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REFORMING THE SECOND TIER OF THE U.S. PENSION SYSTEM: TABULA RASA OR STEP BY STEP?*

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I. INTRODUCTION

Employer-sponsored pensions, the second tier of the United States retirement system, ought to be a major source of lifetime income in retirement for many, if not most, Americans.[1] However, while employer-sponsored pensions are mandatory or quasi-mandatory in many countries,[2] they are voluntary in the United

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1. WORLD BANK, AVERTING THE OLD AGE CRISIS: POLICIES TO PROTECT THE OLD AND PROMOTE GROWTH xiv (Oxford University Press, 1994) *available at* http://www-wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/1994/09/01/000009265_3970311123336/Rendered/PDF/multi_page.pdf (stating that the United States and most other industrialized nations have multi-pillar retirement systems that can be described as falling within the World Bank's multi-pillar model for retirement savings consisting of a first-tier public system, a second-tier employment-based pension system, and a third-tier of supplemental voluntary savings); *see also* Robert Holzmann & Richard Hinz, *Old-Age Income Support in the 21st Century: An International Perspective on Pension Systems and Reform* (World Bank, 2005), http://www.egm.org.tr/kutuphane/Old_Age_Income_Support_Complete.pdf (suggesting an additional pillar for informal intra-family or intergenerational sources of both financial and nonfinancial support to the elderly, including access to health care and housing); Lans Bovenberg & Casper Van Ewijk, *The Future of Multi-Pillar Pension Systems*, (Network for Studies on Pensions, Aging and Retirement, Discussion Paper No. 09/2011-079, 2011), http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1935307.

2. OECD, PENSIONS AT A GLANCE 2011: RETIREMENT-INCOME SYSTEMS IN OECD AND G20 COUNTRIES 84 (OECD Publishing, 2011) *available at* http://www.oecd-ilibrary.org/finance-and-investment/pensions-at-a-glance-2011_pension_glance-2011-en.

States.[3] That is, employers are not required to offer pensions, and when they do, they have considerable leeway about whom to cover and how much to contribute on their behalf. Not surprisingly, at any given time, only about one out of two American workers has a pension, and few can be confident that they will have enough income to meet their economic needs throughout retirement.[4]

Moreover, 401(k)-type plans offered by employers have largely displaced traditional defined benefit plans as the dominant type of plan.[5] Membership in a 401(k) plan, however, does not guarantee that retirement savings will be adequate; in fact, many 401(k) plan participants do not take full advantage of their plans in that they neither contribute the maximum nor take full advantage of employer matches. These days, the median balance of these plans is only around $77,000,[6] which is enough to finance a stream of before-tax annual income of about $5,000 a year for life at current interest rates.[7] Yet, 401(k) plans are not required to offer

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3. JONATHAN BARRY FORMAN, MAKING AMERICA WORK 214 (Urban Institute Press, 2006); Kathryn L. Moore, *An Overview of the U.S. Retirement Income Security System and the Principles and Values It Reflects*, 33 COMPARATIVE LABOR LAW & POLICY JOURNAL 5, 17 (2011).

4. *See infra* Part III.B. (explaining that few American workers can be confident that they will have enough income to meet their economic needs throughout retirement).

5. *See infra* Part II.B.4. (discussing how traditional defined benefit plans have been displaced by 401(k) type plans).

6. *See, e.g.*, Fidelity.com, *Fidelity Average 401(k) Balance Climbs to Record High at the End of 2012* (Feb. 14, 2013) *available at* http://www.fidelity.com/inside-fidelity/employer-services/fidelity-analysis-finds-record-high-average-401k-balance (finding that the average 401(k) balance reached $77,300 at the end of the fourth quarter of 2012); *see also* SANDY MACKENZIE & KE BIN WU, EMPLOYER-PROVIDED PENSIONS: LESS TO COUNT ON 33 (AARP, 2009) *available at* http://assets.aarp.org/rgcenter/ppi/econ-sec/2009-17-pensions.pdf (finding that the median balance of the combined holdings of 401(k) plans and IRAs for working families whose head was aged 60-64 years was $106,000 in 2007, when stock prices were near their peak); Craig Copeland, *Individual Account Retirement Plans: An Analysis of the 2010 Survey of Consumer Finances*, EMP. BENEFIT RESEARCH INST., Sept. 2012, at 11 *available at* http://www.ebri.org/pdf/briefspdf/EBRI_IB_09-2012_No375_IndvAccts.pdf (finding that among families with an IRA or Keogh plan in 2010, the median balance was $40,000; and among families with a defined contribution plan, the median balance was $29,000); *see also* Insured Retirement Institute, *Overcoming Barriers to Saving: How Boomers Can Get on the Path to Retirement Security*, 1 (2012) *available at* https://www.myirionline.org/eweb/uploads/October%20Report%20Final.pdf (finding that 22% of Baby Boomers reported having no savings for retirement); Chris E. Anguelov, Howard M. Iams & Patrick J. Purcell, *Shifting Income Sources of the Aged*, SOC. SEC. BULL., 2012, at 59, 63 *available at* http://www.ssa.gov/policy/docs/ssb/v72n3/ssb-v72n3.pdf (finding that the median value of assets held in retirement savings accounts among households headed by people aged 65 in 2007 was $60,800).

7. *Immediate Annuities Update*, ANNUITY SHOPPER, Winter 2013, at 23, 28 *available at* http://www.annuityshopper.com/archives/2013-Jan-Annuity-Shopper.pdf (showing that for a 65-year-old man who purchased a $100,000

annuities and very few do. Indeed, there has been a significant decline in annuitization of retirement savings by workers.[8] The shift to 401(k) plans is a large part of the story, but it remains true that people rarely choose to buy annuities voluntarily, even though annuities could provide them with very valuable insurance against living too long.[9]

How much a household should save for retirement and how much of that accumulated saving should be used to purchase an annuity are extremely difficult to determine. Economists assume that the basic goal of retirement saving is to generate a nest egg large enough to sustain the standard of living in retirement that the saver enjoyed while working. It is generally assumed that the ratio of income in retirement to income in working life, known as the replacement ratio, needed to achieve this goal is less than one hundred percent. In fact, it is more like eighty percent, because certain expenses like commuting, lunches, and other various expenses would not be needed.[10]

Even if we can be very precise about the replacement ratio a household should target, determining the share of income that ought to be put aside to finance retirement is no mean feat, given how uncertain the rate of return to saving and household income can be.[11] Further, even if we can predict incomes and rates of return exactly, the mathematics involved in calculating the targeted saving rate would be beyond the means of most people. In any case, simply maintaining the needed saving regimen is itself a challenge, given the number of temptations that the American consumer faces. All in all, there is reason to believe that many, if not most, American workers are not saving enough for retirement.

This article focuses on how to reform America's employer-sponsored pension system. It begins with an overview of the current retirement system, which includes both Social Security and private pensions. Next, this article considers how much retirement savings workers will need to ensure that they have adequate incomes throughout retirement. Finally, the article offers some recommendations about what a good, second-tier (employer-sponsored) pension system would look like.

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immediate, level-payment annuity without inflation protection in 2012, the average annual payout was $6,336 per year (12 × $528 per month) or 6.336% of the annuity's purchase price; and $4,897.73 = 6.336% × $77,300 average 401(k) balance).

8. *See infra* Part III.C (discussing the significant decline in annuitization of retirement savings by workers).

9. *Id.*

10. *See infra* Part III.D (noting that at retirement, individuals will need to replace around 80% of their pre-retirement income).

11. Michael Finke, Wade D. Pfau & David M. Blanchett, *The 4% Rule is Not Safe in a Low-Yield World* (Jan. 15, 2013), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2201323.

II. AN OVERVIEW OF THE UNITED STATES RETIREMENT SYSTEM

The United States retirement system consists of a universal Social Security system, a voluntary, employment-based pension system, and supplemental voluntary savings. These are discussed in turn.

A. Social Security and Supplemental Security Income (SSI)

The current Social Security system includes two programs that provide monthly cash benefits to workers and their families.[12] The Old-Age and Survivors Insurance (OASI) program provides monthly cash benefits to retired workers and their dependents and to survivors of insured workers; and the Disability Insurance (DI) program provides monthly cash benefits for disabled workers under full retirement age and their dependents. A worker builds protection under these programs by working in employment covered by Social Security and paying the applicable payroll taxes. At retirement, disability, or death, monthly Social Security benefits are paid to insured workers and to their eligible dependents and survivors.

The OASI program is by far the larger of these two programs, and it is usually what people mean when they talk about Social Security. Consequently, for the remainder of this article, "Social Security retirement taxes" will refer to OASI taxes, and "Social Security retirement benefits" will refer to OASI benefits. Historically, "full retirement age" was age 65, but it is currently age 66, and it is gradually increasing to age 67 for workers born after 1959 who will reach that age in or after 2027.[13] In January 2013, OASI paid benefits to almost 37 million retired workers, and the average monthly benefit paid to a retired worker was $1,264.03.[14]

Social Security retirement benefits are financed primarily through payroll taxes imposed on working individuals in employment that is covered by the Social Security system. For 2013, employees and employers each pay a Social Security

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12. FORMAN, *supra* note 3, at 184-90.

13. SOCIAL SECURITY ADMINISTRATION, RETIREMENT PLANNER: FULL RETIREMENT AGE, http://www.socialsecurity.gov/retire2/retirechart.htm (last visited Apr. 19, 2013).

14. SOCIAL SECURITY ADMINISTRATION, MONTHLY STATISTICAL SNAPSHOT, JANUARY 2013 http://www.ssa.gov/policy/docs/quickfacts/stat_snapshot (last visited Apr. 19, 2013); 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*, URBAN INSTITUTE, 2012, *available at* 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]).

retirement tax of 5.3% on up to $113,700 of wages, for a combined OASI rate of 10.6%—the lion's share of the total 15.3% collected for OASI, DI, and Medicare.[15] Self-employed workers pay an equivalent OASI tax of 10.6% on up to $113,700 of net earnings.[16]

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.[17] Benefits are based on a measure of the worker's earnings history in covered employment. Of note, however, the benefit formula is highly progressive,[18] and as a result, the Social Security retirement system favors workers with low lifetime earnings relative to workers with higher lifetime earnings.[19] For example, Figure 1 shows how a worker's initial

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15. SOCIAL SECURITY ADMINISTRATION, 2013 SOCIAL SECURITY CHANGES (2012), *available at* http://www.socialsecurity.gov/pressoffice/factsheets/colafacts2013.pdf (last visited Apr. 18, 2013).

16. *Id.*

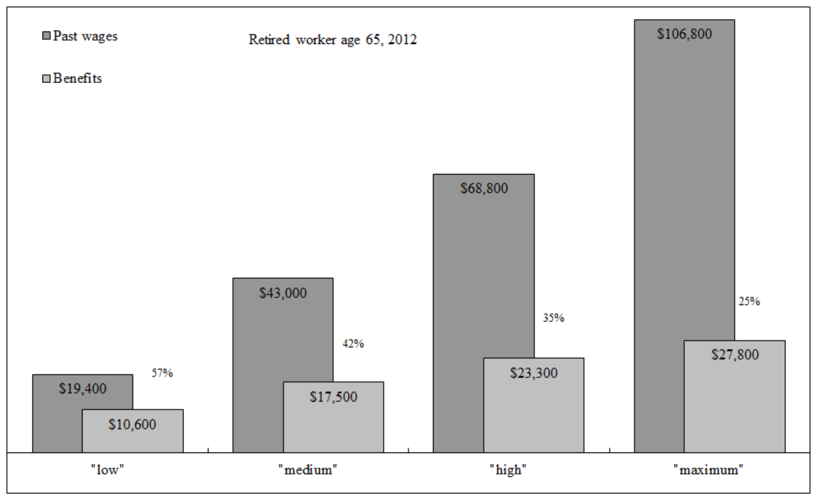
17. 42 U.S.C. §§ 402(a), 414(a)(2) (2006).

18. SOCIAL SECURITY ADMINISTRATION, SOCIAL SECURITY BENEFIT AMOUNTS (Oct. 16, 2012), *available at* http://www.ssa.gov/oact/cola/Benefits.html. 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. *Id.* 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. *Id.* The highest 35 years of earnings are then selected, and the other years are dropped out. *Id.* The AIME is then computed as the average earnings for the remaining 35 years (420 months). *Id.* 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). *Id.* For a worker turning 62 in 2013, the PIA equals 90% of the first $791 of the worker's AIME, plus 32% of the AIME over $791 and through $4,768 (if any), plus 15% of the AIME over $4,768 (if any); SOCIAL SECURITY ADMINISTRATION, PRIMARY INSURANCE AMOUNT (Oct.16, 2012) *available at* http://www.ssa.gov/oact/cola/piaformula.html.

19. *See, e.g.*, MICHAEL CLINGMAN, KYLE BURKHALTER & CHRIS CHAPLAIN, MONEY'S WORTH RATIOS UNDER THE OASDI PROGRAM FOR HYPOTHETICAL WORKERS (Mar. 2013) *available at* 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.*, HILARY WALDRON, TRENDS IN MORTALITY DIFFERENTIALS AND LIFE EXPECTANCY FOR MALE SOCIAL SECURITY–COVERED WORKERS, BY AVERAGE RELATIVE EARNINGS (2007) *available at* http://www.ssa.gov/policy/docs/workingpapers/wp108.html (presenting an analysis of trends in mortality differentials and life expectancy by average relative earnings for male Social Security–covered workers aged 60 or older). Also, because high-earners are more likely to be married than low-earners, high-earners receive a disproportionate share of the Social Security system's rather generous spousal benefits. In 2010 for example, 78.4% of households in the top 20% of household income were married-couple families, but only 17.0% of households in the bottom 20% were married-couple families. Mark J. Perry, *Income inequality can be explained by household demographics* (American

retirement benefits compare to her final pre-retirement earnings.[20] Of particular note, these redistributive Social Security retirement benefits play an important role in reducing poverty among the elderly. For example, without Social Security benefits, 43.6% of elderly Americans would have fallen below the poverty level in 2011, but with Social Security benefits, just 8.7% of elderly Americans were poor that year.[21]

Figure 1. How Benefits Compare to Earnings
(2012 dollars & percentage of final wages)



Source: Virginia Reno & Elisa Walker, *Social Security Benefits, Finances, and Policy Options: A Primer*, NATIONAL ACADEMY OF SOCIAL INSURANCE, 2012, at 6 *available at* http://www.nasi.org/research/2012/social-security-benefits-finances-policy-options-primer.

Similarly, Figure 2 shows the initial Social Security retirement benefits and replacement rates that workers born in the 1970s are scheduled to receive when they reach age 65 in and after 2035.[22] All in all, Social Security replacement rates are high

Enterprise Institute, AEIdeas blog, 2011) *available at* http://www.aei-ideas.org/2011/10/income-inequality-can-be-explained-by-household-demographics/#print.

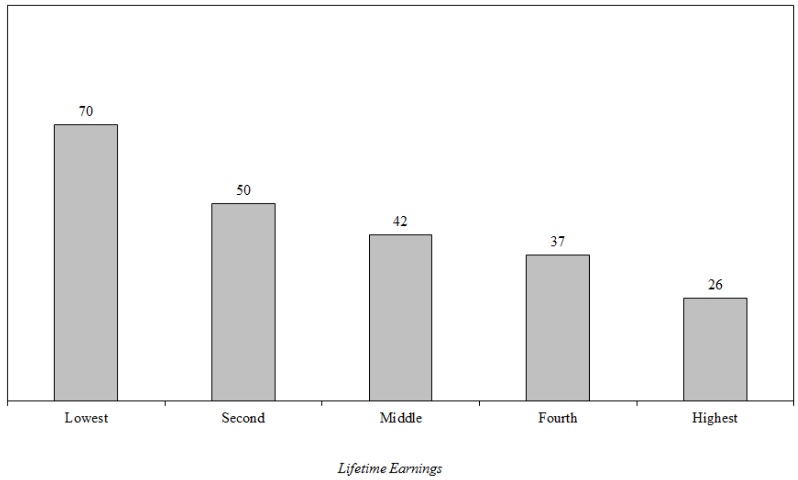
20. Virginia Reno & Elisa Walker, *Social Security Benefits, Finances, and Policy Options: A Primer*, NATIONAL ACADEMY OF SOCIAL INSURANCE, 2012, at 6 *available at* http://www.nasi.org/research/2012/social-security-benefits-finances-policy-options-primer.

