



Are U.S. Workers Ready for Retirement?

Trends in Plan Sponsorship, Participation, and Preparedness

Joelle Saad-Lessler, Teresa Ghilarducci, and Kate Bahn

**SCHWARTZ CENTER FOR
ECONOMIC POLICY ANALYSIS
THE NEW SCHOOL**

OVERVIEW

For a secure retirement, workers need Social Security as well as retirement savings to supplement Social Security. Employer-sponsored retirement plans provide the best vehicle for retirement savings because they provide a practical and efficient way for workers to save consistently. However, almost half of Americans who were working in 2011 were not offered a retirement account at work.

- Between 1999 and 2011, the availability of employer-sponsored retirement plans in the United States declined by eight percentage points, from 61 percent to 53 percent.

The decline in the number of U.S. employers offering a retirement plan (the sponsorship rate) affects workers differently depending on the industry they work in, the size of their firm and whether or not they are in a union. While all workers experienced a drop in sponsorship rates, some workers suffered deeper cuts than others.

- Workers covered by a union contract had a decrease in retirement plan sponsorship of 6 percent, while workers who were not covered by a union contract had a decrease in sponsorship of 13 percent.

Participation in an employer-sponsored retirement plan depends on whether a person is working, whether their employer offers a plan and then if the employee chooses to participate.

- In 2011, 68 percent of the working age population (25-64) in the U.S. did not participate in an employer-sponsored retirement plan because their employer did not offer one, they did not participate¹ or were not working.

Even when workers have access to and participate in a retirement plan at work, the amounts saved through employer-sponsored defined contribution (DC) retirement plans are inadequate to maintain their standard of living in retirement. In fact, individuals with a DC retirement plan are only slightly better off than those without a retirement plan from the point of view of being able to maintain their lifestyle in retirement. In other words, with the exception of those with access to a defined benefit (DB) plan at work, most U.S. workers will find themselves realizing low income replacement rates despite their best efforts to save for retirement.

- 55 percent of households in which the head of the household is near retirement age (55-64 years old) will have to subsist almost entirely on Social Security income or will not be able to retire at all due to negligible savings.²

Though it is tempting to blame households' lack of preparedness for retirement on the Great Recession or human beings' flawed financial decisions, there are larger, structural reasons why workers don't have enough retirement security. Not enough people have retirement coverage at work and even when they do, the amounts saved through employer-sponsored accounts are often inadequate to ensure a decent quality of life in retirement.

This paints a bleak picture of the future of retirement income security in the United States, and it has immediate implications for the financial preparedness of U.S. residents nearing retirement.

The first section of this report looks at the decline in sponsorship of retirement plans by employers in the United States.

The second section analyzes the rate of participation in employer-sponsored retirement plans. The third section examines if the group nearest retirement (55- 64 years old) is financially prepared for post-work life. The technical appendix lays out the report's methodology in detail.

Both the first and second sections rely on 2000 and 2012 data from the Current Population Survey (CPS), a joint program administered by the Census Bureau and the Bureau of Labor Statistics.³ The third section uses data from the 10th and 11th waves of the 2008 panel of the Survey of Income and Program Participation (SIPP).⁴

The report findings suggest the decline in employer sponsorship of retirement plans and the shift away from traditional pensions (defined benefit plans) and toward 401(k)-type defined contribution plans are jeopardizing the retirement income security of U.S. residents. This will result in a greater number of workers experiencing a dramatic drop in living standards as they age.

SECTION ONE: RETIREMENT PLAN SPONSORSHIP

Employers have traditionally played an integral role in the U.S. retirement system. They have the opportunity to contribute to their employees' retirement plans as part of a benefits package designed to attract and keep quality workers, bolster workers' assets and ease the burden of saving for retirement.

An employer who chooses to sponsor a retirement plan first decides whether to offer a defined benefit (DB) and/or defined contribution (DC) retirement plan. A DB plan uses a formula that credits every year of service with a certain percentage of pay to determine lifetime pension benefits. The employer invests the assets and guarantees the pension, and the worker pays for the DB plan with reduced take-home earnings.

With DC plans, mostly 401(k)s, the employer

provides access to a tax-advantaged savings account that employees can contribute to on a voluntary basis. The worker, not the employer, is in charge of investing the assets. Employers may contribute to a DC plan, though the level of contribution can vary from year to year and employers are not required to contribute.

