

SUPPORTING THE OLDEST OLD: THE ROLE OF SOCIAL INSURANCE, PENSIONS, AND FINANCIAL PRODUCTS*

*Jonathan Barry Forman***

Longevity risk—the risk of outliving one’s retirement savings—is likely the greatest risk facing current and future retirees in the United States. As life expectancy increases, government programs, private pensions, and various financial products will all be needed to provide retirement income over ever-longer periods of retirement. This Article focuses on the optimal mix of social insurance, pensions, and financial products that should be used to provide retirement income to the oldest old, here defined as those aged 90 and over. To be sure, Social Security and Supplemental Security Income (SSI) are already designed to provide modest, inflation-adjusted retirement benefits to all retirees. On the other hand, pensions and other forms of retirement savings are often dissipated long before people reach the esteemed status of oldest old. One approach for enhancing the retirement incomes of the oldest old would be to expand Social Security and SSI. Another approach would be to strengthen the protections provided by pensions and other forms of retirement savings. In particular,

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**Alfred P. Murrah Professor of Law, University of Oklahoma; B.A. 1973, Northwestern University; M.A. (Psychology) 1975, University of Iowa; J.D. 1978, University of Michigan; M.A. (Economics) 1983, George Washington University; Professor in Residence at the Internal Revenue Service Office of Chief Counsel, Washington, D.C. for the 2009-2010 academic year; Member of the Board of Trustees of the Oklahoma Public Employees Retirement System, 2003-2011.

the private sector could be encouraged to sell more annuities and other lifetime income products, and, perhaps, the government should also get into the business of selling annuities. These are the kinds of solutions that will be needed to ensure that the oldest old face their final years with adequate economic resources.

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I. Introduction

Longevity risk, or the risk of outliving one's retirement savings, is probably the greatest problem facing current and future retirees in the United States. As life expectancy increases, government programs, private pensions, and various financial products will all be needed to provide retirement income over extended periods of retirement. This Article focuses on the optimal mix of social insurance, pensions, and financial products that should be used to provide retirement income to the "oldest old," defined here as those aged 90 and over (90+).¹

Social Security and Supplemental Security Income (SSI) are federal programs that provide inflation-adjusted retirement income to the elderly.² Traditional pensions and defined contribution plans (in particular, 401(k) plans and individual retirement accounts) also provide retirement income to many retirees, although these resources often

1. The term "oldest old" is alternatively defined as people aged 85 and older (85+) or as people aged 90 and older (90+). See, e.g., WAN HE & MARK N. MUENCHRATH, U.S. CENSUS BUREAU REP. NO., ACS-17, 90+ IN THE UNITED STATES: 2006-2008 (2011), at 1, available at <http://www.census.gov/prod/2011pubs/acs-17.pdf>. This Article uses the 90+ definition, although sometimes 85+ data are all that are available.

2. See *infra* Part III.A.

dissipate long before people reach the esteemed status of oldest old.³ Traditional lifetime annuities offer another approach for providing retirement income, and longevity insurance can also help (for example, buying a deferred annuity at age 65 that starts making annual payments only if the annuitant lives past age 85).⁴ Variable annuities with guaranteed lifetime withdrawal benefits, Treasury Inflation-Protected Securities (TIPS), and other financial products can also help provide retirement income for the oldest old.⁵

One approach for enhancing the retirement incomes of the oldest old is to expand Social Security, SSI, and other social insurance programs.⁶ An alternative approach is to strengthen the protections provided by pensions and annuities.⁷ In particular, the private sector should be encouraged to sell more annuities and other lifetime income products, and, arguably, the government should also sell annuities. Solutions like these will help ensure that the oldest old face their final years with adequate economic resources.

II. Background on the Oldest Old

A. Basic Demographics of the Oldest Old (90+)

According to the National Center for Health Statistics, life expectancy at age 65 in the United States increased from 11.6 years in 1909–1911 to 18.8 years in 2008.⁸ See Table 1.⁹ People at very old ages are also expected to live longer. For example, those age 80 can now expect to live, on average, another 8.9 years (versus 5.25 years in 1909–1911), those age 90 can now expect to live on average another 4.5 years (versus 3.03 years in 1909–1911), and those age 100 can now expect to live on average another 2.2 years (versus 1.85 years in 1909–1911).¹⁰

3. See *infra* Part III.B.

4. See *infra* Part III.C.

5. *Id.*

6. See *infra* Part IV.A, C.

7. See *infra* Part IV.D–E.

8. Elizabeth Arias, *United States Life Tables, 2008*, 61(3) NAT'L VITAL STATISTICS REPORTS 52 tbl.21 (2012), available at http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61_03.pdf.

9. See *infra* tbl.1.

10. *Id.*

Table 1. Life Expectancy by Age, 1909-1911, 1949-1951, and 2008

Age	Average number of years of life remaining		
	1909-1911	1949-1951	2008
0	51.49	68.07	78.1
65	11.60	13.83	18.8
70	9.11	10.92	15.2
75	6.99	8.40	11.8
80	5.25	6.34	8.9
85	4.00	4.69	6.4
90	3.03	3.44	4.5
95	2.35	2.54	3.1
100	1.85	1.92	2.2

Source: Elizabeth Arias, United States Life Tables, 2008, 61(3) NATIONAL VITAL STATISTICS REPORTS 52 tbl. 21 (September 24, 2012), http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61_03.pdf.

These prolonged life expectancies at older ages have led to the growing size of the oldest segments of the population. For example, out of a total U.S. population of 310 million in 2010, 40 million (12.9%) are aged 65 or older (65+), and as the total population is expected to grow to 439 million in 2050, the 65+ population will more than double, to 88.5 million (20.2%).¹¹ Pertinent here, the 90+ population increased from 720,000 in 1980 to 1.9 million in 2010,¹² and it is projected to quadruple, to more than 8.7 million, by 2050.¹³

The oldest old also account for an increasing share of the older population. For example, those 90+ accounted for 2.8% of the older population (65+) in 1980, 4.7% of the older population in 2010, and they are projected to account for 9.9% of the older population in 2050.¹⁴ All in all, in 2050, around 20% of the total U.S. population will be elderly (65+), and one-tenth of them will be 90+ (approximately 2% of the total population).¹⁵

11. GRAYSON K. VINCENT & VICTORIA A. VELKOFF, U.S. CENSUS BUREAU, REP. NO. P25-1138, THE NEXT FOUR DECADES: THE OLDER POPULATION IN THE UNITED STATES: 2010 TO 2050 10 tbl.A-1 (2010), available at <http://www.census.gov/prod/2010pubs/p25-1138.pdf>.

12. HE & MUENCHRATH, *supra* note 1, at 2.

13. VINCENT & VELKOFF, *supra* note 11, at 10 tbl.A-1. Similarly, the number of Americans aged 85 and over (85+) is projected to increase from 5.7 million in 2011 to 14.1 million in 2040. ADMIN. ON AGING, A PROFILE OF OLDER AMERICANS: 2012, at 1 (2013), http://www.aoa.gov/Aging_Statistics/Profile/2012/docs/2012_profile.pdf.

14. HE & MUENCHRATH, *supra* note 1, at 2.

15. *Id.*

The oldest old (1,761,770 in 2006–2008) are overwhelmingly white (88.1%) and female (74.1%).¹⁶ Most are married (15.8%) or widowed (75.1%).¹⁷ Most are high school graduates or beyond (61.4%).¹⁸ Also, almost all are covered by health insurance: for example, 99.5% of the oldest old were covered by health insurance in 2008, with 98.8% getting Medicare and 28% also receiving Medicaid.¹⁹

The oldest old had a median annual income of \$14,760 in 2006–2008 (in 2008 inflation-adjusted dollars), although the men had a significantly higher median annual income (\$20,133) than the women (\$13,580).²⁰ Also, 14.5% (198,090) of the oldest old were poor in 2006–2008, 9.6% of the men and 16.5% of the women.²¹ The poverty rate increases with age: for example, just 9.6% of people aged 65 to 89 were poor in 2006–2008.²²

Disability and institutionalization generally increase with age. For example, just 1.5 million (3.6%) of the 65+ population were institutionalized in 2011, but that rate increases dramatically with age, ranging from 1% for persons aged 65–74, to 3% for persons aged 75–84, and to 11% for persons 85+. ²³ As for the oldest old (90+), the vast majority (84.7% in 2006–2008) reported having at least one disability-type limitation (difficulties in hearing, seeing, concentrating, remembering, making decisions, walking or climbing stairs, dressing or bathing, and doing errands alone).²⁴ And 22.7% of the oldest old were institutionalized in facilities such as nursing homes (about 15% of men and 25% of women).²⁵

The 2010 Census counted 53,364 centenarians (people age 100 and over),²⁶ and the number of centenarians is projected to grow to

16. *Id.* at 24 tbl.A-1 (0.88137878 = 1,304,615 ÷ 1,761,770; 0.7405138 = 1,304,615 ÷ 1,761,770).

17. *Id.*

18. *Id.* at 8–9, 24 tbl.A-1.

19. *Id.* at 18.

20. *Id.* at 24 tbl.A-1.

21. *Id.*

22. *Id.* at 11.

23. ADMIN. ON AGING, *supra* note 13, at 5.

24. HE & MUENCHRATH, *supra* note 1, at 15–16.

25. *Id.* at 14.

26. JULIE MEYER, U.S. CENSUS BUREAU, C2010SR-03, CENTENARIANS: 2010 1 (2012), available at <http://www.census.gov/prod/cen2010/reports/c2010sr-03.pdf>. There were 1.73 centenarians per 10,000 people in the United States in 2010, up from just 1.42 per 10,000 in 1980.

601,000 in 2050.²⁷ Over half (62.5%) of the 53,364 centenarians in the United States in 2010 were age 100 to 101, and 92% were 100 to 104.²⁸ As with the oldest old, centenarians are overwhelmingly white (82.5%)²⁹ and female (82.8%).³⁰ There were also 330 supercentenarians (people age 110 and over) in the United States that year,³¹ and 35.2% of centenarian females and 18.2% of centenarian males lived in nursing homes.³²

Finally, geographic patterns also tend to vary with age. In particular, there is a tendency toward living in urban areas as one ages. For example, 85.7% of centenarians lived in urban areas in 2010, compared with 84.2% of those in their 90s (nonagenarians), 81.5% of those in their 80s, and 76.6% of those in their 70s.³³ Also, while the states with the largest total populations generally have the highest number of oldest old, the Northeast and Midwest had higher concentrations of nonagenarians and centenarians than the South and West.³⁴ For example, while nonagenarians made up 0.59% of the national population in 2010 (59 per 10,000 population), nonagenarians made up 0.74% of the population in the Northeast and 0.67% of the population in the Midwest, compared to just 0.51% in the South and 0.53% in the West.³⁵ Not surprisingly, California, New York, and Florida had the most nonagenarians, while Alaska and Wyoming had the fewest; meanwhile, North Dakota had the largest concentration of nonagenarians (0.93%) and Alaska had the lowest (0.20%).³⁶

27. U.S. CENSUS BUREAU, CB11-FF.08, OLDER AMERICANS MONTH: MAY 2011 (2011), available at https://www.census.gov/newsroom/releases/archives/facts_for_features_special_editions/cb11-ff08.html.

28. MEYER, *supra* note 26, at 2.

29. *Id.* at 3.

30. *Id.* at 2.

31. *Id.*

32. *Id.* at 5.

33. *Id.* at 9.

34. *Id.* at 8 tbl.2, 9.

35. *Id.* at 8 tbl.2.

36. *Id.*

B. Sources of Income of the Oldest Old (90+)

Social Security is the most common source of income for households aged 65 or older. In 2010, 86.3% of households aged 65 or older received Social Security benefits.³⁷ Moreover, Social Security provided more than half of total income for 53.1% of aged beneficiary couples and 74.1% of aged single beneficiaries.³⁸ Only 39.7% of households received retirement benefits from sources other than Social Security, and only 51.9% received income from other assets.³⁹

In 2006–2008, 92.3% of the oldest old received income from the Social Security Administration with 86.2% receiving only Social Security income, 3% collecting only Supplemental Security Income (SSI), and 3.1% receiving both.⁴⁰ All in all, Social Security provides almost half (47.9% in 2006–2008) of personal income for the oldest old.⁴¹ See Figure 1.⁴² Pension and retirement income accounted for another 18.3%, earnings for 2.2%, SSI for 1.9%, and other income (e.g., interest, dividends, net rental or royalty income, welfare, and all other income) accounted for 29.8%.⁴³

37. SOC. SEC. ADMIN., INCOME OF THE AGED CHARTBOOK, 2010 8 (2012), http://www.ssa.gov/policy/docs/chartbooks/income_aged/2010/iac10.pdf; see also SUDIPTO BANERJEE, INCOME COMPOSITION, INCOME TRENDS, AND INCOME SHORTFALLS OF OLDER HOUSEHOLDS (Employee Benefit Research Institute 2013), available at http://www.ebri.org/pdf/briefspdf/EBRI_IB_02-13.No383.IncmEld.pdf; BARBARA A. BUTRICA & MIKKI D. WAID, WHAT ARE THE RETIREMENT PROSPECTS OF MIDDLE-CLASS AMERICANS? (AARP 2013), available at http://www.aarp.org/content/dam/aarp/research/public_policy_institute/security/2013/retirement-prospects-middle-class-AARP-ppi-sec.pdf.

38. SOC. SEC. ADMIN., *supra* note 37, at 9.

39. *Id.* at 8.

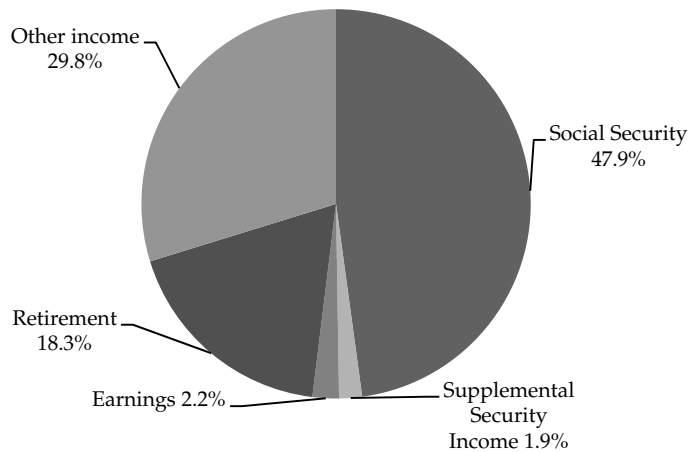
40. HE & MUENCHRATH, *supra* note 1, at 9–10.

