



Statement before the United States Senate
Committee on Finance

“Retirement Savings 2.0: Updating Savings Policy for the Modern Economy”

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The views expressed in this testimony are those of the author alone and do not necessarily represent those of the American Enterprise Institute.

Chairman Wyden, Ranking Member Hatch and Members of the Committee:

Thank you for the opportunity to testify with regard to the challenges facing Americans as they prepare for retirement.

Americans do not face a “retirement crisis”: while we may read in the newspapers that vast majorities of Americans are underprepared for retirement, the best research – including sophisticated modeling undertaken by the Social Security Administration – shows a more optimistic picture. Many retirees today face income challenges and many will in the future. But the picture today is not of a crisis and the best forecasts do not show retirement security declining significantly as the Baby Boom and Gen-X generations retire. I discuss this research below.

But that does not mean we have nothing to worry about. Even if only one-quarter of Americans are undersaving, and by relatively modest amounts, in a country of three hundred million people that means millions will not be able to maintain their standard of living as they shift from work into retirement. I will discuss who may be falling short in preparing for retirement and what policymakers might do to help.

Finally, I include a brief discussion of a recent controversy over how to measure “replacement rates” for Social Security benefits.

Introduction

There is a widespread perception that our country faces a “retirement crisis.” For instance, the National Retirement Risk Index published by the Center for Retirement Research at Boston College states that at least 53% of Americans are “at risk” of an insufficient retirement income, with higher numbers once we account for retiree health costs.¹ The National Institute on Retirement Security goes further, claiming that up to 84% of Americans are underprepared and that the total “retirement savings gap” approaches \$14 trillion.² A recent study from the New America Foundation claims that Americans receive little retirement income from IRA and 401(k) plans, and proposes to do away with tax preferences for private retirement saving and to expand Social Security benefits by 50%.³

These claims, I believe, are mistaken.⁴ The studies cited above tend to underestimate the incomes that Americans will have in retirement while overestimating how much Americans will need to maintain their pre-retirement standards of living. Other research, including research from the Social Security Administration, shows a different picture. Yes, there are some future Americans who will fall short in retirement, just as there are some retirees who are falling short today. But this research does not support the claim that retirement security is rapidly eroding and does not, to my mind, justify turning our retirement system upside down.

Do we have a retirement crisis today?

It is worth starting by evaluating the status of retirees in America today. According to the Census Bureau, the poverty rate for people aged 65 and older was 9.1%, versus 13.7% for those aged 18 to 64 and 21.8% for children under age 18.⁵ Moreover, the poverty rate among retirees is almost certainly overstated, because the Census Bureau does not count most withdrawals from IRA and 401(k) retirement accounts as “income.”⁶

But an adequate retirement income isn't merely one that keeps you out of poverty. A more important measure of retirement income adequacy, which applies to rich and poor alike, is whether your retirement income allows you to maintain your pre-retirement standard of living. This approach is consistent with the "life cycle model" in economics, in which individuals prefer to smooth their consumption from year to year rather than having a pattern of feast-and-famine.

One way to measure retirement security is via "replacement rates." A replacement rate as commonly understood in the U.S. measures an individual's retirement income as a percentage of that individual's pre-retirement earnings. Financial advisors generally measure replacement rates relative to earnings immediately prior to retirement; policy analysts often favor career-average earnings adjusted for inflation, as this measure better reflects the total purchasing power – and thus the standard of living – a person enjoyed in their pre-retirement years.

The Social Security Administration's Office of Retirement and Disability uses a sophisticated computer model known as "MINT" (Modeling Income in the Near Term) to estimate incomes for current and future groups of retirees. MINT was developed beginning in the late 1990s in cooperation with the Urban Institute, the RAND Corporation, and the Brookings Institution. MINT combines Social Security earnings records, Census survey results and other data to simulate thousands individuals over their full lives: person-by-person, year-by-year, program-by-program. Each year the model simulates individuals' earnings, education, health status, work, marriage, disability, and retirement saving. MINT calculates not just Social Security benefits, but also earnings, asset income, pensions and government benefits such as SSI, Food Stamps, WIC, TANF and even heating and rental assistance. MINT is currently in Version 7 and the model is regularly peer-reviewed by experts both inside and outside the SSA.

