United States Government Accountability Office

Report to the Ranking Member, Subcommittee on Primary Health and Retirement Security, Committee on Health, Education, Labor, and Pensions, U.S. Senate

May 2015

RETIREMENT SECURITY

Most Households Approaching Retirement Have Low Savings

GAO Highlights

Highlights of GAO-15-419, a report to the Ranking Member, Subcommittee on Primary Health and Retirement Security, Committee on Health, Education, Labor, and Pensions, United States Senate

Why GAO Did This Study

As baby boomers move into retirement each year, the Census Bureau projects that the age 65-and-older population will grow over 50 percent between 2015 and 2030. Several issues call attention to the retirement security of this sizeable population, including a shift in private-sector pension coverage from defined benefit plans to defined contribution plans, longer life expectancies, and uncertainty about Social Security's long-term financial condition. In light of these developments, GAO was asked to review the financial status of workers approaching retirement and of current retirees.

GAO examined 1) the financial resources of workers approaching retirement and retirees and 2) the evidence that studies and surveys provide about retirement security for workers and retirees. To conduct this work, GAO analyzed household financial data, including retirement savings and income, from the Federal Reserve's 2013 Survey of Consumer Finances, reviewed academic studies of retirement savings adequacy, analyzed retirement-related questions from surveys, and interviewed retirement experts about retirement readiness. GAO found the data to be reliable for the purposes used in this report.

GAO received technical comments on a draft of this report from the Department of Labor and incorporated them as appropriate.

View GAO-15-419. For more information, contact Charles A. Jeszeck at (202) 512-7215 or jeszeckc@gao.gov.

May 2015

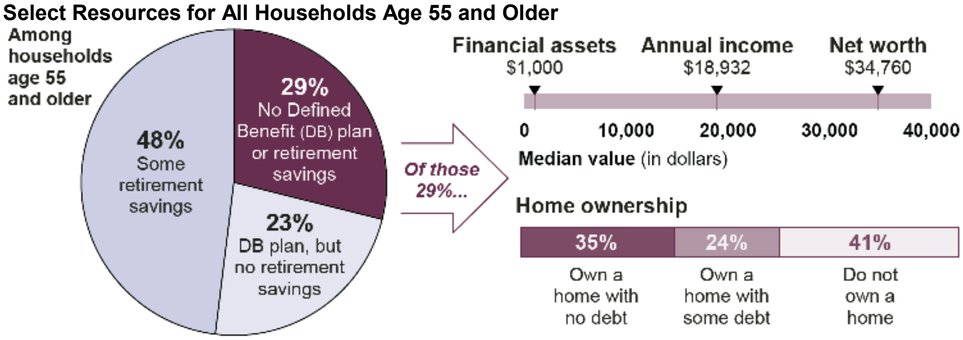
RETIREMENT SECURITY

Most Households Approaching Retirement Have Low Savings

What GAO Found

Many retirees and workers approaching retirement have limited financial resources. About half of households age 55 and older have no retirement savings (such as in a 401(k) plan or an IRA). According to GAO's analysis of the 2013 Survey of Consumer Finances, many older households without retirement savings have few other resources, such as a defined benefit (DB) plan or nonretirement savings, to draw on in retirement (see figure below). For example, among households age 55 and older, about 29 percent have neither retirement savings nor a DB plan, which typically provides a monthly payment for life. Households that have retirement savings generally have other resources to draw on, such as non-retirement savings and DB plans. Among those with some retirement savings, the median amount of those savings is about $104,000 for households age 55-64 and $148,000 for households age 65-74, equivalent to an inflation-protected annuity of $310 and $649 per month, respectively. Social Security provides most of the income for about half of households age 65 and older.

Select Resources for All Households Age 55 and Older



Source: GAO analysis of 2013 Survey of Consumer Finances (SCF) data. | GAO-15-419

Studies and surveys GAO reviewed provide mixed evidence about the adequacy of retirement savings. Studies range widely in their conclusions about the degree to which Americans are likely to maintain their pre-retirement standard of living in retirement, largely because of different assumptions about how much income this goal requires. The studies generally found about one-third to two-thirds of workers are at risk of falling short of this target. In surveys, compared to current retirees, workers age 55 and older expect to retire later and a higher percentage plan to work during retirement. However, one survey found that about half of retirees said they retired earlier than planned due to health problems, changes at their workplace, or other factors, suggesting that many workers may be overestimating their future retirement income and savings. Surveys have also found that people age 55-64 are less confident about their finances in retirement than those who are age 65 or older.

Contents

Abbreviations

DB	Defined benefit
DC	Defined contribution
EBRI	Employee Benefit Research Institute
Federal Reserve	Board of Governors of the Federal Reserve System
HRS	Health and Retirement Study
ICI	Investment Company Institute
IRA	Individual retirement account
NRRI	National Retirement Risk Index
OASI	Old-Age and Survivors Insurance
PBGC	Pension Benefit Guaranty Corporation
SCF	Survey of Consumer Finances
SSA	Social Security Administration

U.S. GOVERNMENT ACCOUNTABILITY OFFICE
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May 12, 2015

The Honorable Bernard Sanders
Ranking Member
Subcommittee on Primary Health
and Retirement Security
Committee on Health, Education, Labor, and Pensions
United States Senate

Dear Senator Sanders:

Baby boomers, the youngest of whom are now in their 50s, are approaching and reaching retirement in waves.[1] According to the Census Bureau, the age 65-and-over population in 2030 is projected to be about 74 million – more than 50 percent larger than in 2015, and representing more than 20 percent of the projected total U.S. population.[2] Several issues call attention to the retirement security of this sizeable First, the decades-long shift in the private sector away from defined benefit (DB) plans (which typically pay lifetime annuity benefits in retirement) to defined contribution (DC) plans (which require workers to accumulate savings over their careers and manage withdrawals in retirement) means that many workers and retirees need more savings to provide a secure retirement. In 1991, private-sector DB plans had more participants than DC plans. Since then, the number of private-sector DB plans has shrunk considerably and the number of participants has remained flat, while the number of participants in DC plans has expanded considerably.[3] Longer life expectancy means that many baby boomers will spend more years in retirement than earlier cohorts and need their savings to last longer. In addition, concerns about the long-term financial condition of Social Security, which provides the base of financial support for retirees, highlight the growing importance of Americans accumulating savings for their retirement.

[1] Baby boomers include the 78 million Americans born from 1946 through 1964.

[2] U.S. Census Bureau, "Projections of the Population by Sex and Selected Age Groups for the United States: 2015 to 2060." (NP2014-T3), December 2014.

[3] U.S. Department of Labor, Employee Benefits Security Administration, "Private Pension Plan Bulletin Historical Tables and Graphs." December 2014.

In light of these developments, you asked us to review the financial status of workers approaching retirement and current retirees. We examined the following questions: 1) What financial resources do workers approaching retirement and current retirees have? and 2) What evidence do studies and surveys provide about retirement security for workers and retirees?

To describe the financial resources of current and future retirees, we examined financial information from the 2013 Survey of Consumer Finances (SCF). Conducted by the Board of Governors of the Federal Reserve System (Federal Reserve), the SCF is a triennial national survey of assets and income. Throughout the report, we use the term “retirement savings” to mean money accrued in account-based DC plans, such as 401(k) plans, and individual retirement accounts (IRAs). We do not estimate the value of DB plans or include such an estimate in retirement savings.[4] Savings held outside of retirement accounts are included in financial assets as non-retirement savings.

To analyze other evidence of retirement security, we reviewed several studies of retirement adequacy and compared and contrasted their methodologies and findings. These included academic studies based on formal models of optimal saving behavior and consumption patterns, studies that projected savings levels in retirement based on recent savings data, and other reports examining the levels, adequacy, and sources of retirement wealth. In addition, we interviewed authors of studies and other retirement experts about retirement readiness. We also reviewed relevant questions from surveys of retirees and workers approaching retirement age to infer information about their experiences of saving for and living in retirement. These questions included those regarding financial well-being, confidence in being able to afford a comfortable retirement, and expectations of when and how people plan to retire. The surveys included the University of Michigan’s Health and Retirement Study (HRS), the Federal Reserve’s Survey of Household Economics and Decisionmaking, the Employee Benefit Research Institute’s Retirement Confidence Survey, and other surveys.

For SCF, HRS, and other survey data used in this report, we reviewed methodological documentation and, when appropriate, interviewed

[4] While we do include DB plan benefits in retirement income, we include them in retirement savings only if a household has taken the benefit as a lump sum and rolled it into an IRA or other account balance.

individuals knowledgeable about the data and conducted electronic testing. Based on this, we found the data to be reliable for the purposes used in this report.

For the purpose of this report, we discuss households and workers nearing retirement age, from age 55-64, to isolate near retirees and determine retirement readiness, though some of this group may in fact be retired. We discuss the age group 65-74 to examine retirees in the first stage of retirement, although some members of this group may not be retired. Finally, we discuss the age group 75 and older, most of whom we expect to be retired. (A more detailed description of our scope and methodology is provided in appendix I.)

We conducted this performance audit from April, 2014 to May, 2015 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

Income in retirement may come from several sources, including (1) Social Security, (2) payments from employment-based DB plans, (3) savings in retirement plans, such as in a 401(k) plan or IRA, including the return on these savings;[5] and (4) other sources, including non-retirement savings, home equity, and wages.

(1) Social Security: Social Security pays benefits to retirees, their spouses, and their survivors, as well as to some disabled workers. According to the Social Security Administration (SSA), as of 2012, 86 percent of households age 65 and older received Social Security benefits. Benefits are paid to workers who meet requirements for the time they have worked in “covered employment” – jobs through which workers pay Social Security taxes, which cover about 96 percent of U.S. workers,

[5] Income in retirement may also come from earnings or returns on assets from non-retirement accounts, but for the purposes of this report we focus on retirement savings.

according to SSA.[6] Workers can claim benefits starting at age 62 (or when they become disabled), but for retiring workers the monthly benefit they receive increases the longer they delay receiving them, up until age 70.[7] Monthly Social Security benefits are based on a worker's earnings history and are progressive, meaning that Social Security replaces a higher percentage of earnings for lower-income workers and their dependents than for higher-income workers.

Social Security benefits offer two main advantages: they are a monthly stream of payments that continue until death and they adjust annually for cost-of-living increases. According to the 2014 report from the Social Security Board of Trustees, the Old-Age and Survivors Insurance (OASI) trust fund from which Social Security benefits are paid is projected to become depleted in 2034, at which point continuing income is projected to be sufficient to cover just 75 percent of scheduled benefits.[8] This projection raises the possibility of changes to Social Security benefits, taxation, or both before the depletion date.

(2) Defined Benefit Plans: these plans are "traditional" employment-based pension plans that offer benefits typically determined by a formula based on factors specified by the plan, such as salary and years of service. DB plans typically offer pension benefits in the form of an annuity that provides a monthly payment for life, although some plans also offer a lump-sum distribution option. An annuity can help to protect a retiree against risks, including the risk of outliving one's assets (longevity risk), and may also offer survivor benefits. However, DB plans carry the risk that a plan sponsor may freeze or terminate the plan. If a private-sector plan terminates with insufficient assets to pay promised benefits, the Pension Benefit Guaranty Corporation (PBGC), a federal government corporation, provides plan insurance and pays promised benefits subject

[6] About one-fourth of public employees do not pay Social Security taxes on the earnings from their government jobs and receive no service credit. Starting in 1984, individuals who began working for the federal government pay Social Security taxes and receive service credit.

[7] Individuals with disabilities who qualify for Social Security Disability Insurance receive unreduced benefits even if they claim prior to their full retirement age.

[8] *The 2014 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds* (Washington D.C.: Jul. 2014)

to certain statutory limits, which may result in some beneficiaries getting reduced benefits.