41. *Id.* at 10, 10 fig.7.

42. *Id.*

43. *Id.*

Figure 1. Income Sources of Population Aged 90 and Over: 2006-2008



Source: Wan He & Mark N. Muenchrath, *90+ in the United States: 2006-2008* 10 fig. 7 (U.S. Census Bureau Report No. ACS-17, 2011).

The sources of income tend to change as individuals age. In particular, labor income declines as more and more workers retire. For example, according to one recent analysis of data from the Health and Retirement Study (HRS), earnings provided 11.9% of the income of those aged 65-74 in 2009, but earnings provided just 3.5% of the income of those aged 75-84, and just 0.5% of the income of those aged 85+.⁴⁴ Pension and annuity income initially increased from 17.1% of income for those aged 65-74 to 18.4% for those aged 75-84, before falling to just 15.3% for those aged 85+.⁴⁵ On the other hand, Social Security benefits went from 53.9% of income for those aged 65-74, to 60.6% of income for those aged 75-84, and to 65.7% for those aged 85+.⁴⁶ That analysis also considered the relationship between the income and expenditures of elder households. In 2009, for example, 37.2% of

44. See, e.g., BANERJEE, *supra* note 37, at 6 tbl.1. Note that the labor, Social Security, and pension income data in the Health and Retirement Study can differ significantly from that reported in the Current Population Survey. *Id.* at 7.

45. *Id.* at 6 tbl.1.

46. *Id.* No doubt, it helps immeasurably that Social Security benefits are indexed for inflation. See *infra* note 63 and accompanying text.

those aged 65–74 had household incomes that were less than their expenditures, increasing to 43.9% for those aged 75–84 and to 46.3% for those aged 85+.⁴⁷

C. So Who Lives to be Age 90 and Over?

A slightly different way of thinking about the oldest old is to ask which Americans live long enough to reach the oldest old (90+) age group. The answer to this question is especially important for making policy recommendations.

As noted, the oldest old are overwhelmingly white (88.1% in 2006–2008) and female (74.1% in 2006–2008).⁴⁸ On average, those who survive to 90 are more educated and had higher incomes than their deceased peers.⁴⁹ In that regard, it is well established that people with higher incomes tend to live longer than people with lower incomes.⁵⁰ The oldest old are also more likely to have been married than their

47. BANERJEE, *supra* note 37, at 9, 11.

48. See *supra* note 16 and accompanying text.

49. See, e.g., CONG. BUDGET OFFICE, GROWING DISPARITIES IN LIFE EXPECTANCY (2008), http://www.cbo.gov/sites/default/files/cbofiles/ftpdocs/91xx/doc9104/04-17-lifeexpectancy_brief.pdf; Michael A. Fletcher, *Research ties economic inequality to gap in life expectancy*, WASH. POST, http://articles.washingtonpost.com/2013-03-10/business/37605505_1_life-expectancy-eligibility-age-retirement-age; Ellen Meara et al., *The Gap Gets Bigger: Changes in Mortality and Life expectancy by Education, 1981–2000*, 27(2) HEALTH AFFAIRS 350 (2008), <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2366041/pdf/nihms-42081.pdf> (finding that virtually all gains in life expectancy occurred among highly educated groups).

50. See, e.g., Hilary Waldron, *Mortality Differentials by Lifetime Earnings Decile: Implications for Evaluations of Proposed Social Security Law Changes*, 73(1) SOC. SEC. BULLETIN 1 (2013); Gopal K Singh & Mohammad Siahpush, *Widening Socioeconomic Inequalities in US Life Expectancy, 1980–2000*, 35(4) INT'L J. OF EPIDEMIOLOGY 969, 969–70 (2006); Hilary Waldron, *Trends in Mortality Differentials and Life Expectancy for Male Social Security-Covered Workers, by Average Relative Earnings* (Soc. Sec. Admin., Office of Policy, Office of Research, Evaluation, and Statistics Working Paper No. 108, 2007), available at <http://www.ssa.gov/policy/docs/workingpapers/wp108.html>; Gary Burtless, *Life Expectancy and Rising Income Inequality: Why the Connection Matters for Fixing Entitlements* (Oct. 23, 2012), <http://www.brookings.edu/research/opinions/2012/10/23-inequality-life-expectancy-burtless>.

peers,⁵¹ and they also had more pension and non-pension savings and wealth.⁵²

III. An Overview of Mechanisms to Support the Oldest Old

This Part explains the basic features of the current mechanisms that are commonly used to support the oldest old, including social insurance, pensions, and various financial products.

A. Social Insurance

1. SOCIAL SECURITY

Social Security provides monthly cash benefits to retirees and their families.⁵³ A worker builds Social Security protection by working in employment that is covered by Social Security and paying the applicable payroll taxes. At retirement, disability, or death, monthly benefits are paid to insured workers and to their eligible dependents and survivors. While “full retirement age” was once age 65, it is currently age 66 and it is gradually increasing to age 67 for workers born after 1959 (who reach that age in or after 2027).⁵⁴ In September of 2013, Social Security paid retirement benefits to almost 37.7 million retired workers, and the average monthly benefit paid to a retired worker was \$1,271.11.⁵⁵

51. See, e.g., U.S. DEP’T. OF HEALTH AND HUMAN SERVS., OFFICE OF THE ASSISTANT SEC’Y FOR PLANNING & EVALUATION, OFFICE OF HUMAN SERVICES POLICY, THE EFFECTS OF MARRIAGE ON HEALTH: A SYNTHESIS OF RECENT RESEARCH EVIDENCE 5–6 (June 2007), <http://aspe.hhs.gov/hsp/07/marriageonhealth/rb.pdf>.

52. See, e.g., BANERJEE, *supra* note 37 (discussing the income and assets of the elderly).

53. See, e.g., JONATHAN BARRY FORMAN, MAKING AMERICA WORK 184–190 (Urban Institute Press, 2006).

54. *Retirement Planner: Full Retirement Age*, SOC. SEC. ADMIN., <http://www.socialsecurity.gov/retire2/retirechart.htm> (last visited Nov. 30, 2013).

55. *Monthly Statistical Snapshot, September 2013*, SOC. SEC. ADMIN., (Oct. 2013), http://www.ssa.gov/policy/docs/quickfacts/stat_snapshot/2013-09.pdf. For estimates of the expected present value of lifetime benefits, see C. Eugene Steuerle & Caleb Quakenbush, *Social Security and Medicare Taxes and Benefits over a Lifetime: 2012 Update* (Oct. 2012), <http://www.urban.org/UploadedPDF/412660-Social-Security-and-Medicare-Taxes-and-Benefits-Over-a-Lifetime.pdf> (showing that a single man earning the average wage [\$44,600 in 2012 dollars] who retired in 2010 at age 65 would have lifetime Social Security benefits with a present value of \$277,000 [\$302,000 for a single woman]).

Social Security retirement benefits are financed primarily through payroll taxes imposed on individuals working in employment or self-employment that is covered by the Social Security system.⁵⁶ Workers over the age of 62 generally are entitled to Social Security retirement benefits if they have worked in covered employment for at least 10 years.⁵⁷ Benefits are based on a measure of the worker's earnings history in covered employment.⁵⁸

The benefit formula is highly progressive,⁵⁹ and, as a result, the Social Security retirement system favors workers with low lifetime earnings relative to workers with higher lifetime earnings.⁶⁰ For ex-

56. For 2014, employees and employers each pay a Social Security retirement tax of 5.3% on up to \$117,000 of wages, for a combined Old-Age and Survivors Insurance (OASI) rate of 10.6%—the lion's share of the total 15.3% collected for OASI, Disability Insurance, and Medicare. SOC. SEC. ADMIN., *2014 Social Security Changes* (2013), 7 <http://www.socialsecurity.gov/pressoffice/factsheets/colafacts2014.pdf>. Self-employed workers pay an equivalent OASI tax of 10.6% on up to \$117,000 of net earnings. *Id.*

57. 42 U.S.C. §§ 402(a), 414(a)(2) (2012).

58. There is also a modest, special minimum benefit intended to provide adequate benefits for long-term, low-wage workers (\$804 per month in 2013). SOC. SEC. ADMIN., *Current Law Projections: Special Minimum Benefit*, <http://www.socialsecurity.gov/retirementpolicy/projections/special-minimum.html> (last visited Dec. 16, 2013).

59. For example, benefits for retired workers are based on a measure of the worker's earnings history in covered employment known as the "average indexed monthly earnings" (AIME). The starting point for determining the worker's AIME is to determine how much the worker earned each year through age 60. Once those "benefit computation years" and covered earnings for those years have been identified, the worker's earnings are indexed for wage inflation, using the year the worker turns 60 to index the earnings of prior years. The highest 35 years of earnings are then selected, and the other years are dropped out. The AIME is computed as the average earnings for the remaining 35 years (420 months). The AIME is then linked by a progressive formula to the monthly retirement benefit payable to the worker at full retirement age, a benefit known as the "primary insurance amount" (PIA). For a worker turning 62 in 2014, the PIA equals 90% of the first \$816 of the worker's AIME, plus 32% of the AIME over \$816 and through \$4,917 (if any), plus 15% of the AIME over \$4,917 (if any). SOC. SEC. ADMIN., *Social Security Benefit Amounts*, <http://www.ssa.gov/oact/cola/Benefits.html> (last visited Nov. 30, 2013); SOC. SEC. ADMIN., *Primary Insurance Amount*, <http://www.ssa.gov/oact/cola/piaformula.html> (last visited Nov. 30, 2013).

60. *See, e.g.,* MICHAEL CLINGMAN ET AL., SOC. SEC. ADMIN., OFFICE OF THE CHIEF ACTUARY, ACTUARIAL NOTE NO. 2012.7 MONEY'S WORTH RATIOS UNDER THE OASDI PROGRAM FOR HYPOTHETICAL WORKERS (Mar. 2013), <http://www.ssa.gov/OACT/NOTES/ran7/index.html>. To be sure, the redistributive benefits of the progressive benefit formula are tempered by the relatively longer life expectancies of high earners relative to low earners. *See, e.g.,* CONG. BUDGET OFFICE, IS SOCIAL SECURITY PROGRESSIVE? (Dec. 15, 2006), <http://www.cbo.gov/sites/default/files/cbofiles/ftpdocs/77xx/doc7705/12-15-progressivity-ss.pdf>; Waldron, *Trends in Mortality Differentials and Life Expectancy for Male Social Security-Covered Workers, by Average Relative Earnings*, *supra* note 50. Also, because high-earners are more likely to be married than low-earners, high-earners receive a dis-

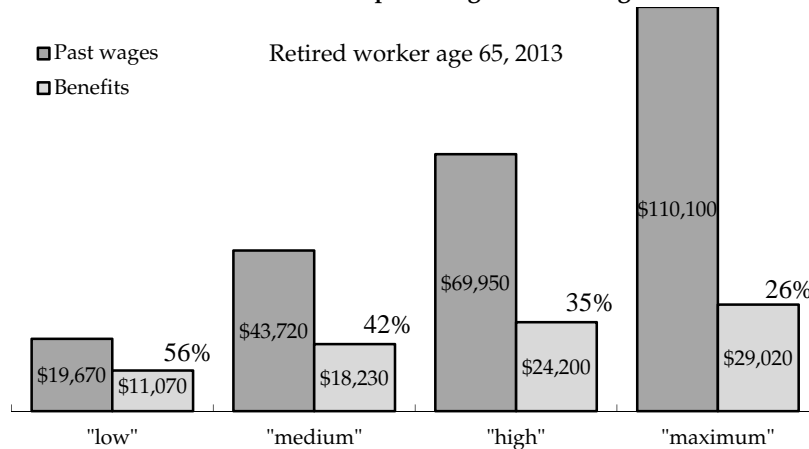
ample, Figure 2 shows how a worker's initial Social Security retirement benefits compare to her final pre-retirement earnings.⁶¹ These redistributive Social Security retirement benefits play an important role in reducing poverty among the elder population. For example, without Social Security benefits 43.6% of elder Americans would have fallen below the poverty level in 2011, but with Social Security benefits, just 8.7% of elder Americans were below the poverty level that year.⁶²

proportionate share of the Social Security system's rather generous spousal benefits. In 2010 for example, 78.4% of households in the top 20% of households income were married-couple families, but only 17% of households in the bottom 20% were married-couple families. See, e.g., Mark J. Perry, *Income Inequality can be Explained by Household Demographics*, AM. ENTER. INST. (Oct. 21, 2011), <http://www.aei-ideas.org/2011/10/income-inequality-can-be-explained-by-household-demographics/#print>.

61. Virginia Reno & Elisa Walker, *Social Security Benefits, Finances, and Policy Options: A Primer*, NAT'L ACADEMY OF SOCIAL INS. 5 (June 2013), <http://www.nasi.org/research/2013/social-security-benefits-finances-policy-options-primer>; see also CONG. BUDGET OFFICE, *Supplemental Data for CBO's 2012 Long-Term Projections for Social Security* exhibit 10 (2012), <http://www.cbo.gov/publication/43653> (showing how replacement rates vary with preretirement earnings); Peter Brady et al., *The Success of the U.S. Retirement System*, INV. CO. INST. 17-20 (2012), http://www.ici.org/pdf/ppr_12_success_retirement.pdf.

62. Paul N. Van de Water & Arloc Sherman, *Social Security Keeps 21 Million Americans Out of Poverty: A State-by-State Analysis*, CTR. ON BUDGET & POL'Y PRIORITIES (Oct. 16, 2012), <http://www.cbpp.org/files/10-16-12ss.pdf> (also noting that Social Security benefits lifted 14,480,000 elder Americans out of poverty in 2011). In 2013, the poverty level for a single individual was \$11,490 and the poverty level for a married couple was \$15,510. U.S. DEP'T. OF HEALTH & HUMAN SERVS., *Annual Update of the HHS Poverty Guidelines*, 78 Fed. Reg. 5_182, 5_183 (Jan. 24, 2013).

**Figure 2. How Benefits Compare to Earnings
(2013 dollars & percentage of final wages)**



Source: Virginia P. Reno & Elisa A. Walker, *Social Security Benefits, Finances, and Policy Options: A Primer* 5 (National Academy of Social Insurance, 2013).

