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SOCIAL SECURITY'S FINANCIAL OUTLOOK: THE 2017 UPDATE IN PERSPECTIVE

By Alicia H. Munnell*

Introduction

The 2017 Trustees Report repeats the drumbeat that the Social Security program faces a deficit over the next 75 years and that its Old-Age, Survivors and Disability Insurance (OASDI) trust fund is scheduled for exhaustion in the early 2030s. The size of the deficit and the timing of the exhaustion date changed very little from last year's report. The 75-year deficit increased slightly from 2.66 percent to 2.83 percent of taxable payrolls, and the exhaustion date remained at 2034.

This *brief* updates the numbers for 2017 and puts the current report in perspective. It also briefly summarizes two very different approaches to restoring balance to the program over the next 75 years, offered by Representatives Sam Johnson and John Larson. In addition, it looks at the implications of early versus later action. Finally, it discusses the continuing absence of replacement rate data from the Trustees Report.

The bottom line remains the same. Social Security faces a manageable financing shortfall over the next 75 years, which should be addressed soon to share the burden more equitably across cohorts, restore confidence in the nation's major retirement program, and give people time to adjust to needed changes.

The 2017 Report

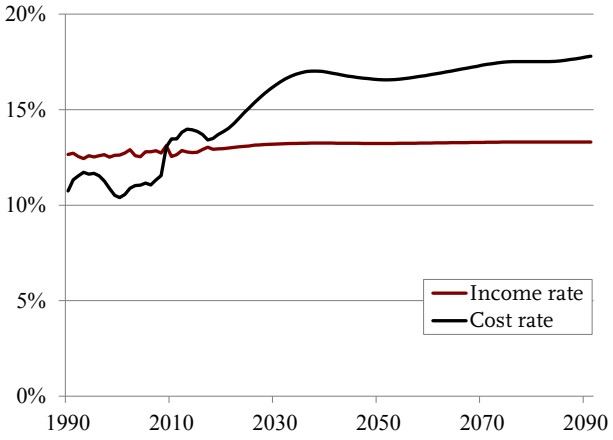
The Social Security actuaries project the system's financial outlook over the next 75 years under three sets of assumptions – high cost, low cost, and intermediate. Our focus is on the intermediate assumptions, which show the cost of the program rising rapidly to 17 percent of taxable payrolls in 2037, where it remains for several decades before drifting up toward 18 percent of taxable payrolls (see Figure 1 on the next page).

The increase in costs is driven by the demographics, specifically the drop in the total fertility rate after the baby-boom period. The combined effects of a slow-growing labor force and the retirement of baby boomers reduce the ratio of workers to retirees from 3:1 to 2:1 and raise costs commensurately. This increase in costs is not news; the actuaries have known about the drop in fertility and the whereabouts of the baby boomers (those born from 1946-1964) for a long time. Nevertheless, the gap between the income and cost rates means that the system is facing a 75-year deficit.

The 75-year cash flow deficit is mitigated somewhat by the existence of a trust fund, with assets currently equal to roughly three years of benefits. These assets are the result of cash flow surpluses that began

* Alicia H. Munnell is director of the Center for Retirement Research at Boston College and the Peter F. Drucker Professor of Management Sciences at Boston College's Carroll School of Management.

Figure 1. Projected Social Security Income and Cost Rates, as a Percentage of Taxable Payroll, 1990-2091



Source: 2017 Social Security Trustees Report, Table IV.B1.

in response to reforms enacted in 1983. Before the Great Recession, these cash flow surpluses were expected to continue for several years, but the recession-induced decline in payroll taxes and uptick in benefit claims accelerated that process to cause the cost rate to exceed the income rate in 2010 (see Table 1).

Table 1. Key Dates for Social Security Trust Fund

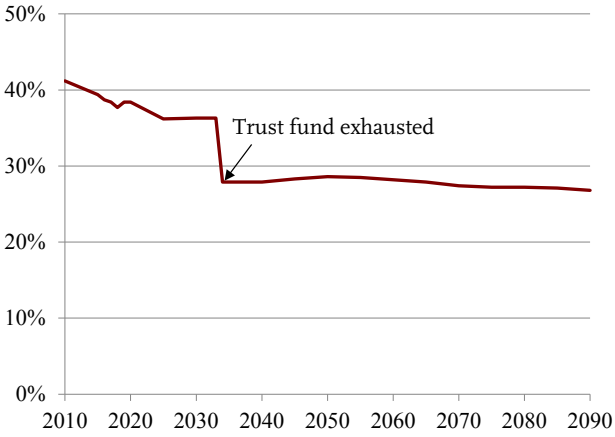
Event	2013	2014	2015	2016	2017
First year outgo exceeds income excluding interest	2010	2010	2010	2010	2010
First year outgo exceeds income including interest	2021	2020	2020	2020	2021
Year trust fund assets are exhausted	2033	2033	2034	2034	2034

Source: 2013-2017 Social Security Trustees Reports.