21. Paul N. Van de Water & Arloc Sherman, *Social Security Keeps 21 Million Americans Out of Poverty: A State-by-State Analysis* (Oct. 16, 2012) *available at* http://www.cbpp.org/files/10-16-12ss.pdf (also noting that Social Security benefits lifted 14,480,000 elderly Americans out of poverty in 2011); U.S. Department of Health and Human Services, *Office of the Secretary, Annual Update of the HHS Poverty Guidelines*, 78 FEDERAL REGISTER 5,182-3, (Jan. 24, 2013)(noting that in 2013, the poverty level for a single individual is $11,490, and the poverty level for a married couple is $15,510.

22. CONGRESSIONAL BUDGET OFFICE, SUPPLEMENTAL DATA FOR CBO'S

when incomes are low, but those rates may not be high enough to keep recipients above the poverty line; and rates drop substantially as incomes rise.

Figure 2. Initial Social Security Replacement Rates for Retired Workers (1970s birth cohort, percent)



Source: CONGRESSIONAL BUDGET OFFICE, SUPPLEMENTAL DATA FOR CBO'S 2012 LONG-TERM PROJECTIONS FOR SOCIAL SECURITY Exhibit 10 (2012) available at http://www.cbo.gov/publication/43653

Note: The average initial replacement rate is a worker's initial benefit as a percentage of a worker's average annual lifetime earnings.

Benefits may be increased or decreased for several reasons. Most importantly, the real (inflation-adjusted) value of retiree benefits is kept constant by an annual adjustment of nominal benefits to compensate for consumer price inflation.[23] In addition, the "retirement earnings test" can reduce the monthly benefits of

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2012 LONG-TERM PROJECTIONS FOR SOCIAL SECURITY Exhibit 10 (2012) *available at* http://www.cbo.gov/publication/43653; *see* Peter Brady, Kimberly Burham & Sarah Holden, *The Success of the U.S. Retirement System*, INVESTMENT COMPANY INSTITUTE, 2012, at 17-20 *available at* http://www.ici.org/pdf/ppr_12_success_retirement.pdf (stating that future retirees are projected to receive somewhat higher Social Security retirement benefits than today's beneficiaries); CONGRESSIONAL BUDGET OFFICE, THE 2012 LONG-TERM PROJECTIONS FOR SOCIAL SECURITY: ADDITIONAL INFORMATION (2012) *available at* http://www.cbo.gov/sites/default/files/cbofiles/attachments/43648-SocialSecurity.pdf; *but see* Alicia H. Munnell, Anthony Webb & Francesca Golub-Sass, *The National Retirement Risk Index After the Crash*, B.C. CTR. RIT. RESEARCH, 2009, at 2 figure 1, *available at* http://crr.bc.edu/wp-content/uploads/2009/10/IB_9-22.pdf (explaining, however, that 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).

23. SOCIAL SECURITY ADMINISTRATION, *supra* note 15.

individuals who have not yet reached full retirement age but who continue to work after starting to draw Social Security retirement benefits.[24]

Similarly, workers who retire before their full retirement age have their benefits actuarially reduced.[25] On the other hand, benefits payable to workers who choose to retire after their full retirement age are actuarially increased up to age 70.[26] In effect, beneficiaries can buy additional annuity protection by delaying retirement.[27] For example, consider a worker who reached age 62 in January 2013 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 $1,923 per month.[28] If she instead waits until she is 65, she will get $2,414 per month, and if she waits until age 70, she will get $3,350 per month. Further, any additional years of work may boost the measure of lifetime earnings used to determine monthly benefits.[29]

Spouses, dependents, and survivors of the worker may also receive additional monthly benefits, which are based on the worker's benefit.[30] For example, a retirement-aged wife or husband of a retired worker is typically entitled to a monthly

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24. 42 U.S.C. § 403(f) (2006).

25. 42 U.S.C. § 402(q) (2006).

26. 42 U.S.C. § 402(w) (2006).

27. *See generally* Kenn Beam Tacchino, David A. Littell & Bruce D. Schobel, *A Decision Framework for Optimizing the Social Security Claiming Age*, 28(2) BENEFITS Q. 40, 45 (2012); Mary Beth Franklin, *5 Steps to a Secure Retirement*, KIPLINGER'S PERS. FIN. (Oct. 2011) *available at* http://www.kiplinger.com/magazine/archives/5-steps-to-a-secure-retirement.html; Ann Tergesen, *How to Make Your Nest Egg Last Longer*, WALL ST. J., Dec. 19, 2011 *available at* http://online.wsj.com/article/SB10001424052970203802204577066164082847438.html; C. Eugene Steuerle & Richard B. Fisher, *Social Security as a Source of Annuities: A Simplified Social Security Option* (Paper presented at the Pension Rights Center conference on Re-Imagining Pensions, Washington, DC, 2012) *available at* http://www.pensionrights.org/what-we-do/events/re-imagining-pensions/social-security-annuities; Phillip Moeller, *How Delaying Retirement Can Help You*, U.S. NEWS & WORLD REP. MONEY, Apr. 9, 2012, *available at* http://money.usnews.com/money/blogs/the-best-life/2012/04/09/how-delaying-retirement-can-help-you; Anthony Webb, *Making Your Nest Egg Last a Lifetime* (AARP PUB. POLICY INST., Insight on the Issues No. 132, 2009) *available at* http://assets.aarp.org/rgcenter/ppi/econ-sec/i32.pdf.

28. SOCIAL SECURITY ADMINISTRATION, AUTOMATIC DETERMINATIONS: WORKERS WITH MAXIMUM–TAXABLE EARNINGS, (Oct. 18, 2012) *available at* http://www.ssa.gov/oact/COLA/examplemax.html.

29. *Supra* note 18; Laurence Kotlikoff, *Inside Social Security's Obscure Incentive to Keep Americans Working,* YAHOO! FIN., (Feb. 4, 2013) *available at* http://finance.yahoo.com/blogs/the-exchange/inside-social-security-obscure-incentive-keep-americans-working-224727054.html.

30. 42 U.S.C. §§ 402(b) (wife), (c) (husband), (d) (child), (e) (widow), (f) (widower), (g) (mother and father), and (h) (parents).

spousal benefit equal to fifty percent of the worker's benefit.[31] In addition, a retirement-aged widow or widower of the worker is entitled to a monthly surviving spouse benefit equal to one hundred percent of the worker's benefit.[32]

In addition, a means-tested Supplemental Security Income (SSI) program provides monthly cash benefits to certain low-income elderly, disabled, or blind Americans. In 2013, the maximum federal benefit for a single individual is $710 per month, and the maximum for a couple is $1,066 per month.[33] In January 2013, over two million elderly Americans received SSI benefits from the federal government, and the average monthly benefit was $422.17.[34]

B. The Private Pension System

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 decide to provide a pension, those pensions are typically subject to regulation under the Employee Retirement Income Security Act of 1974 (ERISA).[35]

1. Retirement Savings are Tax-Favored

Most pension plans qualify for favorable tax treatment. An employer's contributions to a tax-qualified retirement plan on behalf of an employee are not taxable to the employee.[36] Moreover, the pension fund's earnings on those contributions are tax-exempt.[37] Workers pay tax only when they receive distributions of their pension benefits.[38] Nevertheless, the employer is allowed a

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31. 42 U.S.C. § 402(b)(2) (2006).

32. 42 U.S.C. §§ 402(e), (f) (2006).

33. SOCIAL SECURITY ADMINISTRATION, SSI FEDERAL PAYMENTS FOR 2013 (2012), *available at* http://www.ssa.gov/oact/cola/SSI.html (last visited Apr. 13, 2013).

34. SOCIAL SECURITY ADMINISTRATION, *supra* note 14.

35. Pub. L. No. 93-406, 88 Stat. 864; *see generally* JOINT COMMITTEE ON TAXATION, PRESENT LAW AND BACKGROUND RELATING TO THE TAX TREATMENT OF RETIREMENT SAVINGS JCX-32-12, (Apr. 13, 2012) *available at* https://www.jct.gov/publications.html?func=startdown&id=4418.

36. I.R.C. § 402 (2006).

37. I.R.C. § 501(a) (2006).

38. *See* I.R.C. §§ 72, 402 (2006). Pension benefits or annuity payments may be fully taxable or partially taxable. For example, a participant's pension benefits will be fully taxable if the participant's employer contributed all of the cost for the pension without any of the contributions being included in the employee's taxable wages. *Id.* Pension benefits would also be fully taxable if the participant has already received all of her previously taxed contributions tax-free in previous years. *Id; see generally Pension and Annuity Income*, INTERNAL REVENUE SERV. Pub. No. 575, 2013 *available at* http://www.irs.gov/pub/irs-pdf/p575.pdf.

On the other hand, if an individual made after-tax contributions to a current deduction for its contributions (within limits).[39]

Favorable tax rules are also available for individual retirement accounts (IRAs).[40] Almost any worker can set up an IRA with a bank or other financial institution. In 2013, 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.[41] If a worker is covered by another retirement plan, however, the deduction may be reduced or eliminated if the worker's income exceeds $59,000 for a single individual or $95,000 for a married couple.[42] Like private pensions, IRA earnings are tax-exempt, and distributions are taxable.[43]

Since 1998, individuals have been permitted to set up Roth IRAs.[44] 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.

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.[45] Finally, qualified

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pension or annuity, she can exclude part of her pension or annuity distributions from income. Under I.R.C. §§ 72 and 402, the individual can exclude a fraction of each benefit payment from income. That fraction (the "exclusion ratio") is based on the amount of premiums or other after-tax contributions made by the individual. *Id.* 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. *Id.*

Taxpayers who began receiving annuity payments from a qualified retirement plan after November 18, 1996, generally can use the so-called Simplified Method to figure the tax-free part of their benefits. Under the Simplified Method, the Code provides a table with a fixed number of anticipated payments that depends upon the annuitant's age as of the annuity starting date. The taxpayer then divides the total cost over the applicable number of anticipated payments and excludes the amount so determined each year. INTERNAL REVENUE SERVICE, *supra* at 12-14.

39. I.R.C. § 404 (2006).

40. I.R.C. § 219 (2006).

41. *IRS Announces 2013 Pension Plan Limitations: Taxpayers May Contribute up to $17,500 to their 401(k) plans in 2013*, INTERNAL REVENUE SERV. IR-2012-77, Oct. 18, 2012 *available at* http://www.irs.gov/pub/irs-news/IR-12-077.pdf.

42. *Id.*

43. *Retirement Plans for Small Business (SEP, Simple, and Qualified Plans)*, INTERNAL REVENUE SERV., Pub. No. 560, 2013 at 2, 12 *available at* http://www.irs.gov/pub/irs-pdf/p560.pdf.

44. I.R.C. § 408A (2006).

45. I.R.C. § 25B (2006). The credit equals a percentage (50%, 20%, or 10%) of up to $2,000 of contributions. In effect, the credit acts like an employer match: the government matches a portion of the employee's contributions. Employer matches encourage workers to contribute, at least up to the match level, and the saver's tax credit seems to have similar pro-savings effects. Lisa Southwirth & John Gist, *The Saver's Credit: What Does It Do For Saving?* AARP PUB. POLICY INST., 2008 *available at* http://assets.aarp.org/rgcenter/

small firms may claim a nonrefundable tax credit of up to $500 a year for up to three years for certain costs incurred in setting up a new retirement plan for employees.[46]

2. *Types of Pension Plans*

Pension plans generally fall into two broad categories based on the nature of the benefits provided: (1) defined benefit plans; and (2) defined contribution plans.

a. Defined Benefit Plans

In a defined benefit plan, an employer promises employees a specific benefit at retirement. To provide that benefit, the employer typically makes payments into a trust fund where contributed funds grow with investment returns. 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.

Defined benefit plans often provide each worker with a specific annual retirement benefit tied to the worker's final average compensation and number of years of service. 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 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$). Final average compensation is often computed by averaging the worker's salary over the last three or five years prior to retirement.[47] 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.[48]

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econ/i1_credit.pdf.

46. I.R.C. § 45E (2006); *see* Gary Guenther, *Small Business Tax Benefits: Overview and Economic Rationales*, CONG. RESEARCH SERV., Paper No. RL32254, 2008 at 17, *available at* http://royce.house.gov/uploadedfiles/small%20business%20tax%20benefits.pdf (explaining that the credit is equal to 50% of up to $1,000 in eligible costs incurred in each of the first three years of the plan's existence).

47. 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.

48. 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." Treas. Reg. § 1.401-1(b)(1).

b. Defined Contribution Plans

Under a typical defined contribution plan, the employer simply withholds a specified percentage of the worker's compensation and contributes it 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 benefit. ($5,000 = 10% × $50,000). Her benefit at retirement would be based on all such contributions plus investment earnings.[49]

Unlike traditional defined benefit plans, defined contribution plans usually make distributions in the form of lump sum or periodic distributions rather than life annuities. Indeed, relatively few defined contribution plans even offer annuity options, and relatively few participants elect those annuity options.[50]

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 (ESOP).[51] 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

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49. *See* Lynn Miller, *The Ongoing Growth of Defined Contribution and Individual Account Plans: Issues and Implications*, EMPLOYEE BENEFIT RESEARCH INST., Mar., 2002 *available at* http://www.ebri.org/pdf/briefspdf/0302ib.pdf (showing that 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).

50. BEVERLY I. ORTH, APPROACHES FOR PROMOTING VOLUNTARY ANNUITIZATION,(Nov. 17, 2008) *available at* http://www.soa.org/library/monographs/retirement-systems/retirement2020/2008/november/mono-2008-m-rs08-01-orth.pdf; Paul Yakoboski, *Retirees, Annuitization and Defined Contribution Plans*, TIAA-CREF INST., Apr. 2010, at 3, 5, *available at* http://www.tiaa-crefinstitute.org/ucm/groups/content/@ap_ucm_p_tcp_docs/documents/document/tiaa02029462.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); David L. Wray, *Testimony before the ERISA Advisory Council Working Group on Spend Down of Defined Contribution Assets as Retirement*, July 16, 2008, at 5 *available at* http://www.psca.org/psca-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).

51. U.S. Department of Labor, Bureau of Labor Statistics, *Six Ways to Save for Retirement*, 3(3) PROGRAM PERSP. 1, 2 (2011) *available at* http://www.bls.gov/opub/perspectives/program_perspectives_vol3_issue3.pdf.

popular type of retirement plan in the United States.[52] The maximum annual amount of such elective deferrals that can be made by an individual in 2013 is $17,500, although workers over the age of 50 can contribute another $5,500 (for a total of up to $23,000).[53] Also, since 2006, employers have been permitted to set up Roth 401(k) plans that work like Roth IRAs.[54]

c. 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.[55] Like other defined benefit plans, employer contributions in a cash balance plan 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.[56] 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 given year would get an annual cash balance credit of $5,000 ($5,000 = 10% × $50,000), plus an interest credit equal to 5% of the balance in her hypothetical account as of the beginning of the year. The interest credit on a cash balance plan may also be tied to a market rate, like the long-term interest rate, in which case the plan participant bears some interest risk.

d. Other Voluntary Savings Mechanisms

In addition to voluntary savings 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 2013;[57] however, dividend income and capital gains are generally taxed at no more than a 20% rate.[58] Also, there are various tax advantages associated with investments in homes,[59] state and local bonds,[60] annuities,[61] and

52. U.S. Department of Labor, Bureau of Labor Statistics, *BLS examines popular 401(k) retirement plans* 2(6) PROGRAM PERSP. 1, 4 (2006) *available at* http://www.bls.gov/opub/perspectives/program_perspectives_vol2_issue6.pdf.

