Xers would be even higher if not for the scheduled increase in Social Security's full retirement age, which is rising from 65 to 66 for the early-boomer and about half of the late-boomer generations and to 67 for Gen Xers and the other half of the late-boomer generations. Retirees who face a higher full retirement age may still collect benefits as early as age 62, but they will face a stiffer financial penalty for not waiting until they reach the full age—a 30 percent reduction in monthly benefits for those born in 1960 and later, compared with only 20 percent for those born in 1938 and earlier. Increases in women's work and earnings, however, swamp the effect of the retirement-age changes.

For men, the retirement-age change, combined with stagnant earnings, will dampen future growth in retirement benefits. If recent earnings patterns hold, real Social Security benefits will inch up 7 percent for the late-boomer cohort relative to the pre-boomer cohort ($22,200 compared with $20,800). The median age-70 Social Security benefit for male Gen-X beneficiaries will exceed the median for pre-boomer men by 19 percent, because Gen-X men will earn more over their lifetimes than pre-boomer men. Of course, future retirees could end up with higher benefits if they wait more for unreduced benefits and work longer than current trends predict.

## Pensions

Employers offering retirement plans have moved away from DB pensions that pay a lifetime benefit typically based on earnings and years of service to DC plans that build up account balances from employer and employee contributions over the years of coverage. In 2018, 13 percent of private-sector workers participated in employer-sponsored DB plans, and 47 percent participated in DC plans (Bureau of Labor Statistics 2018). Nonetheless, many boomers and Gen Xers will receive a DB pension because many work in industries where DB plans are still common, especially the public sector.[7]

The shift toward DC plans and away from DB plans will have mixed effects for boomers' and Gen Xers' retirement income security. Workers who often change employers typically do not earn much of a DB benefit because these benefits typically accumulate most rapidly in the years immediately before retirement age. Benefits accrued early on erode with inflation. In contrast, DC balances earn investment returns even after workers change jobs, as long as they keep their funds in a DC plan or transfer them to an individual retirement account. The uncertainty of investment returns, however, makes DC plans riskier for workers. Prolonged market downturns, for example, can leave workers with a small account that generates little retirement income. Retirement account assets (DC plans and individual retirement accounts) dropped by $2.7 trillion (31 percent) from the third quarter of 2007 through the end of the first quarter of 2009 as the stock market collapsed, although most of this aggregate loss has since been recovered (Butrica 2013). Another potential risk in DC plans relative to DB plans is the temptation they present for workers to withdraw assets before retirement (Argento, Bryant, and Sabelhaus 2015).

As employment rates for women have increased, more boomer and Gen-X women will qualify for a pension based on their own earnings, improving retirement income security for themselves and their families. Pension coverage among women has steadily increased since the late 1980s so that it now

approximates coverage for men (Butrica and Johnson 2010). Because future pension benefits are tied to earnings, these benefits grow as women earn more.

The shift away from DB pensions, increases in women's pension coverage, and assumptions about rates of return on account assets will substantially affect the projected lifetime value of future pension benefits.[8] The share of 70-year-olds with a DB pension will fall from 42 percent for the pre-boomers to 25 percent for Gen Xers, while median DB pension wealth (the predicted lifetime value of future DB pension benefits) for those with DB pensions will drop 64 percent between the two generations ($296,000 to $107,000; figure 9). In contrast, the share of 70-year-olds with retirement account balances will increase from 44 to 66 percent from the pre-boomer generation to Gen X, and the median projected retirement account balances for account holders will grow 75 percent (from $83,000 to $145,000).[9] The combined pension picture shows that 71 percent of boomers and Gen Xers will have some retirement wealth at age 70, 8 percentage points more than among pre-boomers. However, we project that age-70 median total retirement wealth among those with pensions or retirement accounts will be substantially lower for the late boomers and Gen Xers than for earlier generations.[10]

FIGURE 9

**Median Own DB Pension Wealth and Retirement Account Balances among Pension and Account Holders at Age 70**
*By birth cohort (thousands of constant 2018 dollars)*