Benefits may be increased or decreased for several reasons. Most importantly, benefits are indexed each year for inflation as measured by the consumer price index.⁶³ Also, the "retirement earnings test" can reduce the monthly benefits of individuals who have not yet reached full retirement age but who continue to work after starting to draw Social Security retirement benefits.⁶⁴

In addition, workers who retire before their full retirement age have their benefits actuarially reduced.⁶⁵ On the other hand, benefits payable to workers who choose to retire after their full retirement age are actuarially increased (but only up to age 70).⁶⁶ In effect, beneficiaries can buy additional annuity protection by delaying retirement.⁶⁷

63. See, e.g., SOC. SEC. ADMIN., *supra* note 56.

64. 42 U.S.C. § 403(f) (2013).

65. 42 U.S.C. § 402(q) (2013).

66. 42 U.S.C. § 402(w) (2013).

67. See, e.g., Kenn Beam Tacchino et al., *A Decision Framework for Optimizing the Social Security Claiming Age*, 28 (2) BENEFITS QUARTERLY 40 (Second Quarter 2012); Anthony Webb, *Making Your Nest Egg Last a Lifetime* (AARP Public Policy Institute, Insight on the Issues No. 132, 2009), <http://assets.aarp.org/rgcenter/ppi/econ-sec/i32.pdf>; Laurence Kotlikoff, *Inside Social Security's Obscure Incentive to Keep Americans Working*, YAHOO FINANCE (Feb. 4, 2013), <http://finance.yahoo.com/blogs/the-exchange/inside-social-security-obscure-incentive-keep-americans-working-224727054.html>; Anne Tergesen, *How to Make Your Nest Egg Last Longer*, WALL ST. J. (Dec. 19, 2011), available at <http://online.wsj.com/article/SB10001424052970203802204577066164082847438.html>.

For example, consider a worker who reached age 62 in January of 2014 and earned the maximum taxable amount under Social Security for every year of her working life. If she claims her Social Security benefits at 62, she will get \$1,992 per month.⁶⁸ If she instead waits until she is 65, she will get \$2,431 per month, and if she waits until age 70, she will get \$3,425 per month—and she can get even more when we factor in cost-of-living increases and extra earnings.⁶⁹

Spouses, dependents, and survivors of the worker may also receive additional monthly benefits, which are based on the worker's benefit.⁷⁰ For example, a retirement-age wife or husband of a retired worker is typically entitled to a monthly spousal benefit equal to 50% of the worker's benefit.⁷¹ Also, a retirement-age widow or widower of the worker is entitled to a monthly surviving spouse benefit equal to 100% of the worker's benefit.⁷² In effect, the Social Security system provides married workers with a joint-and-two-thirds survivor annuity.⁷³

2. SUPPLEMENTAL SECURITY INCOME (SSI)

In addition, a means-tested Supplemental Security Income (SSI) program provides monthly cash benefits to certain low-income elder, disabled, or blind Americans. In 2014, the maximum federal benefit for a single individual is \$721 per month, and the maximum for a couple is \$1,082 per month.⁷⁴ In September of 2013, over 2.1 million elder Americans received SSI benefits from the federal government and the average monthly benefit was \$423.28.⁷⁵

68. SOC. SEC. ADMIN., *Automatic Determinations: Workers with Maximum-Taxable Earnings*, <http://www.ssa.gov/oact/COLA/examplemax.html> (last visited Nov. 30, 2013).

69. *Id.*; see *supra* notes 63 & 66 and accompanying text.

70. 42 U.S.C. §§ 402(b) (wife), (c) (husband), (d) (child), (e) (widow), (f) (widower), (g) (mother and father), and (h) (parents) (2013).

71. 42 U.S.C. § 402(b)(2) (2013).

72. 42 U.S.C. §§ 402(e), (f) (2013).

73. More specifically, while both the retired worker and spouse are alive, the retired worker will receive a worker's benefit (based on the worker's primary insurance amount), the spouse will receive a spousal benefit equal to 50% of the worker's benefit, and together they will receive a benefit that is 150% of the worker's benefit. If the spouse dies first, the retired worker will continue to receive the worker's benefit; alternatively, if the retired worker dies first, the surviving spouse will receive a benefit equal to 100% of the worker's benefit. Mathematically, as $100\% \div 150\% = 2/3$, the couple's benefit is essentially equivalent to a joint and two-thirds survivor annuity.

74. SOC. SEC. ADMIN., *SSI Federal Payments for 2014* (2014), <http://www.ssa.gov/oact/cola/SSI.html>.

75. SOC. SEC. ADMIN., *supra* note 55.

3. MEDICARE

The Medicare program provides nearly universal coverage for elder Americans (and for certain disabled persons).⁷⁶ In 2012, the program covered 50.7 million persons (42.1 million aged (65+) and 9 million disabled) at a total cost of about \$574.5 billion.⁷⁷ Medicare Part A provides coverage for inpatient hospital services, up to 100 days of post-hospital skilled nursing facility (SNF) care, some home health services, and hospice care.⁷⁸ Part B is a voluntary program that generally pays 80% of the physicians' services, laboratory services, durable medical equipment (DME), hospital outpatient department (OPD) services, and other medical services for elderly and disabled individuals who choose to enroll and pay the monthly premium.⁷⁹ Under Medicare Part C, beneficiaries can elect to receive their covered services through private health plans. Medicare Part D provides coverage for outpatient prescription drugs through private prescription drug plans (PDPs) or Medicare Advantage prescription drug plans.

76. HOUSE WAYS & MEANS COMM., *Medicare Introduction and Overview*, GREEN BOOK (Sept. 24, 2012), <http://greenbook.waysandmeans.house.gov/2012-greenbook/chapter-medicare/introduction-and-overview>. BARBARA S. KLEES ET AL., U.S. DEP'T OF HEALTH & HUMAN SERVS., *Brief Summaries of Medicare & Medicaid* (Dec. 31, 2012), <http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/MedicareProgramRatesStats/Downloads/MedicareMedicaidSummaries2012.pdf>.

77. *2013 Annual Report of the Boards of Trustees of the Federal Hospital Insurance and Federal Supplementary Medical Insurance Trust Funds*, BD. OF TRUSTEES 6 (2013), <http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/ReportsTrustFunds/Downloads/TR2013.pdf>; see also PATRICIA A. DAVIS ET AL., CONG. RESEARCH SERV., R40425, *MEDICARE PRIMER 1* (2012), http://greenbook.waysandmeans.house.gov/sites/greenbook.waysandmeans.house.gov/files/2012/documents/R40425_gb.pdf.

78. Medicare Part A is financed primarily through Social Security payroll taxes. Employees pay a Medicare payroll tax rate equal to 1.45% of wages, and employers pay a matching amount. Self-employed individuals pay a Medicare tax equal to 2.9% of net earnings from self-employment.

79. Premiums range from \$104.90 to \$335.70 per month, depending on income. See CTR. FOR MEDICARE & MEDICAID SERVS., *Part B Costs*, <http://www.medicare.gov/your-medicare-costs/part-b-costs/part-b-costs.html> (last visited Nov. 30, 2013).

4. MEDICAID

Medicaid is a federal-state entitlement program that provides health coverage for low-income families and individuals.⁸⁰ The program is means-tested; that is, eligible recipients must have relatively low income and relatively few assets. The program is financed by general revenues from federal and state governments. States design and administer their programs within federal guidelines, and the federal government funds about 57% of Medicaid spending.⁸¹

In 2012, the program provided health coverage for 67 million people including 6 million elders.⁸² About two-thirds of Medicaid spending is for acute-care services like hospitals, doctors, and prescription drugs, while another 30% goes for nursing home and other long-term care.⁸³ Medicaid covers more than 60% of all nursing home residents and pays 40% of the nation's total costs for long-term care.⁸⁴ Total federal and state outlays for the Medicaid program were \$414 billion in fiscal year 2012, about 3.6% of the gross domestic product.⁸⁵

5. SUPPLEMENTAL NUTRITION ASSISTANCE PROGRAM (SNAP)

The Supplemental Nutrition Assistance Program (SNAP) was formerly known as the food stamp program.⁸⁶ It is a means-tested program designed to help low-income households with food purchases. Benefits depend on the number of people living in a household, and households with an elder member must meet certain net income limits.

80. See, e.g., KLEES ET AL., *supra* note 76; *Medicaid: A Primer*, KAISER COMM'N ON MEDICAID & THE UNINSURED 3 (2013), <http://kaiserfamilyfoundation.files.wordpress.com/2010/06/7334-05.pdf>; CTR. ON BUDGET & POL'Y PRIORITIES, *Policy Basics: Introduction to Medicaid* (May 8, 2013), <http://www.cbpp.org/cms/index.cfm?fa=view&id=2223>.

81. KAISER COMM'N ON MEDICAID AND THE UNINSURED, *supra* note 80, at 25.

82. CTR. ON BUDGET & POL'Y PRIORITIES, *supra* note 80.

83. *Id.*

84. *Id.*; see also *Long-Term Services & Support*, MEDICAID.GOV, <http://www.medicaid.gov/Medicaid-CHIP-Program-Information/By-Topics/Long-Term-Services-and-Support/Long-Term-Services-and-Support.html> (last visited Nov. 30, 2013).

85. CTR. ON BUDGET & POL'Y PRIORITIES, *supra* note 80.

86. 7 U.S.C. § 2013 (2013); U.S. DEPT. OF AGRIC., *Supplemental Nutrition Assistance Program (SNAP)*, <http://www.fns.usda.gov/snap> (last visited Nov. 30, 2013).

B. Pension Plans

The United States has a voluntary pension system and employers have considerable choice about whether and how to provide pension benefits to their employees. However, when employers do provide pensions, those pensions are typically subject to regulation under the Employee Retirement Income Security Act of 1974 (ERISA).⁸⁷

1. RETIREMENT SAVINGS ARE TAX-FAVORED

Most pension plans qualify for favorable tax treatment. Basically, employer contributions to a pension are not taxable to the employee,⁸⁸ the pension fund's earnings on those contributions are tax-exempt,⁸⁹ and workers pay tax only when they receive distributions of their pension benefits.⁹⁰ Nevertheless, the employer is allowed a current deduction for its contributions (within limits).⁹¹ Favorable tax rules are also available for individual retirement accounts (IRAs)⁹² and Roth IRAs.⁹³ Also, since 2002, certain low- and moderate-income individuals have been able to claim a tax credit of up to \$1,000 for certain qualified retirement savings contributions.⁹⁴

87. Pub. L. No. 93-406, 88 Stat. 864. *See generally* JOINT COMM. ON TAXATION, *Present Law and Background Relating to the Tax Treatment of Retirement Savings* (JCX-32-12, Apr. 13, 2012), <https://www.jct.gov/publications.html?func=startdown&id=4418>.

88. I.R.C. § 402 (2012).

89. I.R.C. § 501(a) (2012).

90. I.R.C. §§ 72, 402 (2012). *See generally* INTERNAL REVENUE SERV., *Pension and Annuity Income* (Publ'n No. 575, 2013), <http://www.irs.gov/pub/irs-pdf/p575.pdf>.

91. I.R.C. § 404 (2012).

92. I.R.C. § 219 (2012). Almost any worker can set up an IRA with a bank or other financial institution. In 2014, individuals without pension plans can contribute and deduct up to \$5,500 to an IRA, although individuals over age 50 can contribute and deduct another \$1,000 (for a total of up to \$6,500); and spouses can contribute and deduct similar amounts. INTERNAL REVENUE SERV., *IRS Announces 2014 Pension Plan Limitations: Taxpayers May Contribute up to \$17,500 to Their 401(k) Plans in 2014* (IR-2013-86, Oct. 31, 2013), [http://www.irs.gov/uac/IRS-Announces-2014-Pension-Plan-Limitations;-Taxpayers-May-Contribute-up-to-\\$17,500-to-their-401\(k\)-plans-in-2014](http://www.irs.gov/uac/IRS-Announces-2014-Pension-Plan-Limitations;-Taxpayers-May-Contribute-up-to-$17,500-to-their-401(k)-plans-in-2014).

93. I.R.C. § 408A (2012). Unlike regular IRAs, contributions to Roth IRAs are not deductible. Instead, withdrawals are tax-free. Like regular IRAs, however, Roth IRA earnings are tax-exempt.

94. I.R.C. § 25B (2012). The credit equals a percentage (50%, 20%, or 10%) of up to \$2,000 of contributions.

2. TYPES OF PENSION PLANS

Pension plans generally fall into two broad categories based on the nature of the benefits provided: defined benefit plans and defined contribution plans.

i. Defined Benefit Plans

In a defined benefit plan, an employer promises employees a specific benefit at retirement.⁹⁵ For example, a plan might provide that a worker's annual retirement benefit (B) is equal to 2% times the number of years of service (yos) times final average compensation (fac) ($B = 2\% \times yos \times fac$). Under this traditional, final-average-pay formula, a worker who retires after 30 years of service with final average compensation of \$50,000 would receive a pension of \$30,000 a year for life ($\$30,000 = 2\% \times 30 yos \times \$50,000 fac$).⁹⁶ While many defined benefit plans allow for lump sum distributions, the default benefit for defined benefit plans is a retirement income stream in the form of an annuity for life.⁹⁷

ii. Defined Contribution Plans

Under a typical defined contribution plan, the employer simply withholds a specified percentage of the worker's compensation, which it contributes to an individual investment account for the worker. For example, contributions might be set at 10% of annual compensation. Under such a plan, a worker who earned \$50,000 in a given year would have \$5,000 contributed to an individual investment account for her ($\$5,000 = 10\% \times \$50,000$). Her benefit at retirement

95. To provide that benefit, the employer typically makes payments into a trust fund, contributed funds grow with investment returns, and eventually the employer withdraws funds from the trust fund to pay the promised benefits. Employer contributions are based on actuarial valuations and the employer bears all of the investment risks and responsibilities. FORMAN, *supra* note 53, at 215.

96. Final average compensation is often computed by averaging the worker's salary over the last three or five years prior to retirement. Alternatively, some plans use career-average compensation instead of final-average compensation. Under a career earnings formula, benefits are based on a percentage of an average of career earnings for every year of service by the employee. The Motley Fool, *Defined-benefit Plan*, http://wiki.fool.com/Defined-benefit_plan (last visited Nov. 30, 2013).

97. In the United States, defined benefit plans are generally designed to provide annuities, i.e., "definitely determinable benefits . . . over a period of years, usually for life after retirement." 26 C.F.R. § 1.401-1(b)(1) (2013).

would be based on all such contributions plus investment earnings.⁹⁸ Unlike traditional defined benefit plans, defined contribution plans usually make distributions in the form of lump sum or periodic distributions rather than life annuities.