53. INTERNAL REVENUE SERVICE, *supra* note 41.

54. I.R.C. § 402A (2006).

55. Jonathan Barry Forman & Amy Nixon, *Cash Balance Pension Plan Conversions*, 25 OKLA. CITY U. L. REV. 379, 381 (2000).

56. Sometimes, these hypothetical accounts are referred to as "notional accounts."

57. I.R.C. § 1 (2006).

58. I.R.C. § 1(h) (2006).

59. I.R.C. §§ 163(a), 121 (2006). For example, home mortgage interest is generally deductible, and gains from the sale of a personal residence are often

life insurance.[62]

3. *The Regulation of Employment-Based Plans*

Since it was enacted almost forty years ago, the Employee Retirement Income Security Act (ERISA) has been amended numerous times, and a whole regulatory system has grown up to enforce its provisions. 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).[63] The IRS and the Department of Labor also have significant responsibilities with respect to IRAs and Roth IRAs.

Pension plans must be operated for the exclusive benefit of employees and beneficiaries, and plan assets generally must be held in a trust.[64] To protect the interests of plan participants, ERISA requires significant reporting and disclosure in the administration and operation of employee benefit plans.[65] ERISA also imposes extensive fiduciary responsibilities on employers and administrators of employee benefit plans.[66] In addition, prohibited transaction rules prevent parties in interest from engaging in certain transactions with the plan.[67] For example, an employer usually cannot sell, exchange, or lease any property to the plan. ERISA and the Internal Revenue Code impose many other requirements on retirement plans, including rules governing participation, coverage, vesting, benefit accrual, contribution and benefits, nondiscrimination, and funding.

a. Participation

A pension plan generally may not require that an employee

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excludable.

60. I.R.C. § 103 (2006) (interest exclusion).

61. 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. *Id.* 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. *Id.*

62. *See* I.R.C. § 101(a) (2013) (explaining the exclusion for insurance proceeds paid by reason of the death of the insured).

63. Internal Revenue Service, *Tax Information for Retirement Plans Community, available at* http://www.irs.gov/Retirement-Plans (last visited Apr. 18, 2013); U.S. Department of Labor, Employee Benefits Security Administration, *About the Employee Benefits Security Administration*, *available at* http://www.dol.gov/ebsa/aboutebsa/main.html (last visited Jan. 31, 2013); Pension Benefit Guaranty Corporation, *About PBGC*, *available at* http://www.pbgc.gov/about (last visited Jan. 31, 2013).

64. I.R.C. § 401(a) (2006); 29 U.S.C. §§ 1103(a), 1104(a)(1)(A) (2006).

65. ERISA §§ 101(a) et seq.

66. I.R.C. § 401(a) (2006); 29 U.S.C. § 1104 (2006); ERISA § 404.

67. I.R.C. § 4975 (2006); 29 U.S.C. § 1104 (2006); ERISA § 406.

complete a period of service extending beyond the later of age 21 or one year of service as a condition of participation.[68] Also, a plan may not exclude employees from participation just because they have reached a certain age (e.g., age 65). Employees can be excluded for other reasons. For example, a plan might be able to cover only those employees working at a particular location or in a particular job category.

b. Coverage

Under the minimum coverage rules, a pension plan usually must cover a significant percentage of the employer's workforce.[69] For example, the ratio percentage test compares the percentage of highly compensated employees covered under a pension plan to the percentage of non-highly compensated employees covered by the plan. More specifically, the percentage of non-highly compensated employees who are covered must be at least 70% of the percentage of highly compensated employees who are covered. Alternatively, a plan may be able to satisfy the minimum coverage rules if it benefits a certain class of employees, as long as it does not discriminate in favor of the employer's highly compensated employees.

c. Vesting

Pension plans must also meet certain minimum vesting requirements.[70] A worker's retirement benefit vests when the worker has a non-forfeitable right to receive the benefit. For example, under the five-year cliff-vesting schedule, an employee who has completed at least five years of service must have a non-forfeitable right to one hundred percent of her accrued benefits. ERISA only imposes minimum vesting requirements, and plans are free to use a faster vesting schedule.

d. Benefit Accrual

In keeping with the voluntary nature of our pension system, employers have great freedom in the design of their pension plans. ERISA does not mandate any specific benefit levels, nor does it require that benefits accrue evenly over time. Minimum benefit accrual rules do, however, limit the extent to which employers can 'backload' benefits in favor of their long-service employees.[71]

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68. I.R.C. § 410(a) (2006); 29 U.S.C. § 1052 (2006); ERISA § 202.

69. I.R.C. § 410(b) (2006).

70. I.R.C. § 411(a) (2006); 29 U.S.C. § 1053 (2006); ERISA § 203.

71. I.R.C. § 411(b) (2006); 29 U.S.C. § 1054 (2006); ERISA § 204. A typical plan must comply with at least one of three alternative minimum benefit accrual rules. For example, under the "3% method," a worker must accrue, for each year of participation (up to 33 and 1/3 years) at least 3% of the normal retirement benefit that she would receive if she stayed with the employer until

Another benefit accrual rule bars employers from reducing or ceasing an employee's benefit accrual rate because the employee has reached a certain age (for example, age 65). Yet, employers are permitted to design their plans in ways that result in benefit reductions that merely correlate with age, for example, by restricting the number of years of benefit accrual (for example, to 30 years).[72]

e. Contributions and Benefits

The Internal Revenue Code also imposes limits on contributions and benefits.[73] In 2013, for example, generally no more than the lesser of $51,000 or 25% of compensation can be added to the individual account of a participant in a defined contribution plan.[74] Also, as already mentioned, the maximum annual amount of elective deferrals that can be made by an individual to a 401(k)-type plan in 2013 is $17,500, although workers over the age of 50 can contribute up to another $5,500.[75] With defined benefit plans, the highest annual benefit that can be paid to a retiree in 2013 is the lesser of $205,000 or one hundred percent of the employee's compensation.[76] The highest amount of compensation that can be considered in determining contributions or benefits in 2013 is $230,000.[77]

f. Nondiscrimination

In addition to the minimum coverage rules described above, complicated nondiscrimination rules ensure that neither contributions nor benefits discriminate in favor of highly compensated employees.[78] Special, less rigorous nondiscrimination rules apply to 401(k) plans.[79] For example, a "safe harbor" 401(k) plan can meet the nondiscrimination requirements if the employer contributes 3% of compensation for all eligible employees or, alternatively, if the employer matches employee contributions

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age 65. I.R.C. § 411(b)(1)(A) (2006); 29 U.S.C. § 1054(b)(1)(A) (2006), ERISA § 204(b)(1)(A).

72. I.R.C. § 411(b)(1)(H) (2006); 29 U.S.C. § 1054(b)(1)(H) (2006); ERISA § 204(b)(1)(H).

73. I.R.C. § 415 (2006). These limits appear only in the Internal Revenue Code, and they reflect the government's desire to limit the ability of high-income workers to utilize the tax benefits of pension plans. *Id.*

74. INTERNAL REVENUE SERVICE, *supra* note 41.

75. *Id.*

76. I.R.C. § 415(b) (2006); INTERNAL REVENUE SERVICE, *supra* note 41.

77. I.R.C. § 401(a)(17) (2006); INTERNAL REVENUE SERVICE, *supra* note 41.

78. I.R.C. § 401(a)(4) (2006). Also, plans that provide more than 60% of accrued benefits to key employees are considered top-heavy and must meet more generous minimum vesting and benefit-accrual requirements. I.R.C. § 416 (2006).

79. I.R.C. § 401(k)(3) (2006).

(generally totaling up to 4% of compensation).[80]

g. Funding

Retirement plans must also meet certain minimum funding standards.[81] These rules help ensure that the money needed to pay the promised benefits is set aside in a trust fund where it can earn income until it is used to pay benefits when the employee retires. ERISA created the Pension Benefit Guaranty Corporation to administer a new plan termination insurance program. Defined benefit plans generally pay annual termination insurance premiums to the PBGC. In the event an underfunded plan terminates (for example, because the employer went out of business), the PBGC guarantees payment of up to $57,477.24 in pension benefits to a 65-year-old participant in 2013.[82]

4. The Dominance of Defined Contribution Plans

In recent years, defined contribution plans have come to dominate the pension landscape. For example, fifty percent of full-time private industry workers in the United States participated in defined contribution plans in 2011, up from 40% around 1989-90. Meanwhile, participation in defined benefit plans fell from 42% around 1989-90 to 22% in 2011.[83] A recent study estimated that 92% of the new pension plans formed between 2003 to 2007 were defined contribution plans, as opposed to defined benefit plans.[84]

80. INTERNAL REVENUE SERVICE, *supra* note 43, at 17.

81. I.R.C. § 412 (2006), 29 U.S.C. § 302 (2006); ERISA § 302.

82. PENSION BENEFIT GUARANTY CORPORATION, *Maximum Monthly Guarantee Tables*, *available at* http://www.pbgc.gov/wr/benefits/guaranteed-benefits/maximum-guarantee.html (last visited Jan. 31, 2013).

83. William J. Wiatrowski, *Changing Landscape of Employment-based Retirement Benefits*, COMP. & WORKING COND. ONLINE, Sept. 29, 2011 *available at* http://www.bls.gov/opub/cwc/cm20110927ar01p1.htm; William J. Wiatrowski, *The Last Private Industry Pension Plans: A Visual Essay*, 135 MONTHLY LAB. REV. 3, 4 (2012) *available at* http://www.bls.gov/opub/mlr/2012/12/art1full.pdf; TOWERS WATSON, GLOBAL PENSION ASSET STUDY 2012 8, 34-36, (Jan. 2012) *available at* http://www.towerswatson.com/en/Insights/IC-Types/Survey-Research-Results/2012/01/Global-Pensions-Asset-Study-2012 (finding that defined contribution plans held 57% of pension assets in the United States in 2011, up from 52% in 2001).

More specifically, there were 701,012 private pension plans in 2010. U.S. DEPARTMENT OF LABOR, EMPLOYEE BENEFITS ADMINISTRATION, PRIVATE PENSION PLAN BULLETIN 1 (2012) *available at* 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, 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, tbl. 2.A1. Of those defined contribution plans, 519,000 were 401(k)-type plans. *Id.* at 1.

84. *Private Pensions: Some Key Features Lead to an Uneven Distribution of Benefits*, GAO, Mar. 2011, at 12 fig. 2; *Use of Tax Incentives for Retirement Saving in 2006*, CBO, 2011 *available at* http://www.cbo.gov/sites/default/files/

Pertinent here, employers may be responding to the relatively higher costs of providing a defined benefit plan as opposed to a defined contribution plan. For example, according to the Bureau of Labor Statistics, it cost an average of $2.53 an hour to provide each participating worker with a defined benefit plan in March 2012, compared with just $1.46 per hour for defined contribution plan participants.[85] That said, defined benefit plans incur investment fees and other charges that defined contribution plans do not incur or can pass on to their participants. All in all, the era of the traditional defined benefit plan is largely behind us.[86]

III. How Much Will Workers Need in Retirement?

A. Sources of Income of the Aged

Social Security is the most common source of income for households age 65 or older. For example, in 2010, 86.3% of households age 65 or older received Social Security benefits.[87] Moreover, Social Security provided more than half of total income for 53.1% of aged beneficiary couples and 74.1% of aged single beneficiaries.[88] Just 39.7% of households received retirement benefits from sources other than Social Security, and 51.9% received income from other assets.[89]

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cbofiles/attachments/2011-10-14-TaxIncentives.pdf.

85. *Retirement costs for defined benefit plans higher than for defined contribution plans*, 1(21) BEYOND THE NUMBERS: PAY & BENEFITS 2, 3 (2012) *available at* http://www.bls.gov/opub/btn/volume-1/retirement-costs-for-defined-benefit-plans-higher-than-for-defined-contribution-plans.htm.

86. *See generally* EDWARD A. ZELINSKY, THE ORIGINS OF THE OWNERSHIP SOCIETY: HOW THE DEFINED CONTRIBUTION PARADIGM CHANGED AMERICA (2004); Edward A. Zelinsky, *The Defined Contribution Paradigm*, 114(3) YALE L.J. 451, 457 (2004); *see generally* GEORGE A. (SANDY) MACKENZIE, THE DECLINE OF THE TRADITIONAL PENSION: A COMPARATIVE STUDY OF THREATS TO RETIREMENT SECURITY (2010); Janice Kay McClendon, *The Death Knell of Traditional Defined Benefit Plans: Avoiding a Race to the 401(k) Bottom*, 80(3) TEMP. L. REV. 809, 813 (2007); Barbara A. Butrica, Howard M. Iams, Karen E. Smith & Eric J. Toder, *The Disappearing Defined Benefit Pension and Its Potential Impact on the Retirement Incomes of Baby Boomers*, 69(3) SOC. SEC. BULLETIN 1, 2 (2009).

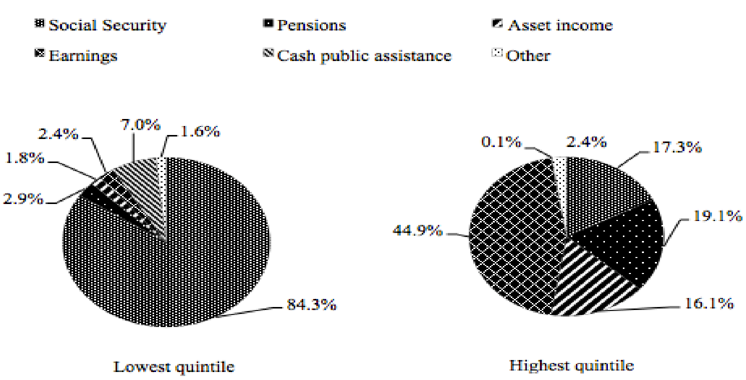
87. SOCIAL SECURITY ADMINISTRATION, INCOME OF THE AGED CHARTBOOK, 2010 8 (2012) *available at* http://www.ssa.gov/policy/docs/chartbooks/income_aged/2010/iac10.pdf; Sudipto Banerjee, *Income Composition, Income Trends, and Income Shortfalls of Older Households*, EMP. BENEFIT RESEARCH INST., Issue Brief No. 383, 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 PUB. POLICY INST., Middle Class Security Project Paper No. 2013-01, 2013) *available at* http://www.aarp.org/content/dam/aarp/research/public_policy_institute/security/2013/retirement-prospects-middle-class-AARP-ppi-sec.pdf.

88. SOCIAL SECURITY ADMINISTRATION, *supra* note 87, at 9.

89. *Id.* at 8.

Social Security provides a share of income to the elderly that is larger than that of any other income source—36.7% of aggregate income in 2010.[90] Earnings accounted for another 30.2% of aggregate income that year, pensions for 18.6%, and asset income for 11.4%.[91] It is important to note that the shares of aggregate income from each source differ greatly by income level. For example, households in the bottom 20% of aggregate income got 84.3% of their income from Social Security benefits and just 2.9% from pensions and 2.4% from earnings in 2010.[92] See Figure 3. Meanwhile, earnings accounted for 44.9% of the income of households in the top 20%, while Social Security provided just 17.3% and pensions provided just 19.1%.[93]

Figure 3. Shares of aggregate income of the elderly for the lowest and highest income quintiles, by source, 2010



Source: SOCIAL SECURITY ADMINISTRATION, INCOME OF THE AGED CHARTBOOK, 2010 17 (2010), http://www.socialsecurity.gov/policy/docs/chartbooks/income_aged/2010/iac10.pdf.
Notes: The quintile limits for aged units for 2010 are $12,554, $20,145, $32,602, and $57,957. Totals do not necessarily equal the sum of the rounded components.