This shift from annual surplus to deficit means that Social Security is tapping the interest on trust fund assets to cover benefits sooner than anticipated. And, in 2021, taxes and interest will fall short of annual benefit payments. At this time, the government will be required to begin drawing down trust fund assets to meet benefit commitments. The trust fund is then projected to be exhausted in 2034, the same year as in the last Trustees Report.

The exhaustion of the trust fund does not mean that Social Security is "bankrupt." Payroll tax revenues keep rolling in and can cover about 75 percent of currently legislated benefits over the remainder of the projection period. Relying on only current tax revenues, however, means that the replacement rate – benefits relative to pre-retirement earnings – for the typical age-65 worker would drop from 36 percent to 27 percent (see Figure 2) – a level not seen since the 1950s. (Note that the replacement rate for those claiming at age 65 is already scheduled to decline from 39 percent today to 36 percent because of the ongoing increase in the Full Retirement Age from 65 to 67 that was enacted in 1983.)

Figure 2. Replacement Rate for the Medium Earner at Age 65 from Existing Revenues, 2010-2090



Source: Social Security Actuarial Note, Number 2017.9.

Moving from cash flows to the 75-year deficit requires calculating the difference between the present discounted value of scheduled benefits and the present discounted value of future taxes plus the assets in the trust fund. This calculation shows that Social Security's long-run deficit is projected to equal 2.83 percent of covered payroll earnings. That figure means that if payroll taxes were raised immediately by 2.83 percentage points – 1.42 percentage points each for the employee and the employer – the government would be able to pay the current package of benefits for everyone who reaches retirement age through 2091, with a one-year reserve at the end.

At this point in time, solving the 75-year funding gap is not the end of the story in terms of required tax increases. Once the ratio of retirees to workers stabilizes and costs remain relatively constant as a percent-

age of payroll, any solution that solves the problem for 75 years will more or less solve the problem permanently. But, during this period of transition, any package that restores balance only for the next 75 years will show a deficit in the following year as the projection period picks up a year with a large negative balance. Policymakers generally recognize the effect of adding deficit years to the valuation period, and many advocate a solution that involves "sustainable solvency," in which the ratio of trust fund assets to outlays is either stable or rising in the 76th year. Realistically, eliminating the 75-year shortfall should probably be viewed as the first step toward long-run solvency.

Some commentators report Social Security's financial shortfall over the next 75 years in terms of dollars – $12.5 trillion. Although this number appears very large, the economy will also be growing. So dividing this number – plus a one-year reserve – by taxable payroll over the next 75 years brings us back to the 2.83 percent-of-payroll deficit discussed above (see Table 2).

Table 2. Social Security's Financing Shortfall, 2016-2091

Period	Present value (trillions)	As a percentage of	
		Taxable payroll	GDP
2017-2091	$12.5*	2.7%	0.9%

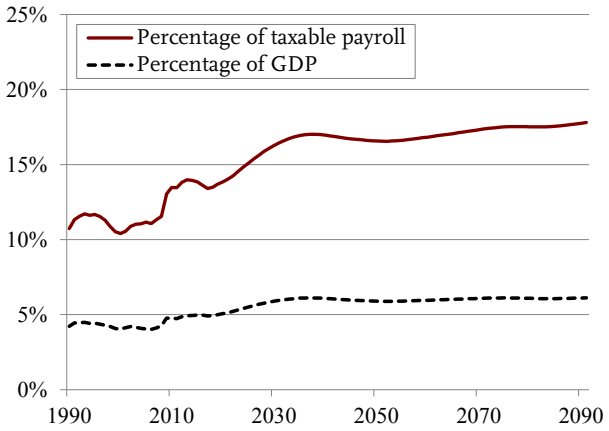
* Adding $766 billion required for a one-year reserve cushion brings the deficit to 2.83 percent.
Source: 2017 Social Security Trustees Report, Table IV.B6.