■ Pre-boomers (1936–45)   ■ Early boomers (1946–55)   ■ Late boomers (1956–65)   ■ Gen Xers (1966–75)
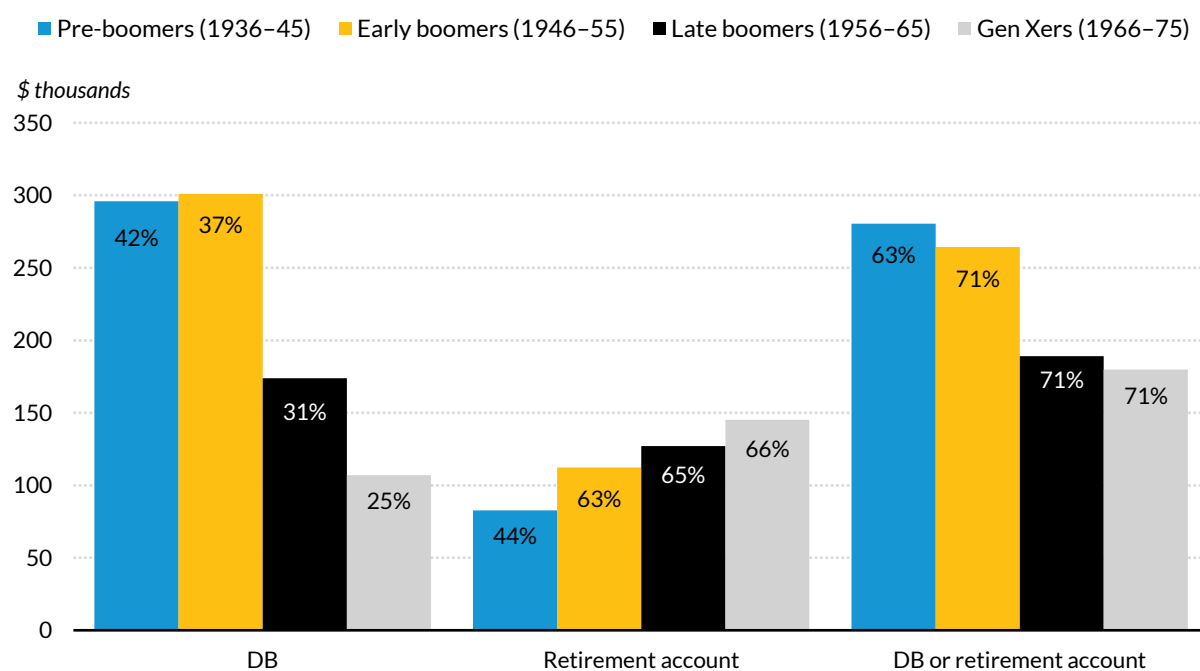


**Source:** DYNASIM4, ID961
**Notes:** Retirement accounts include DC plans and IRAs. Pension wealth is the expected value of future lifetime DB pension benefits, measured at age 70. Estimates are rounded to the nearest $1,000. Projections use the Social Security trustees' 2018 intermediate assumptions (Board of Trustees 2018). Percentages indicate the share in each birth cohort who have that type of wealth.
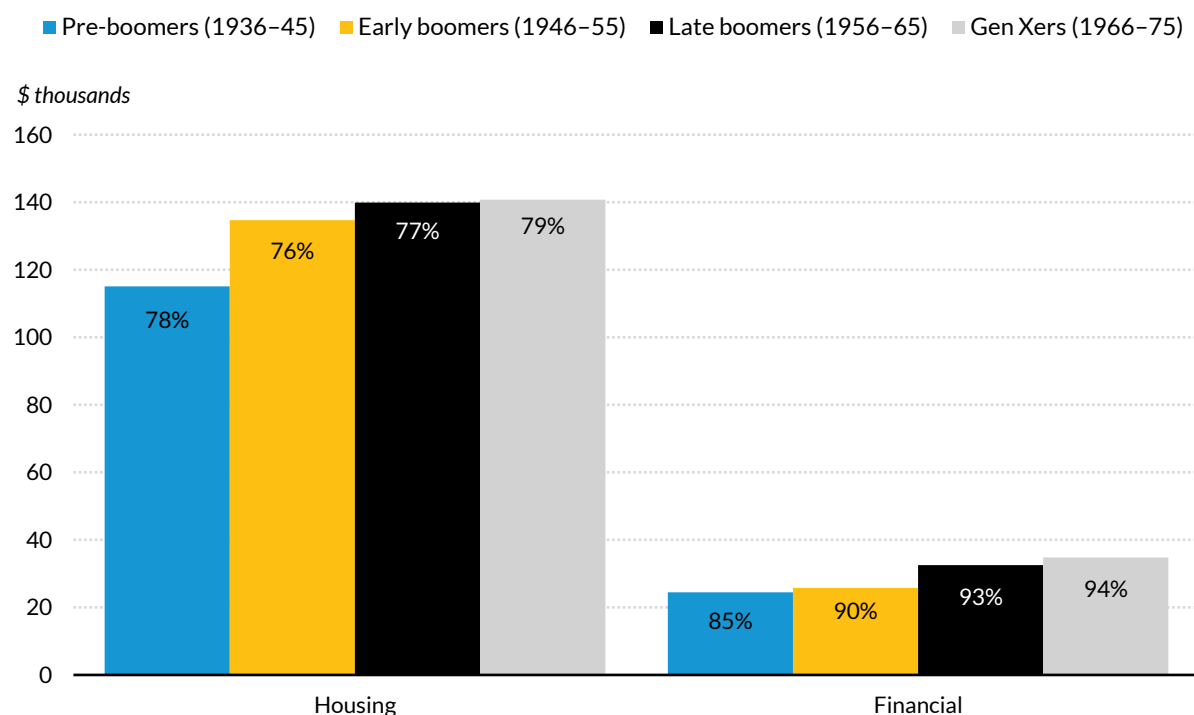
## Housing and Financial Wealth outside Retirement Accounts