B. 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 have flexibility in designing their pension plans, making contributions, and 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 that they will have enough income to meet their economic needs

90. *Id.* at 16.
91. *Id.*
92. *Id.* at 17.
93. *Id.*

throughout retirement. For example, of the 153.7 million Americans workers in 2011, just 75.2 million (48.9%) worked for an employer or union that sponsored a retirement plan, and just 61.0 million (39.7%) participated in that plan.[94] Table 1 provides more details about employer sponsorship of retirement plans in 2011 and worker participation in those plans.[95] It is important to note that 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. Participation rates increase through age 55 and then declined. Among older workers age 55 to 64, only 49.9% participate in a pension plan.

TABLE 1. SHARE OF WORKERS WITH AN EMPLOYER THAT SPONSORED A RETIREMENT PLAN AND SHARE PARTICIPATING IN THE PLAN, BY VARIOUS CHARACTERISTICS, 2011 (PERCENT)

Worker characteristic	*Sponsorship rate*	*Percentage participating*
AGE		
20 or younger	20.4	3.9
21–24	34.2	16.2
25–34	47.7	36.4
35–44	52.8	45.3
45–54	55.3	49.0
55–64	56.2	49.9
65 and older	40.8	31.4
GENDER		
Male	48.3	39.9
Female	49.6	39.4

94. Craig Copeland, *Employment-Based Retirement Plan Participation: Geographic Differences and Trends, 2011* 9 fig. 1, EMP. BENEFIT RESEARCH INST., Issue Brief No. 378, 2012 *available at* http://www.ebri.org/pdf/briefspdf/EBRI_IB_10-2011_No363_Ret_Part.pdf. Some caution in relying on these participation and coverage figures may be appropriate, as the Census Bureau's Current Population Survey (CPS) is based on asking people what they remember about their financial circumstances and may underestimate pension plan coverage and participation. In that regard, several studies suggest that the CPS underestimates the amount and prevalence of retirement distributions received by retirees. Anguelov et al., *supra* note 6; *see generally* John Sabelhaus & Daniel Schrass, *The Evolving Role of IRAs in U.S. Retirement Planning*, 15(3) INV. CO. INST. RESEARCH PERSP. (2009) *available at* http://www.ici.org/pdf/per15-03.pdf; Sylvester J. Schieber, *Why Do Pension Benefits Seem So Small?*, 11(4) BENEFITS Q. 57 (1995); Michela Coppola & Bettina Lamia, *Empirical Research on Households' Saving and Retirement Security: First Steps towards an Innovative Triple-Linked-Dataset*, 2012 *available at* http://mea.mpisoc.mpg.de/uploads/user_mea_discussionpapers/1272_258-12.pdf.

95. Copeland, *supra* note 94, at 10-11 fig. 2.

RACE/ETHNICITY		
White	52.7	43.6
Black	49.6	38.1
Hispanic	32.5	24.2
Other	47.1	37.4
EDUCATION		
No high school diploma	22.4	13.6
High school diploma	42.7	33.1
Some college	49.0	37.9
Bachelor's degree	58.7	50.6
Graduate/professional degree	68.1	61.6
WORK STATUS		
Full-time, full-year	57.5	50.6
Full-time, part-year	40.1	27.3
Part-time, full-year	31.8	18.4
Part-time, part-year	23.9	8.5
ANNUAL EARNINGS		
Less than $10,000	21.1	6.9
$10,000–$19,999	29.6	16.1
$20,000–$29,999	44.3	32.4
$30,000–$39,999	54.3	45.7
$40,000–$49,999	62.2	55.6
$50,000–$74,999	68.2	62.7
$75,000 or more	69.9	66.7
EMPLOYER SIZE		
Fewer than 10 employees	13.8	11.3
10–49 employees	29.6	23.0
50–99 employees	43.4	33.4
100–499 employees	54.5	42.5
500–999 employees	60.6	47.8
1,000 or more employees	65.3	51.4
Public sector	79.3	70.6

Source: Craig Copeland, Employment-Based Retirement Plan Participation: Geographic Differences and Trends, 2011 9 fig. 1, Emp. Benefit Research Inst., Issue Brief No. 378, 2012 available at http://www.ebri.org/pdf/briefspdf/EBRI_IB_10-2011_No363_Ret_Part.pdf.

Participation in IRA plans is even lower than participation in pension plans. For example, only 28.0% of American families had an IRA or Keogh plans for the self-employed in 2010.[96] As

96. Craig Copeland, *Individual Account Retirement Plans: An Analysis of the 2010 Survey of Consumer Finances* 10 fig. 5, EMP. BENEFIT RESEARCH INST., Issue Brief No. 375, 2012 *available at* http://www.ebri.org/pdf/briefspdf/EBRI_IB_09-2012_No375_IndvAccts.pdf. Of note rollover IRAs accounted for

with employment-based plans, participation in IRAs and Keoghs tends to be higher among those families where the head of the family is older, has attained a higher educational level, or has a higher income level.[97]

Certainly, most households will accumulate some retirement savings through current or past work over their lifetime. According to the Survey of Consumer Finances, 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 in 2010.[98] Moreover, as households get closer to retirement age, they are even more likely to have accumulated some retirement assets, and recent cohorts of retirees tend to have more retirement assets than previous cohorts.[99] Households headed by a working individual aged 55 to 64 are doing especially well. These near-retiree households are less likely to be covered by a defined benefit plan than previous cohorts, but about 70% of them had defined contribution plans and/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).[100]

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.[101] For example,

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43.2% of all IRA and Keogh assets. *Id.* at 1. A Keogh is a tax-deferred retirement plan for self-employed individuals and their employees (if any). *Id.* at 27, n. 24.

97. *Id.* at 18 fig. 12a, 19fig. 12b.

98. Jesse Bricker, Arthur B. Kennickell, Kevin B. Moore & John Sabelhaus, *Changes in U.S. Family Finances from 2007 to 2010: Evidence from the Survey of Consumer Finances*, 98(2) FED. RESERVE BULL. 37, 38 (2012) *available at* http://www.federalreserve.gov/pubs/bulletin/2012/pdf/scf12.pdf.

99. Brady et al., *supra* note 22, at 12.

100. *Id.*

101. *Pension Savings: Are Workers Saving Enough for Retirement?: Hearing Before the Senate Committee on Health, Education, Labor & Pensions*, 113th Cong. (Jan. 31, 2013) *available at* http://www.help.senate.gov/hearings/hearing/?id=4cd69c00-5056-a032-52b4-2693a6672740; *see* Jack VanDerhei, *The Importance of Defined Benefit Plans for Retirement Income Adequacy*, 32(8) EMPLOYEE BENEFIT RESEARCH INST. NOTES 7, 8 (2011) *available at* http://www.ebri.org/pdf/notespdf/EBRI_Notes_08_August-11.PPACA_DBplans.pdf (showing that having a defined benefit plan at age 65 significantly reduces the risk that retirement income will be inadequate); Melissa M. Favreault, Richard W. Johnson, Karen E. Smith & Sheila R. Zedlewski, *Boomers' Retirement Income Prospects*, URBAN INST., Brief No. 34, 2012 *available at* http://www.urban.org/uploadedpdf/412490-boomers-retirement-income-prospects.pdf (explaining that 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); Munnell et. al, *supra* note 22 (showing that half of households will not have enough retirement income to maintain their pre-retirement living standards); Jack VanDerhei, *Retirement Income*

according to recent research by the Employee Benefit Research Institute, 44% of "Baby-Boomer" and "Gen-X" households are at risk of running short of money in retirement. Further, 19.4% of them are projected to have less than 80% of what they will need.[102] It is clear that Americans are not saving enough for retirement. In that regard, 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 five percent of their annual income for retirement, and nearly a quarter were saving nothing at all.[103]

Even the most optimistic analysts see problems for people who retire earlier than expected because of poor health, for people with limited work histories, and for unmarried people (never married, divorced, or widowed).[104] Finally, even more retirees could be put at risk if Social Security and Medicare benefits are curtailed in connection with the federal government's efforts to get the national debt under control[105] or if medical breakthroughs

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Adequacy for Boomers and Gen Xers: Evidence from the 2012 EBRI Retirement Security Projection Model®, 33(5) EMPLOYEE BENEFIT RESEARCH INST. NOTES 2, 4 (2012) *available at* http://www.ebri.org/pdf/notespdf/EBRI_Notes_05_May-12.RSPM-ER.Cvg1.pdf.

102. Jack VanDerhei, *All or Nothing? An Expanded Perspective on Retirement Readiness*, 33(11) EMPLOYEE BENEFIT RESEARCH INST. NOTES 1, 11 (2012) *available at* http://www.ebri.org/publications/notes/index.cfm?fa=notesDisp&content_id=5131; *see* Alicia H. Munnell, Anthony Webb & Francesca Golub-Sass, *The National Retirement Risk Index: An Update*, Boston College Center for Retirement Research, Issue in Brief 12-20, 2012) *available at* http://crr.bc.edu/wp-content/uploads/2012/10/IB_12-20.pdf (estimating that some 53% of households will have replacement rates that fall more than 10% below the target).

103. LIFE INSURANCE AND MARKET RESEARCH ASSOCIATION (LIMRA), *Most Middle-Income Workers Saving Less Than Five Percent of Their Income for Retirement* (Oct. 31, 2012) *available at* http://www.limra.com/newscenter/NewsArchive/ArchiveDetails.aspx?prid=269 (last visited Feb. 27, 2013); *see also* HSBC INSURANCE HOLDINGS LIMITED, THE FUTURE OF RETIREMENT: A NEW REALITY 26 fig. 11 (2013) *available at* http://www.hsbc.com/~/media/HSBC-com/about-hsbc/structure-and-network/retirement/global-reports/130220for7pagespdf.ashx (finding that 31% of Americans surveyed have never saved for retirement).

104. Brady et al., *supra* note 21, at 39; *see* John Karl Scholz, Ananth Seshadri & Suurachai Khitatrakun, *Are Americans Saving 'Optimally' for Retirement?*, 114(4) J. OF POL. ECON. 607, 620 (2006) (predicting that less than 20% of households will have less retirement wealth than optimal); Austin Nichols, *Do Financial Planners Advise Us to Save Too Much for Retirement?* (Urban Institute, Program on Retirement Policy Paper, 2012) *available at* http://www.urban.org/UploadedPDF/412510-Do-Financial-Planners-Advise-Us-to-Save-Too-Much-for-Retirement.pdf (explaining that Americans are not necessarily saving too little for retirement).

105. *See, e.g.*, CONGRESSIONAL BUDGET OFFICE, THE 2012 LONG-TERM PROJECTIONS FOR SOCIAL SECURITY: ADDITIONAL INFORMATION (2012), *available at* http://www.cbo.gov/sites/default/files/cbofiles/attachments/43648-SocialSecurity.pdf (noting the difference between "scheduled" and "payable"

result in significant increases in life expectancy.[106]

Nevertheless, some observers argue that the comparatively limited coverage of the second tier is not necessarily a bad thing.[107] The fact that coverage is particularly low among younger and less well-paid workers is thought to reflect the fact that they have more pressing expenditures to save for, like a down payment on a house. Lower participation by low-paid workers might reflect a decision to give priority to spending on current essentials over saving for retirement. However, even if coverage rates of older and better-paid workers are higher than those of younger and less well-paid workers, they remain well below one hundred percent. Data from the Federal Reserve's Survey of Consumer Finances for 2007 show that even in the 50-59 year age ranges, just 61.4% of workers had pension coverage from their current jobs and just 65.9% had coverage from any job.[108] Similarly, just 65.6% of workers earning between $45,000 and $59,999 in 2007 had coverage from their current jobs and just 69.6% had coverage from any job.[109]

Others who defend the current system argue that the coverage of the second tier has never been much more than its current rate of one in two workers.[110] They also argue that the long vesting periods that the traditional pensions required and their lack of inflation adjustments when workers separated from their employers meant that workers often received less than generous payouts.[111] This argument is worth considering. Under ERISA, a

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Social Security benefits).

106. *See, e.g.*, THE BOARD OF TRUSTEES, FEDERAL OLD-AGE AND SURVIVORS INSURANCE AND FEDERAL DISABILITY INSURANCE TRUST FUNDS, 2013 ANNUAL REPORT OF THE BOARD OF TRUSTEES OF THE FEDERAL OLD-AGE AND SURVIVORS INSURANCE AND FEDERAL DISABILITY INSURANCE TRUST FUNDS 79-81, 90-93, 174-17578-80, 88-92 (2013) *available at* http://www.socialsecurity.gov/OACT/TR/2013/tr2013.pdf (discussing the derivation of the Social Security Administration's mortality and life expectancy assumptions and its long-range sensitivity analysis).

107. *See* Peter J. Brady, *Measuring Retirement Resource Adequacy*, 9(2) J. OF PENSION ECON. 235, 239 (Apr. 2010).

108. Mackenzie & Wu, *supra* note 6, at 25 tbl. A.1. To be sure, 75.7% had either a pension or an IRA, and just 24.7% were without any coverage. *Id.*

109. *Id.* at 26 tbl. A.2.

110. For the history of private pension coverage *see e.g.*, U.S. DEPARTMENT OF LABOR, PENSION AND WELFARE BENEFITS ADMINISTRATION, 6 PRIVATE PENSION PLAN BULLETIN tbl. F4 (1996) *available at* http://www.dol.gov/ebsa/publications/bulletin/cover.htm (showing low participation rates from 1975-1993); Alicia H. Munnell, Rebecca C. Fraenkel & Josh Hurwitz, *The Pension Coverage Problem in the Private Sector*, BOSTON COL. CENTR. FOR RET. RESEARCH, Issue in Brief No. 12-16, 2012 *available at* http://crr.bc.edu/wp-content/uploads/2012/09/IB_12-16.pdf (showing low participation rates from 1979-2010).

111. As an example of the effect of freezing benefits: the benefit that an employee who separated at age 45, and became eligible for a benefit at age 65 could be expected to decline substantially in real terms: its value would be

sponsor of a defined benefit plan can set a vesting period of as much as five years, and many workers have job tenures shorter than that.[112]

On the other hand, the switch to defined contribution plans has almost certainly reduced the degree to which pension benefits are annuitized.[113] Moreover, few workers in today's defined contribution plan world will have saved enough to buy a meaningful annuity at retirement. For example, the median 401(k)-plan balance is $77,000, which could only buy a $5,000-a-year life annuity for a new retiree at current interest rates.[114]

C. The Decline of Annuitization

The decline in the role of the traditional pension plan has caused a significant decline in annuitization of retirement savings by American workers because, unlike defined benefit plans, defined contribution plans typically distribute benefits in the form of lump sum distributions rather than as annuities.[115] Indeed, relatively few defined contribution plans even offer annuity options, and in any event, relatively few participants elect those annuity options.[116]

Although a recent survey suggests that older workers with defined contribution plans are more likely to annuitize part or all of their balances than has generally been thought, annuitization remains uncommon.[117] Purchases of life annuities by 401(k) plan

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fixed in nominal terms, and inflation at an average annual rate of 2% over the 20 years would reduce its value by about one-third. Authors' computations.

112. *See* Craig Copeland, *Employee Tenure Trend Lines, 1983–2010*, 31(12) EMP. BENEFIT RESEARCH INST. NOTES 2 (2010) *available at* http://www.ebri.org/pdf/notespdf/EBRI_Notes_12-Dec10.Tenure-CEHCS.pdf (finding that the median tenure for all wage and salary workers age 25 and higher was just 5.2 years in 2010).

113. *Infra* Part III.C.