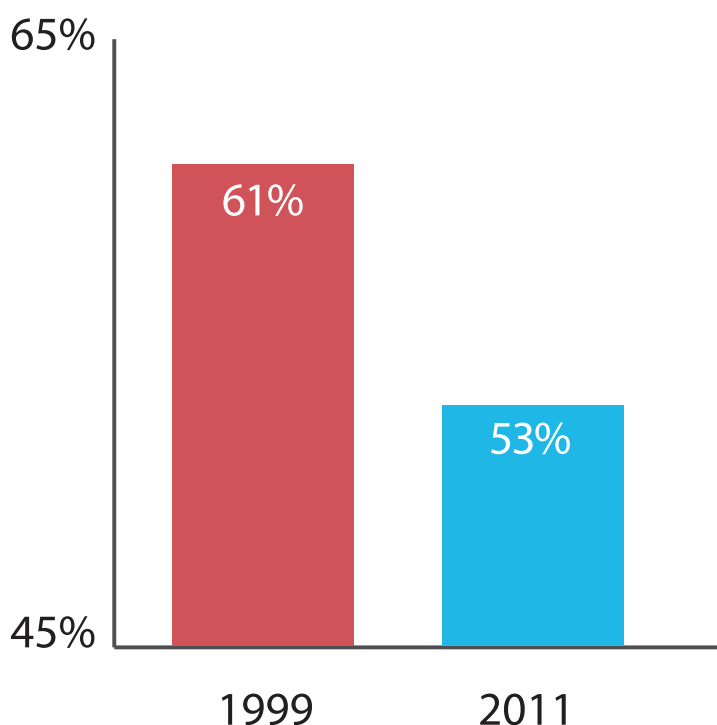
This employer-sponsored system of retirement savings was an effective way for individuals to save for retirement in the past because compensation devoted to building retirement assets was automatically deducted from an employee's paycheck. However, employer sponsorship of retirement plans is eroding over time, and the types of plans offered to employees are increasingly DC plans where employers are not required to contribute.

Employer Sponsorship of Retirement Plans in the U.S. is Declining

This report uses the Current Population Survey (CPS) to analyze employer sponsorship of retirement plans. The CPS asked U.S. residents who worked in the previous calendar year⁵ about their retirement plan coverage and participation.⁶ Responses to these questions were used to examine sponsorship levels for residents aged 25-64. The CPS data reveal that U.S. workers' access

to employer-sponsored retirement plans fell by eight percentage points from 1999 to 2011, signifying an overall downward trend in retirement security for U.S. residents (see Figure 1). As of 2011, only 53 percent of employed U.S. residents aged 25-64 worked for an employer who offered access to a retirement savings plan (DB and/or DC plans).

Figure 1:
Employer-Based Retirement Plan Sponsorship Rates Decline



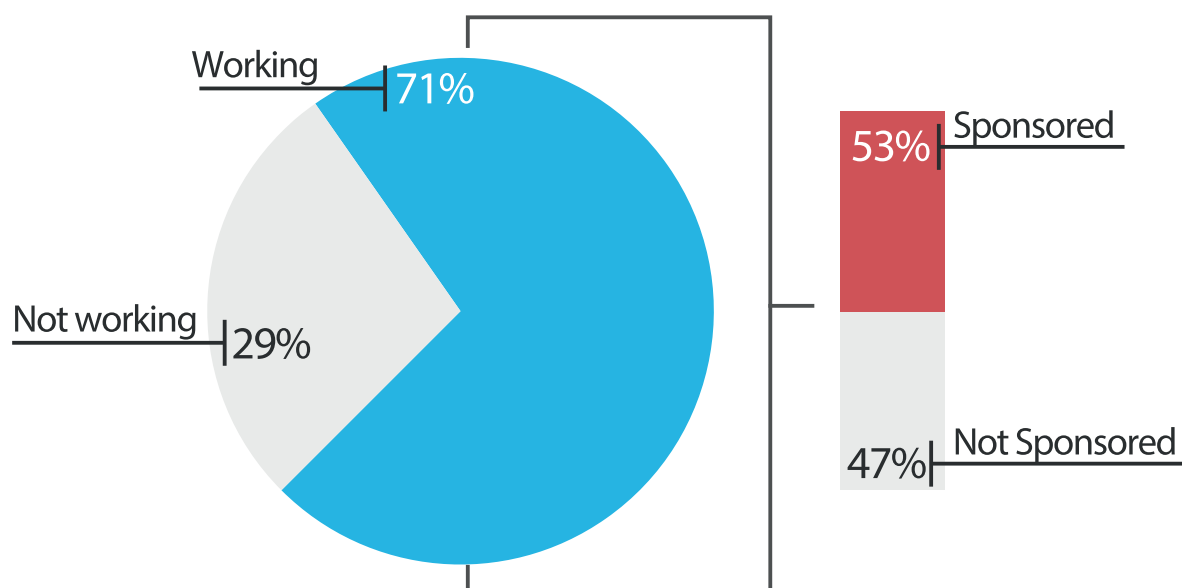
Source: Current Population Survey, March Supplement, 2000 and 2012. Sample is limited to persons aged 25-64 who worked at some point in the last calendar year. Percentages in chart are rounded.

A Note on Under-Reporting of Sponsorship Rates

The CPS asks respondents about their access to employer-sponsored retirement plans based on their job in the previous calendar year. Therefore, respondents who did not work in 2011, or 29 percent of the U.S. population aged 25-64,⁷ were not asked

about their retirement plan status. Since those who did not work did not have access to an employer-sponsored plan, the sponsorship rates in this report overstate the rate of sponsorship for the working-age population at any given point in time.