(3) Retirement Savings: Introduced over 30 years ago, two primary types of retirement savings vehicles currently exist: employment-sponsored DC plans (such as 401(k) plans) and IRAs. For both types, benefits accrue in the form of account balances, which grow from contributions made by workers (and sometimes by their employers) and investment returns. Examples of employer-sponsored DC plans include 401(k) plans, 403(b) plans, and similar plans for which employers can offer payroll deductions, employer contributions to employee accounts, or both. Individuals can also save for retirement through IRAs, which allow individuals to make contributions for retirement without participating in an employment-sponsored plan.[9] DC plans and IRAs provide tax advantages, portability of savings, and transparency of known account balances. However, they also place the primary responsibility on individuals to participate in, contribute to, and manage their accounts throughout their working careers, and to manage their savings throughout retirement in order to keep from running out of money.

Workers and employers who contribute to retirement savings accounts generally receive favorable federal tax treatment, such as tax deductions for contributions and tax-deferred or even tax-free returns on investment.[10] These tax preferences are one of the largest tax expenditures in the federal government. In fiscal year 2012, the estimated

[9] While the vast majority of IRAs are individual accounts, the Internal Revenue Code also provides for “individual retirement annuities,” which are annuity or endowment contracts issued by insurance companies and meeting certain requirements. 26 U.S.C. § 408(b).

[10] For 2015, individuals can contribute up to $5,500 in IRAs ($6,500 for those age 50 or older), while the contribution limit for 401(k) plans is $18,000 ($24,000 for those age 50 or older). Contributions to 401(k) plans and traditional IRAs are not subject to tax when made (26 U.S.C. §§ 402(e)(3) and 219(a) and (e), respectively); distributions or withdrawals of principal or earnings from them are subject to tax (26 U.S.C. §§ 402(a) and 408(c)(1), respectively). Contributions to Roth IRAs are not tax-deductible, but after one has been established for 5 years, upon reaching age 59½, an individual may make withdrawals of principal or earnings not subject to tax. 26 U.S.C. § 408A(c) and (d).

revenue loss associated with these accounts included $51.8 billion for DC plans and $16.2 billion for IRAs.[11]

Employment-based retirement plan coverage, especially in the private sector, has shifted from DB to DC plans. According to the Department of Labor, as of 2012 private-sector DB plans had almost 40 million participants, while DC plans had about 91 million. In contrast, in 1975, about three-quarters of private-sector pension participants had DB plans, and half of all participants in 1990 had DB plans.[12] According to Federal Reserve data, as of the third quarter of 2014, U.S. DB plans held about $11.2 trillion in assets, IRA assets totaled about $7.3 trillion and DC assets accounted for about $6.2 trillion.[13] Rollovers from 401(k) plans and other employment-sponsored plans are the predominant source of contributions to IRAs.[14]

(4) Other Sources: In addition to the three sources listed above, retirees may also have other sources of income, such as earnings or income from assets. Retirees may also choose to draw from home equity, for example, by selling their home or obtaining a reverse mortgage. Another form of income that economists also usually consider is “imputed rent”–the market rent households living in owner-occupied housing could charge, but forego, if they rented their house.[15] Earnings from work can also be

[11] Office of Management and Budget, *Fiscal Year 2014 Analytical Perspectives: Budget of the U.S. Government* (Washington, D.C.: April 10, 2013). The tax expenditure is measured as the tax revenue that the government does not currently collect on contributions and earnings amounts, offset by the taxes paid on plan distributions to those who are currently receiving retirement benefits.

[12] These figures may double-count individuals who have both a DB and DC plan. U.S. Department of Labor, Employee Benefits Security Administration, “Private Pension Plan Bulletin Historical Tables and Graphs.” December 2014.

[13] These figures include assets in private-sector and public-sector pension plans. Board of Governors of the Federal Reserve System, “Financial Accounts of the United States: Flow of Funds, Balance Sheets, and Integrated Macroeconomic Accounts, Fourth Quarter 2014.” (Washington, D.C.: March 12, 2015.).

[14] GAO, *401(K) Plans: Labor and IRS Could Improve the Rollover Process for Participants*, GAO-13-30 (Washington, D.C.: March 7, 2013).

[15] Considering imputed rent income treats owner-occupied housing neutrally compared to renter-occupied housing. For example, consider two homeowners who each live in their homes and pay a $1,000 mortgage. If they moved into each other’s home and received $1,000 per month rent, that $1,000 would be considered income, even though nothing has changed about either household’s balance sheet or net expenses.

an important source of income for some households with a member age 65 or older, especially for those with a spouse younger than 62 who is not yet eligible to receive Social Security benefits.

About Half of Older Households Have No Retirement Savings, and Many Rely on Social Security

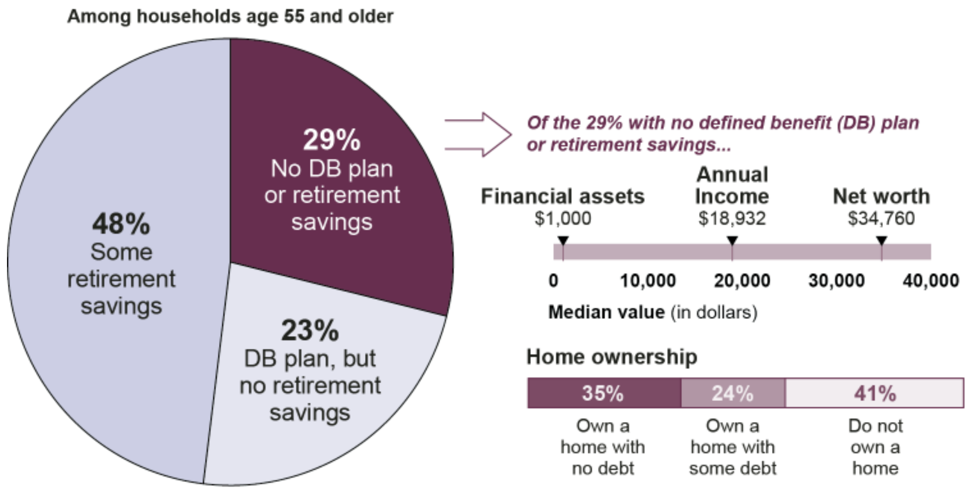
According to our analysis of data from the 2013 SCF, 52 percent of households age 55 and older have no retirement savings in a DC plan or IRA, and Social Security provides most of the retirement income for about half of households age 65 and older.[16] Among the 48 percent of households age 55 and older with some retirement savings, the median amount is approximately $109,000[17]–commensurate to an inflation-protected annuity of $405 per month at current rates for a 65-year-old.[18] Households that have sizeable retirement savings are more likely than households with lower saving to have other resources, including a higher likelihood of expecting retirement income from a DB plan. Nearly 30 percent of households age 55 and older have neither retirement savings nor a DB plan (see fig. 1). Social Security remains the largest component of household income in retirement, making up an average of 52 percent of household income for those age 65 and older.

[16] For the SCF estimates in this report, we define household age as the age of the household head. For purposes of data organization, the Federal Reserve considers the household head to be the male within a mixed-sex couple and the older individual within a single-sex couple. All percentage estimates based on the SCF have 95 percent confidence intervals of within 3 percentage points of the estimate, and all dollar estimates have confidence intervals within 5 percent of the estimate itself.

[17] We are 95 percent confident that the median retirement savings amount among those with savings is between $96,889 and $121,911.

[18] We calculated an inflation-protected single-life annuity equivalent for a 65-year-old commencing payments immediately using the Retirement Income Calculator from the Federal Thrift Savings Plan website (www.tsp.gov), which assumed an interest rate of 2 percent as of the calculation date. In 2011, we found that few retiring workers with DC plans chose or purchased an annuity. See GAO, Retirement Income: Ensuring Income throughout Retirement Requires Difficult Choices, GAO-11-400 (Washington, D.C.: June 7, 2011).

Figure 1: Select Resources for All Households Age 55 and Older



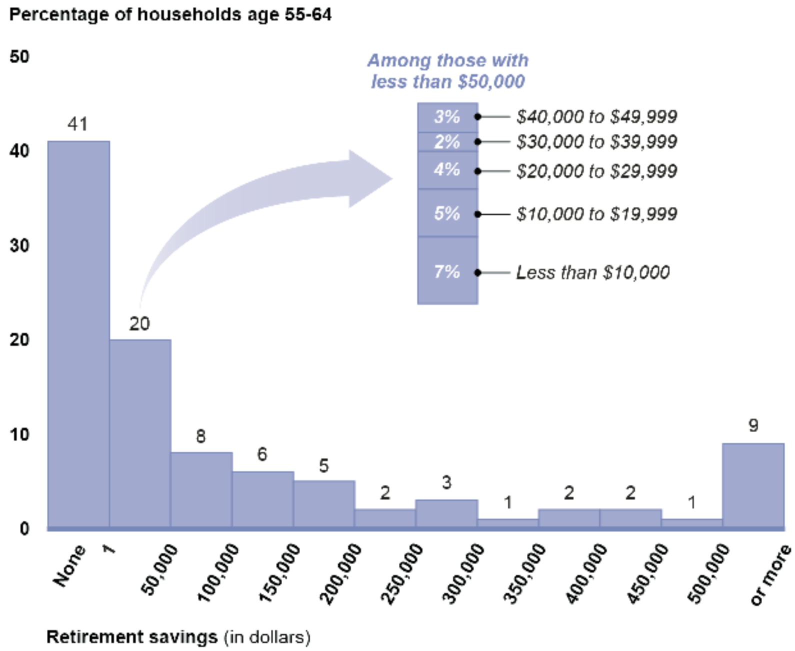
Source: GAO analysis of 2013 Survey of Consumer Finances (SCF) data. | GAO-15-419

Note: For households with no DB plan or retirement savings, we are 95 percent confident that the median financial asset value was between $763 and $1,237, the median annual income was between $17,809 and $20,055, and the median net worth was between $25,227 and $44,293. All other estimates in this figure have confidence intervals within +/- 3 percentage points.

Over Half of Households Age 55 to 64 Have Little or No Retirement Savings, and Many of These Have Few Other Financial Resources

About 55 percent of households age 55-64 have less than $25,000 in retirement savings, including 41 percent who have zero (see fig. 2 for additional detail). Most of the households in this age group have some other resources or benefits from a DB plan, but 27 percent of this age group have neither retirement savings nor a DB plan.

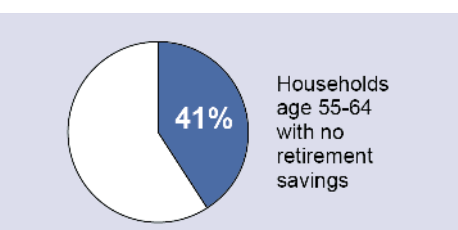
Figure 2: Distribution of Retirement Savings Amounts among Households Age 55-64



Source: GAO analysis of 2013 Survey of Consumer Finances (SCF) data. | GAO-15-419

Note: Savings amounts are expressed in 2013 dollars. The sum of the percentages of households with more than zero but less than $50,000 may not add up to 20 percent because of rounding. All estimates in this figure have 95 percent confidence intervals within +/- 3 percentage points.

Four in Ten Households Age 55-64 Have No Retirement Savings and Few Other Resources



Source: 2013 Survey of Consumer Finances (SCF) data.

Among households age 55-64, the 41 percent with no retirement savings have few other financial resources but they are less likely to have debt than those with retirement savings.[19] For example, around 85 percent have less than $25,000 in total financial assets, such as in savings accounts or non-retirement investments. Compared to those with retirement savings, these households have about a third of the median income, about one-fifteenth of the median net worth, and are less likely to be covered by a DB plan (see table 1). Regarding debt, households without retirement savings are less likely to have debt than households with savings (about 70 percent compared to 84 percent). Their debt levels are comparable, though, as about 20 percent of households from each

[19] Debt includes housing debt (such as mortgages or home equity lines of credit), credit card balances, installment loans, and other lines of credit.

category have debt amounts that are more than twice their annual income.