According to SSA's MINT model, the so-called "Depression Babies" (born 1926-1935) had a median income at age 67 equal to 109% of the household's career-average earnings adjusted for inflation. SSA estimates that the "War Babies" (born 1936-1945) had a median replacement rate of 119% of average pre-retirement earnings. The "Leading Boomers" (born 1946-1955), who are retiring today, have an estimated replacement rate of 116% of average pre-retirement earnings.⁷

The question is, are these replacement rates sufficient to allow retirees to match their pre-retirement standard of living? A 2009 research paper commissioned by the SSA and authored by economists John Karl Scholz and Ananth Seshadri of the University of Wisconsin estimated that a typical household could maintain its standard of living from work into retirement if it had a retirement income equal to 68% of its inflation-averaged pre-retirement earnings.⁸ By this standard, the MINT figures indicate that the typical retiree today is faring quite well. Moreover, the MINT model indicates that only around 26% of current retirees have retirement incomes below 75% of their average pre-retirement earnings and only 8% had replacement rates below 50%. From these figures, it is difficult to conclude that current retirees face a "crisis."

An alternate way to judge the income security of current retirees is simply to ask them: according to Gallup, 75% of current retirees report having enough money to live comfortably.⁹ Ohio State economist Jason Seligman finds, using data from the federally-sponsored Health and Retirement Study, that 68% of current retirees deem themselves "very satisfied" in retirement, with another 23% calling themselves "moderately satisfied." Just 14% report that their retirement years are "not as good" as the years immediately preceding retirement.¹⁰ RAND Corporation economists Michael Hurd and Suzanne Rohwedder find that most current retirees "seem to be

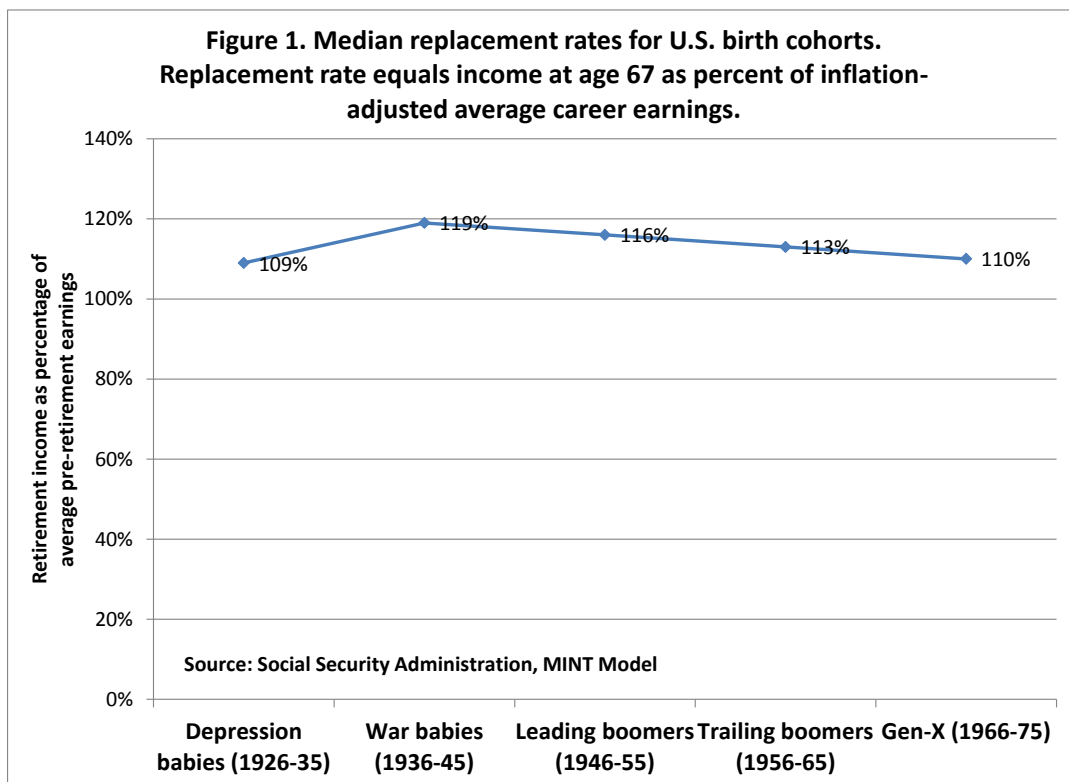
pleasantly surprised by their level of resources.”¹¹ So retirees’ perceptions seem to match up with the data: there doesn’t seem to be a retirement crisis today.