Figure 2:
Employment Status and Sponsorship Rates for U.S. Residents, 2011



Source: Current Population Survey, March Supplement 2011 and 2012. Sample is limited to persons aged 25-64 who worked at some point in the last calendar year. Percentages in chart are rounded. Employment status refers to the preceding week, and is computed from the data in 2012, whereas sponsorship rates are computed for job held the previous year in 2011, from 2012 data.

Analyzing the Downward Trend in Employer Sponsorship

06

As noted in Figure 1, sponsorship rates in the U.S. fell from 61 percent in 1999 to 53 percent in 2011. However, the decline in retirement plan sponsorship was not identical across social and economic groups, as illustrated in Table 1.

While trends show sponsorship rates falling for workers in almost all social and economic categories, non-citizens suffered a 22 percent decline in sponsorship, compared with citizens whose sponsorship fell 11 percent. Middle age workers (45 to 54) had a 15 percent drop in sponsorship, and younger workers (25 to 44) experienced a similarly significant decline of 14 percent. This suggests that the downward trend will continue as the population ages. A breakdown by race reveals that Hispanic workers lost the most ground, with a 19 percent decline in sponsorship rates, a significant fact considering they already had the lowest sponsorship rates.

Retirement plan sponsorship trends also varied across industries. The biggest decline was for workers in Personal Services with a 20 percent decrease in sponsorship rates, a decrease within this industry from 30 to 24 percent. The next biggest decline was in Entertainment and Recreation Services, where workers suffered a 17 percent decline in

retirement plan sponsorship rates.

Self-employed workers may establish retirement plans for themselves, their spouses and other employees through several provisions of the federal tax code. Among those options are the “Solo 401(k),” the simplified employee pension plan (SEP) and the SIMPLE-IRA. Still, sponsorship rates for the self-employed remained among the lowest of all workers. In 1999, only 18 percent of self-employed workers in the U.S. had a sponsored plan, and that rate fell by 28 percent in 2011.

Decreasing sponsorship also varied by firm size. Mid-sized firms (25-499 employees) showed the biggest proportional drop in sponsorship of 13 percent. Firms of all other sizes also experienced extensive drops in sponsorship rates. The smallest firms with 1-24 employees had the lowest sponsorship levels (25 percent in 1999 and 23 percent in 2011).

Finally, unionized⁸ workers in the U.S. experienced a 6 percent decline in their rates of retirement plan sponsorship, while their non-unionized counterparts suffered a 13 percent drop, more than double the decline. Union members also had the highest rates of sponsorship at 82 percent in 2011.

Table 1:
Retirement Plan Sponsorship Rates by
Social and Personal Worker Characteristics
in the U.S.

Source: Current Population Survey, March Supplement 2000 and 2012. Percentages in chart are rounded. See the technical appendix for a full review of U.S. demographic characteristics.

		1999	2011	% Change
Gender	Total Sponsored	61%	53%	-13%
	Male	61%	52%	-15%
	Female	61%	54%	-11%
Age	25-44	66%	57%	-14%
	45-54	65%	55%	-15%
	55-64	59%	56%	-05%
Race	White	69%	63%	-09%
	Black	64%	58%	-09%
	Asian	56%	49%	-13%
	Hispanic	42%	34%	-19%
Firm Size	1-24 Employees	25%	23%	-08%
	25-99 Employees	55%	48%	-13%
	100-499 Employees	70%	61%	-13%
	500-999 Employees	77%	69%	-10%
	1000+ Employees	83%	74%	-11%
Citizenship	Citizen	63%	56%	-11%
	Non-Citizen	36%	28%	-22%
Worker Classification	Self-Employed	18%	13%	-28%
	Private Sector Wage/Salaried	61%	52%	-15%
	Public Sector	88%	82%	-07%
Industry	Construction	41%	35%	-15%
	Manufacturing	73%	62%	-15%
	Transport, Communications, Utilities	70%	59%	-16%
	Wholesale & Retail Trade	50%	42%	-16%
	Finance, Insurance, Real Estate	69%	60%	-13%
	Business & Repair Services	49%	43%	-12%
	Personal Services	30%	24%	20%
	Entertainment & Recreation Services	54%	45%	-17%
	Professional Services	71%	62%	-13%
	Public Administration	88%	83%	-06%
Union Status	Covered by union contract	87%	82%	-06%
	Not Covered by union contract	64%	56%	-13%