Table 1: Select Resources for Households Age 55-64 by Ownership of Retirement Savings

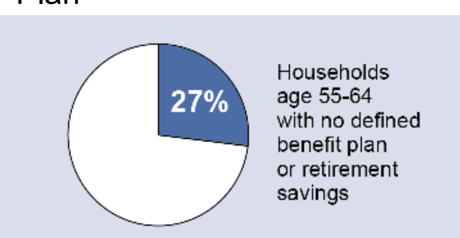
Dollar figures rounded to nearest $1,000

	Households age 55-64 with no retirement savings	Households age 55-64 with retirement savings
Percent of households age 55-64	41%	59%
Median net worth	$21,000	$337,000
Median non-retirement financial resources	$1,000	$25,000
Median income	$26,000	$86,000
Home ownership rates	56%	87%
Percent who own a home that is paid off	22%	27%
Percent with a defined benefit plan	32%	45%

Source: GAO analysis of 2013 Survey of Consumer Finances data. | GAO-15-419

Note: We are 95 percent confident that median net worth for households with no retirement savings is between $13,668 and $28,536, that median non-retirement financial resources is between $795 and $1,205, and that median income is between $23,422 and $27,646. For households with some retirement savings, the median net worth is between $284,813 and $389,599, the median non-retirement financial resources is between $19,672 and $29,928, and the median income is between $81,646 and $91,230. All other estimates in this table have 95 percent confidence intervals within +/-3 percentage points. The percent of households with DB plan includes those where the respondent and/or the respondent's spouse/partner has a DB plan from a current or past job.

About a Quarter of Households Age 55-64 Have No Retirement Savings and No DB Plan



Source: 2013 Survey of Consumer Finances (SCF) data.

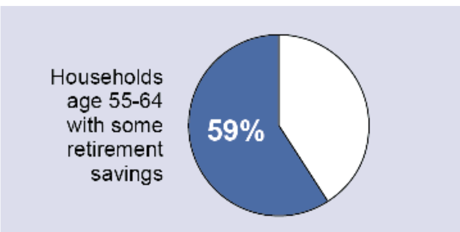
Perhaps of greatest concern are the 27 percent of all households age 55-64 that have neither retirement savings nor a DB plan. Their median net worth is about $9,000,[20] and 91 percent have less than $25,000 in financial assets. These households' median home equity is about $53,000,[21] which is less than half of what households with retirement savings or a DB plan have.

[20] We are 95 percent confident that the median net worth is between $6,469 and $12,169.

[21] We are 95 percent confident that the median home equity is between $42,174 and $63,026.

Not surprisingly, they have approximate median income of $21,000.[22] About half of these households had wage or salary income,[23] compared to 82 percent of households age 55-64 with some retirement savings or a DB plan. This indicates that a smaller portion of these households are likely working, which may limit their ability to accumulate retirement savings. About 46 percent had Social Security income, indicating that they may have claimed before the full retirement age and would receive reduced monthly benefits.[24]

Six In Ten Households Age 55-64 Have Some Retirement Savings



Source: 2013 Survey of Consumer Finances (SCF) data.

For the 59 percent of households age 55-64 with some retirement savings, we estimate that the median amount saved is about $104,000,[25] which is equivalent to an insured, inflation-protected annuity of $310 per month for a 60-year-old.[26] While about 15 percent of these households have retirement savings amounts over $500,000, 11 percent have retirement savings below $10,000 and 24 percent have savings of less than $25,000 (see table 2 for additional detail). A savings amount of $25,000 is equivalent to an insured, inflation-protected annuity of $74 per month for a 60-year-old.[27]

[22] We are 95 percent confident that the median income is between $19,146 and $22,484.

[23] We are 95 percent confident that between 49 and 57 percent had wage income.

[24] We are 95 percent confident that between 41 and 51 percent had Social Security income, which could include retirement, disability, survivors, or dependent's benefits. Eligible workers can claim Social Security retirement benefits as early as age 62, but the monthly benefit is lower for the rest of a retiree's life than if they delayed claiming. Full retirement age ranges from 65 to 67, depending on birth year. 42 U.S.C. § 416(l). As we reported in 2014, early Social Security claimers have less income and wealth in retirement and receive a larger share of their income from Social Security than those who delay claiming until their full retirement age. GAO, *Retirement Security: Challenges for Those Claiming Social Security Benefits Early and New Health Coverage Options*, GAO-14-311 (Washington, D.C.: April 23, 2014).

[25] We are 95 percent confident that the median retirement savings amount is between $88,483 and $120,197.

[26] We calculated an inflation-protected single-life annuity equivalent for a 60-year-old commencing payments immediately using the Retirement Income Calculator from the Federal Thrift Savings Plan website (www.tsp.gov), which assumed an interest rate of 2 percent as of the calculation date.

[27] Ibid.

Table 2: Distribution of Retirement Savings Amounts among Households with Some Retirement Savings, Age 55-64

	10th percentile	25th percentile	50th percentile	75th percentile	90th percentile
Retirement Savings	$8,760	$25,978	$104,340	$300,200	$718,200

Source: GAO analysis of 2013 Survey of Consumer Finances data. | GAO-15-419

Note: We are 95 percent confident that the 10th percentile amount is between $6,495 and $11,025, the 25th percentile amount is between $19,268 and $32,688, the 50th percentile amount is between $88,483 and $120,197, the 75th percentile amount is between $244,073 and $356,327, and the 90th percentile amount is between $586,956 and $849,444.

Both retirement savings and DB plan coverage rises with income levels for age 55-64 households (see table 3).[28] Across income quintiles, a similar percentage of households have a paid-off mortgage and debt levels above twice their income, whereas retirement savings and DB plan coverage generally increase with income.

Table 3: Select Retirement Resources for Households Age 55-64 by Income Quintile

Dollar figures rounded to nearest $1,000

	1 (bottom)	2	3	4	5 (top)
Percent with retirement savings[a]	9%	42%	68%	84%	94%
Among those who have, median retirement savings[a]	—	$19,000	$68,000	$97,000	$371,000
Percent with a defined benefit plan[b]	18%	35%	43%	53%	50%
Percent who own a home that is paid off	21%	28%	24%	25%	29%
Percent with debt greater than twice annual income	17%	26%	24%	21%	14%

Source: GAO analysis of 2013 Survey of Consumer Finances data. | GAO-15-419

Note: For all percentage estimates in this table, the 95 percent confidence intervals are within +/- 6 percentage points.

[a]Because of sample size, we could not produce a reliable estimate for the bottom quintile. We are 95 percent confident that the median retirement savings for the 2nd quintile is between $10,334 and $27,666, the 3rd quintile is between $49,909 and $86,171, the 4th quintile is between $73,479 and $119,921, and the 5th quintile is between $281,513 and $460,087.

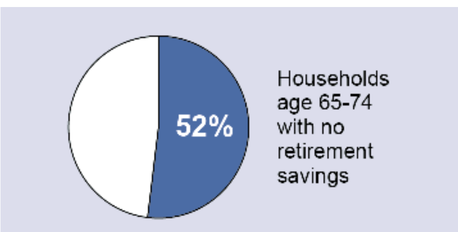
[b]The percent of households with a DB plan includes those where the respondent and/or the respondent's spouse/partner has a DB plan from a current or past job.

[28] We found SCF estimates of future income from DB plans to be unreliable for our purposes.

Half of Households Age 65-74 Have No Retirement Savings, and Social Security is the Largest Source of Retirement Income for This Age Group

About Half of Households Age 65-74 Have No Retirement Savings

Turning to older households, retirement savings among those age 65-74 shows a distribution similar to those age 55-64, though a larger proportion has no retirement savings (52 percent).[29] Similar to the younger group, about 10 percent have more than $500,000 in savings.



Source: 2013 Survey of Consumer Finances (SCF) data.

Another similarity is that many households age 65-74 with no retirement savings have few other resources to draw upon in retirement as measured by our indicators (see table 4). Compared to those in the same age group with retirement savings, households without retirement savings have about one-seventh the net worth, and fewer have a DB plan. Unlike households age 55-64, the debt profile for households without retirement savings is not substantially better than for households with some retirement savings.

[29] We would expect most households in this age group who have retirement savings to have begun drawing these down, although balances can still grow from contributions and investment returns.

Table 4: Select Resources for Households Age 65-74 by Ownership of Retirement Savings

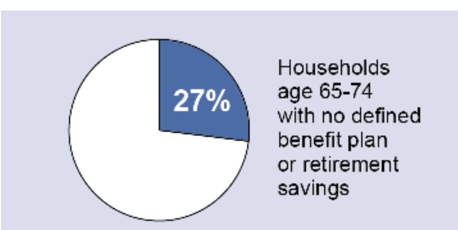
Dollar figures rounded to nearest $1,000

	Households age 65-74 with no retirement savings	Households age 65-74 with retirement savings
Percent of households age 65-74	52%	48%
Median net worth	$86,000	$597,000
Median non-retirement financial resources	$4,000	$79,000
Home ownership rates	77%	95%
Percent who own a home that is paid off	36%	51%
Percent with a defined benefit plan	49%	58%

Source: GAO analysis of 2013 Survey of Consumer Finances data. | GAO-15-419

Note: Percentage estimates in this table have 95 percent confidence intervals that are within +/- 5 percentage points. For households with no retirement savings, we are 95 percent confident that the median net worth is between $70,841 and $100,675, the median non-retirement financial resources is between $2,539 and $5,385. For households with some retirement savings, we are 95 percent confident that the median net worth is between $483,261 and $711,607, median non-retirement financial resources is between $61,878 and $95,922. The percent of households with a DB plan includes those where the respondent and/or the respondent's spouse/partner has a DB plan from a current or past job.

A Quarter of Households Age 65-74 Have No Retirement Savings and No DB Income



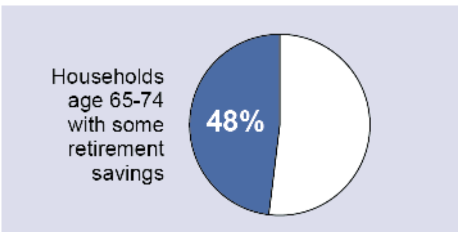
Source: 2013 Survey of Consumer Finances (SCF) data.

Similar to households age 55-64, a closer look at the 27 percent of households age 65-74 with no retirement savings and no DB plan reveals that they have very low levels of resources to draw upon for retirement income. This group has a median net worth of about $57,000,[30] which is around one-sixth the net worth of other households of this age. Compared to households with some retirement savings or a DB plan, households in this age group generally have lower home ownership rates (about 67 percent compared to 93 percent) and less home equity when they do own homes (median home equity is about $100,000, compared to $148,000).[31]

[30] We are 95 percent confident that the median net worth is between $30,821 and $83,789.

[31] For households with neither retirement savings nor DB plans, we are 95 percent confident that between 62 and 73 percent own a home and their median home equity is between $81,551 and $118,449. For other households, we are 95 percent confident the median is between $139,628 and $156,772.

Households Age 65-74 with Some Retirement Savings



Source: 2013 Survey of Consumer Finances (SCF) data.

For the 48 percent of households age 65-74 that have some retirement savings, we estimate that the median amount is $148,000,[32] comparable to an insured, inflation-protected annuity of $649 per month for a 70-year-old at current rates.[33] About one in five of these households has retirement savings amounts over $500,000, while 16 percent have savings less than $25,000 (see table 5 for additional detail).[34]

Table 5: Distribution of Retirement Savings Amounts among Households with Some Retirement Savings, Age 65-74

	10th percentile	25th percentile	50th percentile	75th percentile	90th percentile
Retirement savings	$16,800	$48,800	$148,000	$394,200	$1,112,400

Source: GAO analysis of 2013 Survey of Consumer Finances data. | GAO-15-419

Note: We are 95 percent confident that the 10th percentile amount is between $9,644 and $23,956, the 25th percentile amount is between $36,999 and $60,601, the 50th percentile amount is between $123,799 and $172,201, the 75th percentile amount is between $306,096 and $482,304, and the 90th percentile amount is between $885,356 and $1,339,444.