Will there be a retirement crisis in the future?

If there isn’t a retirement crisis today, it does not seem likely there will be one in the future, as the best retirement models do not project that future retirees will have significantly lower replacement rates than current retirees.

Figure 1 shows the SSA MINT model’s projections of replacement rates for current and future cohorts of retirees. MINT’s modeling of retirement saving is far more sophisticated than that of the headline-producing studies you may read about. MINT’s pension module tracks the decline of traditional defined benefit pensions and the spread of 401(k)s, including innovations such as automatic pension enrollment. It even estimates the mix of investments that individuals choose, and now incorporates “life cycle” funds that shift from stocks to bonds as workers near retirement. By contrast, it has recently been pointed out that some models that predict a “retirement crisis” may partially rely on stale data on 401(k) plans from the 1980s, when these plans were only getting started.¹²

As noted above, SSA’s MINT model estimates that today’s retirees had income replacement rates at age 67 of between 109 and 119% of their career-average pre-retirement earnings, adjusted for inflation. For the Trailing Boomers (born 1956-1965) MINT project a median replacement rate of 113%. The GenXers (born 1966-1975) have a projected median replacement rate of 110%.



These simply aren't big differences. In fact, SSA projects that the GenXers will have the same replacement rates as the Depression birth cohorts, who enjoyed the "Golden Age" of retirement where traditional defined benefit pensions were more common widespread and Social Security benefits more generous. The reality is that the "Golden Age" wasn't so golden: most workers didn't have traditional pensions, and many who did participate in such plans failed to vest in their benefits. Likewise, today's retirement situation isn't nearly as bad as many critics like to claim.

Nor do the MINT model's projections show an emerging retirement underclass that lives in poverty even as others do well. As noted above, MINT estimates that only 26% of Depression Babies had replacement rates below 75% and only 8% had replacement rates below 50%. For the GenXers, who it is claimed face a retirement crisis, MINT projects that 25% will have replacement rates below 75% and 8% will have replacement rates below 50%. These are hardly figures to inspire apocalyptic reactions.

The Employee Benefit Research Institute developed its own Retirement Security Projection Model which comes to broadly similar conclusions: "the overall retirement income adequacy prospects for GenXers [are] approximately the same as Early Boomers and Late Boomers," EBRI says.¹³

The face of retirement income is changing dramatically: for instance, MINT projects that half as many future retirees will receive income from traditional DB pensions while twice as many will retire with IRAs and 401(k) accounts. But SSA's MINT model, which is the most sophisticated in the business, does not project large changes in the overall level of income adequacy for future generations of retirees.

What does this mean for retirement policy?

Just because we don't face a retirement crisis does not mean that every retiree will be financially secure. Nevertheless, the solutions to a smaller, more targeted problem are different than when the retirement system seems to be failing for the vast majority of people.

RAND economists Michael Hurd and Susanne Rohwedder find that 71% of Americans currently aged 66-69 are adequately prepared for retirement.¹⁴ Likewise, the University of Wisconsin's Karl Scholz and Ananth Seshadri along with the Brookings Institution's William Gale conclude that only around 26% of households are currently under-saving for retirement. Those who are under-prepared have savings about 17% below where they should be. The authors conclude that while "some households will need to ratchet their living standards downward in retirement, most Americans are, by in large, preparing sensibly, given the existing generosity of social security, Medicare, and pension arrangements."

This picture is consistent with the SSA MINT figures I cited above, but is very different from the studies that so often generate headlines. Where we need more and better research is figuring out precisely *who* those under-prepared Americans are, by *how much* they fall short of their saving goals, and *what can be done* to help them. For instance, while Hurd and Rohwedder find that most Americans are well-prepared for retirement, they also find that only 29% of single women without a high school education are well-prepared for retirement. This is a small group, but within that group the need is great. These individuals are less likely to have access to an employer-sponsored pension plan. Moreover, because Social Security's benefit formula favors

married couples over individuals, single low-income women may not do as well from the system as others.

Percentages of Americans Ages 66–69 Adequately Prepared for Retirement (Source: Hurd and Rohwedder 2014)							
Education Level	All	Single Persons			Married Persons		
		All Single Persons	Males	Females	All Married Persons	Males	Females
Did not complete high school	54%	36%	64%	29%	70%	70%	70%
High school	74%	62%	67%	61%	80%	77%	81%
Some college	71%	54%	63%	51%	81%	77%	83%
College and above	83%	69%	65%	70%	89%	87%	90%
All	71%	55%	65%	51%	80%	78%	81%

Hurd, Michael D., and Susann Rohwedder. "More Americans May Be Adequately Prepared for Retirement Than Previously Thought." (2014).