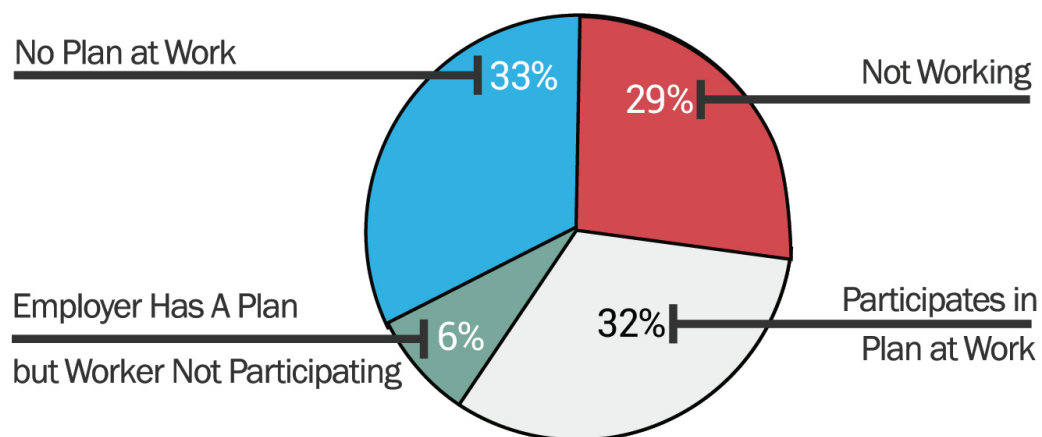
SECTION TWO: EMPLOYEE PARTICIPATION RATES

08

Even if an employer sponsors a retirement plan, participation in the plan is not guaranteed. An employer is permitted under the law to exclude employees from participating in their retirement plan if the employee has less than one year of service, works part-time or is younger than 25.⁹ Moreover, the structural differences between DB and DC plans impact employee participation. In a public employee DB plan, worker participation is usually mandatory, guaranteeing that each worker has a retirement account. In contrast, under a DC plan, workers choose if they want to participate in the retirement plan.

Figure 3 summarizes participation rates for the working-age population (25-64) in 2011 using data from the CPS.¹⁰ As noted before, 71 percent of the population was working in 2011 and 53 percent of those workers were offered a retirement plan at work. Of the 53 percent of workers whose employers offered a retirement plan in 2011, 85 percent participated in the plan. This means only 32 percent ($.71 * .53 * .85$) of U.S. workers participated in an employer-sponsored retirement plan in 2011. Put another way, more than two thirds (68 percent) of the working-age population did not participate in an employer-sponsored retirement plan because they were not sponsored, did not participate or were not working.

Figure 3: Sponsorship and Participation Rates for U.S. Workers, 2011



Source: 2012 Current Population Survey, March Supplement. Sample is limited to U.S. residents aged 25-64.

Notes: Not working includes adults in the U.S. population who are not employed either because they are unemployed or are not in the labor force because they are discouraged from looking for work, are disabled, are going to school, or maintaining a household. Participates in a plan at work includes workers where the employer offers a plan and the employee is eligible to participate and in the case of a DC plans elects to join. Employer has a plan but worker is not participating includes individuals who work for an employer that offers a plan but the worker either does not qualify or has elected not to participate. No plan at work includes workers employed by a firm that does not sponsor a pension plan.

A Note on Different Data Sources: SIPP vs. SCF

The CPS data does not identify the type of plan in which workers are enrolled. For that information we turn to the Survey of Income Program Participation.

While other reports on retirement often use data on plan type from the Survey of Consumer Finances (SCF), we use the Survey of Income and Program Participation (SIPP). The SCF and the SIPP both gather financial and demographic data on households in the U.S.

However, the SCF is a national survey without state level information. The SIPP, on the other hand, has state level information that can be used to evaluate retirement income security for the 20 largest states in the nation. We use the SIPP data in this national report in order to develop a baseline analysis to which we can later compare the states. Moreover, we construct poverty projections for the twenty largest states to evaluate how retirement readiness varies across the U.S.

Distribution of Retirement Plan Types

The SIPP estimates that between August 2011 and March 2012 there were 69,450,882 workers in the U.S. ages 25-64 whose employers sponsored a retirement plan - that comprises 62 percent of workers.¹¹ Of these workers, sixteen percent had a DB plan as their primary retirement plan and 63 percent had a DC plan as their primary retirement plan. 13,743,761, or 20 percent, of U.S. workers whose employer-sponsored a retirement account were not included in any plan at work (see Figure 4).