About Forty Percent of Households Age 65-74 Get Most of their Income from Social Security

For all households age 65-74, median annual income is about $47,000[35] and Social Security makes up on average 44 percent of income for households in this age group, larger than any other income source. About 90 percent of all households in this age range receive some Social Security income, and the median amount they receive is approximately $19,000.[36] About 41 percent of households in this age range rely on Social Security for over half of their income, while 14 percent rely on Social Security for more than 90 percent of their income. While Social Security is, on average, the largest component of household income in retirement, other sources also play a role in funding retirement for

[32] We are 95 percent confident that the retirement savings amount is between $123,799 and $172,201.

[33] We calculated an inflation-protected single-life annuity equivalent for a 70-year-old commencing payments immediately using the Retirement Income Calculator from the Federal Thrift Savings Plan website (www.tsp.gov), which assumed an interest rate of 2 percent as of the calculation date.

[34] We are 95 percent confident that between 13 and 20 percent of households age 65-74 with some retirement savings have less than $25,000.

[35] We are 95 percent confident that median income is between $44,244 and $50,706.

[36] We are 95 percent confident that the median Social Security income is between $18,071 and $20,041.

households age 65-74. Income from work and pension-based annuities, such as DB plans, contribute about a fifth of household income each, on average. Distributions from retirement savings make up a relatively small portion of average household income at 4 percent. Because Social Security and DB plans represent a relatively large portion of retiree income, it follows that much of the household income for this age group has some assurance that it will last a lifetime.

Among households age 65-74, the prevalence of both retirement savings and DB plans generally increases with income (see table 6). As with the younger age group, not only do a larger proportion of higher-income households have some retirement savings, but the amount they have saved is also larger. Similarly, the annual amount they receive from their DB plan increases with income.

Table 6: Select Retirement Resources for Households Age 65 to 74 by Income Quintile

Dollar figures rounded to nearest $1,000

	First (bottom)	Second	Third	Fourth	Fifth (top)
Percent with retirement savings	9%	33%	48%	65%	84%
Among those who have, median retirement savings[a]	—	—	$104,000	$144,000	$468,000
Percent with a defined benefit (DB) plan[b]	19%	46%	67%	68%	65%
Among those with DB income, median annual amount[c]	$4,000	$11,000	$17,000	$24,000	$37,000
Percent who own a home that is paid off	44%	50%	40%	44%	39%
Percent with debt greater than twice annual income	17%	17%	27%	14%	10%

Source: GAO analysis of 2013 Survey of Consumer Finances data. | GAO-15-419

Note: For all percentage estimates in this table, the 95 percent confidence intervals are within +/- 8 percentage points.

[a]Because of sample size, we could not produce a reliable estimate for the bottom two quintiles. We are 95 percent confident that the median retirement savings for the 3rd quintile is between $66,041 and $142,359, the 4th quintile is between $114,070 and $172,730, and the 5th quintile is between $345,986 and $590,414.

[b]The percent of households with a DB plan includes those where the respondent and/or the respondent's spouse/partner has a DB plan from a current or past job.

[c]We are 95 percent confident that the median DB income for the 1st quintile is between $2,242 and $6,446, for the 2nd quintile is between $8,484 and $12,876, for the 3rd quintile is between $13,910 and $19,210, the 4th quintile is between $17,902 and $30,146, and the 5th quintile is between

$25,560 and $47,640. DB income includes income from DB plans and any annuitized DC plans.

Social Security makes up a larger share of household income for households with no retirement savings, which is not surprising as these households have lower incomes. The 52 percent of households age 65-74 with no retirement savings rely primarily on Social Security for income in retirement, as it makes up 57 percent of their household income on average (see figure 3). These households have median income of approximately $29,000, and 25 percent of them rely on Social Security for more than 90 percent of their income.[37] Those in the same age range who have some retirement savings have a median income of $76,000.[38] Social Security makes up on average 31 percent of income for those with savings, about the same percentage that wage or salary income contributes.[39] Reflecting Social Security's progressive benefit structure, 86 percent of those in the lowest income quintile receive more than half of their household income from Social Security, while 66 and 44 percent of those in the second and third quintiles do, respectively.[40]

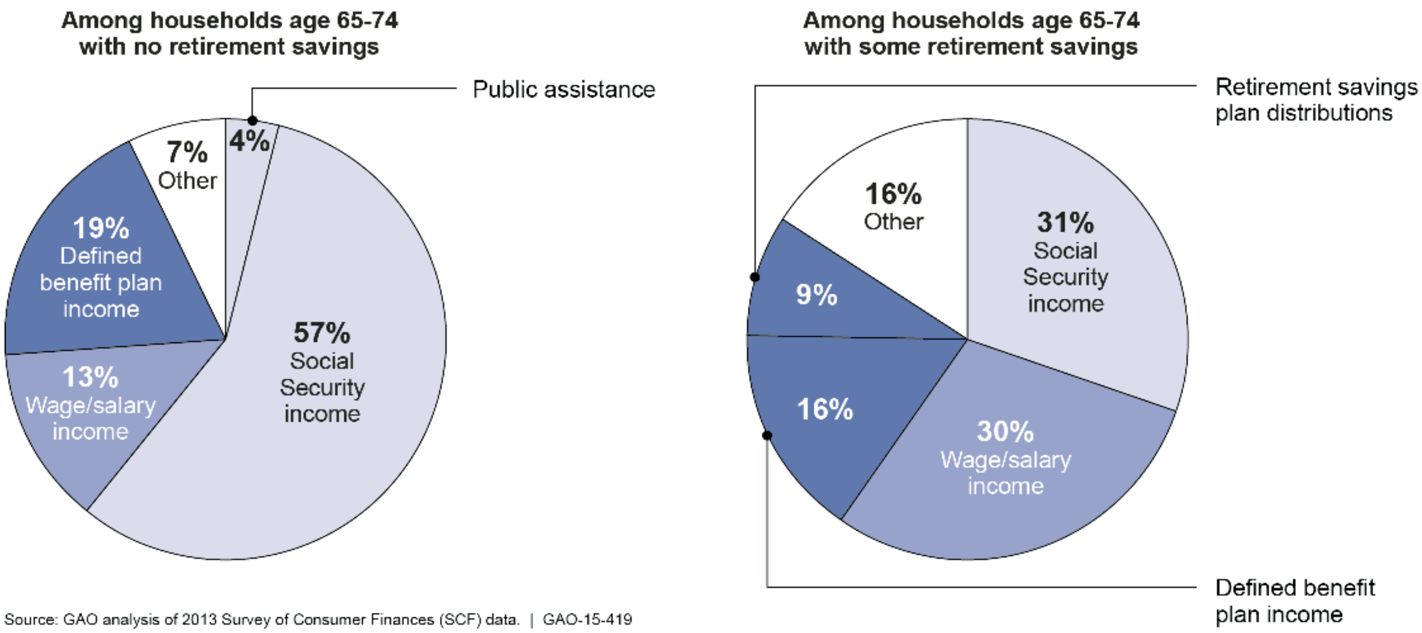
[37] We are 95 percent confident that the median income is between $26,132 and $32,654 and that between 21 and 28 percent relied on Social Security for more than 90 percent of their income. The 2012 poverty threshold for a two-adult household age 65 and older was $13,878.

[38] We are 95 percent confident that the median income is between $64,594 and $87,150.

[39] While wage or salary income makes up, on average, 30 percent of household income among this population, we are 95 percent confident that between 52 and 59 percent of these households had wage or salary income. For comparison, we are 95 percent confident that between 27 and 35 percent of households with no retirement savings had wage or salary income.

[40] We are 95 percent confident that the figures are between 81 and 91 percent, 57 and 74 percent, and 37 and 51 percent, respectively.

Figure 3: Average Composition of Income for Households Age 65-74 by Retirement Savings Status



Source: GAO analysis of 2013 Survey of Consumer Finances (SCF) data. | GAO-15-419

Note: Other includes income from non-retirement investments, such as interest, dividends, mutual funds, stocks, and bonds. It also includes rental income, real estate, child support, alimony, and business/farm income. Public assistance includes income from unemployment or worker's compensation, and programs such as Temporary Assistance for Needy Families or Supplemental Security Income. Retirement savings distributions do not include annuity equivalents from assets remaining in the plan. Sums may not add up to 100 because of rounding. All estimates in this figure have 95 percent confidence intervals within +/- 3 percentage points.

Households age 65-74 with no retirement savings or DB plan have about one-third the income of other households in the same age group and are even more likely to rely on Social Security. Specifically, their median income is about $19,000 compared to $60,000 for the other group.[41] Only about a quarter of these households have wage income, compared to 49 percent of other households in this age range, while 45 percent of them relied on Social Security for over 90 percent of their income, compared to

[41] We are 95 percent confident that income for households with neither retirement savings nor DB plan is between $16,728 and $20,684. For other households it is between $56,092 and $63,852.

3 percent for households with either some retirement savings or a DB plan.[42]

Most Households Age 75 and Older Have No Retirement Savings and Social Security Provides Most Household Retirement Income on Average

Households age 75 and older have even fewer retirement assets than younger households, and only 29 percent have retirement savings. About 35 percent have neither retirement savings nor a DB plan, though a larger percentage of households in this age group have a DB plan than those nearing retirement (55 percent compared to 40 percent for households age 55-64). Of those households that have savings, the median savings is approximately $69,000,[43] which is commensurate to an insured, inflation-protected annuity of $467 per month at current rates for an 80-year-old.[44]

Social Security provides the bulk (on average 61 percent) of household income for those 75 and older (see fig. 4). The median income for households age 75 and older is about $27,000, and the median Social Security income is approximately $17,000.[45] When compared to younger households age 65-74, Social Security makes up a larger share of household income for retirees age 75 and older, with 62 percent of these households relying on Social Security for more than 50 percent of their income, and 22 percent relying on Social Security for more than 90 percent of their income.[46] Moreover, according to Census data, about 43

[42] Among households with neither retirement savings nor a DB plan, we are 95 percent confident that between 20 and 30 percent had wage income and that Social Security made up more than 90 percent of income for between 39 and 50 percent of them.

[43] We are 95 percent confident that the retirement savings amount is between $49,199 and $88,801.

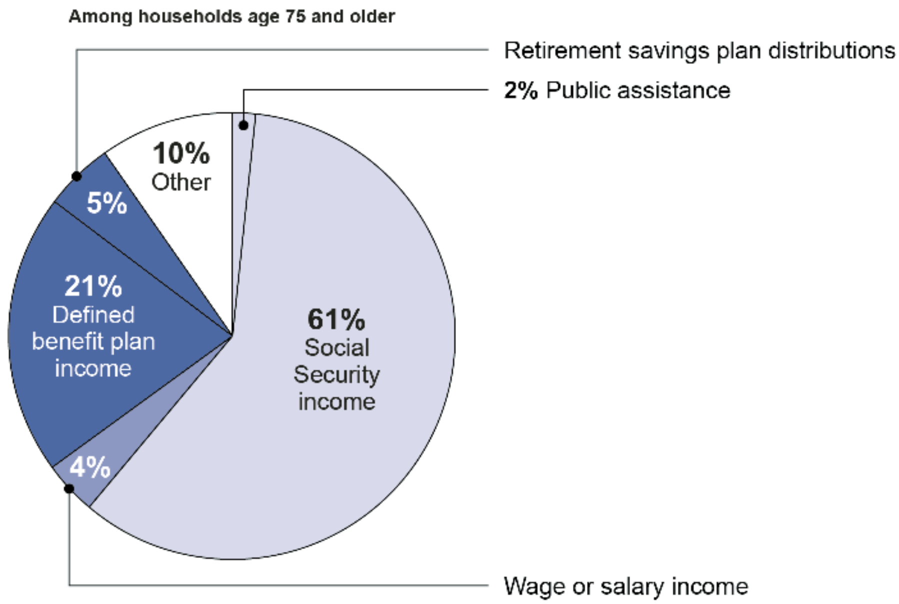
[44] We calculated an inflation-protected single-life annuity equivalent for an 80-year-old commencing payments immediately using the Retirement Income Calculator from the Federal Thrift Savings Plan website (www.tsp.gov), which assumed an interest rate of two percent as of the calculation date.