SSA’s MINT model has the data necessary to conduct these kinds of analyses at the level of detail that can inform policymakers and SSA’s Office of Retirement and Disability Policy has staff qualified to undertake such research. As elected officials you might encourage the agency’s leadership to support research of this kind.

Given what we do know, however, we can propose several steps.

Automatic enrollment in retirement plans is probably the single most effective step we could take to increase retirement saving. My own view is that auto-enrollment is far more effective than other policies, such as contribution matches, and should be the default for any employer wishing to improve the retirement security of its employees. Prof. Madrian, who is also testifying at today’s hearing, is probably the nation’s leading expert in this area.

Investment costs are also an important factor, as Mr. Bogle can testify. Costs are generally expressed as a percentage of assets under management, which means that the impact of these costs is easily grasped: if a mutual fund has an administrative cost of 1% of assets, then the net return to the employee will be 1 percentage point lower than under a (hypothetical) zero-cost plan. Every investment carries some costs, and administering plans will be more expensive for small employers than for large plans. Nevertheless, I believe that focusing pension offerings on low-cost index funds, as the federal Thrift Savings Plan does, could be of great benefit to savers.

A broader question is how to increase access to retirement saving plans for those who are not currently offered a pension. Research from the Social Security Administration using employer tax records found that 72% of all workers in 2006 were offered a retirement plan by their employer; among firms with 100 or more employees, 82% of workers were offered a retirement plan.¹⁵ This is a significantly higher rate of pension offering than the 50% figure that often is cited, but which relies upon less reliable surveys of employees rather than employer tax records.¹⁶ Nevertheless, SSA found that only 34% of employers with fewer than 10 employees,

and 46% of employers with 10-24 employees, offered a retirement plan. These smaller employers cite the complexity and costs of maintaining a plan, which can include legal, accounting, consulting, record-keeping and communication services. For a small business this may simply be more than they can handle. Some experts propose a “Super Simple” savings plan that reduces cost and complexity for small employers while maintaining the tax benefits that make 401(k) plans attractive.¹⁷

It also is worth addressing proposals that I believe are more problematic. Specifically, a number of plans exist in the House, Senate and think tanks to expand the Social Security program. Social Security is already underfunded by more than \$10 trillion over the next 75 years. According to the CBO, Social Security’s long-term shortfall has quadrupled over the past six years, from 1% of payroll to 4%. Expanding Social Security under these circumstance raises problems that are almost too obvious to mention.

In the interest of clarity, however, I will mention two. First, such plans “use up” policy options that that previously had been pegged for restoring Social Security’s solvency and instead use them to raise benefits. For instance, some people favor improving Social Security’s finances by lifting the \$117,000 ceiling upon which payroll taxes are levied. This would generate additional revenues for the program. Most Social Security expansion plans also lift the so-called “tax max” but use the extra revenues to increase benefits. These plans do relatively little to improve Social Security’s finances, but leave fewer options on the table when Congress does eventually act on Social Security reform.

Moreover, it’s not clear that raising benefits across the board would help the people who are mostly likely to be falling short in retirement. For instance, I mentioned above that single, less-educated women appear to be at particular financial risk in retirement. What you may not know is that, under Social Security’s benefit formula, a single, low-income woman who works and contributes to Social Security every year of her life would receive a lower benefit in retirement than the non-working spouse of a high-wage earner. This is despite the fact that the single woman both needs the benefits more and has paid more into the program. Likewise, individuals with full working careers are often penalized versus those who fit all their earnings into just 35 years, the period over which Social Security averages earnings in order to calculate benefits. Single women have significantly greater labor force participation than married women and thus are more likely to be denied credit for working more than 35 years. An across-the-board benefit increase won’t fix this problem.

Similarly, the Social Security Administration estimates that 4% of retirees will never receive benefits from the program. These so-called “never-beneficiaries” have

lower education levels and higher proportions of women, Hispanics, immigrants, the never-married, and widows than the beneficiary population. Never-beneficiaries have a far higher poverty rate (about 44%) than current and future beneficiaries (about 4%). Ninety-five percent of never-beneficiaries are individuals whose earnings histories are insufficient to qualify for benefits.¹⁸

And under proposals to expand Social Security, these individuals would remain never-beneficiaries because these plans deal principally with benefit levels, not the way people qualify for benefits or how those benefits are allocated.