In the United States, there are a variety of different types of defined contribution plans, including money purchase pension plans, target benefit plans, profit-sharing plans, stock bonus plans, and employee stock ownership plans (“ESOPs”).⁹⁹ Of particular note, profit-sharing and stock bonus plans often include a feature that allows workers to choose between receiving cash currently or deferring taxation by placing the money in a retirement account according to Internal Revenue Code section 401(k). Consequently, these plans are often called “401(k) plans,” and they are the most popular type of retirement plan in the United States.¹⁰⁰ The maximum annual amount of such elective deferrals that can be made by an individual in 2014 is \$17,500, although workers over the age of 50 can contribute another \$5,500 (for a total of up to \$23,000).¹⁰¹ Also, since 2006, employers have been permitted to set up Roth 401(k) plans.¹⁰²

iii. *Hybrid Retirement Plans*

So-called “hybrid” retirement plans mix the features of defined benefit and defined contribution plans. For example, a cash balance plan is a defined benefit plan that looks like a defined contribution plan.¹⁰³

98. Defined contribution plans are also known as “individual account” plans because each worker has her own account, as opposed to defined benefit plans, where the plan’s assets are pooled for the benefit of all of the employees. FORMAN, *supra* note 53, at 216.

99. See, e.g., Bureau of Labor Statistics, *Six Ways to Save for Retirement*, 3 PROGRAM PERSPECTIVES 2, (Mar. 2011), http://www.bls.gov/opub/perspectives/program_perspectives_vol3_issue3.pdf.

100. See, e.g., BUREAU OF LABOR STATISTICS, *BLS Examines Popular 401(k) Retirement Plans* 2 PROGRAM PERSPECTIVES 6 (Nov. 2010), http://www.bls.gov/opub/perspectives/program_perspectives_vol2_issue6.pdf.

101. INTERNAL REVENUE SERV., *supra* note 92.

102. I.R.C. § 402A (2012). Contributions to these plans are not excludable, but neither the plan’s investment returns nor distributions are taxable.

103. See, e.g., Jonathan Barry Forman & Amy Nixon, *Cash Balance Pension Plan Conversions*, 25 OKLA. CITY U. L. REV. No. 18–2, 379 (2000). Like other defined benefit plans, employer contributions are based on actuarial valuations, and the employer bears all of the investment risks and responsibilities. Like defined contribution plans, however, cash balance plans provide workers with individual accounts (albeit hypothetical). A simple cash balance plan might allocate 10% of salary to each worker’s account each year and credit the account with 5% interest on the balance in the account. Under such a plan, a worker who earned \$50,000 in a giv-

iv Other Voluntary Savings Mechanisms

In addition to voluntary saving through 401(k) elections and IRAs, individuals can also save money outside of the retirement system. Investment income is generally subject to federal personal income tax rates of up to 39.6% in 2014;¹⁰⁴ however, dividend income and capital gains are generally taxed at no more than a 20% rate.¹⁰⁵ Also, there are various tax advantages associated with investments in homes,¹⁰⁶ state and local bonds,¹⁰⁷ annuities,¹⁰⁸ and life insurance.¹⁰⁹

3. THE REGULATION OF EMPLOYMENT-BASED PLANS

In the almost 40 years since it was enacted, the Employee Retirement Income Security Act has been amended numerous times and a whole regulatory system has grown up to enforce its provisions.¹¹⁰ Pension plans must be operated for the exclusive benefit of employees or their beneficiaries, and plan assets generally must be held in a trust.¹¹¹ To protect the interests of plan participants, ERISA requires significant reporting and disclosure in the administration and operation of employee benefit plans.¹¹² ERISA also imposes extensive fiduciary responsibilities on employers and administrators of employee

en year would get an annual cash balance credit of \$5,000 ($\$5,000 = 10\% \times \$50,000$), plus an interest credit equal to 5% of the balance in her hypothetical account as of the beginning of the year.

104. I.R.C. § 1 (2012); Rev. Proc. 2013-35, 2013-47 I.R.B. 537.

105. I.R.C. § 1(h) (2012).

106. For example, home mortgage interest is generally deductible and gains from the sale of a personal residence are often excludable. I.R.C. §§ 163(a), 121 (2012).

107. I.R.C. § 103 (2012) (interest exclusion).

108. Under I.R.C. § 72, the individual can exclude a fraction of each annuity payment from income. That fraction (the "exclusion ratio") is based on the amount of premiums or other after-tax contributions made by the individual. The exclusion ratio enables the individual to recover her own after-tax contributions tax free and to pay tax only on the remaining portion of benefits which represents income. The net effect is a deferral of taxation.

109. I.R.C. § 101(a) (2012) (exclusion for insurance proceeds paid by reason of the death of the insured).

110. The key agencies charged with the administration of ERISA are the U.S. Department of Labor, the Internal Revenue Service (IRS), and the Pension Benefit Guaranty Corporation (PBGC). See, e.g., *Tax Information for Retirement Plans Community*, INTERNAL REVENUE SERV., <http://www.irs.gov/Retirement-Plans> (last visited Nov. 30, 2013); *About the Employee Benefits Security Administration*, U.S. DEPT OF LABOR, <http://www.dol.gov/ebsa/aboutebsa/main.html> (last visited Nov. 30, 2013); *About PBGC*, PENSION BENEFIT GUAR. CORP., <http://www.pbgc.gov/about> (last visited Nov. 30, 2013). The IRS and the Department of Labor also have significant responsibilities with respect to IRAs and Roth IRAs.

111. 29 U.S.C. §§ 1103, 1104(a)(1)(A) (2012); I.R.C. § 401(a) (2012).

112. See, e.g., 29 U.S.C. § 1021 (2012).

benefit plans.¹¹³ ERISA and the Internal Revenue Code also impose many other requirements on retirement plans, including rules governing normal retirement age,¹¹⁴ participation,¹¹⁵ coverage,¹¹⁶ vesting,¹¹⁷ benefit accrual,¹¹⁸ contribution and benefits,¹¹⁹ nondiscrimination,¹²⁰ and funding.¹²¹

4. THE DOMINANCE OF DEFINED CONTRIBUTION PLANS

In recent years, defined contribution plans have come to dominate the pension landscape. For example, 50% of full-time private industry workers in the United States participated in defined contribution plans in 2011, up from 40% in 1989–90; meanwhile, participation in defined benefit plans fell from 42% in 1989–90 to just 22% in 2011.¹²² All in all, the era of the traditional defined benefit plan is largely behind us.¹²³

113. 29 U.S.C. § 1104 (2012); I.R.C. § 401(a). In addition, prohibited transaction rules prevent parties in interest from engaging in certain transactions with an employee benefit plan. I.R.C. § 4975 (2012); 29 U.S.C. § 1106 (2012). For example, an employer usually cannot sell, exchange, or lease any property to the plan.

114. 29 U.S.C. § 1002(24) (2012); I.R.C. § 411(a)(8) (2012).

115. 29 U.S.C. § 1052 (2012); I.R.C. § 410(a) (2012).

116. I.R.C. § 410(b) (2012).

117. 29 U.S.C. § 1053 (2012); I.R.C. § 411(a) (2012).

118. 29 U.S.C. § 1054 (2012); I.R.C. § 411(b).

119. I.R.C. § 415 (2012).

120. I.R.C. § 401(a)(4) (2012).

121. 29 U.S.C. § 1082 (2012); I.R.C. § 412 (2012).

122. William J. Wiatrowski, *Changing Landscape of Employment-based Retirement Benefits*, COMP. & WORKING CONDITIONS ONLINE (Sept. 29, 2011), <http://www.bls.gov/opub/mlr/cwc/changing-landscape-of-employment-based-retirement-benefits.pdf>; see also William J. Wiatrowski, *The Last Private Industry Pension Plans: A Visual Essay*, 135(12) MONTHLY LABOR REV. 3 (2012), <http://www.bls.gov/opub/mlr/2012/12/art1full.pdf>. More specifically, there were 701,012 private pension plans in 2010. U.S. DEP'T OF LABOR, EMP. BENEFITS ADMIN., PRIVATE PENSION PLAN BULLETIN 3 (2012), <http://www.dol.gov/ebsa/PDF/2010pensionplanbulletin.PDF>. These are ERISA-covered plans and do not include non-ERISA plans such as IRAs and Roth IRAs. Of these ERISA-covered plans, just 46,543 were defined benefit plans (with 41.4 million participants and \$2.5 trillion in assets), while 654,469 were defined contribution plans (with 88.3 million participants and \$3.8 trillion in assets). *Id.* at 1, 2 tbl.A1. Of these defined contribution plans, 519,000 were 401(k)-type plans. *Id.* at 1. Also of note, a recent study estimated that 92% of the new pension plans formed from 2003–2007 were defined contribution plans, as opposed to defined benefit plans. U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-11-333, PRIVATE PENSIONS: SOME KEY FEATURES LEAD TO AN UNEVEN DISTRIBUTION OF BENEFITS 12 fig.2 (2011), <http://www.gao.gov/new.items/d11333.pdf>; see also CONG. BUDGET OFFICE, USE OF TAX INCENTIVES FOR RETIREMENT SAVING IN 2006 (2011), <http://www.cbo.gov/sites/default/files/cbofiles/attachments/2011-10-14-TaxIncentives.pdf>

123. See GEORGE A. (SANDY) MACKENZIE, *THE DECLINE OF THE TRADITIONAL PENSION: A COMPARATIVE STUDY OF THREATS TO RETIREMENT SECURITY* (2010);

5. COVERAGE AND RETIREMENT INCOME ADEQUACY

To encourage Americans to save for retirement in our voluntary pension system, the government relies on two major approaches. First, most pension plans qualify for favorable tax treatment. Second, employers and workers are given great flexibility in designing their pension plans, in making contributions, and in making (or taking) distributions. Despite those incentives, coverage and participation are low, and retirement savings may be inadequate for many retirees.

Indeed, at any point in time, only about one out of two American workers have pension plans, and few can be confident they will have enough income to meet their economic needs throughout retirement. For example, of the 153.7 million American workers in 2011, just 75.2 million (48.9%) worked for an employer (or union) that sponsored a retirement plan, and just 61 million (39.7%) participated in that plan.¹²⁴ Participation in IRAs is even lower than participation in pension plans. Only 28% of American families had an IRA or Keogh in 2010.¹²⁵

To be sure, over their lifetimes, most households will accumulate some retirement savings through current or past work.¹²⁶ Moreover, as households get closer to retirement age, they are even more likely

EDWARD A. ZELINSKY, *THE ORIGINS OF THE OWNERSHIP SOCIETY: HOW THE DEFINED CONTRIBUTION PARADIGM CHANGED AMERICA* 813 (2007); Janice Kay McClendon, *The Death Knell of Traditional Defined Benefit Plans: Avoiding a Race to the 401(k) Bottom*, 80 TEMP. L. REV. 809, 813 (2008); Edward A. Zelinsky, *The Defined Contribution Paradigm*, 114 YALE L. J. 451 (2004); Barbara A. Butrica et al., *The Disappearing Defined Benefit Pension and Its Potential Impact on the Retirement Incomes of Baby Boomers*, 69 SOC. SEC. BULLETIN 1 (2009).

124. Craig Copeland, *Employment-Based Retirement Plan Participation: Geographic Differences and Trends*, 2010 9 fig.1 (Employee Benefit Research Institute, Issue Brief No. 363, 2011), http://www.ebri.org/pdf/briefspdf/EBRI_IB_10-2011_No363_Ret_Part.pdf. The probability of pension coverage is greater for older workers, for whites, for highly educated workers, for full-time workers, for higher-income workers, and for workers at larger firms. *Id.*

125. Craig Copeland, *Individual Account Retirement Plans: An Analysis of the 2010 Survey of Consumer Finances* 10 fig.5 (Employee Benefit Research Institute, Issue Brief No. 375, 2012), http://www.ebri.org/pdf/briefspdf/EBRI_IB_09-2012_No375_IndvAccts.pdf. Rollover IRAs accounted for 43.2% of all IRA and Keogh assets. *Id.* at 1. As with employment-based plans, participation in IRAs and Keoghs tends to be highest among those families where the head of the family is older, has attained a higher educational level, or has a higher income level. *Id.* at 18 fig.12a, 19 fig.12b. A Keogh is a tax-deferred retirement plan for self-employed individuals and their employees (if any). *Id.* at 26, n.24.

126. See, e.g., Jesse Bricker et al., *Changes in U.S. Family Finances from 2007 to 2010: Evidence from the Survey of Consumer Finances*, FED. RESERVE BULLETIN 37 (June 2012), <http://www.federalreserve.gov/pubs/bulletin/2012/pdf/scf12.pdf> (finding that, in 2010, 55.1% of families had rights to some retirement plan other than Social Security through current or past work of the family head or that person's spouse or partner).

to have accumulated some retirement assets, and recent cohorts of retirees tend to have more retirement assets than previous cohorts.¹²⁷

Still, low participation rates in pension plans, in general, and low contributions rates to 401(k) plans, in particular, have led many analysts to wonder whether current and future generations of retirees will have adequate retirement incomes.¹²⁸ For example, according to recent research by the Employee Benefit Research Institute, 44% of baby boomer and Gen-Xer households are at risk of running short of money in retirement, and about 19.4% are projected to have less than 80% of what they will need.¹²⁹ The bottom line is that many Americans are just not saving enough in retirement plans or otherwise.¹³⁰

127. Brady et al., *supra* note 61, at 12 (finding that households headed by a working individual aged 55 to 64 are doing especially well; while these near-retiree households are less likely to be covered by a defined benefit plan than previous cohorts, about 70% of them had defined contribution plans or IRAs, and the median amount of their total retirement accumulations was \$101,350 in 2010, up from just \$63,719 in 2001 [in 2010 dollars]).

128. See, e.g., *Pension Savings: Are Workers Saving Enough for Retirement?* U.S. SENATE COMM. ON HEALTH, EDUC., LAB. & PENSIONS, 113th Cong. (Jan. 31, 2013), <http://www.help.senate.gov/hearings/hearing/?id=4cd69c00-5056-a032-52b4-2693a6672740>; Melissa M. Favreaul et al., *Boomers' Retirement Income Prospects*, URBAN INST. (Feb. 2012), <http://www.urban.org/uploadedpdf/412490-boomers-retirement-income-prospects.pdf> (4 out of 10 late baby-boomers will lack sufficient income at age 79 to replace 75% of what they earned between ages 50 and 54); Jack VanDerhei, *Retirement Income Adequacy for Boomers and Gen Xers: Evidence from the 2012 EBRI Retirement Security Projection Model*, EMP. BENEFIT RES. INST. (May 2012), http://www.ebri.org/pdf/notespdf/EBRI_Notes_05_May-12.RSPM-ER.Cvg1.pdf.