[45] We are 95 percent confident that median income is between $25,626 and $29,184 while Social Security income is between $15,617 and $17,983. About 98 percent of households age 75 and older had income from Social Security.

[46] We are 95 percent confident that between 58 and 65 percent rely on Social Security for more than 50 percent of their income.

percent of people 65 years and older would have incomes below the poverty level if they did not receive Social Security.[47]

Figure 4: Average Composition of Income for Households Age 75 and Older



Source: GAO analysis of 2013 Survey of Consumer Finances (SCF) data. | GAO-15-419

Note: Other includes income from non-retirement investments, such as interest, dividends, mutual funds, stocks, and bonds. It also includes rental income, real estate, child support, alimony, and business/farm income. Public assistance includes income from unemployment or worker's compensation, and programs such as Temporary Assistance for Needy Families or Supplemental Security Income. Retirement savings plan distributions do not include annuity equivalents from assets remaining in the plan. Sums may not add up to 100 because of rounding. All estimates in this figure have 95 percent confidence intervals within +/- 3 percentage points.

As with the younger age groups, households age 75 and older with no retirement savings have fewer resources based on our indicators than those with some retirement savings, as one might expect. For example, their median net worth is about $127,000, compared to $435,000 for same-aged households with some retirement savings.[48] Additionally,

[47] U.S. Bureau of the Census. Current Population Survey, Annual Social and Economic Supplements, "Impact on Poverty of Alternative Resource Measures by Age: 1981 to 2013," accessed March 27, 2015 from http://www.census.gov/hhes/www/poverty/data/incpovhlth/2013/Impact_Poverty.xls.

[48] We are 95 percent confident that the median net worth for households with no retirement savings is between $107,366 and $147,194, while for other households it is between $354,804 and $515,952.

households with no retirement savings have lower homeownership rates than other households in the same age range (75 percent compared to 93 percent) and a smaller proportion own their homes outright (55 percent compared to 74 percent).[49] A larger share of households in this age range have paid off their mortgages than have younger groups.

Similarly, households age 75 and older with no retirement savings have lower median incomes than those with some retirement savings. Specifically, they have about half the median income as households with some retirement savings (about $24,000, compared to $47,000).[50] Retirement savings distributions contribute, on average, about 17 percent of household income among those with some retirement savings, adding a median amount of $4,000 to these households' income.[51] Households with retirement savings in this age group obtain just under half their income from Social Security on average (46 percent).[52]

[49] We are 95 percent confident that between 51 and 58 percent of households with no retirement savings own their home with no debt, while between 70 and 79 percent of other households do.

[50] We are 95 percent confident that the median income for households with no retirement savings is between $22,041 and $25,015, while it is between $39,833 and $53,729 for other households.

[51] This amount represents the median amount of retirement savings plan distributions among households that had some retirement savings, regardless of whether they withdrew from these savings accounts. We are 95 percent confident that retirement savings distributions contribute between 13 and 21 percent of these households' income while the median amount is between $2,434 and $6,494.

[52] We are 95 percent confident that Social Security contributes between 42 and 50 percent of these households' income on average.

Studies and Surveys Provide Mixed Evidence on the Adequacy of Retirement Savings among Workers and Retirees

Studies of Retirement Savings and Income Adequacy Conclude Different Things about U.S. Retirement Security, Largely Because of Different Savings Targets

Economists broadly agree that a conceptual benchmark measure for adequate retirement saving is an amount that will, along with other sources of retirement income, allow a household to maintain its pre-retirement standard of living into retirement. However, there is no consensus about how much income this standard requires. Economists and financial planners generally agree that many retirees do not need to replace 100 percent of working income in order to maintain their standard of living because most retirees probably have reduced expenses—for example, no longer needing to provide for payroll taxes, retirement saving, and commuting expenses—relative to when they were working. Other big expenses that many households may face while working but not while retired include the cost of raising children (who are likely grown and financially independent by the parents' retirement age) and of housing if homeowners pay off their mortgage by retirement. Conversely, health costs may represent a greater expense for a household in retirement than while working.

Setting a specific target for, and even calculating, the "replacement rate"–a household's post-retirement income as a percentage of pre-retirement income–required to maintain a household's standard of living requires many complicated assumptions.[53] There is broad agreement over some aspects of replacement rates, at least in concept if not necessarily in practical application to calculations. Because higher-income households tend to pay a higher percentage of their income in taxes and save more

[53] For a study of the complexity and limitations of figuring replacement rates, see MacDonald, B-J. and K. D. Moore. 2011. "Moving Beyond the Limitations of Traditional Replacement Rates." Society of Actuaries. http://www.soa.org/research/research-projects/pension/default.aspx.

for retirement while working, they generally require a lower replacement rate in retirement when these expenses decline; for the opposite reasons, lower-income households generally require higher replacement rates. For these reasons, there is no single replacement rate that represents a "success" for retirement income.

Several studies have attempted to evaluate the adequacy of retirement income or project the likelihood of current workers having sufficient retirement income.[54] Some of these studies attempt to judge the retirement readiness of workers by using data on consumption, income, and wealth for working-age households and projecting a replacement rate at retirement; they then compare this projection to a target replacement rate that they estimate to be enough to maintain a standard of living in retirement. As Table 7 shows, different studies use different replacement rate or other benchmarks for retirement income adequacy. The Center for Retirement Research at Boston College produces a National Retirement Risk Index (NRRI) based on data from the 2013 SCF and concluded that 52 percent of households faced risk of having insufficient retirement income to maintain their standard of living. This percentage is almost the same as the one calculated from the 2010 SCF and is up from 44 percent in 2007.[55] However, at-risk percentages vary considerably by sub-group in the NRRI. For example, Boston College calculates that 60 percent of households with income in the lowest third of the income distribution are at risk, and 43 percent of households in the highest-third are at risk of having insufficient retirement income to maintain their pre-retirement standard of living. The NRRI also finds a greater percentage of households age 30-39 at risk than age 50-59.

The Employee Benefit Research Institute (EBRI) uses its Retirement Security Projection Model to project the percentage of workers at risk of having retirement income that is inadequate to cover minimum retirement

[54] Some studies focus on retirement savings amounts while others speak more in terms of retirement income. Throughout this section we assume that all forms of usable retirement wealth can be used to finance consumption in retirement, without necessarily making assumptions about the decision to annuitize lump-sum assets or to convert home equity to liquid financial assets. For citations for all the studies in this section, please see app. II.

[55] Boston College defines a household at risk if their projected replacement rate falls at least 10 percent below their target replacement rate for their income group.

expenditures.[56] EBRI's projections show about 44 percent of their sample falling short of target retirement income. However, EBRI's projections show a much higher percentage of lower-income households at risk of falling short on retirement income: 12.5 percent of those born 1948-1954 in the highest-income quartile compared to 86.8 percent of the same cohort in the lowest-income quartile. In a 2012 study, Aon Hewitt projects savings of its sample against a target 85 percent replacement rate and estimates that 85 percent of workers will fail to hit this target by age 65. Even when focusing on "full career" workers who have the potential to contribute to a retirement account for at least 30 years, 71 percent of these workers still are projected to fall short of the benchmark.

The 2015 National Institute on Retirement Security (NIRS), instead of using a projection model, uses the 2013 SCF to compare net worth among workers to financial industry-suggested savings benchmarks at different ages. NIRS finds that approximately two-thirds of workers have savings below the suggested benchmark, enough for an 85 percent replacement rate target at age 67. A 2012 Urban Institute study focuses on Baby Boom workers and retirees and sets a 75 percent replacement rate target, but measures retirement income at age 70. Depending on alternative assumptions they made about whether retirees annuitized retirement assets and how they calculated pre-retirement income, they find about 30 to 40 percent of their sample fell short of their replacement rate target.[57]

[56] EBRI defines this measure as a set of expenses, varying by income, from the Consumer Expenditure Survey, in addition to some health insurance and out-of-pocket health expenses, plus stochastic expenses from nursing home and home health care.

[57] The Urban Institute's first method for calculating future retirement income counts income from assets, money withdrawn from retirement accounts, and income from Social Security, pensions, and earnings. The second assumes retirees annuitize 80 percent of all financial assets in addition to income from Social Security, pensions, and earnings. The second method yields results in which more retirees meet the 75 percent replacement rate target.

Table 7: Selected Studies of Retirement Income Adequacy

Organization (year of study)	Retirement adequacy benchmark (replacement rate unless otherwise specified)	Percentage of sample projected to be below benchmark	Other notes and statistics
Aon Hewitt (2012)	85%, or 11 times pay at age 65.	85% of sample, including 71% of employees with potential to participate in employer plan for 30 years.	Estimates that savings shortfall relative to target for full-career contributing employee is 2.2 times pay.
Biggs-Schieber (2014)	Able to maintain standard of living in retirement, but no specific target stated	N/A	For those who work to full retirement age, Social Security typically replaces 62 percent of final-average earnings; income from 401(k)'s and IRA's underreported by SSA.
Center for Retirement Research at Boston College (2014)	69% for highest-third income, 72% for middle, 79%, for lowest.	52% overall; 60% of low-income and 43% of high-income households.	Projects retirement income at age 65. Assumes annuitization of wealth, including housing equity.
Employee Benefit Research Institute (2012)	Sufficient to meet basic expenses, including health expenses, throughout retirement.	44% of 1948-1954 birth cohorts; 87% of lowest income quartile, 13% of highest income	Assumes age-65 retirement. Assumes housing equity converted to savings only when other resources are exhausted.
Hurd-Rohwedder (2012)	Enough resources to maintain pre-retirement consumption and die with bequeathable assets	30% of age 66-69-year-olds; 23% of married households, 51% of single persons	Estimate consumption trajectories based on pre-retirement consumption. Assumes housing wealth not depleted until other forms of wealth are. Lowest rates of preparedness for people with shortest financial planning horizons and with least education.
National Institute on Retirement Security (2015)	85%, or 8 times income at age 67	66% of working households age 25-64; 70% of age 55-64 households.	Estimates that 62.4% of households age 55-64 fall short of target using a 25% lower savings goal.
Investment Company Institute (2012)	Able to maintain standard of living in retirement, but no specific target stated.	N/A	Declining poverty rates of 65-and-older population, and smaller percentage of 65-and-older in poverty than 18-64; Social Security and housing equity comprise key components for lower-wealth workers; most 55-64 year olds covered by some pension wealth

Organization (year of study)	Retirement adequacy benchmark (replacement rate unless otherwise specified)	Percentage of sample projected to be below benchmark	Other notes and statistics
Scholz-Seshadri-Khitatrakun (2006)	Wealth consistent with predictions of lifecycle model.	16% of households overall; 30% of lowest-income decile, 5% of highest-income decile	Sample from 1992 wave of the Health and Retirement Study. Progressive Social Security benefits, other transfers, and children leaving household account for much of lower-income savings adequacy.
Urban Institute (2012)	75% replacement rate at age 70.	30-40% of 1956-65 birth cohorts	Calculates working-years income using age 50-54 income and 35 years highest earnings.

Source: GAO analysis of studies listed. See app. II for bibliographic information on studies. | GAO-15-419

Other studies have somewhat more optimistic conclusions about whether American workers are likely to have enough income in retirement to maintain their standard of living. A 2006 study by Scholz, Seshadri, and Khitatrakun uses the Health and Retirement Study to compare individuals' earnings and savings history against wealth predictions of a lifecycle model over a household's lifetime, with different targets for different household characteristics.[58] They find that only 16 percent of households have savings below the predictions of their model. Their findings emphasize the impact of children and the progressive benefit structure of Social Security, which replaces a higher percentage of income for lower-income earners than higher-income earners, as key factors explaining how such a high percentage of households can reach retirement income

[58] A lifecycle model of saving in economics tries to explain patterns of consumption and saving over an individual or household's lifetime. The model generally predicts that individuals seek to smooth consumption over their lives, leading to a prediction of borrowing during younger years, saving during middle-age years, and living off accumulated savings in retirement.

adequacy.[59] However, even with these factors, Scholz, Seshadri, and Khitatrakun find that the percentage of households with adequate retirement income declines with earnings: about 30 percent of lowest-decile earners undersave in their estimation, compared to 5 percent of the highest decile. A 2012 study by Hurd and Rohwedder similarly uses a lifecycle framework that estimates consumption paths of Health and Retirement Study households, based on consumption in the years prior to retirement, and projects which households have enough financial resources to maintain this consumption path until death. The studies by Hurd and Rohwedder and Scholz, Seshadri, and Khitatrakun assume that households value consumption later in retirement less than earlier, in part reflecting the declining probability of being alive later in life;. This assumption lowers consumption targets later in retirement than they would under an assumption that households smooth their consumption throughout retirement. Hurd and Rohwedder found that 23 percent of married couples and 51 percent of single persons fall short of these targets. However, they find that single households and those with less education are more likely to be unprepared for retirement by the study's targets.