Financial assets and housing equity are especially difficult to project. Recent stock market volatility shows that savings held in equities can dramatically fall (or grow) in any given year, and housing values plummeted from 2007 to 2009.[11] However, the history of market indexes suggests an eventual return to long-term average growth. Despite the 2008 stock market crash, the S&P 500 stock index reached an all-time high in 2018, and housing values began to rebound in 2012. Our projections capture the falloff in financial and housing wealth through 2014, and we assume real rates of return eventually stabilize at their historic levels. The projections also capture how changes in individual characteristics likely will affect these accumulations.

**Median Per Capita Housing and Financial Wealth outside Retirement Accounts among Wealth Holders at Age 70**
*By birth cohort (thousands of constant 2018 dollars)*

■ Pre-boomers (1936–45)  ■ Early boomers (1946–55)  ■ Late boomers (1956–65)  ■ Gen Xers (1966–75)



*$ thousands*

Source: DYNASIM4, run number 961.
Notes: Financial wealth excludes holdings in retirement accounts. The analysis computes a per capita measure by dividing family wealth by two for married people. Estimates are rounded to the nearest $1,000. Projections use the Social Security trustees' 2018 intermediate assumptions (Board of Trustees 2018). Percentages indicate the share in each birth cohort who have that type of wealth.

Although most retirees do not tap into the equity in their homes, doing so can generate income through a reverse annuity mortgage, home equity loan, home equity line of credit, or cash-out refinance.[12] The projections show that boomers and Gen Xers, like their predecessors, will have high

rates of homeownership, with nearly 8 in 10 owning a home at age 70 (figure 10). Boomers benefited from rising housing prices during their careers, while Gen Xers were affected more by the bust and stagnation in housing prices between 2007 and 2012. Projected median per capita housing wealth increases from $115,000 for pre-boomers to $141,000 for late boomers and Gen Xers. The predicted equity stagnation for Gen Xers also reflects trends in increased borrowing against homes before retirement (Butrica and Mudrazija 2016).

Though quite low, projected median household financial wealth per person at age 70 grows over time. The median 70-year-old Gen Xer with financial holdings outside of retirement accounts will have assets valued at $35,000, compared with $24,000 among pre-boomers.

# Will These Resources Be Adequate?

Will boomers and Gen Xers have enough to retire comfortably? Some analysts unequivocally conclude that most boomers will have too little; others argue many boomers are saving too much.[13] Some analyses conclude that retirement income security will gradually erode, and Gen Xers will be less likely than today's retirees to have enough retirement income to maintain their preretirement standard of living (Butrica, Smith, and Iams 2012).