114. *Supra* notes 6 & 7; *see* James Poterba, Steven Venti & David Wise, *The Composition and Drawdown of Wealth in Retirement*, 25(4) J. OF ECON. PERSP. 99, 96, 103, 113 (Fall 2011) (finding that the median household between the ages of 65 and 69 in 2008 had less than $52,000 in annuitizable wealth and that just 47% of elderly households could increase their life-contingent annual income by more than $5,000 a year).

115. TOWERS WATSON, INTERNATIONAL PENSION PLAN SURVEY: REPORT 2011 1, 15 (2011) *available at* http://www.towerswatson.com/assets/pdf/6036/TW-EU-2011-22755-IPP-survey.pdf (showing that lump sums distributions are by far the most prevalent form of distribution for defined contribution plans).

116. Miller, *supra* note 49.

117. *See* Carlos Figueiredo & Sandy Mackenzie, *Older Americans' Ambivalence Toward Annuities: Results of an AARP Survey of Pension Plan and IRA Distribution Choices* (AARP Research Report No. 2012-07, 2012) *available at* http://www.tiaacrefinstitut e.org/ucm/groups/content/@ap_ucm_p_tcp_docs/documents/document/tiaa04044741.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 16.6% offered annuities as an option, while 60.2% offered periodic withdrawals).

participants from life insurance companies remain rare when the plan does not offer an annuity option. Purchases from insurance companies financed by either after-tax or before-tax dollars amounted to just $7.7 billion in 2012.[118] Assuming an average premium of $100,000, the major life insurance companies had only 77,000 new customers for life annuities.

The problem for many retirees 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 three years of retirement.[119] All in all, people rarely buy annuities voluntarily, even though purchasing annuities could provide valuable longevity insurance.[120] That is, the demand for annuities is lower than expected, and this shortfall has come to be known as the "annuity puzzle."[121]

There are many reasons for this low demand for annuities.[122] Financial literacy is often low among consumers, and distrust of insurance companies may be a factor.[123] Moreover, relatively few retirees are willing to give up control over their retirement savings by buying an annuity. Instead, retirees would rather have money in the bank. Many also want to leave money to their children, known by economists as a bequest motive. Also, because of adverse selection (i.e., those that voluntarily purchase annuities tend to live longer than those that do not), annuities may not be priced very well for those with normal life expectancies. Finally, it is important to note that Social Security and Supplemental Security Income (SSI) already provide inflation-adjusted monthly benefits that may crowd out private annuities.[124]

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118. LIFE INSURANCE AND MARKET RESEARCH ASSOCIATION (LIMRA), DEFERRED INCOME ANNUITY SALES REACH $1 BILLION; FIXED INDEXED ANNUITY SALES HIT RECORD HIGH IN 2012 (FEB. 21, 2012) *available at* http://www.limra.com/Posts/PR/News_Releases/LIMRA__Deferred_Income_Annuity_Sales_Reach_$1_Billion;_Fixed_Indexed_Annuity_Sales_Hit_Record_High_in_2012.aspx (last visited Feb. 27, 2013).

119. TOWERS WATSON, *supra* note 115, at 3.

120. MACKENZIE, *supra* note 86, at 253; Figueiredo, *supra* note 117.

121. *See* Manahem E. Yaari, *Uncertain Lifetime, Life Insurance, and the Theory of the Consumer*, 32(2) REV. OF ECON. STUDIES 137, 140 (1965); *see generally* Franco Modigliani, *Life Cycle, Individual Thrift, and the Wealth of Nations*, 76(3) AM. ECON. REV. 297 (1986); *see generally* Shlomo Benartzi, *Alessandro Previtero & Richard H. Thaler, Annuitization Puzzles*, 25(4) J. OF ECON. PERSP. 143 (Fall 2011).

122. *See* GEORGE A. (SANDY) MACKENZIE, ANNUITY MARKETS AND PENSION REFORM, Chapter 1 (2006) (showing a survey of the influences on annuity demand).

123. Annamaria Lusardi, Olivia S. Mitchell & Vilsa Curto, *Financial Sophistication in the Older Population* (National Bureau of Economic Research, Working Paper No. 17,863, 2012) *available at* http://www.nber.org/papers/w17863.

124. Monika Bütler, Kim Peijnenburg & Stefan Staubli, *How Much Do*

Of note, the Internal Revenue Service and the U.S. Department of Labor recently mounted a joint effort to improve lifetime income options for retirement plans.[125] In that regard, the Treasury and the Internal Revenue Service recently 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.[126]

D. Replacement Ratios

As a rule of thumb, after retirement individuals will need to replace around 80% of their pre-retirement income.[127] People will

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Means-Tested Benefits Reduce the Demand for Annuities? (Discussion Paper No. DP 09/2011-52, Network for Studies on Pensions, Aging and Retirement, 2011) *available at* http://arno.uvt.nl/show.cgi?fid=114894.

125. *Lifetime Income Options for Participants and Beneficiaries in Retirement Plans,* U.S. DEPARTMENT OF LABOR, EMPLOYEE BENEFITS SECURITY ADMINISTRATION, 2010 *available at* http://www.dol.gov/ebsa/regs/cmt-1210-AB33.html.

126. Longevity annuities are characterized by a long delay between premium payments and the first income payment. TREASURY FACT SHEET: HELPING AMERICAN FAMILIES ACHIEVE RETIREMENT SECURITY BY EXPANDING LIFETIME INCOME CHOICES (Feb. 2, 2012) *available at* http://www.treasury.gov/press-center/press-releases/Documents/020212%20Retirement%20Security%20Factsheet.pdf (last visited Apr. 19, 2013); EXECUTIVE OFFICE OF THE PRESIDENT COUNCIL OF ECONOMIC ADVISORS, SUPPORTING RETIREMENT FOR AMERICAN FAMILIES 1 (Feb. 2, 2012) *available at* http://benefitslink.com/articles/CEA_report_2_2_2012.pdf.

127. AON CONSULTING, 2008 REPLACEMENT RATIO STUDY 24 (2008) *available at* http://www.aon.com/about-aon/intellectual-capital/attachments/human-capital-consulting/RRStudy070308.pdf (estimating that required replacement ratios ranged from 77% for a person earning $80,000 a year in 2008 to 94% for a person earning $20,000 that year); *see* AON HEWITT, THE REAL DEAL: 2012 RETIREMENT INCOME ADEQUACY AT LARGE COMPANIES 1 (2012) *available at* http://www.aon.com/attachments/human-capital-consulting/The_2012_Real_Deal_Highlights.pdf (showing that to have sufficient assets to get through retirement, an average full-career employee needs 11.0 times pay at age 65, after Social Security—85% pay replacement needed in the first year of retirement); *see* JOHN KARL SCHOLZ & ANANTH SESHADRI, WHAT REPLACEMENT RATES SHOULD HOUSEHOLDS USE? 1 (University of Michigan Retirement Research Center Working Paper 2009-24, 2009) *available at* http://www.mrrc.isr.umich.edu/publications/papers/pdf/wp214.pdf (explaining that "typical advice suggests that replacements rates should be 70-85% of pre-retirement income"); Patrick J. Purcell, *Income Replacement Ratios in the Health and Retirement Study*, 72(3) SOC. SEC. BULL. 37, 42 (2012); *see generally* Alicia C. Munnell & Mauricio Soto, *Sorting Out Social Security Replacement Rates*, JUST THE FACTS, NO. 19 (Boston College Center for Retirement Research) 2005 *available at* http://crr.bc.edu/wp-content/uploads/2005/11/jtf_19.pdf; Patricia P. Martin, *Comparing Replacement Rates under Private and Federal Retirement Systems*, 65(1) SOC. SEC. BULL. (2003/2004) *available at* http://www.ssa.gov/policy/docs/ssb/v65n1/v65n1p17.html; Andrew G. Biggs & Glenn R. Springstead, *Alternate Measures of Replacement Rates for Social Security Benefits and Retirement Income*, 68(2) SOC. SEC. BULL. (2008) *available at* http://www.ssa.gov/policy/docs/ssb/v68n2/

generally need less income after retiring because income taxes are lower after retirement, Social Security payroll taxes end, and savings for retirement are no longer needed.[128] Social Security (and SSI) will provide a large portion of that replacement income, but the private pension system and personal savings will need to provide the rest. For example, Table 2 shows Aon Consulting's recent estimates of the replacement rates that would be needed by married couples with various levels of pre-retirement income.[129]

TABLE 2. 2008 REPLACEMENT RATIOS
(MARRIED COUPLE, AGES 65/62, ONE WORKING)

Pre-retirement income	*Replacement Ratios*		
	From Social Security	*From private and employer sources*	*Total*
$20,000	69%	25%	94%
$30,000	59%	31%	90%
$40,000	54%	31%	85%
$50,000	51%	30%	81%
$60,000	46%	32%	78%
$70,000	42%	35%	77%
$80,000	39%	38%	77%
$90,000	36%	42%	78%

Source: AON CONSULTING, 2008 REPLACEMENT RATIO STUDY 24 2008) *available at* http://www.aon.com/about-aon/intellectual-capital/attachments/human-capital-consulting/RRStudy070308.pdf.

Table 3 shows estimates of how large a lump sum is needed at retirement to provide an adequate income throughout retirement.[130]

v68n2p1.html.

Some economists have, however, argued that even a replacement ratio of 80% is too high. *See, e.g.*, Laurence J. Kotlikoff, *Economics' Approach to Financial Planning*, 21 J. OF FIN. PLANNING 3, 6 (2008) *available at* http://kotlikoff.net/content/economics-approach-financial-planning (arguing that when certain nonrecurring expenditures by households in the years before retirement are taken account of, the targeted replacement rate is much less than the norm); *see also* Brady, *supra* note 107, at 239 (estimating replacement rates that are lower than the norm).

128. AON CONSULTING, *supra* note 127, at 1-2.

129. *Id.* at tbl. 2; ANNA RAPPAPORT, VICKIE BAJTELSMIT & LEANDRA FOSTER, MEASURES OF RETIREMENT BENEFIT ADEQUACY: WHICH, WHY, FOR WHOM, AND HOW MUCH? 10 tbl. 32 (Society of Actuaries, 2013) *available at* http://www.soa.org/Files/Research/Projects/research-2013-measures-retirement.pdf.

130. AON CONSULTING, *supra* note 127, at tbl. 16.

TABLE 3. LUMP SUM AMOUNTS NEEDED AT RETIREMENT FROM PRIVATE AND EMPLOYER SOURCES AS A MULTIPLE OF FINAL PAY

Pre-retirement income	*Baseline replacement rate needed (% of final pay)*	*Equivalent Lump Sum Needed (as a multiple of final pay)*	
		Male	*Female*
$20,000	25%	4.4	4.5
$30,000	31%	5.0	5.5
$40,000	31%	5.0	5.5
$50,000	30%	4.8	5.4
$60,000	32%	5.2	5.7
$70,000	35%	5.6	6.3
$80,000	38%	6.1	6.8
$90,000	42%	6.8	7.5

Source: Aon Consulting, 2008 Replacement Ratio Study 24 (2008) available at http://www.aon.com/about-aon/intellectual-capital/attachments/human-capital-consulting/RRStudy070308.pdf.

E. Conclusion: American Workers are not Saving Enough for Retirement

All in all, studies of the adequacy of retirement income in the United States have come to different conclusions. Nonetheless, the comparatively modest balances held in popular 401(k) plans and IRAs strongly support the view that many American workers are not saving enough for retirement. To be sure, Social Security replacement rates are high when incomes are low, but drop off substantially as incomes rise. The increase in replacement rates that would be achieved by treating gradual withdrawals of income from a 401(k) plan or an IRA as income or by including annuity income purchased with funds from these sources would not be very great, particularly if the withdrawals and annuity are indexed for inflation. This suggests that replacement rates, as conventionally measured, may not be adequate for many retired Americans.

In sum, the current pension system has grave defects. Social Security, despite its obvious successes, like rescuing millions of older Americans from poverty,[131] cannot be the only tier of retirement security. Meanwhile, the coverage provided by the second-tier, private pension system is too far from universal to be satisfactory. Many retired Americans will have to make do with little more than their Social Security benefits, and if they live to an advanced age, those Americans are at significant risk of exhausting their other assets.

131. Van de Water, *supra* note 21, at 6.

IV. WHAT WOULD A GOOD SECOND-TIER (EMPLOYER-SPONSORED) SYSTEM LOOK LIKE?

Setting out the qualities of a good second-tier pension system is not easy. There are legitimate disagreements about what these qualities are. They naturally involve trade-offs and compromises, and include choosing among various political and social goals. As an example of the need to deal with trade-offs, achieving broad coverage appears uncontroversial, except that it might require a law compelling employers to offer a plan, and to enroll all or nearly all of their employees in it. If opposition to such a mandate remains strong, then an increase in coverage must be achieved voluntarily.

There is legitimate disagreement over the means necessary to achieve the desired ends, in part because the characteristics of a good second tier will depend on the design of the first tier. As a simple example of this interdependence, a first-tier public pension with comparatively high replacement rates will mean that a second-tier private pension system can place less emphasis on the provision of an annuity. Another source of disagreement is a difference in point of view. A case in point is achieving an appropriate distribution of risk between employer and employee, which is discussed further below. The employer's idea of an appropriate distribution of risk is bound to differ from that of its employees.

Despite these disagreements, the success of pension reform is normally assessed based on its impact on coverage and on the adequacy of benefits. To these two basic criteria should be added additional criteria for the appropriate assignment of risk between the plan sponsor and plan participants, for portability, and for minimizing complexity and maximizing transparency. The achievement of these ancillary criteria will help increase the chances that the retirement income of a particular household will be adequate. For example, the appropriate assignment of risk will reduce the likelihood that a stock market crash will decimate wealth at retirement, and increased portability should increase the share of accrued benefits that are actually paid. Moreover, greater transparency and reduced complexity should help reduce the risk of bad choices.

What follows describes more fully what each of these criteria involves, and touches briefly on the trade-offs they entail. It is important to note that there is an inevitable trade-off between achieving a high score on coverage and adequacy on the one hand, and flexibility or freedom of choice on the other. The more voluntary a pension system is, the greater the chances that retirement income security will be derailed by shortsighted or misinformed decisions by both employers and employees.[132]

A. Criteria for a Good Second-Tier Pension System

1. Coverage

Broader coverage of an employer-sponsored pension system is normally deemed to be better coverage. Any limitations on coverage need to be justified on the grounds that eliminating them would not be feasible or that full coverage would involve an unwarranted intrusion into private employers' decisions. For example, a restriction on coverage to full-time workers might be justified on the grounds that migrant or casual workers were particularly difficult to cover. Given the desirability of broader coverage, the disparities of coverage across ethnic groups or income levels, for example,[133] suggest that special efforts need to be made to include those groups. Countries that have achieved full or nearly full coverage have either required employers to offer a plan to nearly all of their employees, e.g., Australia, or have achieved it as a part of comprehensive wage negotiations, e.g., the Netherlands.[134] Countries like Canada, the United Kingdom, and the United States that have relied on favorable tax treatment of contributions to increase coverage have not yet come close to achieving it. In Canada and the United Kingdom, pension coverage has declined in recent years.[135]

It has proven difficult for a private pension system to have broad coverage without being employer-based. Either the employer sponsors a plan, or must act as a conduit for contributions to an investment fund or a separate pension plan. An employer-based system is likely to achieve greater coverage than a purely voluntary system where individuals contribute to IRAs or their equivalent. Voluntary saving in tax-favored retirement saving schemes does not cover a large share of the working population in the United States or in any other industrial country.[136]

Broad or universal coverage has been criticized as imposing a "straitjacket," because it limits the use of savings to the financing of retirement, and it can be argued that younger workers can quite rationally prefer to devote their savings to a down payment on a house, or to financing an education. If this is true, there is an argument for allowing withdrawals from defined contributions

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132. *See e.g.*, JONATHAN BARRY FORMAN & GEORGE A. (SANDY) MACKENZIE, THE COST OF "CHOICE" IN A VOLUNTARY PENSION SYSTEM, 48 (Mar. 22, 2013).