A 2012 study from the Investment Company Institute (ICI) and a 2014 study by Andrew Biggs and Sylvester Schieber also express doubt that Americans are not saving adequately for retirement, although they do not set an adequacy benchmark based on replacement rate or standard of living targets against which to measure household savings. ICI argues that a "five-tiered pyramid" of retirement assets, made up of Social Security, employment-based DB and DC pensions, IRAs, housing equity,

[59] In 2014, SSA published estimated replacement rates for retired worker beneficiaries who were newly entitled in 2013. At age 65, these measured 34.6 percent for those with indexed career-average earnings of 160 percent of the average wage index, 41.7 percent for those with indexed career-average earnings equal to the average wage index, 56.3 percent for those with indexed career-average earnings of 45 percent of the average, and 77.4 percent for those with indexed career-average earnings of 25 percent of the average. There has been recent debate regarding the methodology of published Social Security replacement rate estimates, with some commentators saying the published rates understate the replacement rate and others countering this critique. For discussion of different measures of Social Security replacement rates, see Andrew G. Biggs and Glenn R. Springstead, "Alternate Measures of Replacement Rates for Social Security Benefits and Retirement Income," *Social Security Bulletin*, vol. 68, no. 2, 2008; and Stephen Goss, Michael Clingman, Alice Wade, and Karen Glenn, "Replacement Rates for Retirees: What Makes Sense for Planning and Evaluation?" SSA, Office of the Chief Actuary, Actuarial Note Number 155, July 2014.

and other financial assets, has successfully provided for retirees. However, while they find that, based on 2010 data, most near-retiree households across income groups have some assets in an employment-sponsored plan or an IRA, they also find that the percentage of such households rises with income: about half of households with income less than $30,000 to about 95 percent of households with income of at least $80,000. ICI also cites a lower percentage of 65-and-older Americans living in poverty than the overall population as evidence of success with the retirement system. They conclude that "on average" households are able to maintain their standard of living in retirement.

The Biggs and Schieber study argues that reported replacement rates published in prior Social Security Trustees reports understated the extent to which Social Security benefits replace earnings because Social Security uses lifetime earnings (instead of final-year earnings) and indexes earnings to average wages instead of average prices. These assumptions, they argue, overstate income during working years, and thus, published estimates understate how much Social Security benefits replace as a percentage of working income. Biggs and Schieber, like Scholz, Seshadri, and Khitatrakun, also argue that some studies set too-high replacement rate targets because they ignore the favorable economic impact of children leaving the household.

Assumptions about income targets and methodology help drive the conclusions of these different studies. Some considerations in evaluating all of these studies include:

How income and expenses may change during retirement. One limitation of replacement rate calculations is that they suggest a fixed amount of retirement income and expenses. In reality, retirement income may vary throughout retirement, depending in part on the degree to which a household's income is annuitized. To the extent that retirees have to manage savings in lump-sum form, such as in an IRA or DC plan, they face risk from investment returns and outliving their resources, among other factors. Even annuitized income, if not adjusted for inflation, may lose purchasing power, especially over longer retirement periods. To the extent that Social Security makes up a significant portion of retirement income, as we find earlier in this report, the amount and purchasing power of income throughout retirement may be more predictable, as would annuitized income from a DB plan or any other annuitized wealth (if inflation adjusted). Similarly, expenses, especially health care, may be neither steady nor predictable in retirement. Finally, for women approaching or in retirement, becoming divorced, widowed or unemployed can have detrimental effects on their income security.[60]

How the impact of children on target income may be complicated. To the extent that children become independent long before parents retire, households approaching retirement may already have adjusted to higher levels of consumption, possibly raising their standard of living and required replacement rates. In retirement, the extent to which grown children may remain partially dependent on retired parents also would lessen the extent to which the cost of raising children is a foregone expense in retirement.

How income from Social Security may change. The 2014 Social Security Trustees; Report projects the Old-Age and Survivors Insurance Trust Fund, which pays Social Security retirement benefits, to become insolvent in 2034, at which point revenues are projected to be enough to cover 75 percent of scheduled benefits.[61] Should benefits fall, either because of insolvency or because of reforms to extend the solvency of the trust fund, this could represent a major challenge to households who rely heavily on Social Security for retirement income. Similarly, if reforms raised payroll taxes on workers, this could affect their ability to save for retirement. Further, as the normal retirement age continues to rise for receiving full benefits (gradually from 65 for beneficiaries born in 1937 or earlier to 67 for those born in 1960 or later), future Social Security replacement rates will fall unless workers delay claiming until they are older.

[60] GAO, *Retirement Security: Women Still Face Challenges*, GAO-12-699 (Washington, D.C.: July 19, 2012).

[61] Under the Trustees' intermediate assumptions. *The 2014 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds* (Washington, D.C.: July 28, 2014).

Surveys Show That Workers Age 55 and Older Approaching Retirement May Overestimate Their Ability to Earn Future Income

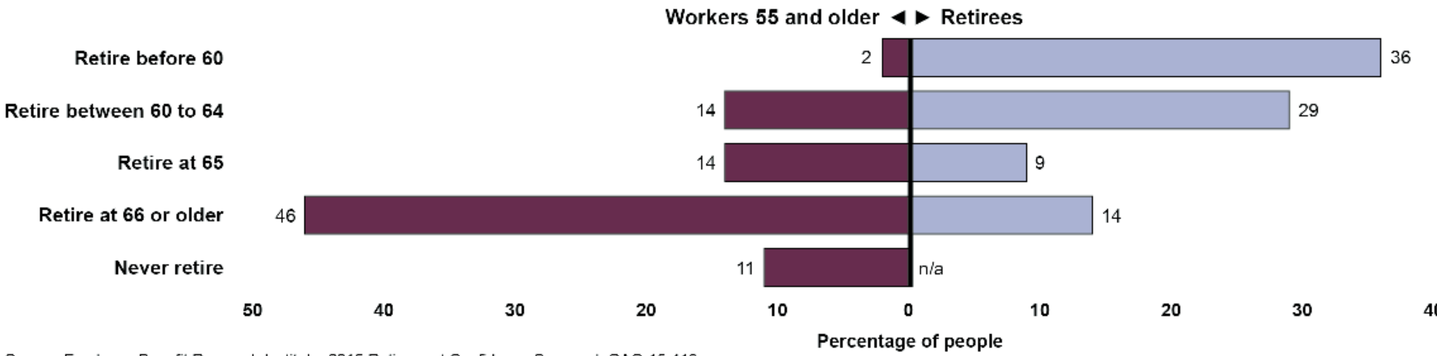
Surveys indicate that workers age 55 and older generally plan to retire at an older age and work more in retirement than current retirees actually did.[62] These plans may indicate that the current cohort of workers nearing retirement will in fact work longer than current retirees did. However, if these expectations for retiring later prove unrealistic or do not come to fruition, workers' retirement security may be at risk, since workers may have fewer years to work and save for retirement than they are planning.

According to the 2015 Employee Benefit Research Institute's (EBRI) Retirement Confidence Survey, among workers 55 and older, nearly half say they plan to retire at 66 or older, while 14 percent of current retirees report having done so (see fig. 5). Gallup polling indicates that plans to retire later may be associated with low confidence in retirement savings. In a 2013 Gallup survey, baby boomers who strongly disagree with the statement "you have enough money to do everything you want to do" plan to retire at 73, while those who strongly agree with the statement plan to retire at 66.[63] According to a 2013 Society of Actuaries survey, retirement expectations also vary by household income, with workers from lower-income households more likely to plan to retire at older ages than workers from higher-income households. Furthermore, among pre-retirees age 45 and older, 31 percent of those making less than $50,000 a year, 14 percent of those making between $50,000 and $99,000 a year, and 7 percent of those making $100,000 or more a year do not plan to retire. Among those who said they do not plan to retire, the dominant reason was the expectation of never having enough money to retire (55 percent).

[62] In this section, retirees refers to people who self-identify as retired, and the term is not dependent on age, unless stated otherwise in this report.

[63] Gallup defines baby boomers as people born between 1946 and 1964.

Figure 5: When Older Workers Plan to Retire Versus When Retirees Actually Retired[64]



Source: Employee Benefit Research Institute, 2015 Retirement Confidence Survey. | GAO-15-419

The EBRI study found that those who retired earlier than expected are more likely than other retirees to say they are not confident about having enough money for a comfortable retirement or paying for basic expenses, medical expenses, and long-term care expenses. Similarly, a 2008 study by Michael Hurd and Susan Rohwedder of RAND found that those who said that health was an important reason for retirement were disproportionally from the lowest wealth quartile, tended to retire earlier than planned, and reduced consumption more than others in retirement, indicating their standard of living may have dropped in retirement.[65]

Many people retire for reasons they did not anticipate or that are out of their control, further indicating that workers' financial plans for retirement may not hold and that workers may need to plan for uncertainty. According to the 2012 Health and Retirement Study (HRS), 43 percent of retirees report having felt forced into retirement, while the EBRI study reported that 50 percent of retirees left the work force earlier than planned.[66] Moreover, younger retirees are more likely to feel forced into retirement; according to the HRS, 51 percent of retirees age 55-64 felt forced into retirement, while 34 percent of retirees age 65-74 said the

[64] Numbers do not add up to 100 because the remainder of the respondents either did not to answer or said they did not know.

[65] Michael D. Hurd and Susan Rohwedder, *The Retirement Consumption Puzzle: Actual Spending Change in Panel Data.* (Cambridge, MA: National Bureau of Economic Research, April 2008.)

[66] GAO's analysis is based on data from the 2012 Health and Retirement Study. Confidence intervals are between 40.4 percent and 46 percent with 95 percent certainty.

same.[67] In the EBRI study, where respondents could report multiple reasons for retiring earlier than planned, some said they did so because they could afford to or wanted to do something else, but more cited reasons such as health problems or disability (60 percent), changes at their workplace (27 percent), and having to care for a spouse or another family member (22 percent).

Other events outside a worker's control, such as the 2007-9 recession, may have caused workers to change their retirement plans. The recession had disparate effects on people approaching retirement, causing some to retire earlier than expected, likely when they could not find employment, and others to retire later, likely because their retirement savings balances had dropped. According to a 2013 Federal Reserve study, 38 percent of people age 55-64 and 47 percent of people age 65-74 who had not yet retired reported that they delayed retirement since the recession, and 21 percent of people age 55-64 and 13 percent of people 65-74 who had retired reported retiring earlier than planned.[68]

The 2013 survey sponsored by the Society of Actuaries found that current workers age 45 and older expect similar sources of income in retirement as current retirees are receiving, with a few key exceptions. Specifically, in one exception, 59 percent of pre-retirees expect to receive income from a DB plan while 73 percent of retirees receive income from a DB plan; in another, 81 percent of pre-retirees expect income from an employment-sponsored retirement savings plan, while 53 percent of retirees receive this. Most notably, 57 percent of pre-retirees expect employment, including self-employment, to constitute a source of income in retirement, while 28 percent of retirees report having this.