To address these issues, I and others have proposed a universal, flat benefit paid to all retirees, regardless of their earnings or workforce participation. On top of this, individuals would save for retirement in accounts that would supplement Social Security.¹⁹ This approach would effectively take the poverty rate among seniors from about 9% to zero percent, while making Social Security a more reliable and understandable social insurance benefit for those who need it the most. Yes, middle and high income workers would need to save more on their own. But these are individuals who could, should and would save more for retirement if they saw the need to do so. Other countries' pension plans, such as in the United Kingdom, New Zealand, Australia and Canada, embrace this broad theme. Such an approach can improve retirement security, lower poverty rates, and increase real retirement saving.

In short, we don't need to make Social Security larger so much as make it work better.

Appendix: The Replacement Rates Controversy

In recent months a debate has developed over how to calculate “replacement rates” for Social Security. Replacement rates are a common measure of benefit adequacy, but there is no single agreed-upon way in which to calculate replacement rates. This can create confusion among consumers of this information. For instance, financial advisors often recommend that retirees have a replacement rate of 70% of their final earnings immediately prior to retirement. But one cannot apply this 70% target to replacement rates calculated in other ways. For instance, SSA has commonly stated that a typical individual receives a replacement rate of 40 percent from the program, but this figure is calculated by SSA’s actuaries using a different method. Thus, in my view, there is an apples-and-oranges problem.

Until 2014, the annual Social Security Trustees Report published replacement rates for stylized individuals at different earnings levels. The Trustee’s 2013 Report makes clear that discomfort was growing with regard to how these figures were calculated. The Trustees noted that SSA’s

method of calculation produces percentages that may differ significantly from those that would be produced by comparing benefits to these representative workers’ recent average earnings levels or to other more common measures of pre-retirement income.²⁰

In 2014, the Trustees Report ceased publishing replacement rates. SSA’s Office of the Chief Actuary has recently published Social Security replacement rates under its own auspices and issued an actuarial note defending its figures.²¹

Not surprisingly, these events have generated controversy, including accusations of political manipulation. In reality, what is happening is a technical – but very important – debate among retirement policy analysts. The whole debate cannot be outlined here, but it might help to distinguish between two types of replacement rates:

- *American-style replacement rates*: these measure a retiree’s income as a percentage of *that retiree’s* previous earnings and thus represent the degree to which the retiree can maintain his pre-retirement standard of living.
- *European-style replacement rates*: these measure retirees’ incomes in a given year as a percentage of workers’ incomes in that same year, and thus compares retirees’ standard of living to that of working-age members of society.

The point isn’t that one approach is better than another, but that they measure very different things. Economists Olivia Mitchell of Wharton and John Phillips of the National Institutes of Health state that the ratio of pension benefits to average wages “is commonly used in Europe, where retirement adequacy is often judged according to whether retirees maintain a given relative position vis-à-vis current working cohorts.” But, Mitchell and Phillips, note “Historically in the United States, policy makers have tended to prefer a replacement rate measure tied to workers’ own past earnings.”²²

While SSA’s actuaries describe their figures as American-style replacement rates, in reality the actuaries’ figures are European-style replacement rates which compare benefits paid to retirees today with the wages earned by workers today. This is easily demonstrated with data from Table V.C7 of the 2014 Trustees Report, which includes annual benefit amounts for SSA’s stylized workers retiring in a given year along with the annual wages paid to workers in that year. To illustrate, SSA’s stylized medium earner retiring in 2014 receives an annual benefit of

\$19,477; the average wage paid to workers in 2014 is estimated at \$46,787. Divide the two figures and get 41.6%, which is almost precisely equal to the 41.1% replacement rate published by SSA's actuaries that purports to compare the median earner's benefits to his own *pre-retirement* earnings.²³ Simply put, the replacement rate figures that previously were published in the Social Security Trustees Reports do not represent what most readers think they represent, and thus they may incorrectly shape perceptions of retirement income adequacy and Social Security policy.