The answer depends on assumptions about future retirement-income resources and the amount needed to maintain preretirement living standards. Projected retirement income depends on retirement ages; growth rates for pension, financial, and housing assets and earnings; the use of home equity as an income stream; assumptions about how Congress will handle Social Security underfunding; and assumptions about whether retirees annuitize their retirement plan and other financial assets. The amount of retirement income required is often expressed as the ratio of income in old age to preretirement earnings, typically called a replacement rate. A 75 percent replacement rate is often used as an adequacy rule of thumb because spending typically declines in retirement; retirees do not pay payroll taxes or save in retirement accounts, and their children have usually already left home. Others argue that as health care prices and use increase, retirees need at least as much income as they had before retiring to cover rising medical costs (VanDerhei 2015). Comparing retirement income to a replacement rate threshold can provide some insight into financial security at older ages, but using a single threshold for all retirees is reductive because the appropriate threshold can vary by such factors as income, homeownership, and number and age of children.[14]

We use two measures to predict future retirement income. The first, a traditional measure, counts income retirees receive from earnings, Social Security, DB pensions, financial assets (interest, dividends, and rent) and welfare payments from Supplemental Security Income plus money withdrawn from tax-deferred retirement accounts (based on historic withdrawal trends and required minimum distributions).[15] The second assumes retirees receive the income generated by annuitizing 80 percent of their retirement accounts and other financial assets instead of taking periodic withdrawals from their retirement accounts.[16] This alternative measure is higher at age 70 than the traditional measure because retirees who do not annuitize their assets generally withdraw their savings after age 70. The

alternative measure also reflects retirees' ability to spend assets held outside tax-deferred retirement accounts, which is not reflected in the traditional income measure because the Internal Revenue Service does not consider the spending of those assets to be income.

Traditional income projections show that boomers and Gen Xers will receive higher incomes at age 70 than pre-boomers (figure 11). For example, we project that median age-70 per capita household income will be 11 percent higher for Gen-X men than for pre-boomer men and 16 percent higher for Gen-X women than for pre-boomer women. Although the gender gap in retirement income will shrink for Gen Xers, projected age-70 income for men will still exceed that for women by 14 percent. Income projections at age 70 follow a similar pattern when we include the annuitized value of financial assets, with boomers and Gen Xers collecting higher incomes than pre-boomers, although predicted annual incomes are about $3,000 higher when retirees annuitize their assets (figure 12).

FIGURE 11

**Median Annual Per Capita Family Income at Age 70, Based on Traditional Measure**
*By birth cohort (thousands of constant 2018 dollars)*