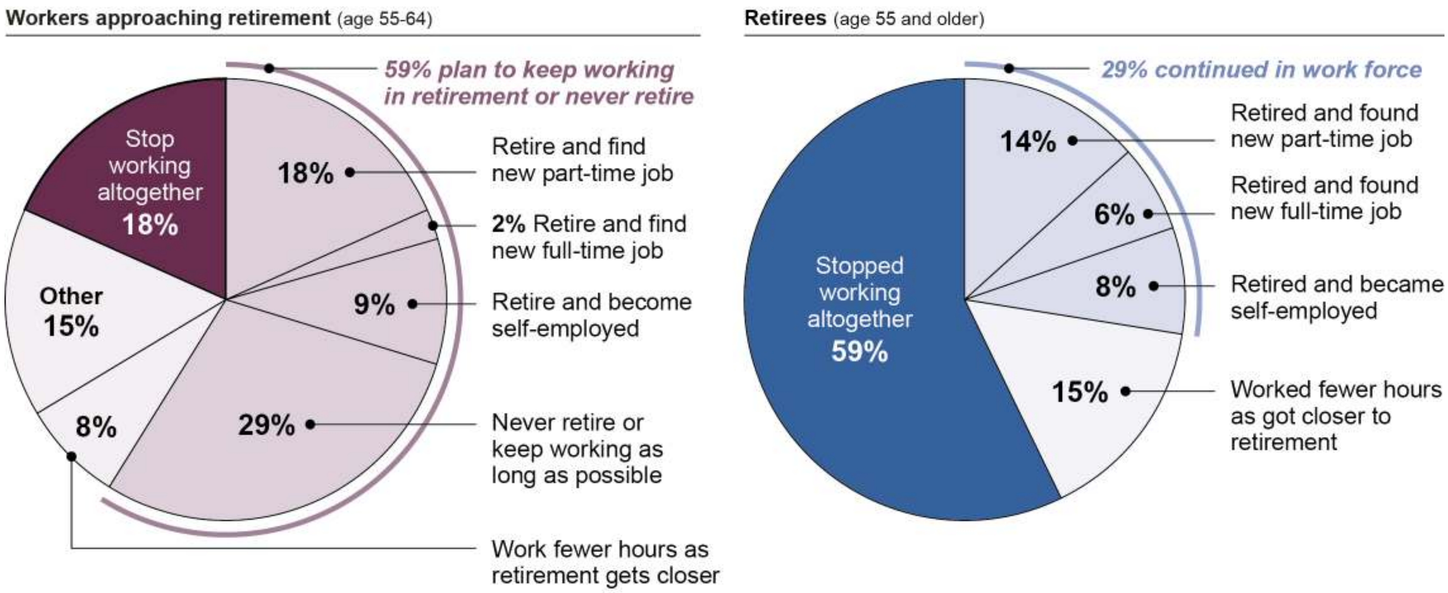
The Federal Reserve survey also suggests that many workers may unrealistically expect to continue working as long as possible or transition to new work when they "retire". Only 18 percent of workers approaching retirement who have done some planning for retirement expect to stop

[67] GAO's analysis is based on data from the 2012 Health and Retirement Study. Confidence intervals for 55-64–year-olds are between 46.8 percent and 54.8 percent with 95 percent certainty. Confidence intervals for 65-74-year-olds are between 29.5 percent and 38.1 percent with 95 percent certainty.

[68] GAO's analysis is based on data from the Federal Reserve's 2013 Survey of Household Economics and Decisionmaking. As with all survey data, there is an associated sampling error.

work completely at retirement, while 59 percent of workers plan to work as long as possible, or plan to shift jobs in retirement by finding a different job or working for themselves. This contrasts with the experiences of retirees, among whom 29 percent shifted jobs in retirement (see fig. 6).[69]

Figure 6: Comparison of Retirement Plans of Older Workers and How Retirees Left Their Jobs[70]



Source: Federal Reserve, 2013 Survey of Household Economics and Decision Making. | GAO-15-419

People Age 55-64 Are Less Confident about Their Financial Well-Being in Retirement Than Those over 65

As compared to people age 55-64, many people over 65 report being able to manage financially. According to a Federal Reserve survey, 72 percent of people age 65-74 and 84 percent of people 75 and older say they are managing okay or better financially, while only 59 percent of people age 55-64 report they are managing okay or better financially. [71]

[69] This includes those who retired from their previous career and then found a different full-time or part-time job or started working for themselves.

[70] Asked among workers who have done some planning for retirement. Retirees were able to report multiple responses for this question.

[71] Age groups refer to everyone in that age group, retired and working, unless stated otherwise.

While most people 65 and over have confidence in their retirement security, levels of confidence among people approaching retirement age are lower. According to an older EBRI survey, conducted in 2014, 69 percent of retirees say that their experience in retirement with respect to their finances has been about the same or better than they expected it to be. According to the 2013 Survey of Consumer Finances, two-thirds of households age 65-74 say their received or expected retirement income is at least enough to maintain living standards (66 percent). On the other hand, just over half (52 percent) of people age 55-64 say retirement income they expect or receive will be enough to maintain living standards.[72]

However, confidence in affording certain types of expenses in retirement varies, suggesting that expenses such as for long-term care may be a cause of concern for retiree financial security. According to the EBRI study, 82 percent of retirees are very or somewhat confident they will have enough money to take care of basic expenses in retirement, 78 percent are very or somewhat confident they will have enough to take care of medical expenses during retirement, and 59 percent are very or somewhat confident they will have enough money to pay for long-term care should they need it during retirement.

Moreover, poverty rates are higher for people approaching retirement and people who are 75 and older. According to the Current Population Survey, about 8 percent of people age 65-74 and 11 percent of those age 75-84 are in poverty, which is also the poverty rate for people age 55-64. Twelve percent of people 85 and older are in poverty.[73] The Supplemental Poverty Measure, an alternate poverty measure, found that 14 percent of people age 55-64 are in poverty according to this

[72] GAO analysis based on data from the 2013 Survey of Consumer Finances. The margin of error for 65-74 year olds is 3.2 percent with 95 percent certainty and for 55-64 year olds, 2.2 percent with 95 percent certainty.

[73] Considerable variation exists across demographic subgroups. A greater proportion of blacks, Hispanics, and women over the age of 65 are in poverty as compared to other groups.

definition.[74] For people 65-74, this number decreases to 12 percent, and then increases for the oldest Americans: 17 percent for people between 75-84, and 20 percent for people 85 and older. Lastly, according to the HRS, many retirees say that “not having enough income to get by” is a concern, with 41 percent of retirees saying that this “bothers or worries” them a lot.[75]

While 23 percent of retirees report working for pay since they retired, according to the 2015 EBRI study, the reasons people work in retirement vary, including that they enjoy working (83 percent) and want to stay active and involved (79 percent). Some other reasons include wanting money to buy extras (54 percent), needing money to make ends meet (52 percent), a decrease in the value of their savings or investments (38 percent), or keeping health insurance or other benefits (34 percent).[76]

[74] The official poverty measure from the Current Population Survey is sometimes used to determine eligibility for government programs and funding distributions. The Supplemental Poverty Measure (SPM) is considered an experimental measure. The SPM serves as an additional indicator of economic well-being and provides a deeper understanding of economic conditions and policy effects. First published in 2011, it calculates poverty thresholds using recent expenditures by families, including food, shelter, clothing, and utilities, and is adjusted for differences in family size, geographic variation in living costs, and homeownership. Unlike the official poverty measure, the SPM considers a family’s resources after taxes and transfer programs. Medical out-of-pocket expenses are also considered in the SPM, by being subtracted from a family’s resources. This means that SPM values health insurance in how it reduces out-of-pocket medical costs, but it does not account for the benefits of health insurance, such as access to medical providers or reduced stress from having insurance.

[75] GAO’s analysis is based on data from the 2012 Health and Retirement Study. Confidence intervals are between 32.8 percent and 48.9 percent with 95 percent certainty.

[76] The reasons retirees report working for pay is from the 2014 EBRI Retirement Confidence Survey, where 27 percent of retirees reported working for pay.

Agency Comments

We provided a draft of this report to the Department of Labor, the Department of the Treasury, and the Social Security Administration for review and comment. The Department of Labor provided technical comments, which we incorporated as appropriate. The Department of the Treasury and the Social Security Administration did not have comments.

As agreed with your office, unless you publicly announce the contents of this report earlier, we plan no further distribution until 30 days from the report date. At that time, we will send copies of this report to the Secretary of Labor, the Secretary of the Treasury, and the Commissioner of Social Security, and other interested parties. In addition, the report will be available at no charge on the GAO website at http://www.gao.gov.

If you or your staff have any questions about this report, please contact me at (202) 512-7215 or jeszeckc@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made contributions to this report are listed in appendix III.

Sincerely yours,

Charles A. Jeszeck
Director, Education, Workforce, and Income Security

Appendix I: Objectives, Scope, and Methodology

To analyze retirement savings and income for workers approaching retirement and for those of retirement age, we answered the following questions:

1. What financial resources do workers approaching retirement and current retirees have?
2. What evidence do studies and surveys provide about retirement security for workers and retirees?

Retirement Financial Resources

To describe the financial resources of near and current retirees, we examined financial information from the 2013 Survey of Consumer Finances (SCF). The SCF is a triennial survey of household assets and income from the Board of Governors of the Federal Reserve System (Federal Reserve). The 2013 SCF surveyed 6,026 U.S. households about their pensions, incomes, asset holdings and debts, and demographic information. The SCF is conducted using a dual-frame sample design. One part of the design is a standard, multistage area-probability design, while the second part is a special over-sample of relatively wealthy households. This is done in order to accurately capture financial information about the population at large as well as characteristics specific to the relatively wealthy. The two parts of the sample are adjusted for sample nonresponse and combined using weights to make estimates from the survey data representative of households overall. In addition, the SCF excludes people included in the Forbes magazine list of the 400 wealthiest people in the United States. Furthermore, the 2013 SCF dropped 11 observations from the public data set that had net worth at least equal to the minimum level needed to qualify for the Forbes list.

We found the 2013 SCF to be reliable for the purposes of our report. While the SCF is a widely used federal data source, we conducted an assessment to ensure its reliability. Specifically, we reviewed related documentation and internal controls, spoke with agency officials, and conducted electronic testing. When we learned that particular estimates were not reliable for our purposes–such as estimates of future DB income–or had sample sizes too small to produce reliable estimates, we did not use them.

Nonetheless, the SCF and other surveys that are based on self-reported data are subject to nonsampling error, including the inability to get information about all sample cases; difficulties of definition; differences in the interpretation of questions; respondents' inability or unwillingness to provide correct information; and errors made in collecting, recording, coding, and processing data. These nonsampling errors can influence the accuracy of information presented in the report, although the magnitude of their effect is not known.

Estimates from the SCF are also subject to some sampling error since the 2013 SCF sample is one of a large number of random samples that might have been drawn. Since each possible sample could have provided different estimates, we express our confidence in the precision of the sample results as 95 percent confidence intervals. These intervals would contain the actual population values for 95 percent of the samples that could have been drawn. In this report, we report percentage or other numerical estimates along with their 95 percent confidence intervals. Unless otherwise noted, all percentage estimates based on the SCF have 95 percent confidence intervals that are within 3 percentage points, and all numerical estimates other than percentages have 95 percent confidence intervals that are within 5 percent of the estimate itself. All financial figures reported using SCF data are in 2013 dollars and most are rounded to the nearest thousand dollars.

Where possible, we relied on variable definitions used for Federal Reserve publications using the SCF.[1] For example, we used the Federal Reserve's variable for age, which is the age of the household head.[2] We also used the Federal Reserve's variable for retirement savings, which included assets accrued in defined contribution (DC) plans such as 401(k) plans as well as individual retirement accounts (IRA).[3] We do not include the value of defined benefit (DB) plans, "traditional" pension plans that provide benefits based on a formula and typically pay lifetime benefits as an annuity unless a household has taken the benefit as a lump sum and converted it into an IRA or other account balance. Retirement savings also does not include savings held outside of a retirement account, which is included in financial assets as non-retirement savings. Similarly, we

[1] See Jesse Bricker, et al. "Changes in U.S. Family Finances from 2010 to 2013: Evidence from the Survey of Consumer Finances," Federal Reserve Bulletin, vol. 100, no. 4 (September 2014).