SSA's Office of the Chief Actuary has cited international organizations such as the OECD, stating that SSA is following an "internationally recognized standard" in calculating replacement rate. But the OECD as an institution explicitly defines the replacement rate as "The ratio of an individual's (or a given population's) (average) pension in a given time period and the (average) income in a given time period."²⁴ The World Bank and IMF also measure replacement rates relative to average incomes at the time, but similarly do not claim that these figures are measures of retirement income adequacy.²⁵ SSA's actuaries point to a single OECD publication that *describes* its replacement rates as being measured relative to pre-retirement earnings, but this publication – like others from the OECD, IMF and World Bank – in fact compares benefits paid to today's retirees to the incomes of today's workers.

When we measure replacement rates relative to workers' prior earnings, the adequacy of Social Security benefits appears to be higher. For instance, while the standard belief is that Social Security pays a typical worker a replacement rate of around 40 percent of his pre-retirement earnings, in a 2008 study published with Glenn Springstead of SSA I found that the median household aged 64-66 in 2005 received a Social Security benefit equal to 53 percent of its inflation-adjusted career-average earnings.²⁶

But further research is necessary: the replacement rates that Social Security pays to beneficiaries vary widely: even among retirees with the same lifetime earnings, some receive very high replacement rates and others receive much lower replacement rates.²⁷ At the same time, Scholz and Seshadri show that the target replacement rates for households also vary considerably, based upon factors such as marital status, income level, and the number of children a household has. While the authors calculated a median target replacement rate of 68 percent of inflation-averaged lifetime earnings, 48 percent of households have optimal replacement rates below 65 percent and 37 percent of households have optimal replacement rates above 90 percent. At this time we have little idea of how well Social Security is matching replacement rates to households' actual needs. But this is the sort of research topic that SSA's Office of Retirement and Disability Policy is well-situated to address.