The Trustees also report Social Security's shortfall as a percentage of Gross Domestic Product (GDP). The cost of the program is projected to rise from about 5 percent of GDP today to about 6 percent of GDP as the baby boomers retire (see Figure 3). The reason why costs as a percentage of GDP more or less stabilize – while costs as a percentage of taxable payroll keep rising – is that taxable payroll is projected to decline as a share of total compensation due to continued growth in health and retirement benefits.

The 2017 Report in Perspective

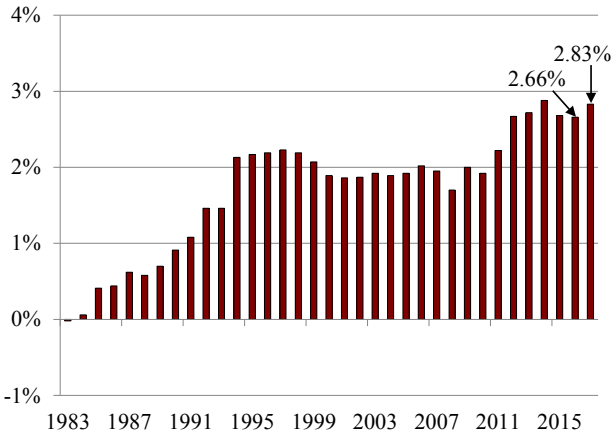
The continued shortfall is in sharp contrast to the projection of a 75-year balance in 1983 when Congress enacted the recommendations of the National Commission on Social Security Reform (often referred to as the Greenspan Commission). Almost immediately after the 1983 legislation, however, deficits appeared and increased markedly in the early 1990s (see Figure 4).

Figure 3. Social Security Costs as a Percentage of Taxable Payroll and GDP, 1990-2091



Source: 2017 Social Security Trustees Report, Figures II.D5 and IV.B1.

Figure 4. Social Security's 75-Year Deficit as a Percentage of Taxable Payroll, 1983-2017



Source: 2017 Social Security Trustees Report, Table IV.B1.

In the 1983 Report, the Trustees projected a 75-year actuarial surplus of 0.02 percent of taxable payroll; the 2017 Trustees project a deficit of 2.83 percent. Table 3 (on the next page) shows the reasons for this swing. Leading the list is the impact of changing the valuation period. That is, the 1983 Report looked at the system's finances over the period 1983-2057; the

projection period for the 2017 Report is 2017-2091. Each time the valuation period moves out one year, it picks up a year with a large negative balance.

Table 3. Reasons for Change in the Actuarial Deficit, 1983-2017

Item	Change
Actuarial balance in 1983	0.02%
Changes in actuarial balance due to:	
Valuation period	-1.97
Economic data and assumptions	-0.93
Disability data and assumptions	-0.66
Other factors*	-0.03
Legislation/regulation	0.19
Demographic data and assumptions	0.20
Methods and programmatic data	0.35
Total change in actuarial balance	-2.85
Actuarial balance in 2017	-2.83

* Discrepancies due to rounding.
Source: Author's calculations based on earlier analysis by John Hambor, recreated and updated from *1983-2017 Social Security Trustees Reports*.

A worsening of economic assumptions – primarily a decline in assumed productivity growth and the impact of the Great Recession – has also contributed to the increase in the deficit. Another contributor to the increased actuarial deficit over the past 34 years has been increases in disability rolls.

Offsetting the negative factors has been a reduction in the actuarial deficit due to changes in demographic assumptions – primarily higher mortality for women. Legislative and regulatory changes have also had a positive impact on the system's finances. For example, the passage of the Affordable Care Act in 2010 was assumed to reduce Social Security's 75-year deficit by 0.14 percent, mainly through an expected increase in taxable wages as a number of provisions were expected to slow the rate of growth in the cost of employer-sponsored group health insurance. Methodological improvements had the largest positive effect on the 75-year outlook.

Between 2016 and 2017, in the absence of any other changes, the OASDI deficit would have increased by 0.05 percentage points as a result of including the large negative balance for 2091 in the calculation. But a number of other changes also occurred to bring the total increase in the 75-year deficit to 0.17 percent of taxable payrolls.