133. *Supra* Table. 1.

134. MACKENZIE, *supra* note 122, at 20-24

135. *Id.* at 2-3.

136. PABLO ANTOLIN, COVERAGE OF FUNDED PENSION PLANS 6 (OECD Working Papers on Insurance and Private Pensions, No. 19, 2008) *available at* http://www.oecd.org/finance/privatepensions/41122606.pdf.

plan in certain circumstances. Under current law, employers may offer loans for certain purposes, but withdrawals are substantially penalized.[137] On the other hand, excessive flexibility can vitiate the goal of pension reform.

2. Adequacy

Adequacy is hard to pin down. Basically, it refers to whether pension income is adequately high, as indicated by the pension's replacement rate and whether it is sustained throughout retirement. A simple defined contribution system with a lump-sum benefit might be adequate in the sense that it provided the means for an adequate retirement income, but inadequate if a failure to convert part or all of the lump sum into an annuity results in a failure to deal with longevity risk (the risk that an individual's unexpectedly long life exhausts resources). In addition, as the data in Table 2 suggest, a replacement rate for low-income earners may have to be higher than one for middle or high-income earners in order to ensure a socially acceptable standard of living in retirement.

3. Appropriate Assignment of Risk

Anyone saving for retirement confronts three principal risks: (1) *savings risk*, the risk that saving rates may be too low to finance an adequate retirement; (2) *investment risk*, the risk of ill-considered or unlucky investments; and (3) *longevity risk*, the risk of outliving one's retirement savings.[138] These risks are evident for the self-employed, who do not participate in an employer-sponsored pension, but they also arise for those covered by some employer-sponsored pension plans.

137. *See* INTERNAL REVENUE SERVICE, TOPIC 558 – ADDITIONAL TAX ON EARLY DISTRIBUTIONS FROM RETIREMENT PLANS, OTHER THAN IRAS, *available at* http://www.irs.gov/taxtopics/tc558.html (last visited Apr. 19, 2013). I.R.C. § 72(t) generally imposes a 10% tax on distributions made before an individual reaches age 59½, but there are numerous exceptions. *Id.* For example, there are exceptions for distributions on account of disability or to cover high medical expenses. *Id.*

138. These are by no means the only risks to retirement security, but they are probably the most important that the design of a second tier pension system has to consider. *See, e.g.*, AMERIPRISE FINANCIAL, MAKING YOUR RETIREMENT INCOME LAST A LIFETIME (2010) *available at* http://cdn.ameriprisecontent.com/cds/alwp/advisor/david.p.weidman/cdocuments-and-settingsandrewdesktopwebsite-downloadsmaking-your-retirement-income-last-a-lifetiime634532517160486099.pdf (suggesting that the top risks for today's retirees include: longevity, inflation, market volatility, withdrawal rate, health care expenses, and unexpected events); *see also* Youngkyun Park, *Retirement Income Adequacy With Immediate and Longevity Annuities*, EMP. BENEFIT RESEARCH INST., Issue Brief No. 357, 2011 *available at* http://www.ebri.org/pdf/briefspdf/EBRI_IB_05-2011_No357_Annuities.pdf (discussing strategies for managing three types of risk: investment income, longevity, and long-term care).

The extent of savings risk depends a good deal on the design of the plan, and cannot really be shared with the plan sponsor, unlike investment risk. A plan sponsor is normally better able to deal with longevity risk than an individual can, because it is able to contract with an insurance company for annuities at group rates, or simply pool the longevity risk of individual retirees.[139] However, the sponsors of traditional pension plans are still exposed to the risk that unexpectedly low interest rates will push up annuity premiums and to the risk that the life expectancy of different age cohorts cannot be accurately predicted (i.e., aggregate longevity risk). An individual is exposed to the same risks as a defined benefit plan sponsor when she buys an annuity upon retirement, because interest rates strongly influence annuity prices. Opinions differ as to the extent to which investment and longevity risks can or should be borne by plan participants, but at the very least, these risks should be shared between sponsor and participants in some meaningful way.

The employer point of view is that because of recent changes to the rules governing the valuation of pension plan assets and the corporate accounting treatment of plan finances, the investment risks to which the traditional defined benefit plan is vulnerable entail too much balance sheet volatility and may even entail a threat to corporate solvency. In addition, the changes in funding rules introduced by the Pension Protection Act of 2006 mean that a funding shortfall has to be made up more quickly than before.[140] Whatever the merits of this view, the shift from traditional defined benefit plans to defined contribution plans has placed investment risk entirely on the shoulders of American workers. It is reasonable to ask if all employees are up to this burden. In principle, even if the corporations that sponsor pension plans have become more risk averse, a trade-off might exist between current compensation and the risk borne by plan participants: plan participants might be willing to trade some amount of current

139. *See* BOARD OF TRUSTEES, FEDERAL OLD-AGE AND SURVIVORS INSURANCE AND FEDERAL DISABILITY INSURANCE TRUST FUNDS *supra* note 106, at 93 tbl. VA.4 (showing that, at present, a 65-year-old woman in the U.S. has a 50% chance of living past age 86, while a 65-year-old man has a 50% chance of living past age 84); *see also* Fred Reish, *Just out of Reish: Living "Room"? The problem with living too long*, PLAN SPONSOR, Aug. 2011, *available at* http://www.plansponsor.com/MagazineArticle.aspx?id=6442481375 (noting that the joint life expectancy of a 65-year-old couple is even more remarkable: There is a 50% chance that at least one 65-year-old spouse will live to age 91, and there is a 25% chance that at least one will live to 95).

140. I.R.C. §§ 412, 430 (2006); *but see* The Moving Ahead for Progress in the 21st Century Act (MAP-21), Pub. L. No. 112-41, § 40211, 126 Stat. 405, 846, (relaxing the funding requirements somewhat by allowing pension plans to use higher interest rates to value their liabilities (and so reduce their minimum required contributions)).

compensation for greater certainty about their pensions.

However, investment risk may be shared between plan sponsors and plan participants, more retired Americans will be exposed to longevity risk. Dealing with these risks is not easy. The Social Security annuity (i.e., inflation-adjusted benefits for life) may provide enough longevity insurance for many Americans, but not for all.

4. Portability

Pension rights should not be compromised by labor mobility, and vesting periods should be minimized. Given the short tenures and high mobility that characterize the American labor market, portability must be an essential feature of an employer-sponsored pension.[141] Portability is a particular strength of the 401(k) plan. Its vesting period is often no more than one year. A partial substitute for portability would be pension preservation where pension rights of vested but separated workers would be preserved in real terms. This is a feature of some European second tiers.[142]

5. Complexity and Transparency

That a pension plan's design is complex should not be taken to imply that it lacks transparency. A pension plan may be complex but nevertheless be transparent as long as its design is not unduly complex, given the risks it is to cover, and its conditions for eligibility of benefits, and benefit determination, are explained as clearly as possible. Any institution established to promote or achieve sound finances in retirement will be complex. Nonetheless, the less complicated it is, the better.

One complicating feature of any assessment of complexity is that plan sponsors and plan employees will not judge it in the same way. For example, a traditional pension may be less complex from the plan participant's point of view because it involves fewer decisions, but more complex for the sponsor. In a way, complexity is shared between plan sponsor and participant, just like risk. A 401(k) plan without automatic annuitization or restrictions on investments shifts complexity from plan sponsor to plan participants. Whatever plan participants' appetite for risk, it is reasonable to ask whether they are up to dealing with the kind of

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141. JOINT COMMITTEE ON TAXATION, PROPOSALS AND ISSUES RELATING TO THE PORTABILITY OF PENSION PLAN BENEFITS SCHEDULED FOR A HEARING BEFORE THE SUBCOMMITTEE ON OVERSIGHT OF THE COMMITTEE ON WAYS AND MEANS ON JULY 12, 1988 4 (1988) *available at* https://www.jct.gov/publications.html?func=startdown&id=3253.

142. MACKENZIE, *supra* note 122, at 29-31; OECD, OECD PRINCIPLES OF OCCUPATIONAL PENSION REGULATION 66-68 (2010); John Turner, *Pension Portability-Is this Europe's Future? An Analysis of the United States as a Test Case*, AARP PUB. POL. INST., Mar. 2003, at 2 *available at* http://assets.aarp.org/rgcente r/econ/2003_03_pension.pdf.

complexity entailed by a system where virtually every important decision must be made by them.

Pertinent here, even choosing a retirement plan is a daunting prospect. For example, a private employer who wants to establish a retirement plan can choose from a wide variety of traditional defined benefit plans, cash balance plans, money purchase pension plans, target benefit plans, profit-sharing plans, stock bonus plans, ESOPs, SIMPLE plans, and SEPs.[143] Every one of these plans has a different set of rules and regulations, limits on contributions, vesting rules, and tax advantages. Because of the bewildering complexity that has resulted, many analysts have called for simplification,[144] and some have even argued for creating one single consistent pension system with one set of rules, limits, and regulations.[145] In fact, President George W. Bush's budget proposals for fiscal years 2004 through 2009 called for: (1) consolidating traditional and Roth IRAs into Retirement Savings Accounts (RSAs); and (2) consolidating the various types of employer-sponsored defined contribution plans into new Employer Retirement Savings Accounts (ERSAs).[146] So far, simplification proposals such as these have not had any traction.

B. Sketch of a Good System

Any sensible or practical reform has to work with the institutions it finds; there is little point in trying to design a pension system from scratch. As Woodrow Wilson, speaking of economic reform, stated in his first inaugural address, "[w]e shall deal with our economic system as it is and as it may be modified, not as it might be if we had a clean sheet of paper to write upon."[147] However desirable the traditional defined benefit pension plan may be, it is at this point only wishful thinking to believe that its decline in the private sector can be substantially

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143. In the public sector, in addition to a variety of traditional I.R.C. § 401(a) plans, we also see a variety of I.R.C. § 403(b) and I.R.C. § 457 arrangements.

144. David A. Pratt, *Focus on . . . Pension Simplification*, 9(2) J. OF PENSION BENEFITS 8, 9 (Winter 2002); PAMELA PERUN & C. EUGENE STEUERLE, REALITY TESTING FOR PENSION REFORM 6 (The Urban Inst. Wash. D.C., 2003) *available at* http://www.urban.org/UploadedPDF/410797_reality_testing_pension_reform.pdf.

145. Robert L. Brown, *Pension Simplification: The Factor of 11 and U.S. Pension Reform*, CONTINGENCIES, Sept./Oct. 2005, at 48 *available at* http://www.contingencies.org/sepoct05/Workshop_0905.pdf.

146. JOINT COMMITTEE ON TAXATION, *supra* note 35, at 59-61; Patrick J. Purcell, *Retirement Savings Accounts: President's Budget Proposal for FY2005*, CONG. RESEARCH SERV., Feb. 6, 2004, at 5 *available at* http://digitalcommons.ilr.cornell.edu/cgi/viewcontent.cgi?article=1048&context=key_workplace.

147. President Woodrow Wilson, First Inaugural Address (Mar. 4, 1913).

reversed.[148]

At the outset, we consider the two basic approaches for enhancing retirement security: (1) expanding the current Social Security system; and (2) strengthening the private pension system. We then discuss our recommendations about how to enhance retirement income security by building on the current 401(k) system.

1. Expand the Social Security System

One way to enhance the retirement security of American workers would be to increase Social Security benefits. For example, one could imagine tweaking the benefit formula so that the Social Security system replaced 80% of pre-retirement earnings, at least for workers with low lifetime earnings. As Social Security already replaces around 70% of the pre-retirement earnings for those workers in the lowest quintile of lifetime household earnings,[149] increasing replacement rates for those households to 80% would not cost that much. The cost would be even lower if Congress targeted the benefit increases to those with the lowest lifetime earnings, rather than increasing Social Security benefits for all retirees. A recent survey found that 75% of Americans believe that the United States should consider increasing Social Security benefits to provide a more secure retirement for working Americans.[150] By increasing the generosity of Supplemental Security Income (SSI) benefits, Congress could also ensure that all retirees escape poverty, regardless of how low their lifetime earnings might be.

To be sure, raising revenue to pay for more Social Security benefits would be a challenge, especially given the current political climate and the feeling of many that current retirees will fare significantly better than younger cohorts. Historically, in order to raise money for more Social Security benefits, the federal government has raised the Social Security payroll tax—at least 20 times since the program began in 1937.[151] While the government could, perhaps, raise payroll taxes again, if additional revenue is needed to enhance retirement income security for low-income

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148. ZELINSKY, *supra* note 86.

149. *Supra* Figure 2.

150. JASMINE V. TUCKER, VIRGINIA P. RENO & THOMAS N. BETHELL, STRENGTHENING SOCIAL SECURITY: WHAT DO AMERICANS WANT? 10 (2013) *available at* http://www.nasi.org/sites/default/files/research/What_Do_Americans_Want.pdf; *see* Duncan Black, *401Ks are a disaster*, USA TODAY, Feb. 5, 2013, http://www.usatoday.com/story/opinion/2013/02/05/social-security-retirement-benefits-column/1891155. (recommending an across the board 20% increase in Social Security benefits).

151. FORMAN, *supra* note 3, at 199; Tax Policy Center, *Historical Social Security Tax Rates* (Feb. 26, 2013) *available at* http://www.taxpolicycenter.org/taxfacts/content/pdf/ssrate_historical.pdf.

workers, it might be fairer to raise those revenues from our progressive income tax system. In any event, simply raising the payroll tax rate would not adequately target the benefit increases to workers with low lifetime earnings. For example, because the current Social Security system has generous spousal and dependent benefits, benefit increases tends to favor married couples over single individuals, one-earner couples over two-earner couples, and larger families over smaller families.[152] In short, while Congress could raise payroll taxes and increase Social Security benefits, that approach might not be the most efficient way to enhance the retirement incomes of workers, least of all those with low lifetime earnings. A more comprehensive reform may be needed.

2. *Strengthening the Private Pension System*

Another approach for increasing retirement incomes would be to enhance the second-tier private pension system. With the near disappearance of traditional defined benefit plans, expanding the private pension system probably means encouraging or mandating individual retirement accounts on top of the current Social Security system. These accounts could be held by the Social Security Administration, invested in a broadly diversified portfolio of stocks, bonds, and government notes, and annuitized on retirement. Alternatively, these accounts could be held and invested by private pension funds, as is the case Australia and Chile.[153]

In 1981, the President's Commission on Pension Policy recommended adoption of a Minimum Universal Pension System that would have required all employers to contribute at least 3% of wages to private pensions for their workers.[154] That proposal attracted little interest at the time, but there has recently been renewed interest in such mandatory pensions.[155] One study

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152. FORMAN, *supra* note *3, at* 193-195.

153. David C. John & Ruth Levine, *National Retirement Savings Systems in Australia, Chile, New Zealand and the United Kingdom: Lessons for the United States*, BROOKINGS, July 2009, at 1 *available at* http://www.brookings.edu/papers/2009/07_retirement_savings_john.aspx;
AUSTRALIAN TAXATION OFFICE, APRA-REGULATED FUNDS – HOME, http://www.ato.go v.au/superfunds/pathway.aspx?sid=42&pc=001/149/031&mfp=001/149&mnu=52002#001_149_031 (last visited Feb. 20, 2013); Barbara E. Kritzer, *Chile's Next Generation Pension Reform*, 68(2) SOC. SEC. BULLETIN 69, 73 (2008) *available at* http://199.173.225.108/policy/docs/ssb/v68n2/v68n2p69.pdf.