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- ¹ Munnell, Alicia H., Anthony Webb, and Luke Delorme, 2006, “A New National Retirement Risk Index,” Center for Retirement Research at Boston College.
- ² Nari Rhee. “The Retirement Crisis: Is It Even Worse Than We Think?” The National Institute on Retirement Security. June 2013.
- ³ Lind, Michael, Joshua Freedman, Steven Hill, and Robert Hiltonsmith. “Expanded Social Security: A Plan to Increase Retirement Security for All Americans.” New America Foundation. April 2013.
- ⁴ The discussion here draws upon Biggs, Andrew G. and Sylvester J. Schieber. “Is There a Retirement Crisis?” *National Affairs* 20, Summer 2014, pp. 55-75. Also see Pang, Gaobo, and Sylvester J. Schieber. “Why American Workers’ Retirement Income Security Prospects Look So Bleak: A Review of Recent Assessments.” *The Journal of Retirement* 2.1 (2014): 35-54.
- ⁵ Source: United States Census Bureau. <https://www.census.gov/hhes/www/poverty/about/overview/>
- ⁶ Miller, Billie Jean, and Sylvester J. Schieber. “Contribution of Pension and Retirement Savings to Retirement Income Security: More Than Meets the Eye.” *The Journal of Retirement* 1.3 (2014): 14-29.
- ⁷ See Butrica, Barbara A., Karen E. Smith, and Howard M. Iams. “This Is Not Your Parents’ Retirement: Comparing Retirement Income Across Generations.” *Social Security Bulletin* 72 (2012): 37.
- ⁸ Scholz, John Karl, and Ananth Seshadri. “What Replacement Rates Should Households Use?” University of Michigan, Michigan Retirement Research Center, 2009.
- ⁹ Gallup. “U.S. Retirees More Financially Comfortable Than Nonretirees.” June 4, 2013. <http://www.gallup.com/poll/162890/retirees-financially-comfortable-nonretirees.aspx>
- ¹⁰ Seligman, Jason S. “Missing the Mark: Employment Related Risks to Retirement Security for Older Workers.” TIAA-CREF Policy Briefs (2010).
- ¹¹ Hurd, Michael, and Susann Rohwedder. “The Retirement-Consumption Puzzle.” RAND Labor and Population Working Paper (2005).
- ¹² VanDerhei, Jack, “Contributory ‘Negligence?’ The Impact of Future Contributions to Defined Contribution Plans on Retirement Income Adequacy for Gen Xers” EBRI Notes, Vol. 35, No. 8, August 2014.
- ¹³ VanDerhei, Jack, “Contributory ‘Negligence?’ The Impact of Future Contributions to Defined Contribution Plans on Retirement Income Adequacy for Gen Xers” EBRI Notes, Vol. 35, No. 8, August 2014.
- ¹⁴ Source: Hurd, Michael D., and Susann Rohwedder. “More Americans May Be Adequately Prepared for Retirement Than Previously Thought.” (2014). Also see Hurd, Michael D., and Susann Rohwedder. “Adequacy of economic resources in retirement and returns-to-scale in consumption.” Michigan Retirement Research Center Research Paper No. WP 174 (2008).
- ¹⁵ Dushi, Irena, Howard M. Iams, and Jules Lichtenstein. “Assessment of Retirement Plan Coverage by Firm Size, Using W-2 Tax Records.” Soc. Sec. Bull. 71 (2011): 53.
- ¹⁶ See Rhee (2013).
- ¹⁷ Perun, Pamela, and C. Eugene Steuerle. 2008. “Why Not a ‘Super Simple’ Saving Plan for the United States?” Washington, DC: The Urban Institute. Opportunity and Ownership Project Report 3.
- ¹⁸ Whitman, Kevin, Gayle L. Reznik, and Dave Shoffner. “Who Never Receives Social Security Benefits?” *Social Security Bulletin* 71.2 (2011).
- ¹⁹ See Biggs, Andrew G. “A New Vision for Social Security.” *National Affairs* 16, Summer 2013.
- ²⁰ Social Security Trustees. *The 2013 Annual Report of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds*. May 31, 2013.
- ²¹ Goss, Stephen, Michael Clingman, Alice Wade, and Karen Glenn. “Replacement Rates For Retirees: What Makes Sense For Planning And Evaluation?” Social Security Administration. Actuarial Note Number 155. July 2014.
- ²² Mitchell, Olivia S., and John WR Phillips., 2006, “Social Security Replacement Rates for Alternative Earnings Benchmarks.” *Benefits Quarterly*. Fourth Quarter, pp. 37-47.
- ²³ Michael Clingman, Kyle Burkhalter, and Chris Chaplain. “Replacement Rates For Hypothetical Retired Workers.” Office of the Chief Actuary, Social Security Administration. Actuarial Note Number 2014.9, July 2014.
- ²⁴ Organisation for Economic Cooperation and Security. Glossary of Statistical Terms. “Replacement rate.” Updated August 17, 2005.
- ²⁵ See Forteza, Alvaro., and Ourens, Guzman, 2009, “How Much Do Latin American Pensions Promise to Pay Back?” Washington DC: World Bank; and Clements, Benedict J., et al., “The Challenge of Public Pension Reform in Advanced and Emerging Economies,” 2013, International Monetary Fund.
- ²⁶ See Biggs, Andrew G., and Glenn R. Springstead. “Alternate measures of replacement rates for Social Security benefits and retirement income.” *Social Security Bulletin* 68 (2008): 1. In a recent actuarial note, Goss et al (2014)

found a significantly lower replacement rate of around 45 percent of inflation-adjusted pre-retirement earnings for individuals claiming benefits in 2011. A variety of factors could account for this difference: First, Biggs and Springstead (2008) measured replacement rates on the more economically-relevant household basis while Goss et al (2014) measure them on an individual basis; the dataset used by Goss et al (2014) does not allow for household measurements. Second, Biggs and Springstead (2008) measured replacement rates for a household with median earnings, while Goss et al (2014) measured the median replacement rate, which may differ. Third, Biggs and Springstead (2008) included all non-disabled beneficiaries and all benefits paid to them, while Goss et al (2014) exclude spouse-only and widow-only beneficiaries and, for retired worker beneficiaries, exclude supplemental spousal and widow benefits. While excluding spouse/widow-only beneficiaries may make sense when replacement rates are calculated on an individual basis, since replacement rates would be extremely high, these beneficiaries should be included in a household calculation where such issues do not arise. Benefits for dually-entitled retired workers should be included in either an individual- or household-level replacement rate calculation. Nearly half of female retired worker beneficiaries receive supplemental spousal or widow benefits and, on average, these supplements increase total benefits received by such individuals by over 75 percent, according to SSA's Statistical Supplement. Fourth, the time period in which replacement rates were measured differed in regard to inflation, wage growth, and labor force participation and earnings of older workers, which generate different replacement rates in retirement.

²⁷ See Biggs, Andrew G. "Will Your Social Insurance Pay Off? Making Social Security Progressivity Work for Low-Income Retirees." AEI Retirement Policy Outlook 1 (2009).