- Economic Assumptions (0.08): The real-wage growth assumption was lowered because the Centers on Medicare and Medicaid Services reported faster-than-expected growth in employer-sponsored group health insurance premiums, which means that a smaller share of total compensation will be subject to the payroll tax. In addition, continuing weak growth in labor productivity reduced projections of potential GDP.

- Demographic Assumptions (0.03): The relatively small impact of demographic changes is due to offsetting changes. On the one hand, lower assumed birth rates in the near term (based on updated data) and updates to historical population data increased the long-term deficit. On the other hand, higher assumed death rates (based on updated data) reduced the future beneficiary population and improved the outlook. The assumption that parts of President Obama's 2014 executive actions on immigration will not be implemented also had a positive but negligible effect on the outlook.

- Methodological and Programmatic Data (0.04): Seven different methodological and programmatic changes also increased the long-term deficit.

- Disability Assumptions (-0.03): Recent data have shown significantly lower levels of disability applications and awards than expected in last year's report. Incorporating these changes improved the long-term outlook.

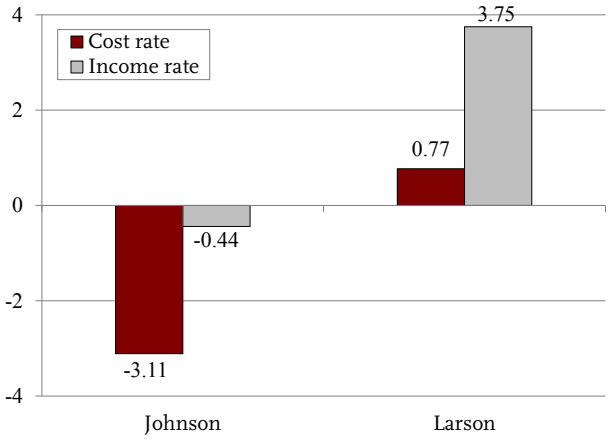
Current Issues

Increasing recognition that Social Security's financing gap needs to be addressed has led to a number of legislative proposals. Two recent proposals that provide "bookends" for the range of possibilities are those from Representative Sam Johnson (R-TX), Chairman of the House Ways and Means Social Security Subcommittee, and Representative John Larson (D-CT), Ranking Member of that Subcommittee. These proposals are discussed below. Two other topics covered are the merits of making changes sooner rather than later and the continued absence of Social Security replacement rate data from the Trustees Report.

The Range of Proposals

Representatives Johnson and Larson have taken very different approaches to restoring solvency to the Social Security program. As shown in Figure 5 below, Representative Johnson proposes to sharply cut benefits and thereby lower the cost rate to match the current income rate. Representative Larson proposes to slightly enhance benefits and to pay for them and achieve solvency by substantially increasing the income rate.

Figure 5. Projected Effects of Johnson and Larson Proposals on Social Security's Cost and Income Rates



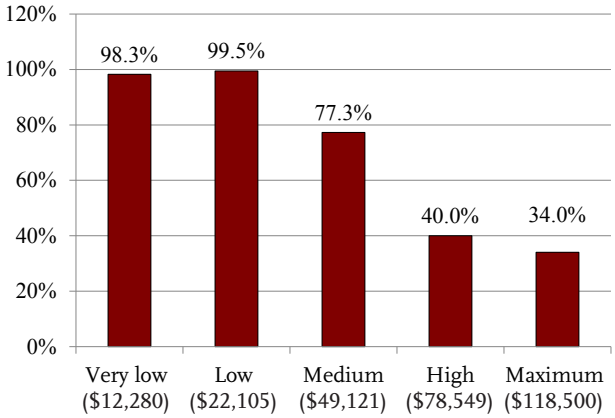
Source: U.S. Social Security Administration (2016, 2017).

Representative Johnson proposes three major reductions in benefits:

- Raise the Full Retirement Age to 69.
- Cut benefits for above-average earners.
- Reduce cost-of-living adjustments (COLAs).
  - Eliminate the COLA for individuals with income above $85,000 ($170,000 for couples).
  - Use a chain-weighted index for those below.

The best way to gauge the impact of these three changes is to examine the ratio of proposed to current benefits at different points in the earnings scale. Because the impact of eliminating the COLA increases over the retirement span, it is helpful to look at individuals at age 85. As Figure 6 indicates, low earners are basically held harmless, while medium-earner benefits are cut to 77 percent of those provided under current law, higher earners to 40 percent, and maximum earners to 34 percent. Although the benefit cuts look progressive, the earnings levels associated with the "well paid" are quite low. The medium worker, who sees benefits drop to 77 percent of current law, earned $49,121 in 2016 and the "high" earner, who sees benefits drop to 40 percent of current law, earned $78,594.