129. Jack VanDerhei, *All or Nothing? An Expanded Perspective on Retirement Readiness*, EMP. BENEFIT RES. INST. 11–12 (Nov. 2012), http://www.ebri.org/pdf/notespdf/EBRI_Notes_11_Nov-12.Slf-Insrd-RetRdines.pdf; see also Alicia H. Munnell et al., *The National Retirement Risk Index: An Update*, CTR. FOR RET. RES. 1 (Oct. 2012), http://crr.bc.edu/wp-content/uploads/2012/11/IB_12-20-508.pdf (estimating that some 53% of households will have replacement rates that fall more than 10% below the target).

130. For example, a recent study by the Life Insurance and Market Research Association (LIMRA) showed that two-thirds of middle-income (\$40,000-\$99,999) American workers were saving less than 5% of their annual income for retirement and nearly a quarter were saving nothing at all. Life Ins. & Market Res. Assoc., *Most Middle-Income Workers Saving Less Than Five Percent of Their Income for Retirement* (Oct. 31, 2012), http://www.limra.com/Posts/PR/News_Releases/Most_Middle-Income_Workers_Saving_Less_Than_Five_Percent_of_Their_Income_for_Retirement.aspx; see also HSBC Ins. Holdings Ltd., *The Future of Retirement: A New Reality* 25 fig.11 (2013), http://www.hsbc.bm/1PA_ES_Content_Mgmt/Content/bermuda/pdfs/future_of_retirement.pdf (finding that 41% of Americans surveyed have never saved for retirement); *Mandatory Pension Savings: Should Employers And Employees Be Forced To Make Contributions?*, INVESTOPEDIA (May 27, 2013), <http://www.investopedia.com/articles/personal-finance/052713/mandatory-pension-savings-should-employers-and-employees-be-forced-make-contributions.asp> (noting that “while the average length of retirement in the U.S. is approximately 21 years, the typical citizen’s savings are likely to last for just 14 years”).

6. THE DECLINE OF ANNUITIZATION

Over the years, there has been a significant decline in annuitization of retirement savings by American workers. The shift from traditional defined benefit plans to defined contribution plans is a large part of the story, as defined contribution plans typically distribute benefits in the form of lump sum distributions rather than as annuities.¹³¹ Indeed, relatively few defined contribution plans even offer annuity options, and, in any event, relatively few participants elect those annuity options.¹³² All in all, people rarely choose to buy annuities voluntarily.¹³³

131. TOWERS WATSON, INT'L PENSION PLAN SURVEY: REPORT 2011 1, 15 (2011), <http://www.towerswatson.com/en/Insights/IC-Types/Survey-Research-Results/2011/12/International-Pension-Plan-survey-2011> (lump sums distributions are by far the most prevalent form of distribution for defined contribution plans).

132. See, e.g., Beverly J. Orth, *Approaches for Promoting Voluntary Annuitization*, 2008 RETIREMENT 20/20 CONFERENCE, <http://www.soa.org/library/monographs/retirement-systems/retirement2020/2008/november/mono-2008-mrs08-01-orth.pdf>; Carlos Figueiredo & Sandy Mackenzie, *Older Americans' Ambivalence Toward Annuities: Results of an AARP Survey of Pension Plan and IRA Distribution Choices*, PUB. POL'Y INST. 6 at n.9 (Apr. 2012), http://www.aarp.org/content/dam/aarp/research/public_policy_institute/econ_sec/2012/survey-pension-ira-distribution-AARP-ppi-econ-sec.pdf (noting that the 54th Annual Survey of Profit Sharing and 401(k) Plans carried out by the Plan Sponsor Council of America found that only 16.6% offered annuities as an option, while 60.2% offered periodic withdrawals); David L. Wray, *Testimony Before the ERISA Advisory Council Working Group on Spend Down of Defined Contribution Assets as Retirement* 5 (July 16, 2008), <http://www.psc.org/psc-president-testified-july-16-2008-before-the-erisa-advisory-council-on-the-spend-down-of-defined-contribution-assets-at-retirement> (noting that only about 20% of defined contribution plans offer annuities, and these are hardly ever utilized); Paul Yakoboski, *Retirees, Annuitization and Defined Contribution Plans*, TIAA-CREF INST. 3, 5 (Apr. 2010), https://www.tiaa-crefinstitute.org/public/pdf/institute/research/trends_issues/ti_defined_contribution0410.pdf (finding that only around 19% of retirees with significant defined contribution plan assets but little defined benefit pension income annuitized a portion of their retirement savings).

133. That is, the demand for annuities is lower than expected, and this shortfall has come to be known as the "annuity puzzle." See, e.g., Shlomo Benartzi et al., *Annuitization Puzzles*, 25 J. ECON. PERSPS. 143 (Fall 2011); Franco Modigliani, *Life Cycle, Individual Thrift, and the Wealth of Nations*, 76 AM. ECON. REV. 297 (1986); Manahem E. Yaari, *Uncertain Lifetime, Life Insurance, and the Theory of the Consumer*, 32 REV. OF ECON. STUD. 137 (1965).

There are many reasons for this low demand for annuities. See Chapter One of GEORGE A. (SANDY) MACKENZIE, *ANNUITY MARKETS AND PENSION REFORM* (2006) for a survey of the influences on annuity demand. Financial literacy is often low among consumers. See, e.g., Annamaria Lusardi et al., *Financial Sophistication in the Older Population* (Nat'l Bureau of Econ. Res., Working Paper No. 17,863, 2012), <http://www.nber.org/papers/w17863>. Moreover, relatively few retirees are willing to give up control over their retirement savings by buying an annuity; they would just rather have money in the bank. Many also want to leave money to their children (economists call this a bequest motive). Also, because of adverse

The problem for many retirees—and especially for the oldest old—is that lump sum distributions can be all too easily dissipated. Indeed, one study found that 54% of those who took lump sum distributions from their retirement plan had exhausted their savings within 3 years of retirement.¹³⁴

C. Financial Products

1. LIFETIME ANNUITIES

Traditional lifetime annuities provide a powerful hedge against longevity risk.¹³⁵ For example, for a 65-year-old man who purchased a \$100,000 immediate, level-payment annuity without inflation protection in December of 2012, the annual payout would be around \$6,336 or 6.34% of the annuity's purchase price.¹³⁶ With inflation-adjusted annuities, annual payouts start lower but can end up higher. For example, if our hypothetical 65-year-old man instead chose an annuity stream with a 3% escalator, the annual payout in the first year would be just \$4,548.¹³⁷

Many analysts believe that most retirees will get the best value for their investment if they defer their decision to annuitize until age 75 or 80.¹³⁸ In that regard, a 75-year-old man who purchased a

selection (i.e., those that voluntarily purchase annuities tend live longer than those that do not), annuities may not be priced very well for those with normal life expectancies. Finally, Social Security and Supplemental Security Income (SSI) already provide inflation-adjusted monthly benefits that may crowd out private annuities. See, e.g., Monika Büttler et al., *How Much Do Means-Tested Benefits Reduce the Demand for Annuities?* (Discussion Paper No. DP 09/2011-52, Network for Studies on Pensions, Aging and Ret., 2011), <http://arno.uvt.nl/show.cgi?fid=114894>.

134. Martha L. Tejera, *Retirement Income in DC Plans: What Our Experience with DB Plans Tells Us*, 3 INST. RET. INCOME COUNCIL 1, 3 (2012), <http://iricouncil.org/docs/Volume%203,%20Number%201.pdf>.

135. Farrell Dolan, *Applying the 4-Box Strategy to Retirement Income Planning: Generating a Lifetime of Income*, LIMRA'S MKT. FACTS QUARTERLY 84, 88 (Fall 2009), <http://pjwalkercommunications.com/wp-content/uploads/2010/02/Market-Facts.pdf>; Darla Mercado, *Making the Case for Annuities*, INV. NEWS (March 25, 2012), <http://www.investmentnews.com/article/20120325/REG/303259969>.

136. *Immediate Annuities Update*, 28 ANNUITY SHOPPER 28 tbl.5 (Jan. 2013), <http://www.annuityshopper.com/archives/2013-Jan-Annuity-Shopper.pdf> (\$6,336 = \$528 × 12). Because women tend to live longer than men, the annual payout for a 65-year-old woman who elected an immediate, level-payment annuity in December of 2012 would be just \$5,880 or 5.88% of the annuity's purchase price (\$5,880 = \$490 × 12). *Id.*

137. *Id.* (\$4,548 = \$379 × 12).

138. See, e.g., Moshe A. Milevsky, *Optimal Annuitization Policies: Analysis and Options*, 5 N. AM. ACTUARIAL J. 57 (2001); ANTHONY WEBB, AARP PUB. POL'Y INST., PROVIDING INCOME FOR A LIFETIME: BRIDGING THE GAP BETWEEN ACADEMIC

\$100,000 immediate, level-payment annuity without inflation protection in December of 2012 could get an immediate annuity with an annual payout of \$8,736; an 80-year-old could get an annual payout of \$10,668, and a 90-year-old could get an annual payout of \$16,944.¹³⁹

2. LONGEVITY INSURANCE

Alternatively, retirees can protect against longevity risk by purchasing longevity insurance.¹⁴⁰ The typical approach is to buy a deferred annuity at age 65 that starts making annual payments only if the annuitant lives past age 80 or 85. For example, in February of 2012, a 65-year-old man could invest \$100,000 in a MetLife deferred annuity, and beginning at age 85, he would receive a level lifetime income of \$25,451.04 per year.¹⁴¹ Companies do not offer inflation-adjusted deferred annuities, but some companies do offer fixed step-ups.¹⁴²

With a relatively small upfront investment, a retiree can secure an income stream that starts sometime in the future, and the retiree can then use the rest of her savings to cover the fixed number of years until the deferred annuity payments start.¹⁴³ There is some risk of

RESEARCH AND PRACTICAL ADVICE (2009), available at <http://assets.aarp.org/rgcenter/ppi/econ-sec/2009-11.pdf>.

139. *Immediate Annuities Update*, supra note 136, at 30 tbl.7 (age 75: \$8,736 = \$728 × 12), at 31 tbl.8 (age 80: \$10,668 = \$889 × 12), and at 34 tbl.10 (age 90: \$16,944 = \$1,412 × 12).

140. See, e.g., Jason S. Scott, *The Longevity Annuity: An Annuity for Everyone?* 64 FIN. ANALYSTS J. 40 (2008), <http://corp.financialengines.com/employer/FE-LongevityAnnuity-FAJ-08.pdf>; Anthony Webb, Guan Gong & Wei Sun, *An Annuity that People Might Actually Buy*, B. C. CTR. FOR RET. RES. (2007), available at https://www2.bc.edu/~sunwc/paper/ib_7-10.pdf.

141. MetLife Investors Longevity Income Guarantee Quote (on file with the author) (prepared at the request of the author by Hersh L. Stern, WebAnnuities Insurance Agency, Inc., February 7, 2012). Alternatively, he could purchase a deferred annuity that instead starts at age 80 that pays \$17,069.40 per year; at age 75 that pays \$11,649.84 per year; or at age 70 and pays \$8,133.60 per year. *Id.*

142. Joseph A. Tomlinson, *Income Choices*, FIN. PLANNING (May 1, 2011), http://www.financial-planning.com/fp_issues/2011_5/income-choices-2672801-1.html (comparing various investment strategies including systematic withdrawals, immediate annuities, deferred annuities, and guaranteed lifetime withdrawal benefits).

143. See, e.g., Stephen Sexauer et al., *Making Retirement Income Last a Lifetime* 68 FIN. ANALYSTS J. 74 (2012) (proposing a “decumulation benchmark” that would use about 88% of retiree savings to purchase a laddered portfolio of Treasury Inflation-Protected Securities [TIPS] for the first 20 years and a deferred life annuity purchased with the remaining 12%); Rick Wurster, *DC 20/20: Pathways to a Secure Retirement*, 4 ROTMAN INT’L J. PENSION MGMT. 54, 58 (Fall 2011) (suggesting that an annuity providing 35% real income replacement at age 85 would cost about 7.5% of a participant’s average account balance at retirement).

running out of money before the year that the deferred annuity starts, but that is certainly a more manageable risk than trying to manage one's retirement savings over the indefinite future.¹⁴⁴

3. GUARANTEED LIFETIME WITHDRAWAL BENEFITS AND OTHER FINANCIAL PRODUCTS

Retirees can also use variable annuities with guaranteed lifetime withdrawal benefits (GLWB) funds to manage their longevity risk.¹⁴⁵ A GLWB is based on a variable annuity, but it allows investors to lock in a minimum guarantee for life.¹⁴⁶ Mechanically, the investor or retiree deposits or rolls over a sum of money into a variable annuity with subaccounts that are invested in a portfolio of stocks, bonds, and other generic investments. Depending on market performance, that investment portfolio grows (or shrinks). In any event, at retirement, the annuitant starts taking guaranteed withdrawals from the account. Payouts come from the invested funds, but if those funds are ever depleted due to long life or poor investment returns, the guaranteed minimum kicks in. Alternatively, if the investment portfolio performs well, payouts can be increased.¹⁴⁷ On the downside, GLWB annuities

144. See generally Moshe A. Milevsky, *Real Longevity Insurance with a Deductible: Introduction to Advanced-Life Delayed Annuities (ALDA)*, 9 N. AM. ACTUARIAL J. 109, 109 (2005). Finally, it is worth noting that workers might be able to buy deferred annuities in installments, starting at a young age. For example, a worker could use a portion of her retirement savings each year to purchase a deferred life annuity that starts at age 65, or at the advanced ages of 70, 75, 80, 85, or even 90. Accordingly, this type of deferred annuity product could be used to provide retirement benefits that mimic the lifetime pensions provided by traditional defined benefit plans. *Id.* See also Zorast Wadia, *Longevity Risk & Retirement*, 31 ACTUARIAL DIG. 4 (2012), available at http://www.theactuarialdigest.com/For%20Website/actuarial_digest_spring2012.pdf.