■ Pre-boomers (1936–45)  ■ Early boomers (1946–55)  ■ Late boomers (1956–65)  ■ Gen Xers (1966–75)
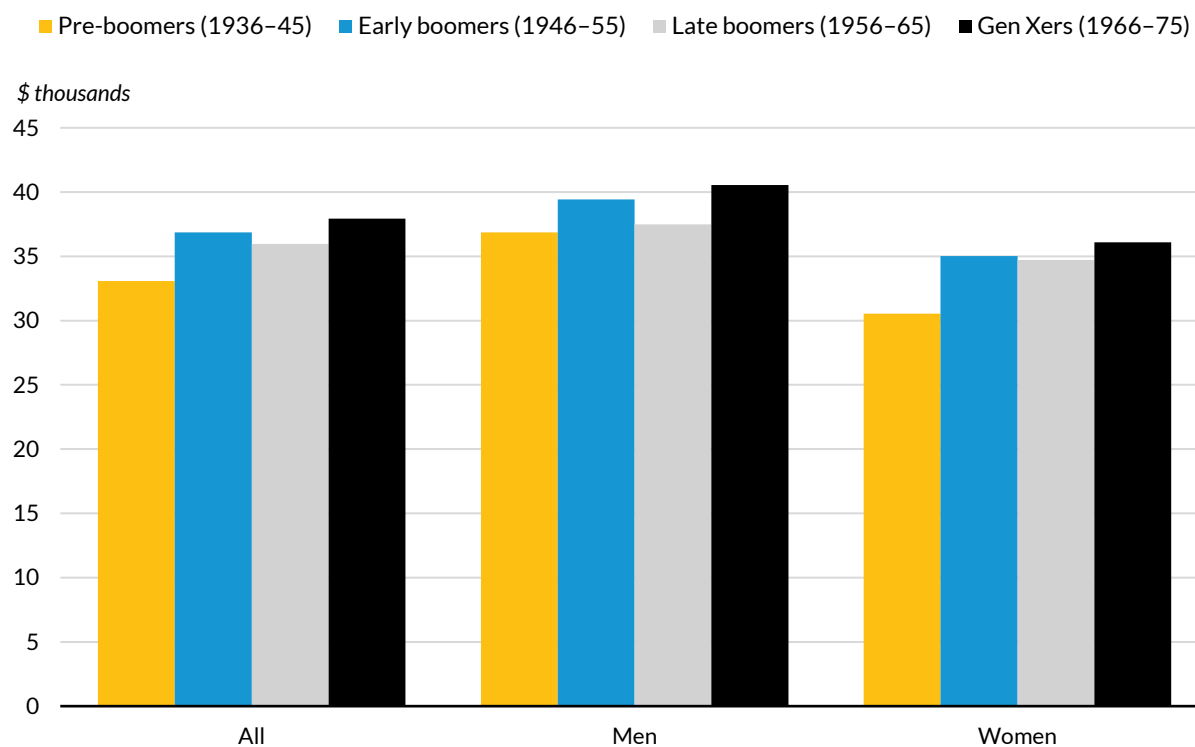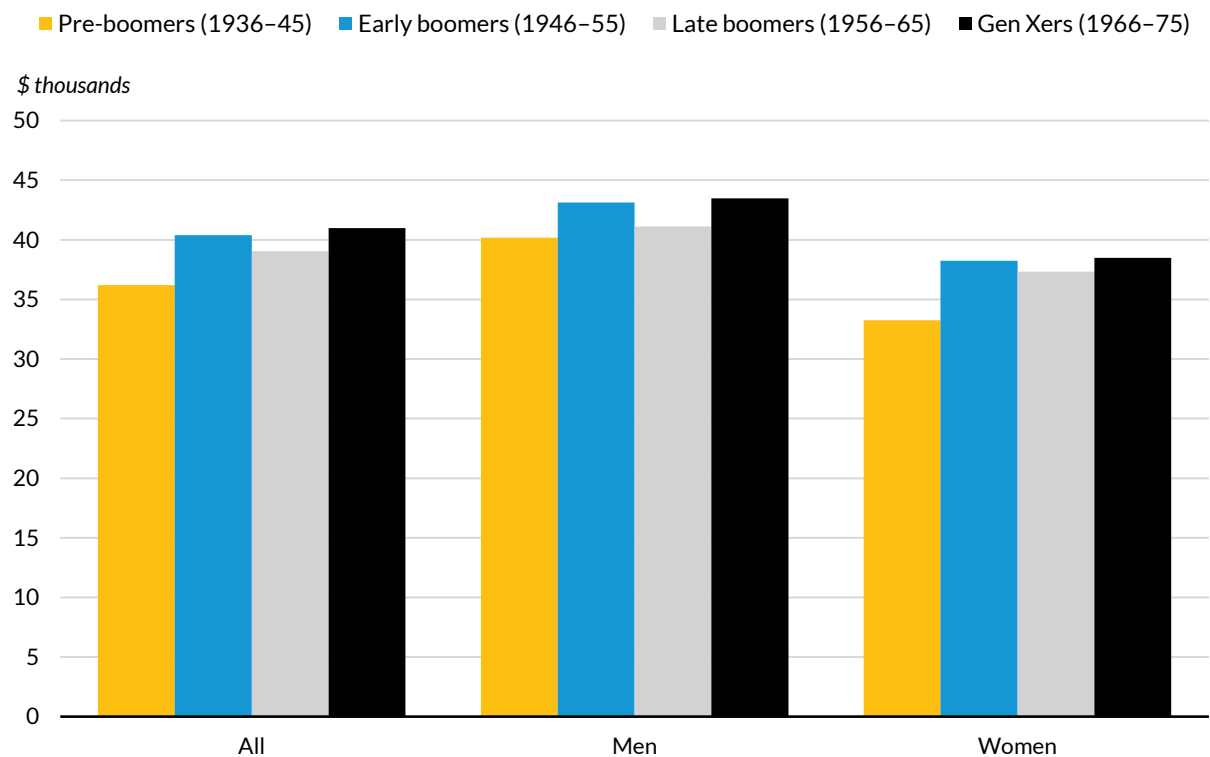


**Source:** DYNASIM4, ID961.
**Notes:** Estimates are rounded to the nearest $1,000. The traditional income measure includes earnings, Social Security, defined-benefit pensions, Supplemental Security Income, interest, dividends, rent, and occasional withdrawals from retirement accounts. The analysis computes a per capita measure by dividing total family income by two for married people.