Figure 6. Benefits as Percentage of Current Law Scheduled Benefits at Age 85 in 2080 Under Johnson Proposal, by Earnings Level



Source: Author's calculations from U.S. Social Security Administration (2016).

In contrast, Representative Larson's proposal consists of two significant revenue changes and a series of small benefit enhancements:

- Increase the combined OASDI payroll tax of 12.4 by 0.1 percent per year until it reaches 14.8 percent in 2042.
- Apply the payroll tax on earnings above $400,000 and on all earnings once the taxable maximum reaches $400,000, with a small offsetting benefit for these additional taxes.
- Enhance benefits.
  - Use the Consumer Price Index for the Elderly (CPI-E), which rises faster than the CPI-W, to adjust benefits for inflation.
  - Increase the special minimum benefit.
  - Raise the first factor in the benefit formula.
  - Increase thresholds for taxation of benefits under the personal income tax.

Representative Larson's proposal clarifies the types of changes necessary on the revenue side to essentially maintain current benefit levels.

These two proposals are very useful because they essentially bracket the range of options. The American people need to let their representatives in Congress know how they would like the elimination of Social Security's 75-year shortfall allocated between benefit cuts and tax increases – 100 percent with benefit cuts, 100 percent with tax increases, 50 percent/50 percent, 75 percent/25percent, or 25 percent/75 percent?

Fixing Social Security Sooner Rather Than Later

The arguments for acting sooner rather than later are compelling. First, early action has important implications for distributing the burden across generations. The fact that the country has not taken any steps to restore balance since the substantial deficits first appeared in the 1990s means that most baby boomers have escaped completely from contributing to a solution. Second, eliminating the deficit will restore people's faith in the program and make them feel more secure about retirement. Third, to the extent that changes are phased in, early action allows workers to adjust their savings and retirement plans to offset any cuts.

What is not true, however, is that delay makes fixing the program more expensive. The reason delaying a fix *appears* more expensive is that the 75-period under consideration changes. For example, the 2017 Trustees Report shows that closing the 75-year deficit would require a 2.76-percentage-point payroll tax increase now compared to a 3.98-percentage-point payroll tax increase in 2034, the year in which the Trust Fund is exhausted. (Note that the 2.76-percentage-point increase is less than the 2.83 percent deficit because it excludes the one-year reserve and includes some behavioral responses.)

The required tax increases are different because they reflect differences in the two 75-year projection periods. The 75-year period from 2017-2091 includes years when the Trust Fund still exists and the cost rate has not reached its maximum, as the ratio of retirees to workers is still increasing. The 75-period from 2034-2108 would no longer be buffered by a Trust Fund and the retiree/worker ratio will have plateaued at a high level. Thus, the cost of the later 75-year period is much higher than that of the earlier one.

The answer is very different if the period is held constant. Over the two periods combined – that is the years 2017-2108 – the cost is the same whether starting early or late (see Table 4). Reforms beginning in 2017 would require a payroll tax increase of 2.76 percentage points until 2091, followed by an increase of about 5.24 percentage points thereafter. Reforms beginning in 2034 would require a payroll tax increase of 3.98 percentage points from 2034 to 2108. Thus, regardless of the timing of the reform, the average percentage tax increase is the same over the 92-year period.

That being said, raising the tax rate more gradually would have a less dramatic effect on the economy – adding one more reason to act sooner rather than later.

Table 4. Required Tax Increase to Cover Benefits, 2017-2108

	2017-2033	2034-2091	2092-2108	Annual avg. 2017-2108
Start in 2017	2.76%	2.76%	5.24%	3.24%
Start in 2034	0.00	3.98	3.98	3.24

Note: The 2.76-percentage-point tax increase differs from the 2.83-percent deficit in two ways: it excludes a one-year reserve and includes some behavioral responses.
Source: Author's calculations from *2017 Social Security Trustees Report*.