145. See, Moshe A. Milevsky & Ling-wu Shao, *Annuities and their Derivatives: The Recent Canadian Experience*, in SECURING LIFELONG RETIREMENT INCOME: GLOBAL ANNUITY MARKETS AND POLICY 50, 56 (Olivia S. Mitchell, John Piggott & Noriyuki Takayama, eds., 2011).

146. By the end of 2009, annuities accounted for 83% of the \$544 billion of retirement income product assets in the United States, with variable annuity guaranteed living benefits accounting for 71%, immediate and deferred annuities accounting for 12%, and reverse mortgages accounting for the other 17%. Jacob M. Herschler, *A U.S. Perspective on Annuity Lifetime Income Guarantees*, Address in Mexico City, 9 (June 8, 2011), http://www.aiosfp.org/eventos_seminarios/Seminario_AIOS2011/09_Jacob%20Herschler.pdf.

147. The guaranteed withdrawal rate is determined at the time of the sale and it might be set at between 4 and 6% depending upon the age when withdrawals are set to begin. See, e.g., Benny Goodman & Seth Tanenbaum, *The 5% Guaranteed Minimum Withdrawal Benefit: Paying Something for Nothing?* (TIAA-CREF Inst. Res. Dialogue No. 89, 2008). The guaranteed amount is determined by multiplying the guaranteed rate by the guaranteed base which is determined when withdrawals begin. As already mentioned, depending on the contract, if the investment portfo-

can be very complicated, they can have annual costs that exceed 3% of asset value, they can have heavy surrender charges, and they typically do not have an inflation adjustment on the withdrawal benefit.¹⁴⁸

The private sector is busy developing many other financial products to help meet the growing demand for lifetime retirement income. For example, so-called “stand-alone living benefits” are similar to GLWBs, except that instead of using a variable annuity chassis, stand-alone living benefits use mutual funds or managed accounts as the base.¹⁴⁹

4. TREASURY INFLATION-PROTECTED SECURITIES (TIPS)

The U.S. Treasury already sells inflation-adjusted bonds.¹⁵⁰ These Treasury Inflation-Protected Securities (TIPS) can be useful investments for individuals, and they can be used by the financial industry to develop products that will keep up with inflation.

IV. Mechanisms for Enhancing the Income of the Oldest Old

This Part explores a variety of ways to ensure that the oldest old have adequate economic resources.

A. Guarantee Minimum Incomes for the Oldest Old

At the outset, it should be noted that the government could redesign the social insurance system to ensure that the oldest old all have incomes above the poverty level. For example, the government could achieve this result by increasing Social Security benefits and the welfare benefits under SSI and SNAP.¹⁵¹

lio does well, the guaranteed base might reset to a higher level and generate even greater withdrawals.

148. SOC'Y OF ACTUARIES, *Designing a Monthly Paycheck for Retirement*, MANAGING RET. DECISIONS SERIES 6 (2012), available at <http://www.soa.org/Workarea/Download/Asset.aspx?id=30089>; Tomlinson, *supra* note 142 (comparing various investment strategies including systematic withdrawals, immediate annuities, deferred annuities, and guaranteed lifetime withdrawal benefits and noting that fees run about 2% for the lowest cost products and may approach 4% for products that also include sales loads).

149. Tomlinson, *supra* note 142.

150. See, e.g., *Treasury Inflation-Protected Securities (TIPS)*, TREASURY DIRECT, http://www.treasurydirect.gov/indiv/products/prod_tips_glance.htm (last visited Nov. 30, 2013).

151. See, e.g., U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-10-101, SOCIAL SECURITY: OPTIONS TO PROTECT BENEFITS FOR VULNERABLE GROUPS WHEN

As the oldest old tend to have had higher incomes than their deceased peers,¹⁵² it seems hard to justify much redistribution. Instead, it would seem more appropriate to find ways to ensure that tomorrow's oldest old are required or encouraged to manage their own resources in their earlier years so that they have adequate retirement incomes in their later years.

B. Encourage Workers to Save More, Work Longer, and Annuitize Much of Their Wealth

At the outset, to help ensure that the oldest old have adequate incomes, the government should encourage workers to save more while they are working, encourage workers to stay in the workforce longer, and encourage workers and retirees to annuitize much of their wealth.

1. ENCOURAGE WORKERS TO SAVE MORE AND INVEST BETTER

If workers save more during their careers, they will have higher income in their retirement years. One way to increase retirement savings would be for the United States to adopt a mandatory universal pension system like Australia, Singapore, and Chile have done.¹⁵³ For example, virtually all workers in Australia already have 9% of salary set aside in individual superannuation accounts, and contributions are scheduled to increase to 12% in the coming years.¹⁵⁴

At a minimum, the government should adopt policies that make 401(k) plans or payroll-deduction IRAs available to all workers.¹⁵⁵ Au-

ADDRESSING PROGRAM SOLVENCY (2009), <http://www.gao.gov/assets/100/96496.pdf>.

152. See *supra* Part II.B, C.

153. See, e.g., Jonathan Barry Forman, *Should We Replace the Current Pension System with a Universal Pension System?*, 16 J. PENSION BENEFITS 48 (2009); Jonathan Barry Forman & Adam Carasso, *Tax Considerations in a Universal Pension System* (Urban-Brookings Tax Pol'y Ctr. Discussion Paper No. 28, 2007), available at <http://www.urban.org/publications/411593.html>; see also TERESA GHILARDUCCI, WHEN I AM SIXTY FOUR: THE PLOT AGAINST PENSIONS AND THE PLAN TO SAVE THEM 260–292 (2008); U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-09-642, PRIVATE PENSIONS: ALTERNATIVE APPROACHES COULD ADDRESS RETIREMENT RISKS FACED BY WORKERS BUT POSE TRADE-OFFS 20–26 (2009), available at <http://www.gao.gov/new.items/d09642.pdf>.

154. See, e.g., Jonathan Barry Forman & Gordon D. Mackenzie, *Optimal Rules for Defined Contribution Plans: What Can We Learn from the U.S. and Australian Pension Systems?*, 66 TAX LAW. 613, 625 (2013).

155. See, e.g., Automatic IRA Act, H.R. 4049, 112th Cong. (2012) (as introduced by Rep. Richard E. Neal); U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-13-699, AUTOMATIC IRAS: LOWER-EARNING HOUSEHOLDS COULD REALIZE INCREASES IN

tomatically enrolling workers into these types of individual retirement savings accounts could achieve higher levels of participation, and automatically escalating the levels of their contributions could dramatically increase the amount of their retirement savings.¹⁵⁶ One study estimated that in the long run, 3% add-on individual retirement savings accounts could provide an annual retirement benefit equal to 14.4% of final wages for men and 13.3% of final wages for women.¹⁵⁷

In addition to getting workers to save more, government policies should be designed to encourage workers to do a better job with their investments. The government already encourages pensions to use target date funds as their qualified default investment alternative

RETIREMENTS INCOME (2013), available at <http://www.gao.gov/asset/660/657171.pdf>; FORMAN, *supra* note 53, at 233–35; William G. Gale & David C. John, *The President's 2013 Budget Would Enable Almost All Americans to Save for Retirement* (Feb. 15, 2012), http://www.brookings.edu/opinions/2012/0215_budget_retirement_gale_john.aspx; J. Mark Iwry & David C. John, *Pursuing Universal Retirement Security Through Automatic IRAs* (Ret. Sec. Project Paper No. 2009-3, 2009), available at http://www.brookings.edu/~media/Files/rc/papers/2009/07_automatic_ira_iwry/07_automatic_ira_iwry.pdf; BENJAMIN H. HARRIS & RACHEL M. JOHNSON, ECONOMIC EFFECTS OF AUTOMATIC ENROLLMENT IN INDIVIDUAL RETIREMENT ACCOUNTS (2012), http://www.aarp.org/content/dam/aarp/research/public_policy_institute/econ_sec/2012/Economic-Effects-of-Auto-IRA-Research-Report-AARP-ppi-econ-sec.pdf; BENJAMIN H. HARRIS & ILANA FISCHER, THE POPULATION OF WORKERS COVERED BY THE AUTO IRA: TRENDS AND CHARACTERISTICS (2012), http://www.aarp.org/content/dam/aarp/research/public_policy_institute/econ_sec/2012/Population-of-Workers-Auto-IRA-Trends-and-Characteristics-Research-Report-AARP-ppi-econ-sec.pdf (finding that between 24 million and 43 million workers—approximately one-quarter of the workforce—would be eligible for automatic enrollment in the proposals under consideration in Congress).

156. See, e.g., OECD, OECD PENSIONS OUTLOOK 2012 45–76 (2012), available at http://www.keepeek.com/Digital-Asset-Management/ocd/finance-and-investment/ocd-pensions-outlook-2012_9789264169401-en#page1; Jack VanDerhei, *Increasing Default Deferral Rates in Automatic Enrollment 401(k) Plans: The Impact on Retirement Savings Success in Plans with Automatic Escalation*, 33 EMP. BENEFIT RES. INST. NOTES 1, 12–13 (Sept. 2012); Richard H. Thaler & Schlomo Bernartzi, *The Behavioral Economics of Retirement Savings Behavior* (AARP Pol'y Inst., Res. Report No. 2007-02, 2007), available at http://assets.aarp.org/rgcenter/econ/2007_02_savings.pdf. The Pension Protection Act of 2006 made it easier for employers to include automatic enrollment features in pension plans. Pension Protection Act of 2006 § 902, Pub. L. No. 109-280, 120 Stat. 780 (adding I.R.C. §§401(k)(13), 401(m)(12), 414(w) (2006)). See also Notice 2009-65, IRS.GOV, available at <http://www.irs.gov/pub/irs-drop/n-09-65.pdf> (last visited Dec. 3, 2013); Notice 2009-39, IRS.GOV, available at <http://www.irs.gov/pub/irs-irbs/irb09-39.pdf> (last visited Dec. 3, 2013) (adding Automatic Enrollment to Section 401(k) Plans -- Sample Amendments).

157. Forman & Carasso, *supra* note 153.

(QDIA), rather than low-yield, stable-value funds.¹⁵⁸ Government regulation of the fees and expenses associated with defined contribution plans and IRAs is also very important, as high fees can significantly reduce the size of retirement nest eggs.¹⁵⁹ Government policies should also be designed to get workers to preserve their retirement savings until retirement, for example, by discouraging premature withdrawals and loans.¹⁶⁰

2. ENCOURAGE WORKERS TO WORK LONGER

The government should also encourage workers to remain in the workforce longer.¹⁶¹ Working longer increases retirement savings and reduces the number of years that retirement savings need to cover, thereby increasing annual income when the worker actually retires.¹⁶² Table 2 shows estimates of how average annual income can increase from working longer.¹⁶³ For instance, working just one more year can increase annual income 9% overall and by as much as 16% for low-income workers. Monthly Social Security benefits increase, and the

158. See, e.g., U.S. DEP'T OF LABOR, EMP. BENEFITS SEC. ADMIN., *Target Date Retirement Funds—Tips for ERISA Plan Fiduciaries* (Feb. 2013), <http://www.dol.gov/ebsa/newsroom/fsTDF.html>.

159. See, e.g., Jonathan Barry Forman, *The Future of 401(k) Plan Fees*, 2007 N.Y.U. REV. EMP. BENEFITS & EXEC. COMP. 9-1, 9-18 (2007).

160. Forman & Mackenzie, *supra* note 154, at 650; Richard L. Kaplan, *Retirement Funding and the Curious Evolution of Individual Retirement Accounts*, 7 ELDER L.J. 283, 293-303 (1999).

161. See, e.g., Jonathan Barry Forman & Yung-Ping (Bing) Chen, *Optimal Retirement Age*, 2008 N.Y.U. REV. EMP. BENEFITS & EXEC. COMP. 14-1 (2008); FISCAL AFFAIRS DEP'T, *The Challenge of Public Pension Reform in Advanced and Emerging Economies*, INT'L MONETARY FUND 25 (Carlo Cottarelli ed., 2011), available at <http://www.imf.org/external/np/pp/eng/2011/122811.pdf>; Alicia H. Munnell et al., *How Important is Asset Allocation to Financial Security in Retirement?* (B. C. Ctr. for Ret. Res. Working Paper No. 2012-13, 2012), <http://crr.bc.edu/wp-content/uploads/2012/04/wp-2012-13.pdf>.

162. Stephen Blakely, *Is There a Future for Retirement?*, EMP. BENEFIT RES. INST. NOTES 13, 16 (Sept. 2011), available at <http://www.ebri.org/pdf/Notes.Sept11.Pol-For-only.06Sept.pdf> (statement of Mathew Greenwald); Barbara Butrica et al., *Working for a Good Retirement*, 28 fig.2 (Urban Inst., Ret. Project, Discussion Paper No. 06-03, 2006), available at http://www.urban.org/UploadedPDF/311333_good_retirement.pdf; Alicia H. Munnell, *How Much to Save for a Secure Retirement* (B. C. Ctr. for Ret. Res., Issue in Brief No. 11-13, 2011), available at http://develop.fafn.no/files/news/8018/IB_11-13.pdf; Joseph Quinn et al., *Early Retirement: The Dawn of a New Era?*, 14 (TIAA-CREF Policy Brief, July 2011), available at http://www.tiaa-cref.org/public/pdf/institute/research/briefs/pb_early_retirement0711.pdf; Jack VanDerhei & Craig Copeland, *The Impact of Deferring Retirement Age on Retirement Income Adequacy* (Emp. Benefit Res. Inst., Issue Brief No. 358, 2011), available at http://www.ebri.org/pdf/briefspdf/EBRI_IB_06-2011_No358_Defr-Ret.pdf.

163. Butrica et. al., *supra* note 162, at 28 fig.2.

additional savings to buy a private annuity increases while the premium falls.

Table 2. Increase in Average Annuity Income from Working Longer (percent)

<i>Lifetime Earnings Quintile</i>	<i>Increase from Working One More Year</i>	<i>Increase from Working Five More Years</i>
Bottom	16	98
Second	12	71
Middle	10	61
Fourth	8	52
Top	7	42
All	9	56

Source: Barbara Butrica, Karen E. Smith & C. Eugene Steuerle, Working for a Good Retirement 28 fig. 2 (Urban Institute, Retirement Project Discussion Paper No. 06-03, 2006), http://www.urban.org/UploadedPDF/311333_good_retirement.pdf.