Estimating how many boomers and Gen Xers will be able to replace 75 percent of their preretirement earnings depends on how the measure is constructed. With a replacement rate based on

average earnings received between ages 50 and 54, the traditional income measure predicts that 31 percent of pre-boomers will fall short of a 75 percent replacement rate (figure 13). The outlook is significantly worse for late boomers, 36 percent of whom are projected to fall short of the 75 percent threshold, and Gen Xers, 38 percent of whom are projected to fall short. Retirement prospects are more encouraging when the retirement income measure includes the annuitized value of financial assets, which indicates that only 27 percent of pre-boomers will not be able to replace 75 percent of their preretirement income at age 70. Again, the outlook is somewhat worse for more recent generations, although using the broader income measure shrinks the generational divide. When factoring in financial assets, we project that 29 percent of late boomers and 31 percent of Gen Xers are at risk of experiencing a decline in living standards in retirement.

FIGURE 12
**Median Annual Per Capita Family Income at Age 70, Including Annuitized Value of Financial Assets**
*By birth cohort (thousands of constant 2018 dollars)*

■ Pre-boomers (1936–45)  ■ Early boomers (1946–55)  ■ Late boomers (1956–65)  ■ Gen Xers (1966–75)
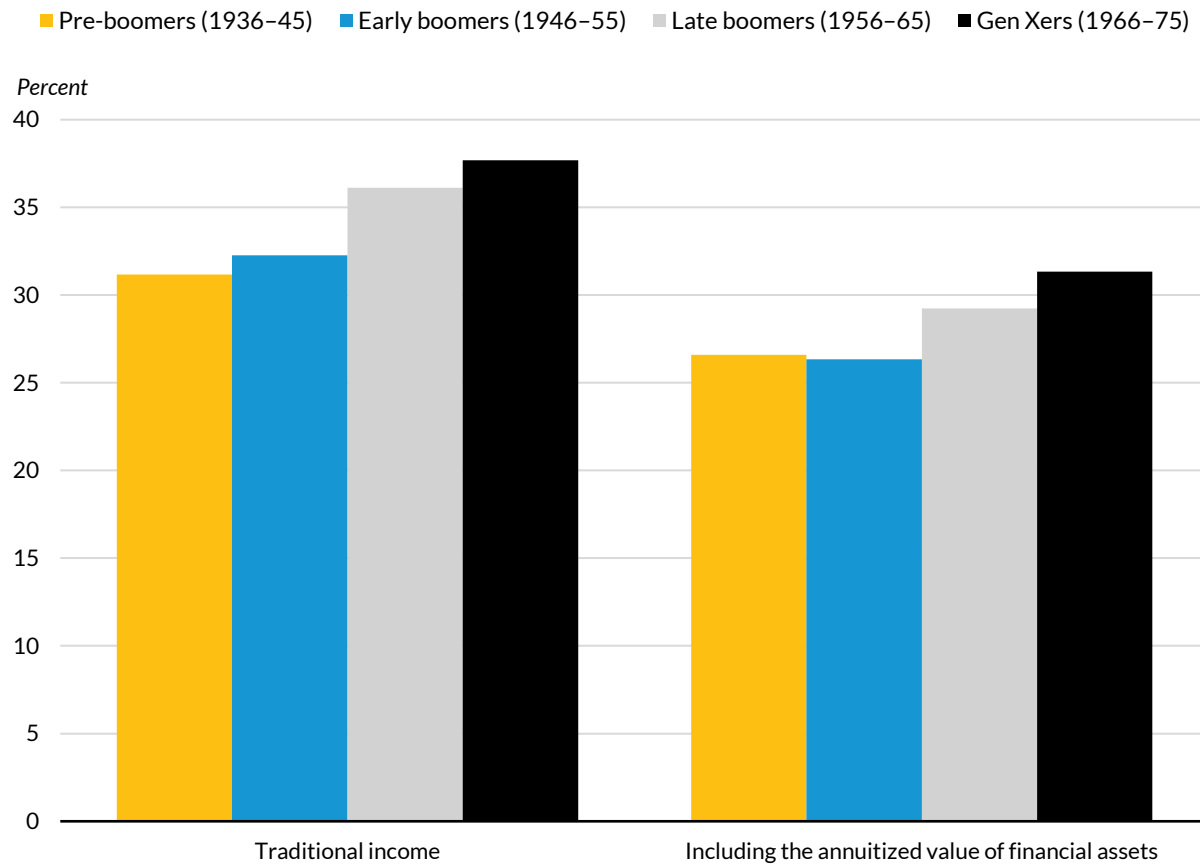


**Source:** DYNASIM4, ID961.
**Notes:** Estimates are rounded to the nearest $1,000. This income measure includes earnings, Social Security, defined-benefit pensions, Supplemental Security Income, and the annual income from an annuity valued at 80 percent of financial assets (including retirement accounts). The analysis computes a per capita measure by dividing total family income by two for married people.