Replacement Rate Data Still Missing

In the 2014 Report, the Chief Actuary noted in his "Statement of Actuarial Opinion" that the Trustees had eliminated data on benefit replacement rates. The deleted table showed, for hypothetical workers at different earnings levels and for different claiming ages, both historical and projected benefits adjusted for inflation and benefits as a percentage of pre-retirement earnings. Figure 7 (on the next page) shows a portion of this table from the 2013 Report.

These data are important. First, they are useful to individuals who need to plan for their own retirement and to companies contemplating establishing a retirement plan for their workers. Second, they show how changes in the law affect retirement security. The 2015 Technical Panel on Assumptions and Methods argued for restoring replacement rate information to the Trustees Report.

Figure 7. Portion of Replacement Rate Table in 2013 Trustees Report

Table V.C7.—Annual Scheduled Benefit Amounts for Retired Workers with Various Pre-Retirement Earnings Patterns Based on Intermediate Assumptions, 2015-90

	Retirement at normal retirement age			Retirement at age 65		
Year attain age 65	Age at retirement	CPI-indexed 2013 dollars	Percent of earnings	Age at retirement	CPI-indexed 2013 dollars	Percent of earnings
			Scaled medium earnings:			
2015	66:0	18,935	41.2	65:0	17,668	39.5
2020	66:2	20,198	39.6	65:0	18,622	37.1
2030	67:0	23,538	40.9	65:0	20,400	36.3
2040	67:0	26,404	41.0	65:0	22,885	36.3
2050	67:0	29,497	41.1	65:0	25,561	36.4
2060	67:0	32,835	41.1	65:0	28,456	36.4
2070	67:0	36,500	41.1	65:0	31,634	36.4
2080	67:0	40,589	41.0	65:0	35,177	36.4
2090	67:0	45,274	41.0	65:0	39,236	36.3

Source: 2013 Social Security Trustees Report, Table V.C7.

The Trustees did not restore the replacement rate data in the 2017 Report. Fortunately, replacement rate data can be found in a recently released Social Security Actuarial Note (Number 2017.9).

Conclusion

The 2017 Trustees Report confirms what has been evident for almost three decades – namely, Social Security is facing a long-term financing shortfall which equals 0.9 percent of GDP. The changes required to fix the system are well within the bounds of fluctuations in spending on other programs. For example, defense outlays went down by 2.2 percent of GDP between 1990 and 2000 and up by 1.7 percent of GDP between 2000 and 2010.

While Social Security's shortfall is manageable, it is also real. The long-run deficit can be eliminated only by putting more money into the system or by cutting benefits. There is no silver bullet. Representatives Johnson and Larson propose plans that eliminate the 75-year deficit solely through benefit cuts and solely through tax increases, respectively. These are useful "bookends," highlighting that policymakers need guidance about how Americans want the burden of fixing Social Security allocated between benefit cuts and tax increases. Finding a mechanism to communicate those preferences to Congress is the big challenge. Once the preferred allocation is determined, filling in the specifics is relatively easy.

Stabilizing the system's finances should be a high priority to restore confidence in our ability to manage our fiscal policy and to assure working Americans that they will receive the income they need in retirement.

References

Clingman, Michael, Kyle Burkhalter, and Chris Chaplain. 2017. "Replacement Rates for Hypothetical Workers." Actuarial Note Number 2017.9. Baltimore, MD: U.S. Social Security Administration.

U.S. Social Security Administration. 1983-2017. *The Annual Reports of the Board of Trustees of the Federal Old-Age and Survivors Insurance and Federal Disability Insurance Trust Funds*. Washington, DC: U.S. Government Printing Office.

U.S. Social Security Administration. 2017. Estimates of the Financial Effects of H.R. 1902, the *Social Security 2100 Act*. (April 5). Baltimore, MD. Available at: https://www.ssa.gov/oact/solvency/JLarson_20170405.pdf

U.S. Social Security Administration. 2016. Estimates of the Financial Effects of H.R. 6489, the Social Security Reform Act of 2016 (December 8). Baltimore, MD. Available at: https://www.ssa.gov/oact/solvency/SJohnson_20161208.pdf

U.S. Social Security Advisory Board. 2015. *Report of the 2015 Technical Panel on Assumptions and Methods*. Washington, DC.

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Contact Information

Center for Retirement Research
Boston College
Hovey House
140 Commonwealth Avenue
Chestnut Hill, MA 02467-3808
Phone: (617) 552-1762
Fax: (617) 552-0191
E-mail: crr@bc.edu
Website: http://crr.bc.edu

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