[2] For purposes of data organization, the Federal Reserve considers the household head to be the male within a mixed-sex couple and the older individual within a single-sex couple.

[3] This includes IRAs that have been rolled over, for example, from retirement savings plans.

used other Federal Reserve variables to describe additional resources asked about in the SCF, such as home ownership, financial assets (including savings in and outside of a retirement account), debt, and net worth. This measure of net worth does not include the total value of anticipated DB plan or Social Security benefits, in part because it is difficult to determine the present value of these benefits.[4]

An important exception to our use of Federal Reserve variables is our estimation of household income: in order to separately estimate key components of retirement income, such as Social Security and DB plans,[5] we developed our own variable for income while attempting to mirror the Federal Reserve's income variable as closely as possible. We consulted with Federal Reserve staff to inform our calculations of Social Security and DB plan income. One limitation to these income calculations is that Social Security and DB plan income are for the respondent and his or her spouse/partner for 2013, whereas other income is reported for the entire family for 2012. However, we believe the estimates are reliable for our purposes. For example, 88 percent of households age 65 and older consist only of the respondent and his or her spouse/partner. Further, we conducted electronic testing and found no statistically significant difference between estimates of income using our variables and the Federal Reserve's variables, either in aggregate or by various age groups. When describing the average share of household income from a particular source, we divided for each household the amount from that source by the household's total income, and reported the average across all households.[6]

To provide context to retirement savings amounts, we calculated annuity equivalents using the Thrift Savings Plan retirement calculator. This provides information on the approximate amount of monthly lifetime income participants in the Thrift Savings Plan could receive if they used their retirement savings to purchase an inflation-protected annuity through

[4] While we do include DB plan and Social Security benefits in retirement income, we include DB plan benefits in retirement savings only if a household has taken the benefit as a lump sum and rolled it into an IRA or other account balance.

[5] Income from DB plans includes traditional pensions with lifetime benefits and annuitized DC plans. In 2011, we found that few retirees with DC plans chose or purchased an annuity (GAO-11-400).

[6] We conducted this calculation for households with positive, non-zero income.

the plan.[7] The Thrift Savings Plan offers an annuity with monthly payments that increase each year up to 3 percent, based on inflation. Annuities purchased through other channels may provide different levels of lifetime income. If a household purchased an annuity without inflation protection, the initial amount of income would be higher. Similarly, different assumptions about the interest rate would change the annuity amount. For example, the calculator currently uses an interest rate of two percent as of the calculation date, though a higher interest rate would increase the annuity amount.

Defining retirement for Americans is not without difficulty, as retirement is a nebulous concept and different people may define retirement for themselves differently. Self-defined retirees may work or not claim Social Security benefits, while people who do not identify as retired may claim Social Security benefits or not work. For the purpose of this report, we discuss households and workers nearing retirement age as 55-64 to isolate near retirees and determine retirement readiness, though some of this group may in fact be retired. We discuss the age group 65-74 to examine retirees in the first stage of retirement, although some members of this group may not be retired. Finally, we discuss the age group 75 and older, most of whom we expect to be retired.

Studies and Surveys on Retirement Security

To analyze other evidence of retirement security, we reviewed several studies of retirement adequacy and compared and contrasted their methodologies and findings. These included academic studies based on formal models of optimal saving behavior and consumption patterns, those that projected savings levels in retirement based on recent savings data, and other reports examining the levels, adequacy, and sources of retirement wealth. We selected savings projections models that we had familiarity with from past GAO reports, and chose other studies and reports based on recommendations from internal and outside stakeholders. We also interviewed authors of studies and other retirement experts about retirement readiness.

We also reviewed survey questions of retirees and workers approaching retirement age to infer information about their experiences of saving for

[7] While we reported rounded savings amounts, we based the annuity equivalent estimates off of non-rounded amounts.

and living in retirement. These surveys asked questions regarding financial well-being, confidence in being able to afford a comfortable retirement, and expectations of when and how people plan to retire contrasted with the actual experiences of current retirees. We analyzed the most recent available data from all of the surveys used as of April 2015.

The University of Michigan's Health and Retirement Study (HRS) is a longitudinal panel study that surveys a representative sample of approximately 26,000 Americans over the age of 50 every 2 years, with new cohorts being added to the sample every 6 years. The HRS also includes off-year studies to cover specific topics, like consumption, in depth. GAO used data from the 2012 core survey. As with all survey data, some statistical imprecision exists in the data that are presented in this report.

The Federal Reserve's 2013 Survey of Household Economics and Decisionmaking is a first-time survey conducted by the Federal Reserve to better understand the financial state of U.S. households. The survey was conducted by the Board's Division of Consumer and Community Affairs in September 2013 using a nationally representative online survey panel. The survey was administered by GfK, an online consumer research company. It created a nationally representative probability-based sample by selecting respondents, adults 18 years and older, based on both random digit dialing and address-based sampling. A total of 4,134 surveys were fully completed. The data are weighted using the variables of gender, age, race/ethnicity, education, census region, residence in a metropolitan area, and access to the Internet. Demographic weighting targets are based on the Current Population Survey. As with all survey data, some statistical imprecision exists in the data that are presented in this report.

Gallup conducts daily tracking of public opinion through the Gallup U.S. Daily. For the Gallup U.S. Daily, Gallup samples 3,500 respondents a week, 15,000 a month, and 175,000 a year. Surveys are conducted among U.S. adults ages 18 and older, using both landline and cell phone numbers. Each sample of national adults includes a minimum quota of 50 percent cell phone respondents and 50 percent landline respondents. The data are weighted by gender, age, race, Hispanic ethnicity, education, region, population density, and phone status. Demographic weighting targets are based on the Current Population Survey. Gallup samples landline and cell phone numbers using random-digit-dial methods. The results we reported on are based on the sub-sample of baby boomers, or

1,929 adults born from 1946 through 1964. The margin of sampling error is plus or minus 4 percentage points at the 95 percent confidence level.

The 2015 Retirement Confidence Survey, conducted by the Employee Benefit Research Institute (EBRI) and Greenwald & Associates, is an annual survey on the views and attitudes of working-age and retired Americans regarding retirement, their preparations for retirement, their confidence with regard to various aspects of retirement, and related issues. The survey was conducted in January and February 2015 through 20-minute telephone interviews with 2,004 individuals (1,003 workers and 1,001 retirees) age 25 and older in the United States. Random-digit dialing was used to obtain a representative sample, as well as a cell phone supplement. All data are weighted by age, sex, and education to reflect the actual proportions in the adult population. The weighted samples of workers and retirees yield a statistical precision of plus or minus 3.5 percentage points, with 95 percent certainty, of what the results would be if all Americans age 25 and older were surveyed with complete accuracy.

The 2013 Risks and Process of Retirement Survey, sponsored by the Society of Actuaries and prepared by Greenwald & Associates, is a survey intended to provide insights into how Americans decide to retire, how they perceive post-retirement risks, and how they manage financial resources in retirement. The survey was conducted online among Americans age 45-80 and included both pre-retirees and retirees at all income levels. A total of 2,000 interviews, half among pre-retirees and half among retirees, lasting an average of 20 minutes, were conducted using Research Now's online consumer panel from August 19-28, 2013. The sample data are weighted by age, sex, and census region to the 2012 population estimates released by the Census Bureau. As with all survey data, some statistical imprecision exists in the data that are presented in this report.

The official poverty rates and Supplemental Poverty Measures that we report come from the Census Bureau. The official poverty rate is sometimes used to determine eligibility for government programs and funding distributions. The Supplemental Poverty Measure is considered an experimental measure and serves as an additional indicator of economic well-being and provides a deeper understanding of economic conditions and policy effects. We reported on the poverty rates for older Americans, to indicate financial well-being.

For all survey data used in this report, we reviewed methodological documentation and, when appropriate, interviewed individuals knowledgeable about the data and conducted electronic testing. Based on this, we found the data to be reliable for the purposes used in this report.

Appendix II: List of Selected Studies of Retirement Income Adequacy

Aon Hewitt, "The Real Deal: 2012 Retirement Income Adequacy at Large Companies – Highlights," (2012), accessed April 8, 2015, http://www.aon.com/human-capital-consulting/thought-leadership/retirement/survey_2012_the-real-deal.jsp.

Biggs, Andrew G. and Sylvester Schieber, "Is There a Retirement Crisis?" *National Affairs,* no. 20 (Summer 2014): 55-75.

Brady, Peter, Kimberly Burham, and Sarah Holden. *The Success of the U.S. Retirement System*. Investment Company Institute. Washington, D.C.: December 2012.

Favreault, Melissa M., Richard W. Johnson, Karen E. Smith, and Sheila R. Zedlewski, "Boomers' Retirement Income Prospects." Urban Institute. Brief no. 34 (February 2012).

Hurd, Michael D. and Susan Rohwedder, "Economic Preparation for Retirement." *Investigations in the Economics of Aging*, ed. David A. Wise. Chicago: University of Chicago Press (May 2012), 77-113.

Munnell, Alicia H., Wengliang Hou, and Anthony Webb, "NRRI Update Shows Half Still Falling Short." Center for Retirement Research at Boston College, Number 14-20. (December 2014).

Rhee, Nari and Ilana Boivie, "The Continuing Retirement Savings Crisis." National Institute on Retirement Security. Washington, D.C.: March 2015.

Scholz, John Karl, Ananth Seshadri, and Surachai Khitatrakun, "Are Americans Saving 'Optimally' for Retirement?" *Journal of Political Economy*. vol. 114, no. 4. (2006): 607-643.

VanDerhei, Jack, "Retirement Income Adequacy for Boomers and Gen Xers: Evidence from the 2012 EBRI Retirement Security Projection Model." Employee Benefit Research Institute, *Notes,* vol. 33, no. 5 (May 2012).

Appendix III: GAO Contact and Staff Acknowledgments

GAO Contact

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Staff Acknowledgments

Michael Collins (Assistant Director), Mark Glickman, Shilpa Grover, and Laura Hoffrey made key contributions to this report. In addition, support was provided by James Bennett, Mitchell Karpman, Kathy Leslie, Sheila McCoy, Susan E. Offutt (GAO Chief Economist), Mark Ramage, Joseph Silvestri, Frank Todisco (GAO Chief Actuary), Walter Vance, Charles Willson, and Craig Winslow.

Related GAO Products

Private Pensions: Participants Need Better Information When Offered Lump Sums That Replace Their Lifetime Benefits, GAO-15-74. Washington, D.C.: January 27, 2015.

Retirement Security: Challenges for Those Claiming Social Security Benefits Early and New Health Coverage Options, GAO-14-311. Washington, D.C.: April 23, 2014.

Retirement Security: Trends in Marriage and Work Patterns May Increase Economic Vulnerability for Some Retirees, GAO-14-33. Washington, D.C.: January 15, 2014.

401(k) Plans: Other Countries' Experiences Offer Lessons in Policies and Oversight of Spend-down Options, GAO-14-9. Washington, D.C.: November 20, 2013.

Automatic IRAs: Lower-Earning Households Could Realize Increases in Retirement Income, GAO-13-699. Washington, D.C.: August 23, 2013.

401(k) Plans: Labor and IRS Could Improve the Rollover Process for Participants, GAO-13-30. Washington, D.C.: March 7, 2013.

Retirement Security: Annuities with Guaranteed Lifetime Withdrawals Have Both Benefits and Risks, but Regulation Varies across States, GAO-13-75. Washington, D.C.: December 10, 2012.

Retirement Security: Women Still Face Challenges, GAO-12-699. Washington, D.C.: July 19, 2012.

Unemployed Older Workers: Many Experience Challenges Regaining Employment and Face Reduced Retirement Security, GAO-12-445. Washington, D.C.: April 25, 2012.

Retirement Income: Ensuring Income throughout Retirement Requires Difficult Choices, GAO-11-400. Washington, D.C.: June 7, 2011.

Private Pensions: Some Key Features Lead to an Uneven Distribution of Benefits, GAO-11-333. Washington, D.C.: March 30, 2011.

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