Of course, a 75 percent replacement rate may not be sufficient in the future. If out-of-pocket health care costs continue to grow rapidly, older adults will need more resources to finance an adequate retirement income. Hatfield and colleagues (2018), for example, project that median out-of-pocket

health spending (point-of-care plus premiums) as a share of income will rise from 10 percent in 2012 to 14 percent in 2035 for adults ages 65 and older. Growing health care spending burdens suggest that late boomers and Gen Xers may need to have at least 80 percent of their preretirement income to achieve the same living standard as their pre-boomer predecessors.

FIGURE 13

**Percentage of Retirees Unable to Replace At Least 75 Percent of Their Preretirement Earnings at Age 70**

*By income measure and birth cohort*

■ Pre-boomers (1936–45)  ■ Early boomers (1946–55)  ■ Late boomers (1956–65)  ■ Gen Xers (1966–75)

*Percent*



**Source:** DYNASIM4, ID961.

**Notes:** The replacement rate equals age-70 per capita family income divided by average annual earnings received from ages 50 to 54, both measured in constant 2018 dollars as adjusted by the change in the consumer price index. The traditional income measure includes earnings, Social Security, defined-benefit pensions, Supplemental Security Income, interest, dividends, rent, and occasional withdrawals from retirement accounts. The alternative income measure includes earnings, Social Security, defined-benefit pensions, Supplemental Security income, and the annual income from an annuity valued at 80 percent of financial assets and retirement accounts. The analysis computes a per capita measure by dividing total family income by two for married people.

# Summary and Implications

The growth in boomer and Gen-X women's employment and earnings will bear fruit in retirement. The projections show that most boomer and Gen-X women will earn their own Social Security and will receive higher benefits than previous generations. Also, more women will have their own pensions or retirement accounts, which will generally be worth more than earlier generations' accounts. These gains will help offset anemic growth in benefits for boomer and Gen-X men, who will have little more Social Security than their predecessors because of their stagnant wages and somewhat reduced labor market activity at earlier ages.

The shift in employer coverage from DB pensions to DC plans means that more men and women with coverage will retire on benefits subject to the volatility of stocks and bonds. Although risky for workers, these accounts will bolster retirement income security if workers participate, assets are invested prudently, and financial markets provide positive long-term rates of return.

Although projected median age-70 income will be higher for boomers and Gen Xers than for their predecessors, the picture of Gen Xers' retirement income security is worrisome. Counting regular cash income plus periodic withdrawals from retirement accounts suggests that 38 percent of Gen Xers will lack sufficient income at age 70 to replace 75 percent of what they earned between ages 50 and 54. The retirement outlook is somewhat more encouraging when we consider an alternative income measure that annuitizes most financial assets; the share that falls below the 75 percent target declines to 31 percent. Under both measures, however, Gen Xers face a significantly higher risk than boomers and pre-boomers of being unable to maintain their living standards when they retire.

How boomers and Gen Xers fare in retirement will hinge on several unknowns. How much will wages grow over the coming decades, and how will those gains be distributed across the workforce? How much will stocks and bonds earn? Will more boomers than we expect end up working well into old age? Will a significant share end up dipping into their housing wealth? Will Congress cut Social Security benefits?

Perhaps the most important unknown is how much income future retirees will need. In particular, how much will boomers and Gen Xers need to spend on health and long-term services and supports? One estimate shows that out-of-pocket medical costs will consume 14 percent of income in 2035 for the median older adult, up from 10 percent in 2012 (Hatfield at al. 2018), suggesting that future generations will need more than their predecessors to enjoy a comfortable retirement. A benchmark of 75 percent of preretirement income may no longer be adequate. Moreover, using the same replacement rate threshold to assess financial security for all retirees is reductive. Retirees with limited lifetime earnings, for example, likely need to replace more of their preretirement earnings than retirees with higher lifetime earnings. Retirees who fully own their homes generally need less income than renters or those with outstanding mortgages. People who raised large families can generally tolerate larger income declines when they retire than those without children. Our future research will delve deeper into understanding how much income retirees need to maintain their preretirement living standards.