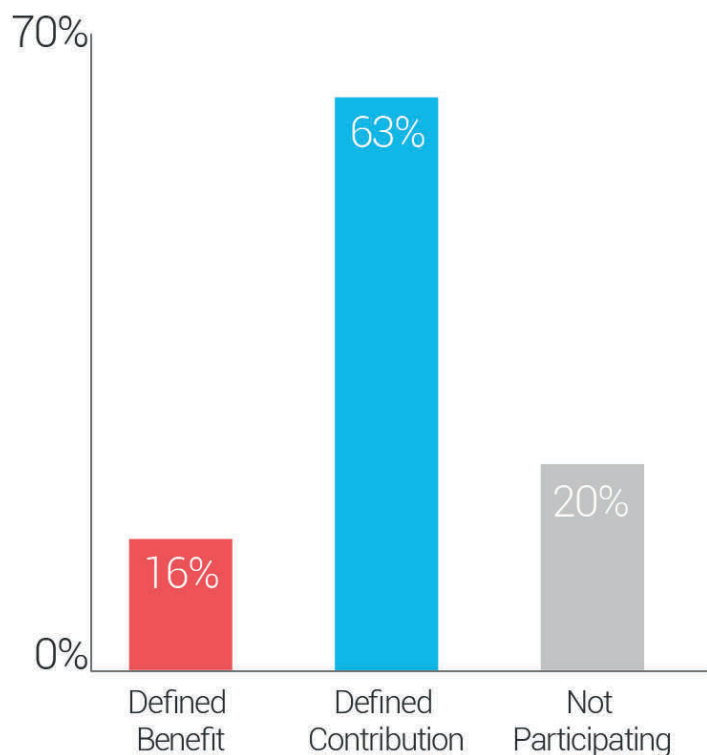
Retirement Plan Type: DB vs. DC

The type of retirement plan that is available has an important impact on the likelihood of participating in the plan, and thereby on the probability of having adequate retirement savings. Therefore, we analyze which workers have access to a DB plan at work and which workers are offered a DC plan. A tabulation of DB/DC plan sponsorship by a worker's social, personal, and economic characteristics is available in the technical appendix.

It reveals that the classification of workers is the most important determinant of DB plan type availability. Specifically, government workers are much more likely to have access to a DB plan at work.

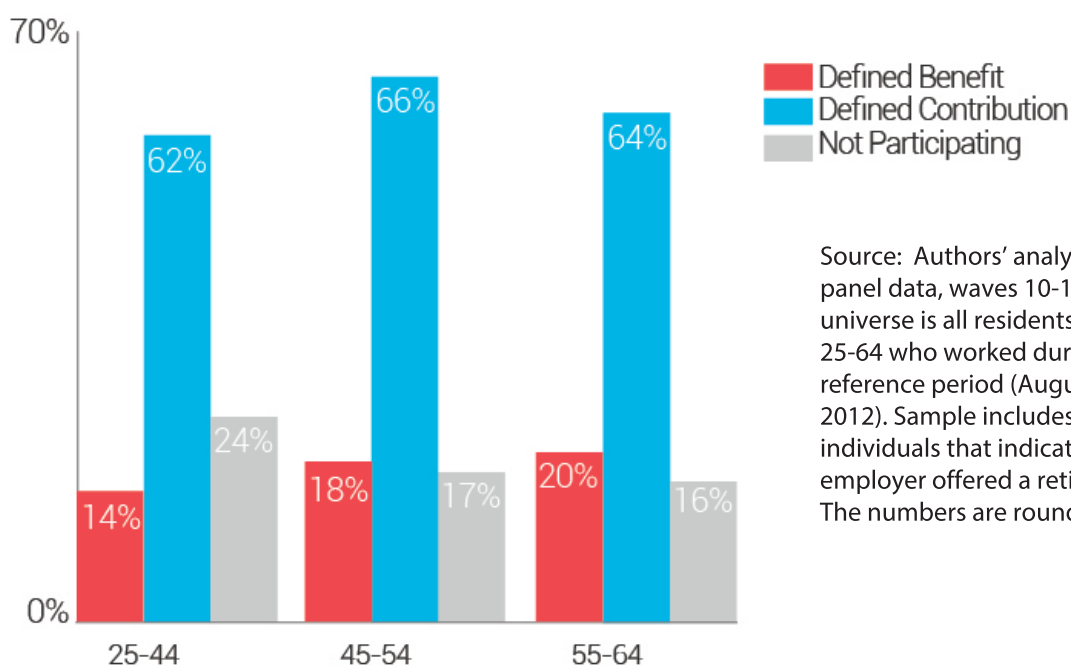
Younger workers are more likely to be offered a DC plan at work, rather than a DB plan. Figure 5 shows that younger workers aged 25 to 44 have the lowest rate of DB participation, with a 14 percent participation rate, and the rates of DB participation are higher in each subsequent age group. Younger workers are also more likely to not participate in a retirement plan at work. Twenty-four percent of workers aged 25 to 44 do not participate in the retirement plan at their current employer, compared with 17 percent of workers 45 to 54 and 16 percent of workers 55 to 64. These statistics illustrate the movement away from DB plans and toward DC plans or no plan at all in the private sector as the population ages.

Figure 4: Workers with Access to an Employer-Sponsored Plan



Source: Authors' analysis of SIPP 2008 panel data, waves 10-11. Data universe is all residents of U.S. aged 25-64 who worked during the reference period (August 2011-March 2012). Sample includes only individuals that indicated their employer offered a retirement plan. The numbers are rounded.