154. PRESIDENT'S COMMISSION ON PENSION POLICY, COMING OF AGE: TOWARD A NATIONAL RETIREMENT INCOME POLICY (1981).

155. U.S. GOVERNMENT ACCOUNTABILITY OFFICE, GAO-05-193SP, SOCIAL SECURITY REFORM: ANSWERS TO KEY QUESTIONS 56 (2005) *available at http://www.gao.gov/new.items/d05193sp.pdf*; *see generally* Jonathan Barry Forman, *Should We Replace the Current Pension System with a Universal*

estimates that 3% add-on individual accounts could provide an annual retirement benefit equal to 14.5% of final wages for men, 13.3% of final wages for women, 14.5% of final wages for one-earner couples, and 13.9% of final wages for two earner couples in the long run.[156]

Shy of mandating individual accounts, the government may want to require that every employer have a pension plan or at least offer their employees a 401(k) plan or a payroll-deduction IRA coupled with automatic enrollment features.[157] Studies have shown that automatically enrolling people into 401(k) plans can achieve higher levels of participation, and automatically escalating the levels of their contributions can dramatically increase their levels of savings.[158] A recent survey found that most Americans would like to see a universal, privately-run, individual-account pension system with auto-enrollment features, portability from job to job, and the opportunity for monthly checks throughout retirement.[159]

C. Our Model Second-Tier Pension System

The model second-tier pension system that this paper proposes is based on an enhanced form of the 401(k) plan that conserves that plan's most valuable features while reforming or mitigating the effects of its less desirable ones.

Pension System?, 16(2) J. OF PENSION BENEFITS 48, 49 (2009); *see generally* TERESA GHILARDUCCI, WHEN I'M SIXTY-FOUR: THE PLOT AGAINST PENSIONS AND THE PLAN TO SAVE THEM 200-292 (2008).

156. ADAM L. CARASSO & JONATHAN BARRY FORMAN, TAX CONSIDERATIONS IN A UNIVERSAL PENSION SYSTEM 12 (Urban-Brookings Tax Policy Center, Discussion Paper No. 28, 2007) *available at* http://www.urban.org/UploadedPDF/411593_universal_pension_system.pdf.

157. Barbara Butricia & Richard W. Johnson, *How Much Might Automatic IRAs Improve Retirement Security for Low- and Moderate-Wage Workers?*, URBAN INSTITUTE, Brief No. 33, July 2011, at 2 *available at* http://www.urban.org/UploadedPDF/412360-Automatic-IRAs-Improve-Retirement-Security.pdf; OECD, OECD PENSIONS OUTLOOK 2012 45-76 (2012) *available at* http://www.oecd-ilibrary.org/finance-and-investment/oecd-pensions-outlook-2012_9789264169401-en; James J. Choi, David Laibson & Brigitte C. Madrian, *$100 Bills on the Sidewalk: Suboptimal Investment in 401(k) Plans*, 93(3) REV. OF ECON. AND STATISTICS 748, 750 (2011).

158. OECD, *supra* note 157, at 45-76; Richard H. Thaler & Schlomo Bernartzi, *The Behavioral Economics of Retirement Savings Behavior* (AARP PUB. POLICY INST., Research Report No. 2007-02, 2007) *available at* http://assets.aarp.org/rgcenter/econ/2007_02_savings.pdf; Jack VanDerhei, *Increasing Default Deferral Rates in Automatic Enrollment 401(k) Plans: The Impact on Retirement Savings Success in Plans with Automatic Escalation*, 33(9) EMP. BENEFIT RESEARCH INST. NOTES 12, 13 (2012).

159. DIANE OAKLEY & KELLY KENNEALLY, PENSIONS AND RETIREMENT SECURITY 2013: A ROADMAP FOR POLICY MAKERS 13 (National Institute on Retirement Security, 2013) *available at* http://www.nirsonline.org/storage/nirs/documents/2013%20Opinion%20Study/final_2013restricted_opinion_research.pdf.

1. Coverage

A mandate on employers to offer a pension plan to most of their employees is probably the only way for the United States to join those countries with near-universal coverage of their workforces.[160] Australia has achieved its coverage rate of 90% with a mandate on employers to offer to enroll their employees in a fund—there is no obligation on employers to sponsor their own plan.[161] A mandate is not, however, politically feasible at present in the United States. Broader coverage can be achieved without an employer mandate by requiring that employers that do offer a plan make *participation* in it the default. Of course, even this watered-down requirement may deter some employers from sponsoring their own plan if the plan attracts employees whose participation is deemed to be costly.

The automatic IRA that has been proposed in the United States would be a relatively painless way of extending coverage.[162] The employees of employers who opt for the scheme would be automatically enrolled in a retirement savings plan unless they explicitly chose to opt out. Employers would simply act as a conduit for their employees' contributions. A small subsidy paid for by the federal government would defray the extra costs to employers of participating in the scheme.[163] California is taking a less voluntary approach: it recently enacted legislation that will require employers above a certain size who do not sponsor a plan of their own to provide their employees access to a fund to be managed by the California Public Employees' Retirement System (CALPERs).[164] Both the automatic IRA and the California Secure

160. To be sure, if universal coverage becomes the goal, the U.S. will probably need to move towards a mandatory pension system, as tax incentives and automatic enrollment are unlikely to lead to universal coverage. FORMAN, *supra* note 3, at 242; Choi et al., *supra* note 157; OECD, *supra* note 2, at 45.

161. Jonathan Barry Forman, *Optimal Distribution Rules for Defined Contribution Plans: What Can the United States and Australia Learn from Other Countries?*, N.Y. UNIV. REV. OF EMP. BENEFITS AND COMP. 3-1, 3-15 (2012).

162. Butrica, *supra* note 157, at 2.

163. Automatically reenrollment can also increase participation and savings. Kristen Heinzinger, *Guiding Hands: Reenrollment in QDIA helps plan diversification*, PLAN SPONSOR, Jan. 2013, at 15, *available at* http://www.plansponsor.com/MagazineArticle.aspx?id=6442491160; Vanguard Strategic Retirement Consulting, *Improving plan diversification through reenrollment in a QDIA* (Aug. 2012) *available at* https://institutional.vanguard.com/iam/pdf/RENPPR.pdf; Judy Ward, *Reinvigorating Enrollment*, PLAN SPONSOR, Sept. 2012, at 34, *available at* http://www.plansponsor.com/MagazineArticle.aspx?id=6442488926.

164. The California Secure Choice Retirement Savings Trust Act, 2011 CA S.B. 1234 (2012); ALETA SPRAGUE, THE CALIFORNIA SECURE CHOICE RETIREMENT SAVINGS PROGRAM (New America Foundation, April 2013), *available at* http://assets.newamerica.net/sites/newamerica.net/files/policydocs/CAretireme

Choice Retirement Savings Trust Act are designed to benefit the employees of small employers, whose participation rates in employer-sponsored plans have always been low.[165]

Reform may also need to address a feature of the American system that sets it apart from those of all other industrialized nations: coverage and nondiscrimination rules.[166] These rules are intended to ensure that coverage and the generosity of employer plans do not discriminate unduly against their lower-paid employees and in favor of their higher paid employees. However, these rules can be burdensome for small employers, and there is little evidence that they have led to increased benefits for non-highly compensated workers.[167] As long as employers above a certain size are not required to offer a plan to all their employees, these nondiscrimination rules, or a modified version of these rules, will have to remain in place. It might be possible to increase coverage by making the targets more ambitious, although such a step might lead to a decline in the number of plans offered.

2. *Sharing of Risk*

a. Savings Risk

Traditional pension plans and cash balance plans reduce the risk of under-saving by setting fixed contribution (or deemed contribution) rates, assuming these rates are set adequately high. The 401(k) plan does not do that. If a minimum contribution rate

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ntFinal4.26.13.pdf; Michael Hiltzik, *A Crucial Step Toward Retirement Security for the Working Class*, L.A. TIMES, Feb. 19, 2013, *available at* http://www.latimes.com/business/la-fi-hiltzik-20130219,0,1359955.column; Laura Mahoney, *California Governor Signs Bills to Create Pension Mandate for Private Employers*, 190 BNA DAILY TAX REPORT H-2, H-3 (2012); ROSS EISENBREY & MONIQUE MORRISSEY, CALIFORNIA RETIREMENT PLAN COULD SERVE AS A NATIONAL MODEL (Economic Policy Institute, Sep. 13, 2012) *available at* http://www.epi.org/publication/pm193-california-retirement-plan-national-model; Duane Thompson, *Solving a Retirement Crisis: It's as Simple as 123(4)*, FI360 BLOG (Dec. 12, 2012) *available at* http://blog.fi360.com/fi360_blog/2012/12/solving-a-retirement-crisis-its-as-simple-as-1234.html; National CONFERENCE OF STATE LEGISLATURES, STATE SPONSORED RETIREMENT SAVINGS PLANS FOR NON-PUBLIC EMPLOYEES, *available at* http://www.ncsl.org/issues-research/labor/state-sponsored-retirement-plans-for-nonpublic.aspx. (last visited Apr. 20, 2013).

165. *Supra* Table 1.

166. I.R.C. § 410(b) (2006); I.R.C. § 410 (a)(4) (2006).

167. *Nondiscrimination Rules and Declining Pension Participation: Cause and Effect?*, WATSON WYATT INSIDER, May 2001 *available at* http://www.watsonwyatt.com/us/pubs/insider/showarticle.asp?ArticleID=8277; Eric Toder & Karen E. Smith, *Do Low-income Workers Benefit from 401(k) Plans?*, (Boston College Center for Retirement Research, Working Paper No. 2011-14, 2011) *available at* http://crr.bc.edu/wp-content/uploads/2011/10/wp_2011-14_508-1.pdf; *see generally* Peter J. Brady, *Pension Nondiscrimination Rules and the Incentive to Cross Subsidize Employees*, 6(2) J. OF PENSION ECON. AND FINANCE 127 (2007).

is not feasible politically, then it might be possible to boost savings in 401(k) plans by having employer matching contributions apply only once employee contributions reach a certain level, which would create a threshold or a notch effect. The idea behind this proposal is that plan participants could be expected to save some minimum amount, like 3% of salary. The match could be greater than 100%, but it would not apply until employee contributions exceeded that stipulated threshold. Another possibility would be to promote the adoption of schemes like "Save More Tomorrow," where the employee commits to saving a specified part of any future salary increase.[168] Both schemes are entirely voluntary.

A third approach would be to replace the current system of tax deductions, which favors those with higher incomes, with a system of refundable tax credits. A tax credit system could be designed so that Americans with low incomes, who at present do not earn enough money to pay tax, or to pay tax at a rate high enough to make exclusions or deductions attractive, would receive a tax credit instead. A tax credit would better target incentives for contributing to IRAs and 401(k) plans, because it would favor low-income taxpayers with low participation rates.[169] The premise underlying this approach is that the reduction in tax relief for higher income households would not significantly reduce their saving.

b. Investment Risk

Investment risk has two components. The first, which applies when plan investments are self-directed, is the risk of ill-advised, rash, or excessively conservative investments. In principle, that risk can be addressed by pooling accounts for investment purposes and delegating the investment function to competent and honest professionals, although the possibility that a plan's investments as whole may be ill-advised should not be ruled out. A concerted effort to provide financial education might also help. The second could be called timing risk or simply bad luck, which means that the risk that the rate of return on a plan's investment is well below some norm for some time.[170]

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168. Richard H. Thaler & Shlomo Benartzi, *Save More Tomorrow™: Using Behavioral Economics to Increase Employee Saving*, 112(S1) J. OF POL. ECON. S164, S164 (2004).

169. WILLIAM G. GALE, DAVID C. JOHN & SPENCER SMITH, NEW WAYS TO PROMOTE RETIREMENT SAVINGS (AARP Research Report, 2012) *available at* http://www.aarp.org/content/dam/aarp/research/public_policy_institute/econ_sec/2012/new-ways-promote-retirement-saving-AARP-pp-econ-sec.pdf; *see generally* WILLIAM G. GALE, TAX REFORM OPTIONS: PROMOTING RETIREMENT SECURITY: HEARING BEFORE THE SENATE FINANCE COMMITTEE, 112th Cong. (2011), *available at* http://finance.senate.gov/imo/media/doc/Testimony%20of%20William%20Gale.pdf.

170. Timing risk also arises at the distribution stage. A rule to withdraw 4%

It is possible to share investment risk between the plan sponsor and plan participant, if a plan sponsor is unwilling or unable to bear all of it. This sharing of risk can be done in many ways. For example, one approach used in Switzerland is to set a minimum rate of return on the balances of participants of defined contribution or hybrid plans.[171] Another approach, which would reduce the average rate of return earned by plan participants, would be to set both a floor and a ceiling. The combination would serve a purpose similar to the "collar," or a combination of buying a put and selling a call that private investors use to mitigate fluctuations in the value of their portfolios.[172] Still another approach would be to tie the rate of return on contributions to a Treasury bond rate, as is often the practice of cash balance plans.[173] This practice will not eliminate risk, but it is likely to dampen the swings in account balances that can occur with 401(k) plans.

Investment risk can also be dampened by encouraging participants to choose asset allocations of moderate risk and a moderately high rate of return. For example, in recognition of the historically poor investment choices made by individual plan participants, the Pension Protection Act of 2006 amended ERISA section 404(c) to improve the default investments that are provided for workers who do not otherwise direct their own investments.[174] The new law encourages employers to replace their low-yield, stable-value bond funds with balanced funds (funds with an unchanging mix of stocks and bonds) and life-cycle funds

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of the balance in a retirement saving plan could lead to excessively rapid decumulation if the value of the plan plummets because of poorly performing financial markets. Webb, *supra* note 27 (noting that a 4% withdrawal rule can become a 6% or 8% withdrawal rule if stock markets collapse at the outset of retirement); Finke et al., *supra* note 11.

171. MONIKA BÜTLER & MARTIN RUESCH, ANNUITIES IN SWITZERLAND 14-15 (World Bank Policy Research Working Paper No. WPS4438, 2007) *available at* http://www-wds.worldbank.org/servlet/WDSContentServer/WDSP/IB/2007/12/12/000158349_20071212141747/Rendered/PDF/wps4438.pdf.

172. A put entitles its owner to sell a stock at a predetermined price. Owning a put is a kind of insurance against a drop in price. Selling a call places an upper bound on the stock's price, because the owner of the call may buy the stock at some predetermined price, and will elect to do so once the actual price moves above the predetermined one.

173. Mark L. Lofgren, *IRS Further Delays Interest Rules on Cash Balance Accounts*, EMP. BENEFIT NEWS, Sep. 28, 2012 *available at* http://ebn.benefitnews.com/news/irs-further-delays-interest-rules-cash-balance-accounts-2728070-1.html.

174. 29 U.S.C. § 1104(c)(5) (2006); ERISA § 404(c)(5) added by the Pension Protection Act of 2006 § 624(a); Olivia S. Mitchell, Gary R. Mottola, Stephen P. Utkus & Taxkeshi Yamaguchi, *The Dynamics of Lifecycle Investing in 401(k) Plans* 1 (Population Aging Research Center, PARC Working Paper No. 19, University of Pennsylvania, 2008) *available at* http://repository.upenn.edu/cgi/viewcontent.cgi?article=1018&context=parc_working_papers.

(funds, which gradually shift their investments from stocks towards bonds as workers age).[175]

Another possibility is risk-sharing across generations, which has been proposed by Senator Tom Harkin, the Chair of the U.S. Senate Committee on Health, Education, Labor, and Pensions.[176] For example, a sustained period of poor financial market performance would result in reductions in the benefit paid to those plan participants who had already retired so that benefits to *prospective* retirees could be higher than they otherwise would be.

When investments are self-directed, setting a minimum rate of return on a plan participant's portfolio creates a potential problem of moral hazard if the floor on the rate of return applies regardless of how aggressive the portfolio stance is. This problem can be addressed by having separate minimum rates of return for the equity and the fixed interest components of a participant's portfolio. This expedient would reduce the incentive to shift from bonds to stocks, but not the incentive to increase the share of growth or speculative stocks in the equity sub-portfolio. However, there may be practical problems with implementing this approach.