Because Social Security provides actuarial increases in benefits to those who delay taking the benefits, the government should encourage people to delay taking their Social Security benefits until they reach their full retirement age or, better still, until age 70.¹⁶⁴ The government should also raise the early and normal retirement ages for pensions and Social Security.¹⁶⁵ For example, the I.R.C. § 72(t) 10% penalty on premature withdrawals applies only to distributions made before an individual reaches age 59½. It would make sense to raise the penalty-free age from 59½ to 62 (the early retirement age for Social Security) and, eventually, to raise both early retirement ages to 64 or even 65.

It would also make sense to raise the normal retirement age for pensions. ERISA generally defines “normal retirement age” as the earliest time specified in the plan or age 65.¹⁶⁶ However, the Social Security full retirement age is currently age 66 and it is gradually increasing to age 67.¹⁶⁷ Thus, it would make sense to raise the normal retirement age for pension plans to 66 and, eventually, to raise both full retirement ages to 68 or even 70.¹⁶⁸

164. See *supra* notes 65–69 and accompanying text.

165. See, e.g., Forman & Chen, *supra* note 161.

166. 29 U.S.C. § 1002(24) (2012); I.R.C. § 411(a)(8) (2012).

167. See *Social Security Planner*, *supra* note 54.

168. See, e.g., Forman & Chen, *supra* note 161, at 14-33.

3. ENCOURAGE WORKERS AND RETIREES TO ANNUITIZE MUCH OF THEIR WEALTH

The government should encourage greater utilization of annuities and deferred annuities. While some of the oldest old will have adequate annual incomes from Social Security, traditional pensions, and annuities, many—especially those that take lump sum distributions from their pensions and 401(k) plans—will not.

One approach would be for the government to mandate that retirees use at least a portion of their retirement savings to purchase annuities or similar lifetime income guarantees.¹⁶⁹ Alternatively, the government might only want to encourage annuitization. The government might require plan sponsors to make annuity options available to plan participants as they near retirement.¹⁷⁰ The government might even require plans to default participants into annuities or trial annuities, unless plan participants affirmatively elect otherwise.¹⁷¹ The tax system could also be used to encourage people to take their pension distributions as annuities, for example, by exempting annuity payouts from income taxation or favoring them with a reduced tax rate.¹⁷²

169. See, e.g., MACKENZIE, *supra* note 123, at 191–200; FORMAN, *supra* note 53, at 238–239; Jeffrey R. Brown, *Automatic Lifetime Income as a Path to Retirement Income Security* (Am. Council of Life Insurers, White Paper, Sept. 2009), available at http://www.wiserwomen.org/pdf_files/Brown,%20Retirement%20Income%20Security.pdf; Pamela Perun, *Confronting the Challenge of Longevity* (Aspen Inst. Initiative on Fin. Sec., 2010), available at http://www.aspeninstitute.org/sites/default/files/content/docs/pubs/ConfrontingLongevity_AspenIFS.pdf.

170. See, e.g., U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-11-400, RETIREMENT INCOME: ENSURING INCOME THROUGHOUT RETIREMENT REQUIRES DIFFICULT CHOICES 38-39 (2011); Jeffrey R. Brown, *Understanding the Role of Annuities in Retirement Planning*, in OVERCOMING THE SAVINGS SLUMP 178, 199–200 (Annmaria Lusardi ed., 2008).

171. See, e.g., U.S. GOV'T ACCOUNTABILITY OFFICE, *supra* note 170, at 39–40; MACKENZIE, *supra* note 123, at 200–203; William G. Gale et al., *Increasing Annuitization in 401(k) Plans with Automatic Trial Income* (Ret. Sec. Project, Paper No. 2008-2, 2008), available at http://www.brookings.edu/~media/Files/rc/papers/2008/06_annuities_gale/06_annuities_gale.pdf (recommending defaulting retirees into receiving at least 24 consecutive monthly payments from an annuity or similar lifetime income product); J. Mark Iwry & John A. Turner, *Automatic Annuitization: New Behavioral Strategies for Expanding Lifetime Income* (Ret. Sec. Project, Paper No. 2009-2, 2009), available at http://www.brookings.edu/~media/Files/rc/papers/2009/07_annuitization_iwry/07_annuitization_iwry.pdf (discussing various default strategies).

172. See, e.g., Retirement Security Needs Lifetime Pay Act of 2009, H.R. 2748, 111th Cong. 1st Sess. (2009) (a bill introduced by former Representative Earl Pomeroy [D-N.D.] to encourage guaranteed lifetime income payments by excluding from income a portion of such payments).

The government should also promote inflation-adjusted annuities. While Social Security benefits are adjusted for inflation, relatively few private pensions or annuities have cost-of-living adjustments, but inflation adjustments are exactly the way to preserve the value of benefits as the years go by—and especially for those fortunate few who get to be 90+.

In 2010, the Internal Revenue Service and the U.S. Department of Labor mounted a joint effort to improve lifetime income options for retirement plans;¹⁷³ and in 2012, the Treasury and the Internal Revenue Service released a package of proposed regulations and rulings intended to make it easier for pension plans to offer partial annuities, longevity annuities, and other lifetime income choices.¹⁷⁴

C. Increase Social Security Benefits for the Oldest Beneficiaries

Increasing Social Security benefits could measurably improve the retirement incomes of the oldest old. As previously mentioned, the government should encourage workers to work longer and delay claiming Social Security benefits, at least until they reach full retirement age.¹⁷⁵ This Subpart offers some other ways to increase Social Security benefits for the oldest old.

1. INCREASE BENEFITS ACROSS-THE-BOARD

Of course, one way to enhance the retirement income security of Americans would be to increase Social Security benefits across-the-board. Alternatively, the government could tweak the Social Security benefit formula so that the system would replace at least 80% of preretirement earnings for workers with low lifetime earnings. As Social Security already replaces around 70% of the preretirement earnings for workers in the bottom quintile of lifetime earnings,¹⁷⁶ increasing

173. See, e.g., U.S. DEP'T OF LABOR, *Lifetime Income Options for Participants and Beneficiaries in Retirement Plans* (Sept. 14, 2010), <http://www.dol.gov/ebsa/regs/cmt-1210-AB33.html>.

174. Exec. Office of the President, Council of Econ. Advisors, *Supporting Retirement for American Families* (Feb. 2, 2012), http://benefitslink.com/articles/CEA_report_2_2_2012.pdf; U.S. DEP'T OF TREASURY, *Treasury Fact Sheet: Helping American Families Achieve Retirement Security by Expanding Lifetime Income Choices* (Feb. 2, 2012), <http://www.treasury.gov/press-center/press-releases/Documents/020212%20Retirement%20Security%20Factsheet.pdf>.

175. See *supra* Part IV.B.2.

176. CONG. BUDGET OFFICE, *supra* note 61, at exhibit 10; see also Brady et al., *supra* note 61, at 17–20. Of note, future retirees are projected to receive somewhat higher Social Security retirement benefits than today's beneficiaries. See, e.g.,

replacement rates to 80% for those households would not cost all that much.¹⁷⁷ The cost would be even lower if Congress targeted the benefit increases to those with the lowest lifetime earnings.

2. PROVIDE LONGEVITY INSURANCE BY INCREASING BENEFITS FOR THE OLDEST BENEFICIARIES

Another approach would be to increase Social Security benefits, but only for the oldest old. For example, benefits could be increased for beneficiaries who live to age 80 or 85.¹⁷⁸ In essence, this would be a way of providing longevity insurance through the Social Security system, although, to keep costs under control, it might be necessary to target the benefit increases to those with the lowest lifetime earnings.

3. INCREASING SURVIVOR BENEFITS

Increasing survivor benefits is an option that would help the many oldest old widows and widowers.¹⁷⁹ One approach would be to increase the surviving spouse benefit from two-thirds to 75% of the combined amount the couple received before the other spouse's death, and, perhaps, this benefit increase could be paid for by reducing or capping the spousal benefit.

CONG. BUDGET OFFICE, THE 2012 LONG-TERM PROJECTIONS FOR SOCIAL SECURITY: ADDITIONAL INFORMATION (2012), <http://www.cbo.gov/sites/default/files/cbofiles/attachments/43648-SocialSecurity.pdf>. However, future retirees will have to wait longer to reach full-retirement age, they are projected to face higher Medicare Part B premiums, and a greater portion of their Social Security retirement benefits will be subject to income taxation. Alicia H. Munnell et al., *The National Retirement Risk Index After the Crash 2* fig.1 (B. C. CTR. FOR RET. RES., Issue in Brief No. 9-22, 2009), available at http://crr.bc.edu/wp-content/uploads/2009/10/IB_9-22.pdf.

177. A recent survey found that 75% of Americans believe that we should consider increasing Social Security benefits to provide a more secure retirement for working Americans. Jasmine V. Tucker et al., *Strengthening Social Security: What Do Americans Want?* 10 (2013), http://www.nasi.org/sites/default/files/research/What_Do_Americans_Want.pdf.

178. See, e.g., U.S. GOV'T ACCOUNTABILITY OFFICE, *supra* note 151, at 17; Beverly Orth, *How to Survive Living to 100: Ways to Improve the U.S. Retirement System*, (Soc'y of Actuaries, Monograph No. M-L111-1, 2011), <http://www.soa.org/News-and-Publications/Newsletters/Pension-Section-News/2013/january/Living-to-100-Monograph-%E2%80%93Mortality-Articles.aspx>.

179. See, e.g., U.S. GOV'T ACCOUNTABILITY OFFICE, *supra* note 151, at 16; see also Melissa M. Favreault & C. Eugene Steuerle, *Social Security Spouse and Survivor Benefits for the Modern Family* (Urban Inst., Ret. Project Discussion Paper No. 07-01, 2007), http://www.urban.org/UploadedPDF/311436_Social_Security.pdf.

4. OTHER POSSIBLE BENEFIT ENHANCEMENTS

Other possible benefit enhancements that could help the oldest old include: (1) increasing the minimum benefits available under Social Security;¹⁸⁰ (2) reducing the work requirements for eligibility;¹⁸¹ (3) supplementing benefits for low-income single workers;¹⁸² (4) earnings sharing;¹⁸³ (5) reducing the marriage duration required for spousal benefits, for example, from 10 years to 7 years;¹⁸⁴ and (6) providing caregiver credits.¹⁸⁵

D. Increase Pension Benefits for the Oldest Old

Strengthening pensions could also help increase the retirement incomes of the oldest old. As previously mentioned, (1) the government should encourage workers to save more for retirement, for example, by encouraging or mandating individual retirement savings accounts on top of Social Security;¹⁸⁶ (2) the government should also encourage workers to stay in the workforce longer, for example, by raising the early and normal retirement ages for pensions;¹⁸⁷ and (3) the government should encourage workers to take their pension benefits in the form of annuities, perhaps even inflation-adjusted annuities.¹⁸⁸ This Subpart offers some additional ways to help increase pension benefits for the oldest old.

1. RELAX THE MINIMUM DISTRIBUTION RULES

The Internal Revenue Code generally requires participants in pension plans to begin taking distributions soon after they reach age

180. U.S. GOV'T ACCOUNTABILITY OFFICE, *supra* note 151, at 7; *Minimum Benefits*, URBAN INST., http://www.urban.org/retirement_policy/ssminbenefits.cfm (last visited Dec. 6, 2013).

181. *See, e.g.*, U.S. GOV'T ACCOUNTABILITY OFFICE, *supra* note 151, at 9–10.

182. *See, e.g., id.* at 11.

183. *See, e.g., id.* at 12–13; FORMAN, *supra* note 53, at 205–06; *see also* Howard M. Iams et al. *Earnings Sharing in Social Security: Projected Impacts of Alternative Proposals Using the MINT Model*, 69 SOC. SEC. BULLETIN 1 (2009), available at <http://www.ssa.gov/policy/docs/ssb/v69n1/ssb-v69n1.pdf>.

184. *See, e.g.*, U.S. GOV'T ACCOUNTABILITY OFFICE, *supra* note 151, at 14.

185. *See, e.g., id.* at 15; Howard M. Iams & Steven H. Sandell, *Changing Social Security Benefits to Reflect Child-Care Years: A Policy Proposal Whose Time Has Passed?*, 57 SOC. SEC. BULLETIN 10 (1994), available at <http://www.ssa.gov/policy/docs/ssb/v57n4/v57n4p10.pdf>.

186. *See supra* Part IV.B.1.

187. *See supra* Part IV.B.2.

188. *See supra* Part IV.B.3.

70½.¹⁸⁹ Failure to take the required minimum distribution can result in a 50% excise tax penalty on the excess of the amount required to have been distributed over the amount that actually was distributed.¹⁹⁰ Admittedly, most elder Americans retire long before they reach age 70½. Still, raising the minimum distribution age to 75 or more—or eliminating the requirement altogether—could help encourage some elder workers to remain in the workforce and should make it easier for retirees to preserve more of their retirement savings until 90+.¹⁹¹

The minimum distribution rules can also make it quite difficult to use defined contribution plan savings to purchase deferred annuities.¹⁹² In that regard, however, new proposed regulations from the IRS would ease the minimum distribution requirements to allow plan participants to spend up to \$100,000 on deferred annuities.¹⁹³ Finalizing these proposed regulations would help the oldest old, but the minimum distribution statute itself could use some serious reconsideration.

2. IMPROVE SPOUSAL PROTECTIONS IN RETIREMENT ACCOUNTS

Another way to help ensure that the oldest old have adequate retirement incomes would be to strengthen the spousal and surviving spouse protections that are applicable to retirement plans.¹⁹⁴ Under ERISA, defined benefit plans (and some defined contribution plans) are required to provide a qualified joint-and-survivor annuity (QJSA) as the normal benefit payment for married participants, unless the spouse consents to another form of distribution.¹⁹⁵ These plans are al-

189. I.R.C. § 401(a)(9)(B)(iv)(1) (2012).

190. I.R.C. § 4974(a) (2012).

191. See also Richard L. Kaplan, *Reforming the Taxation of Retirement Income*, 32 VA. TAX REV. 327, 357 (2012).

192. See I.R.C. § 401(a)(9) (2012); Natalie Choate, *New! Longevity Insurance for IRAs*, MORNINGSTAR ADVISOR (March 9, 2012), <http://www.morningstar.com/advisor/t/52769065/new-longevity-insurance-for-iras.htm>.

193. *Longevity Annuity Contracts*, 77 Fed. Reg. 5,443 (Feb. 3, 2012) (codified at 26 C.F.R. pt. 1); U.S. DEP'T OF TREASURY, *supra* note 174; Robert J. Toth, Jr., *First Steps to Modernizing DC Annuity: QLACs and Revenue Ruling 2012-3*, PENSION & BENEFITS DAILY (Apr. 10, 2012), <http://www.businessofbenefits.com/uploads/file/TOTHQLAC.pdf>.