Figure 5: Plan Participation by Age for Workers with Access to an Employer-Sponsored Plan



Source: Authors' analysis of SIPP 2008 panel data, waves 10-11. Data universe is all residents of U.S. aged 25-64 who worked during the reference period (August 2011-March 2012). Sample includes only individuals that indicated their employer offered a retirement plan. The numbers are rounded.

SECTION THREE: WHAT THE FUTURE HOLDS FOR THOSE NEAR RETIREMENT AGE

Retirement plans provide only one source of income in retirement. A complete evaluation of U.S. residents' readiness for retirement must take into account income from all sources.

The SIPP data offer a comprehensive list of respondents' financial assets, including the value of their bank accounts, bonds and securities, savings bonds, stocks and mutual funds, life insurance policies, IRA/KEOGH accounts, DC accounts, real estate holdings, home equity and business equity. SIPP data also take into account total debt owed. This data allow us to compute a household's total net worth and analyze retirement preparedness based on household assets. These estimates do not factor in the present cash value of projected Social Security or DB pension benefits.

For the purposes of the present discussion, only the financial preparedness of near-retirement households in the U.S. (those aged 55-64) is considered. Since younger

households have more time to accumulate savings for retirement, their current net worth may or may not reflect the level of preparedness they will have when they reach retirement.

According to the SIPP, the average net worth of near-retirement households residing in the U.S. is \$183,272 for single person households, \$500,380 for married couple households, and \$191,189 for other household types (see Table 2). This average net worth can be converted to a cash income stream of approximately \$11,532 per year for single person households, \$26,556 for married couple households, and only \$12,306 for other household types.¹²

However, net worth among the near-retirement population is highly concentrated. Average net worth numbers are high because the few households with very high net worth bring up the average.

13 Table 2: Household Net Worth by Household Type, 2011

		<u>Single Person</u>	<u>Married Couple</u>	<u>Other Households*</u>
Ages 55-64	Average	\$183,272	\$500,380	\$191,189
	Median	\$60,700	\$325,300	\$77,000

Source: 2008 Survey of Income and Program Participation (SIPP) Panel, waves 10 and 11. *Consists of non-married couple households with more than one member, or households with the reference person living with a parent. Calculation of household net worth excludes the net worth of children, other relatives, or non-relatives who reside in the household, but does include net worth of parents and unmarried partners who reside in the household. The data on net worth comes from wave 10 data, which were fielded from August –November 2011. Sample is limited to households where the head is age 55-64.

Median asset values listed in Table 2 provide more relevant numbers. The cash income stream realized from annuitizing the median net worth of the same households yields only \$3,816 per year for single person households, \$17,268 for married couple households, and \$4,848 for other household types. This income would be in addition to any defined benefit pension and/or Social Security benefits,¹³ if household members were eligible for such payments.¹⁴ Table 3 below further tabulates net worth by income distribution. Based on these numbers, we see that net worth is concentrated at the top.

Married households in the bottom 50 percent of the income distribution have accumulated only \$135,300 in median net worth, single person households have \$32,950 in median net worth, and other households have \$38,000 in median net worth. These median net worth statistics may be converted into a yearly annuity worth \$7,176 for married households, \$2,076 for single households, and \$2,388 for other households. In other words, a substantial fraction of the near-retirement population has not accumulated enough net worth to supplement Social Security and guarantee adequate retirement income.

Table 3: Median Net Worth by Household Income Distribution

		<u>Single Person</u>	<u>Married Couple</u>	<u>Other Households*</u>
Ages 55-64	Bottom 50%	\$32,950	\$135,300	\$38,000
	Middle 40%	\$230,000	\$365,000	\$140,000
	Top 10%	\$745,500	\$435,500	\$515,000

Source: 2008 Survey of Income and Program Participation (SIPP) Panel, waves 10 and 11. *Consists of non-married couple households with more than one member, or households with the reference person living with a parent. Calculation of household net worth excludes the net worth of children, other relatives, or non-relatives who reside in the household, but does include net worth of parents and unmarried partners who reside in the household. The data on net worth comes from wave 10 data, which were fielded from August –November 2011. Sample is limited to households where the head is age 55-64. The bottom 50% of the household income distribution consists of households with income of \$0-\$52,296, the middle 40% has a household income of \$52,297-\$140,352, and the top 10% household income is above \$140,352.

It is important to note that we have included home equity in the net worth calculations. In theory, all the financial assets of a household can be liquidated, including the home, and its entire net worth can be annuitized through the purchase of a guaranteed income annuity from a private financial institution. However, it is unrealistic to assume that most homeowners will sell their homes when they retire and annuitize the value of their equity. Aside from the attachment most retirees have for their homes, in many cases it would be financially counterproductive to sell their homes and subsequently pay rent. Table 4 shows the distribution of liquid assets of the near-retirement population in 2011- 2012. The figures represent financial assets that can be easily liquidated and converted to an annuitized income stream without necessitating the sale of a home. This table reveals that 30 percent of U.S. households

who are at or near-retirement age have less than \$10,000 in liquid assets— i.e. they have virtually no financial assets to annuitize. The next 24 percent - those who have assets between \$10,000 and \$99,999 – also have very little to annuitize (annuitizing \$50,000 for a single male turning 65 in 2014 yields \$70 per week, while for a married couple where both members turn 65 in 2014, they would receive \$58 per week). In other words, 54 percent of near-retirement households in the U.S. have too little saved, and will rely almost exclusively on Social Security and any defined benefit pensions they may be eligible for to fund their retirement years.¹⁵ On the other end of the spectrum, about 26 percent of the households have liquid assets in excess of \$300,000. These households will be able to realize an adequate cash income stream from their retirement savings.