A key issue is whether all employers would be willing to bear part of a plan's investment risk in this way, and if they were not willing, what might be done about it. A rule requiring a minimum rate of return could make employers less willing to offer plans or, at least, reduce the range of mutual funds and other investments offered. Depending on its level, a guarantee of a minimum rate of return might never be triggered if plan participants' investment portfolios were sufficiently conservative.

c. Longevity Risk

As already noted, some Americans may have an adequate share of their wealth at retirement in the form of an annuity.

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175. 29 C.F.R. § 2550.404c-5 (2006); More specifically, the final regulation provides for four types of so-called "qualified default investment alternatives" (QDIAs). U.S. Department of Labor, Employee Benefits Security Administration, *Regulation Relating to Qualified Default Investment Alternatives in Participant-Directed Individual Account Plans* (Fact Sheet, April 2008) *available at* http://www.dol.gov/ebsa/pdf/fsQDIA.pdf; Joseph Masterson, *Target Date Funds: Ready, Fire, Aim*, 19(1) J. OF PENSION BENEFITS 3, 4 (2011).

176. Chairman Tom Harken, *The Retirement Crisis and a Plan to Solve It* (U.S. Senate Committee on Health, Education, Labor & Pensions, July 2012) *available at* http://www.harkin.senate.gov/documents/pdf/5011b69191eb4.pdf (proposing Universal, Secure, and Adaptable ["USA"] Retirement Funds); Hazel Bradford, *Harkin's retirement plan proposal is a hit*, PENSIONS & INV., Aug. 6, 2012, *available at* http://www.pionline.com/article/20120806/PRINTSUB/308069981# (proposing a new position on the matter); *but see* Editorial, *No need for new DC Plan*, PENSIONS & INV., Nov. 26, 2012 *available at* http://www.pionline.com/article/20121126/PRINTSUB/311269995 (taking the position that a new plan is unnecessary).

However, the decline of the traditional pension and the growing dominance of the 401(k) plan, whose balances are normally not annuitized at retirement, have increased longevity risk for middle-income earners. Although an increasing number of 401(k) plans now have an in-plan option for a life annuity, such options remain comparatively rare.[177] As the balances in 401(k) plans grow, more and more middle-income Americans will retire with substantial liquid assets that they would not have had if they had been participants in defined benefit plans. Using just a part of these assets to buy a life annuity would not leave them dangerously illiquid. According to one recent study, 89% of plan participants would like their plans to provide them lifetime income options, and 85% like the idea of a fund that automatically converts savings into a guaranteed income stream at retirement.[178]

For those older Americans who need or want more annuitization of their wealth than delaying receipt of their Social Security benefits can provide,[179] there are ways to encourage more plan sponsors to offer annuities, and to encourage more plan participants to elect annuity payouts. One approach would be for the government to require retirees to purchase annuities or similar lifetime income guarantees.[180] Alternatively, the government might just want to take steps to encourage annuitization. For example, the government could require plan sponsors to make annuity options available to plan participants as they near retirement.[181] The government might even want to

177. *Supra* note 50.

178. INSURED RETIREMENT INSTITUTE, GUARANTEED LIFETIME INCOME OPTIONS WITHIN EMPLOYMENT-BASED PLANS 2, 5 (2013) *available at* https://avectra.myirionline.org/eweb/uploads/Guaranteed%20Lifetime%20Income%20Options%20within%20Employment-Based%20Plans.pdf; BLACK ROCK, ANNUAL RETIREMENT SURVEY: WHAT RETIREES HAVE TO TELL US ABOUT THE NEW WORLD OF RETIREMENT 5 (2012) *available at* https://www2.blackrock.com/webcore/litService/search/getDocument.seam?venue=FP_GENERIC&ServiceName=PublicServiceView&ContentID=1111170786.

179. The higher a person's working income, the less would be the replacement rate that even delaying the Social Security benefit would make possible.

180. MACKENZIE, *supra* note 86, at 191-200; Jeffrey R. Brown, *Automatic Lifetime Income as a Path to Retirement Income Security* (American Council of Life Insurers, White Paper, September 2009) *available at* http://www.wiserwomen.org/pdf_files/Brown,%20Retirement%20Income%20Security.pdf; Pamela Perun, *Retirement Savings: Confronting the Challenge of Longevity* (The Aspen Institute Initiative on Financial Security, 2010) *available at* http://www.aspeninstitute.org/sites/default/files/content/docs/pubs/ConfrontingLongevity_AspenIFS.pdf; FORMAN, *supra* note 3, at 238-239.

181. U.S. GOVERNMENT 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 178, 199-

require plans to default participants into annuities or trial annuities, unless plan participants affirmatively elect otherwise.[182] Given the concerns of many employers over plan-related litigation, it might be necessary to enact a safe harbor provision so that plan sponsors observing due diligence in selecting an annuity provider would not be exposed to liability. Larger plans might want to offer their own annuities, or arrange for group annuity rates through a broker. Larger plans could also be required to provide information on annuities.

Even when a participant of a defined contribution plan is offered an annuity and is able to make a knowledgeable decision about the share of her wealth at retirement to be annuitized, the issues of interest rate risk and aggregate longevity risk will arise. Low interest rates at the time when an annuity is purchased mean high premiums, as do increases in life expectancies and increased uncertainty over the average life expectancies of particular age cohorts. Staggering the purchase of annuities as retirement approaches is not an effective way of dealing with interest rate risk. One possible solution is the in-service annuity, where contributions to a 401(k) plan buy small deferred annuities that will only begin paying at retirement.[183] This means that the income that will be generated at retirement will reflect interest rates over a long period; this reduces the risk entailed by buying one or perhaps a few annuities at or during the run-up to retirement.

Various solutions are available to deal with aggregate longevity risk, which cannot be disposed of merely by increasing the size of the pool of annuitants. A fledging market already exists in Europe for longevity bonds whose coupon payment increases when the longevity of a targeted population exceeds a certain benchmark.[184] These instruments can be acquired by any

200 (Annamaria Lusardi, ed., 2008).

182. U.S. GOVERNMENT ACCOUNTABILITY OFFICE, *supra* note 181, at 39-40; MACKENZIE, *supra* note 86, at 200-203; *see* J. Mark Iwry & John A. Turner, *Automatic Annuitization: New Behavioral Strategies for Expanding Lifetime Income* (Retirement Security 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); *see* WILLIAM G. GALE, J. MARK IWRY, DAVID C. JOHN & LINA WALKER, INCREASING ANNUITIZATION IN 401(K) PLANS WITH AUTOMATIC TRIAL INCOME 16 (Retirement Security 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).

183. Brown, *supra* note 180; MACKENZIE, *supra* note 86, at 195-200.

184. DAVID BLAKE, TOM BOARDMAN & ANDREW CAIRNS, SHARING LONGEVITY RISK: WHY GOVERNMENTS SHOULD ISSUE LONGEVITY BONDS 5 (The Pensions Institute, Discussion Paper No. PI-1002, 2012) *available at* http://pensions-institute.org/workingpapers/wp1002.pdf; DAVID BLAKE, TOM

institution confronting longevity risks. A market in derivatives whose values respond in the same way has also emerged. Aggregate longevity risk can also be shared between plan sponsors and plan participants, or it can be borne entirely by the participants.

Government and plan sponsors should probably also do more to encourage workers to stay "on the job" longer. In that regard, Table 4 shows estimates of how average annuity income can increase from working longer.[185] For example, working just one more year can increase annual income 9% overall and by as much as 16% for low-income workers. The savings available to buy an annuity increase, and its premium declines.

TABLE 4. INCREASE IN AVERAGE ANNUITY INCOME FROM WORKING LONGER (PERCENT)

Lifetime Earnings Quintile	*Increase from Working One More Year*	*Increase from Working Five More Years*
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) *available at* http://www.urban.org/UploadedPDF/311333_good_retirement.pdf.

d. Complexity/Transparency

When complexity is assessed separately from the plan sponsor's as well as the employee's point of view, the trade-off between the two becomes apparent. From the plan sponsor's point of view, the 401(k) plan is less complex than the traditional pension, because the 401(k) plan effectively leaves the choice of contribution rate, the investment function, and the management of

BOARDMAN & ANDREW CAIRNS, THE CASE FOR LONGEVITY BONDS 2 (Boston College Center for Retirement Research, Issue in Brief 10-10, 2010) *available at* http://crr.bc.edu/wp-content/uploads/2010/06/IB_10-10-508.pdf; PABLO ANTOLIN & HANS BLOMMESTEIN, GOVERNMENTS AND THE MARKET FOR LONGEVITY-INDEXED BONDS 7 (OECD Working Papers on Insurance and Private Pensions No. 4, 2007) *available at* http://www.oecd.org/insurance/insurance/37977290.pdf; *see generally* JEFFREY R. BROWN & PETER R. ORSZAG, THE POLITICAL ECONOMY OF GOVERNMENT ISSUED LONGEVITY BONDS (2006) *available at* http://www.investmentnews.com/assets/docs/CI15770330.PDF.

185. 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) *available at* http://www.urban.org/UploadedPDF/311333_good_retirement.pdf.

the distribution phase to the plan participant. This difference in complexity is reflected in the available estimates of the relative cost of administering the two plans; the traditional pension is more costly to administer than the 401(k) plan.[186]

Standard analyses of the defined contribution and defined benefit plan divide have addressed the issue of the allocation of risk between sponsor and participant. However, as noted, a plan's complexity can also be distributed in different ways between sponsor and participant. Whatever the ability of participants to bear investment or longevity risk, a 401(k) plan effectively places more of the administrative burden entailed by the investment and distribution functions on plan participants. Plan participants become responsible for educating themselves about investing, and for making choices among competing investments. Similarly, they must decide on the form of distribution they would prefer.

If the defined benefit plan cannot be resurrected, perhaps steps could be taken to lighten the burden of complexity placed on defined contribution plan participants. One such step would be to have more effective financial education, which would probably have to be provided by the plan sponsors themselves. Another possibility would be to place greater reliance on default settings for investment choices. For example, automatically defaulting plan participants into target date funds could help overcome the inertia that prevents many of those participants from reducing their investments in stocks and other risky assets as they age.[187] Yet another step would be to promote defined contribution plan funds where investment decisions are made by the plan sponsor.

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186. It generally costs more to administer defined benefit plans than defined contribution plans, for example, because of the need to hire actuaries and pay guaranteed annuities. Hazel Bateman & Olivia S. Mitchell, *New Evidence on Pension Plan Design and Administrative Expenses: The Australian Experience*, 3(1) J. OF PENSION ECON. AND FINANCE 63, 68 (2004); Sean Collins, *The Expenses of Defined Benefit Plans and Mutual Funds*, 9(6) INV. CO. INST. PERSP. (2003) *available at* http://www.iciglobal.org/pdf/per09-06.pdf. For example, one study found that, in 1996, the costs for administering defined benefit plans ranged from 3.10% of pay for the smallest plan in the study to 0.23% of pay for the largest plan, while costs for defined contribution plans ranged from 1.44% of pay for the smallest plan to 0.16% of pay for the largest plan. Edwin C. Hustead, TRENDS IN RETIREMENT INCOME PLAN ADMINISTRATIVE EXPENSES, IN LIVING WITH DEFINED CONTRIBUTION PENSIONS: REMAKING RESPONSIBILITY FOR RETIREMENT 166, 170 (Olivia S. Mitchell & Sylvester J. Schieber, eds., 1998).

187. A target date fund is a fund where the exposure to be risky assets is automatically a gradually reduced over time. Thus, a fund aimed at 35 year-old investors might have an asset allocation of 85% in stocks and 15% in bonds. It could be designed to reduce the share of stocks and increase that bond investment by 1.5% each year, so that by the time the investor reaches 65, the share of stocks will fall to 40%, and the share of bonds will rise to 60%.

V. CONCLUSION

Reform of the second tier of the American retirement system should be a priority. Yet, given both the political and economic environment, reform is likely to be piecemeal, and only partially successful in its aims. The approach of public policy to enhancing retirement security in the United States has to be opportunistic. There is no grand scheme, however well designed, that could become law in the current environment. There are ways in which both coverage and retirement saving can be increased, and there are ways to increase the popularity of annuities and other lifetime income products, but the gains on these fronts will be incremental.

Coverage can be increased, but universal or near-universal coverage is not a realistic aim at the moment. The issue is not one of technical feasibility, as demonstrated by the success of Australia's nearly universal pension system. Most American employees work for employers with 100 or more employees, and the administrative burden of enrolling employees in a plan can be reduced by making the employer a conduit for contributions to a retirement savings plan of some kind, just as the employer now is for Social Security. The automatic IRA proposal depends on making the employer's role as a conduit as painless as possible. Even if near universal coverage cannot be achieved, the combination of an automatic IRA program and the right default settings could increase the rate of coverage substantially.

Coverage is one thing; an adequate saving rate is another. The flexibility of 401(k) plans and IRAs is both a strength and a weakness. In principle, the law could be amended to stipulate a minimum contribution rate. The simplest form this could take would be a fixed rate up to some threshold salary level, but there are many other possibilities.[188] The difficulty that arises with this approach is that it could simultaneously encourage saving by some but discourage it by others. If there is no requirement to participate in a plan, as is currently the case, some employees will simply opt out. This undesirable response is a good illustration of what happens when the scope of policy is limited: make a pension plan more costly or expensive without requiring that it be offered, and the result may be fewer pension plans or plans with more restrictions.

More generally, any increase in the regulation of pension plans for social purposes while plan sponsors are free to terminate their plans can backfire. Other, less direct, methods of encouraging saving, like shifting to a tax credit system, might increase saving among lower- paid workers by more than it

188. *See supra* note 80 (explaining that a less demanding approach might involve toughening the nondiscrimination rules, for example, by raising the safe harbor required contribution rate from 3% or 5% and by raising the safe harbor matching contribution rates).

reduces it among the highly–paid workers. The further growth of cash balance plans, where participation is a condition of employment, would achieve the same end because their contribution rate is fixed. Whether public policy can stimulate the growth of these plans is uncertain.

More and more 401(k) plans are offering what has come to be known as a lifetime income solution—that is, some type of annuity, or a guaranteed minimum withdrawal benefit. A measure like a trial annuity, which is intended to defeat the inhibitions that most people display toward annuities, could help increase the take-up of annuities and similar products. As mentioned, the Internal Revenue Service and the U.S. Department of Labor's Employee Benefits Security Administration recently requested comments about annuitization and other lifetime income options.[189] There was a large response, not simply from financial institutions, academics or interested nonprofits like AARP, but also from individuals.[190] The overwhelming message of the last group was that the government should keep its hands off of 401(k) plans and not make them offer annuities or other lifetime income products. The financial industry was more restrained and measured in its comments, but its position was much the same: the financial industry would prefer if the markets for lifetime income products developed in response to changes in the demand for lifetime income products, and not as the result of a government fiat. As this article goes to press, no laws have been enacted, and no regulations have been promulgated to mandate lifetime income products, although the Treasury has proposed regulations that would encourage annuitization.[191] Financial institutions have introduced a variety of new products that could help boost annuitization, and notably what has come to be known as longevity insurance.[192] So far, the response from employees and employers has been tepid, but that may change.

These proposals and suggestions may strike the reader as limited, and they are limited. Nonetheless, and even in the absence of a mandate for sweeping reform, they could help broaden coverage, increase saving, and help ensure that retirement savings will generate a lifetime of retirement income.

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189. *Supra* note 125.

190. U.S. Department of Labor, *Employee Benefits Security Administration, Lifetime Income Options For Participants And Beneficiaries In Retirement Plans, available at* http://www.dol.gov/ebsa/regs/cmt-1210-AB33.html (last viewed Feb. 27, 2013).

191. TREASURY FACT SHEET, *supra* note 126.

192. FORMAN, *supra* note 161, at 3-21—3-31.