194. Recall that in 2006–2008, 15.8% of the oldest old were married, and 75.1% were widowed. See *supra* note 17 and accompanying text.

195. 29 U.S.C. § 1055 (2012); I.R.C. §§ 410(a)(11), 417 (2012). A qualified joint-and-survivor annuity is an immediate annuity for the life of the pension plan participant and a survivor annuity for the life of the participant's spouse. The amount of the survivor annuity may not be less than 50%, or more than 100%, of the amount payable during the time the participant and spouse are both alive.

so required to provide a qualified preretirement survivor annuity (QPSA) option in case the worker dies before retirement.¹⁹⁶

Many analysts believe that the joint and survivor annuity should be the default for all defined contribution plans (including 401(k) plans) and for all non-ERISA retirement plans (including IRAs, government plans, and military plans).¹⁹⁷ It might also make sense to increase the size of the minimum survivor annuity from 50% to 75% of the worker's annuity. The government might even want to mandate that at least a portion of retirement savings is paid out in the form of a joint and survivor annuity.

Also, most ERISA-covered pension plans and many other retirement plans allow state courts to divide the pension benefits of married couples through "qualified domestic relations orders" (QDROs) and similar court orders.¹⁹⁸ To help ensure that virtually all spouses get pension benefits, the government might want to change the default rule so that all types of retirement plans are divided equally at divorce, unless a court orders, or the parties agree, otherwise.

E. Have the Government Issue or Guarantee Annuities

As already mentioned, the federal government sells inflation-adjusted bonds (TIPS) that can be useful in dealing with longevity risk.¹⁹⁹ Also, a number of analysts have recently suggested that the U.S. Treasury should sell no-fee retirement bonds (R-bonds) that workers could use to build secure retirements savings—long-term bonds that pay interest at a rate similar to the five-year Treasury Bond.²⁰⁰ Moreover, this Article has explained how delaying receipt of

196. *Id.* A qualified preretirement survivor annuity typically pays an annuity that is equal to the survivor's portion of the QPSA.

197. *See, e.g.*, Jonathan Barry Forman, *Protecting Spousal Rights in Private Pensions*, in RETIREMENT NEEDS FRAMEWORK 55 (Soc'y of Act., ed., 2000), <http://www.soa.org/library/monographs/retirement-systems/retirement-needs-framework/2000/january/m-rs00-1-06.pdf>; *Increasing Spousal Protections in Retirement Accounts Would Increase Women's Retirement Security*, NAT'L WOMEN'S L. CTR. (Feb. 23, 2011), http://www.nwlc.org/sites/default/files/pdfs/increasingspousalprotectionsinretirement_0.pdf.

198. *See, e.g.*, 29 U.S.C. § 1056(d)(1) (2013); I.R.C. §401(a)(13) (2010).

199. *See supra* Part III.C.4.

200. *See, e.g.*, William G. Gale et al., *New Ways to Promote Retirement Savings*, AARP PUBLIC POLICY INST. 11–13 (Nov. 2012), http://www.aarp.org/content/dam/aarp/research/public_policy_institute/econ_sec/2012/new-ways-promote-retirement-saving-AARP-pp-econ-sec.pdf; *Simplify Savings for Retirement: Create a U.S. R-Bond*, WOMEN'S INST. FOR A SEC. RET., http://www.wiserwomen.org/images/imagefiles/U%20S%20RetirementBond2_F.pdf (last visited

Social Security benefits until full retirement age or later is equivalent to purchasing an annuity from the Social Security Administration.²⁰¹

For that matter, it might make sense for the government to issue or guarantee annuities, perhaps, even deferred annuities.

1. LONGEVITY BONDS

Some analysts have suggested that the government should sell longevity bonds—bonds whose coupon payment increases when the longevity of a targeted population exceeds a certain benchmark.²⁰² Such longevity bonds could help facilitate the development of financial products that offer longevity protection (for example, deferred annuities). In that regard, a fledgling market for longevity bonds already exists in Europe.²⁰³

2. ANNUITIES AND PARTICIPATING ANNUITIES

The government could actually get into the market of selling annuities²⁰⁴ or, alternatively, guaranteeing annuity products sold by private companies.²⁰⁵ For example, the government might allow individuals and couples to purchase a limited amount of inflation-

Dec. 6, 2013). *But see* Lewis Mandell et al., *Your Nest Egg on Auto Pilot: The Advantages of Real Savings + Over the R-Bond as a Default Investment for the Automatic IRA*, Initiative on Financial Security, ASPEN INST. (Feb. 23, 2010), <http://www.aspeninstitute.org/sites/default/files/content/docs/pubs/YourNestEggOnAutoPilot.pdf> (expressing the concern that R-Bonds would have relatively low interests rates and, instead, recommending the creation of higher-yield “Real Savings+” funds that would include both bonds and stocks).

201. *See supra* notes 65–69 and accompanying text.

202. *See, e.g.*, Pablo Antolin & Hans Blommestein, *Governments and the Market for Longevity-Indexed Bonds* (OECD, Working Paper on Insurance and Private Pensions, Paper No. 4, 2007), available at <http://www.oecd.org/pensions/insurance/37977290.pdf>; David Blake et al., *The Case for Longevity Bonds* (B. C. Ctr. for Ret. Res., Issue in Brief, Paper No. 10-10, 2010), available at, http://www.crr.bc.edu/wp-content/uploads/2010/06/IB_10-10-508.pdf; Jeffrey R. Brown & Peter R. Orszag, *The Political Economy of Government Issued Longevity Bonds*, INV. NEWS (2006), available at <http://www.investmentnews.com/assets/docs/ci15770330.pdf>.

203. *See, e.g.*, Katy Burne, ‘Longevity’ Bond Market May Spring to Life, WALL ST. J. (Feb. 7, 2013), <http://online.wsj.com/article/BT-CO-20130207-713432.html>.

204. *See, e.g.*, Henry T. C. Hu & Terrance Odean, *Paying for Old Age*, N.Y. TIMES, Feb. 25, 2011, at A19 (recommending that the federal government issue annuities); Orth, *supra* note 132, at 3 (suggesting that the Social Security Administration could sell supplemental annuities at a subsidized rate).

205. *See, e.g.*, Lawrence A. Frolik, *Protecting Our Aging Retirees: Converting 401(k) Accounts Into Federally Guaranteed Lifetime Annuities*, 47 SAN DIEGO L. REV. 277 (2010) (suggesting that the federal government guarantee lifetime annuities for retirees).

adjusted life annuities—perhaps, enough to keep them out of poverty throughout their retirement years.

Moreover, the government is in the almost unique position of being able to sell participating annuities that could share longevity risk among annuitants.²⁰⁶ The Social Security Administration already provides benefits to almost all every elder American and compiles death information about them to ensure it does not pay Social Security benefits to deceased individuals and to establish benefits for survivors.²⁰⁷ With that information, the government would be able to make annuity payments only to the surviving members of each birth cohort (e.g., among all those born more than 90 years ago, in 1924). For that matter the government could share the longevity risk over multiple birth cohorts (e.g., among all those born more than 90 years ago or among those born more than 80 but less than 90 years ago).²⁰⁸

Along these same lines, the government could sell or encourage the sale of the tontine-like annuities.²⁰⁹ Tontines are investment vehicles that combine features of an annuity and a lottery. Basically, investors pool their money together to buy a portfolio of government bonds.²¹⁰ Each year that they are alive, investors receive interest, and,

206. See, e.g., Raimond Maurer et al., *Participating Payout Life Annuities: Lessons from Germany*, SOC. SCI. RES. NETWORK (May 1, 2012), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2078114 (noting that participating life annuities offer guaranteed minimum benefits for life and an additional non-guaranteed surplus based on investment return, mortality, and costs); Andreas Richter & Frederik Weber, *Mortality-Indexed Annuities-Managing Longevity Risk Via Product Design*, 15 N. AM. ACTUARIAL J. 212 (2011); Roberto Rocha & Dimitri Vitas, *Designing the Payout Phase of Pension Systems: Policy Issues, Constraints and Options* (World Bank Pol'y Res., Working Paper No. WPS5289, 2010), http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2010/05/04/000158349_20100504092303/Rendered/PDF/WPS5289.pdf; Michael Z. Stamos, *Optimal Consumption and Portfolio Choice for Pooled Annuity Funds*, 43 MATHEMATICS & ECON. 56 (2008); John Piggott et al., *The Simple Analytics of a Pooled Annuity Fund*, 72 J. RISK & INS. 497 (2005).

207. U.S. GOV'T ACCOUNTABILITY OFFICE, GAO-11-333, SOC. SEC. ADMIN.: PRELIMINARY OBSERVATIONS ON THE DEATH MASTER FILE (2013), available at <http://www.gao.gov/assets/660/654411.pdf>.

208. One can imagine all kinds of formulas that could be used to share longevity risk over multiple birth cohorts. For example, mortality experience could simply be averaged over 3, 5, or even 10 consecutive birth cohorts. Alternatively, the mortality experiences of prior or subsequent birth cohorts could be given lower weights. Interest rates could also be averaged over some number of years.

209. See, e.g., Moshe A. Milevsky & Thomas S. Salisbury, *Optimal Retirement Tontines for the 21st Century: With Reference to Mortality Derivatives in 1693* (May 28, 2013), http://papers.ssrn.com/so13/papers.cfm?abstract_id=2271259.

210. See, e.g., ROBERT W. COOPER, AN HISTORICAL ANALYSIS OF THE TONTINE PRINCIPLE (1972); Kent McKeever, *A Short History of Tontines*, 15 FORDHAM J. OF CORP. & FIN. L. 491 (2009).

as investors die, their shares are forfeited to the surviving investors, who benefit from the mortality gains. Unless the fund is divided earlier, the entire fund goes to the last survivor.²¹¹ For example, imagine that 1,000 65-year-old retirees each contribute \$1,000 to an investment fund that purchases a \$1,000,000 Treasury Bond paying 4% coupons.²¹² The bond will generate \$40,000 interest per year, which will be split equally among the surviving participants. A custodian holds the bond, and because the custodian takes no risk and requires no capital, the custodian charges a trivial fee. Assuming that all the investors live through the first year, they will each receive a \$40 dividend from the fund ($\$40,000 \div 1,000$). If only 800 original investors are alive a decade later (when they are all 75), then each will receive a \$50 dividend ($\$40,000 \div 800$). If only 100 are alive two decades after that (when they are 95), then each will receive a \$400 dividend ($\$40,000 \div 100$). Later, when only 40 remain, each will receive a \$1,000 dividend ($\$40,000 \div 40$). If the terms of the tontine investment call for liquidation at that point, each of the 40 survivors would also receive a liquidating distribution of \$25,000 ($\$1,000,000 \div 40$). Alternatively, the tontine could be designed so that the last survivor receives the entire \$1,000,000.²¹³

To be sure, most retirees would probably prefer to have reasonable level benefits throughout their lives, rather than benefits that increase sharply at the very end of the life. Accordingly, it would make sense to design tontine-type products with benefits that increase gradually throughout retirement, perhaps in the style of an inflation-adjusted annuity (but without having to support insurance company profits and reserves). The point here is that variations on the tontine principle could be used to create a variety of attractive retirement in-

211. This latter variant makes for some great fiction. See, e.g., *Tontine*, WIKIPEDIA, <http://en.wikipedia.org/wiki/Tontine> (last visited Dec. 6, 2013). For example, on the television show "Mash," Colonel Sherman T. Potter, as the last survivor of his World War I unit, got to open the bottle of French cognac they bought (and share it with his Korean War buddies). *M*A*S*H*, Season 8, Episode 18: *Old Soldiers*, IMDB, <http://www.imdb.com/title/tt063872> (last visited Dec. 13, 2013).

212. See, e.g., Moshe A. Milevsky, *Want Financial Security? Look to the Renaissance*, WALL ST. J., Apr. 21, 2013, available at <http://online.wsj.com/article/SB10001424127887324532004578358110813542442>.

213. Traditional pensions exhibit tontine characteristics, for example, those who live longer will collect more (monthly) benefits. COOPER, *supra* note 210, at 61. On the other hand, ERISA expressly rejects the tontine principle. With respect to defined benefit plans, "forfeitures must not be applied to increase the benefits any employee would otherwise receive under the plan." I.R.C. § 401(a)(8) (2012).

come investment vehicles.²¹⁴ Also, unlike traditional immediate and deferred annuities, an early death in a tontine scheme only benefits other investors, not some amorphous insurance company; and that should make tontine schemes popular.²¹⁵

V. Conclusion

The total population of the oldest old (90+) is expected to grow from 1.9 million in 2010 to more than 8.7 million in 2050.²¹⁶ A variety of approaches will be needed to ensure that these oldest old have adequate incomes throughout their lives. Social insurance programs like Social Security, Supplemental Security Income, and Medicaid will certainly need to be expanded. Workers will also need to be encouraged to work longer and save more for their eventual retirements, and both workers and retirees should be encouraged to annuitize more of their retirement savings.

While these kinds of solutions seem fairly predictable, the answers to two important policy questions have yet to be decided. First, how much will the government require the oldest old to save earlier in their lives? And second, how much will the government redistribute to benefit the oldest old? Unfortunately, if the history of the Social Security system is any indication, both government mandates and redistribution will be modest, and a significant portion of the oldest old will face their final years with inadequate economic resources.

214. See, e.g., Michael J. Sabin, *Fair Tontine Annuity* (Mar. 26, 2010), http://papers.ssrn.com/so13/papers.cfm?abstract_id=1579932; Ralph Goldsticker, *A Mutual Fund to Yield Annuity-Like Benefits* 63 FIN. ANALYSTS J. 63 (2007); Milevsky & Salisbury, *supra* note 209.

215. For example, Professor Suzanne Shu suggests that a tontine for one's fellow firefighters will be perceived as fairer than the typical annuity that they could buy from an insurance company: with an annuity, an early death seems to benefit the insurance company, but with a tontine, and early death benefits fellow firefighters. Shlomo Bernartzi, *Behavioral Finance and the Post-Retirement Crisis: A Response to the Department of the Treasury/Department of Labor Request for Information Regarding Lifetime Income Options for Participants and Beneficiaries in Retirement Plans* 15 (Allianz, April 29, 2010), <http://www.dol.gov/ebsa/pdf/1210-AB33-617.pdf>.

216. See *supra* notes 12–13 and accompanying text.