Table 4: Total Liquid Assets of Households, 2011-2012

Ages 55-64	Total Liquid Assets*	No. of Households	Percent of Total Households	Mean Household Income	Median Household Income
	Less than \$10,000	6,378,716	30%	\$27,631	\$19,020
	\$10,000-\$99,999	5,163,750	24%	\$48,373	\$41,100
	\$100,000-\$299,999	4,302,314	20%	\$69,304	\$58,728
	\$300,000 or more	5,647,177	26%	\$111,048	\$90,000
	TOTAL	21,491,957	100%		

Source: 2008 Survey of Income and Program Participation (SIPP) Panel, waves 10 and 11. Sample is limited to households where the head is age 55-64. *Liquid Assets are defined as dollar balances in savings and checking accounts, IRA, KEOGH or 401(k) accounts, holdings of government or corporate bonds, stocks and mutual funds, the cash value of life insurance policies, real estate holdings, equity in rental properties, the value of non-primary residence mobile homes, amounts owed for sale of business, and other financial assets (it excludes the value of home equity). Calculation of liquid assets and household income excludes the liquid assets and income of children, other relatives, or non-relatives who reside in the household. The liquid assets and income of parents and unmarried partners who reside in the household are included.

15 Table 5: Total Assets of Near-Retirement Households in U.S. by Retirement Plan Status, 2011-2012

	Households Without An Employer-Sponsored Plan		DB Plan Households		DC Plan Households	
	Mean	Median	Mean	Median	Mean	Median
Number of Households	11,911,441		2,505,642		7,074,874	
Household Income	\$47,312	\$33,996	\$98,861	\$81,996	\$95,476	\$75,204
Home Equity	\$90,805	\$35,000	\$123,234	\$90,000	\$118,508	\$80,000
Investments	\$71,606	\$4,450	\$159,665	\$64,600	\$159,094	\$52,500
Retirement Savings	\$46,917	\$0	\$125,733	\$52,673	\$126,265	\$55,000
Other Assets	\$60,049	\$0	\$67,482	\$0	\$79,591	\$0
Debt	\$4,802	\$0	\$7,764	\$300	\$6,994	\$250
Total Assets Less Debt	\$173,770	\$4,450	\$345,115	\$116,973	\$357,956	\$107,250

Source: 2008 Survey of Income and Program Participation (SIPP) Panel, waves 10 and 11. Calculation of assets and household income excludes the assets and income of children, other relatives, or non-relatives who reside in the household. Assets do not include business equity or moneys owed for the sale of a business. The assets and income of parents and unmarried partners who reside in the household are included, though. A household is identified as a DB household if one of its members has a DB plan as their primary retirement plan. A household is identified as a DC household if none of its members has a DB plan, and at least one of the members has a DC plan as their primary retirement plan. A household is identified as having no retirement plan if none of the members has a retirement plan of either kind at their current employer. Household members include the reference person, a spouse or unmarried partner, and a parent residing in the household. Children, other relatives, or other non-relatives living in the household are excluded. Sample is limited to households where the head is age 55-64.

Table 5 shows the SIPP data organized by the retirement plan status of households where the head of the household is near retirement.

A household is identified as a DB household if one of its members has a DB plan as their primary retirement plan. A household is identified as a DC household if none of its members has a DB plan and at least one of the members has a DC plan as their primary

retirement plan. A household is identified as having no retirement plan if none of the members has a retirement plan of either kind at their current employer. Table 5 shows that in 11,911,441 households out of 21,491,957, or 55 percent of households, none of the members has a retirement plan with the current employer.

Table 6: Replacement Rates of Near-Retirement Individuals by Primary Retirement Plan Type

Primary Retirement Plan Type	DB	DC	None
Replacement Rate	75%	62%	57%

Source: 2008 Survey of Income and Program Participation (SIPP) Panel, waves 10 and 11. Replacement rates were calculated using the AARP retirement calculator for a single male age 59 in 2011 planning to retire at age 65, using the basic economic assumptions provided by AARP with a rate of return on savings before retirement of 6%, after retirement of 3.6%, an annual raise rate of 2.5%, inflation rate of 3%, income tax rate of 11%, tax rate in retirement of 8%, and end of life at age 88. We used median values of earnings and retirement savings in the calculator. A complete table with the values of those inputs is available in the technical appendix. Sample is limited to people ages 55-64 who worked the past four months and who had positive earnings. The calculations are for individuals age 59 in 2011 by their primary retirement plan type given their liquid assets, retirement assets and their debt. The replacement rate is the ratio of retirement income to pre-retirement earnings.