The projections lead to some important policy implications:

- Boomers and Gen Xers, especially those with limited education and income and those who are divorced, are widowed, or never married, will continue to rely primarily on Social Security. Policymakers need to ensure the system's long-term financial health.

- Boomers and Gen Xers should be encouraged to work as long as they can. Policymakers and employers need to recognize the importance of jobs for older adults, promoting retraining and flexible work schedules that can accommodate their needs.

- Boomers and Gen Xers should be encouraged to annuitize some of their retirement accounts and savings when they retire to boost their incomes and produce a guaranteed income stream until death. Policymakers should consider reforms that make annuities more attractive and increase trust in these products.

- A significant share of boomers and Gen Xers will reach age 70 with very little retirement income. Policy remedies such as modernizing the Supplemental Security Income program and boosting minimum Social Security benefits could help the most vulnerable retirees for little cost.

- Whether boomers and Gen Xers are worse off in older age than their predecessors, older adults will constitute a much larger portion of the total population in the coming decades, straining public resources to meet their needs.

# Notes

[1] Some researchers define these generations slightly differently (Miller 2013; Strauss and Howe 1991). DYNASIM4 uses the intermediate assumptions of the Social Security trustees (Board of Trustees 2018). For more information about DYNASIM, see Favreault, Smith, and Johnson (2015) and Urban Institute (2015).

[2] Authors' calculations of data from Social Security Administration (2018).

[3] Authors' calculations of National Health Interview Survey data, accessed through IPUMS (Ruggles et al. 2018).

[4] Authors' calculations of unpublished data from the Social Security Administration.

[5] Authors' calculations of data from the Annual Social and Economic Supplement of the Current Population Survey, accessed through IPUMS (Ruggles et al. 2018).

[6] Authors' calculations of data from the Annual Social and Economic Supplement of the Current Population Survey.

[7] In 2018, DB plans covered 83 percent of full-time state and local government employees (Bureau of Labor Statistics 2018).

[8] As explained in Favreault, Smith, and Johnson (2015), the model accounts for recent market volatility and subsequently assumes real long-run rates of return of 6.5 percent for stocks, 3.5 percent for corporate bonds, and 3.0 percent for government bonds with standard deviations around these averages based on historic experience.

[9] Increases in the median retirement account balance and the share of the population with an account, combined with population growth, generate large gains in projected aggregate account balances over time.

[10] Longevity gains increase DB pension wealth for plan participants in later generations, as they can expect to receive more monthly payments than participants in earlier generations. Longevity gains also raise retirement account balances at age 70 by tending to delay account withdrawals, which are often precipitated by high out-of-pocket spending on medical care and long-term services and supports near the end of life.

[11] S&P Dow Jones Indices LLC, S&P/Case-Shiller 20-City Composite Home Price Index [SPCS20RSA], FRED, the Federal Reserve Bank of St. Louis, accessed November 20, 2018, https://fred.stlouisfed.org/series/SPCS20RSA.

[12] Impediments to using home equity to finance retirement needs include poor financial literacy, the complexity of related financial products, high costs, high prevalence of misinformation and fraud, and widespread desire among seniors to avoid debt (Kaul and Goodman 2016).

[13] Scholz, Seshadri, and Khitatrakun (2006) conclude that fewer than 20 percent of households have less wealth than their optimal targets; Munnell, Hou, and Sanzenbacher (2016) estimate that half of today's households will not have enough retirement income to maintain their preretirement living standards; and VanDerhei (2014) estimates that more than 4 in10 boomers and Gen Xers will likely have insufficient retirement income to pay for the basics, including uninsured health care costs.

[14] See Scholz and Seshadri (2009) for a discussion of replacement rates.

[15] DYNASIM4 projects distributions from retirement accounts to satisfy federal minimum withdrawal requirements beginning at age 70 and one-half. Equations project additional retirement account withdrawals, depending on account holdings, age, race, marital status, recent widowhood, and end-of-life health shocks, based on recent household survey on asset decumulation.

[16] Some analysts also include the annuitized value of home equity in these calculations. We exclude home equity because historically few retirees have tapped into this wealth.


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