In 2012, near-retirement households with at least one member participating in a DB plan had the highest income, followed by households with DC plans and households with no retirement plan at their current employer. In fact, the median income of households with a DB retirement plan was more than 50 percent larger than the median income of households with no retirement plan. Moreover, DB retirement plan households accumulated the most median assets, followed by DC retirement plan households. The median household with no retirement plan accumulated only \$4,450 in assets, and they do not have a DB plan to fall back on. This sum is too low to annuitized. These households will have to rely exclusively on Social Security benefits to fund their retirement years.

While Table 5 shows the retirement savings of households based on the type of plan they participate in, it does not reveal whether those savings will be enough to fund retirement. To do that, Table 6 computes replacement rates for individuals age 59 (mid-range age for near retirees 55-64) in 2011 by their primary retirement plan type. The replacement rate is the ratio of retirement income to pre-retirement earnings and is a way to understand living standards in retirement relative to pre-retirement.

Workers with a DB plan had the highest replacement rate at 75 percent. Those with DC plans and those with no retirement plan at work had much lower replacement rates, at 62 and 57 percent. Those with DC plans and

those with no retirement plan at work had much lower replacement rates, at 62 and 57 percent, respectively. These findings are in line with what has been found in previous research. Most retirement experts agree that replacement rates should be at least 70 percent of final salary, meaning that individuals with a DB retirement plan will be able to retire comfortably. However,

individuals who have a DC retirement plan will not be ready for retirement. In fact, they are only slightly better off than those with no retirement plan in terms of being able to maintain their life-style in retirement. With the exception of those with access to a DB plan at work, most U.S. workers will find themselves realizing low replacement rates, despite their best efforts to save for retirement.

Economists Agree on Retirement Crisis

Our findings complement those of the Center for Retirement Research at Boston College from their National Retirement Risk Index. Unlike us, they use the Federal Reserve's Survey of Consumer Finances to conclude that, as of 2010, more than half (53 percent) of working-age households are at risk of having inadequate retirement resources.¹⁶ We also agree with the National Institute on Retirement Security (NIRS)¹⁷ finding that two thirds of workers are not on a path to retirement security because 84 percent of workers are not meeting reasonable retirement savings targets.¹⁸ In addition, the 2012 Retirement Income Projection Model developed by the Employee Benefit Research Institute (EBRI)¹⁹ estimates that approximately 44 percent of Baby Boomers (born from 1948 through 1964) and

Generation Xers (born from 1965 through 1974) are at risk of having insufficient income to meet even basic expenses in retirement. The Center for American Progress (CAP) reviews most retirement readiness studies and, using the 2013 Survey of Consumer Finances, confirms that there is indeed a retirement crisis at hand.

Our report is the first study to identify the share of people whose projected income in retirement will be below poverty across states – an objective measure of the retirement crisis. Additionally, we investigate how retirement savings are affected by the type of pension account offered in the workplace. Given that most accounts are shifting from DB to DC, our findings highlight the inadequacy of DC plans to meet retirement needs.²⁰

A Note on Retirement Planning and Household Composition

Household composition (whether one is single or living with a spouse) influences net worth and the availability of assets that can be used in retirement to provide financial support (see Table 7). Single workers are more likely than married workers or single-parent workers to work for an employer that sponsors a retirement plan.

However, married workers are more likely to

participate in a retirement plan at work.

Accordingly, married households accrue more in assets (in terms of average current net worth) than single-person households and single-parent households. This puts unmarried households—some 33 percent of the U.S. population—at a considerable disadvantage because they cannot supplement their own savings with those of a spouse.

Table 7: Retirement Plan Statistics and Asset Accumulation for Workers Age 25-64 by Household Composition, 2011-2012

Married Workers

	Count	Percentage
Total Population	58,240,268	
Sponsored	40,376,760	69%
Participating Population	34,529,515	59%
Primary Plan is a DB Plan	6,849,809	20%
Primary Plan is a DC Plan	27,679,706	80%
Average Net Worth	\$205,353	

Married Workers With Neither Spouse Participating in a Retirement Plan

Total Population	25,570,054
Primary Plan is a DB Plan	0%
Primary Plan is a DC Plan	0%
Average Net Worth	\$138,263

Married Workers With One Spouse Participating in a Retirement Plan

	Count	Percentage
Total Population	18,616,146	
Primary Plan is a DB Plan	3,827,156	21%
Primary Plan is a DC Plan	14,788,990	79%
Average Net Worth	\$221,993	

Married Workers With Both Spouses Participating in a Retirement Plan

	Count	Percentage
Total Population	15,913,369	
Primary Plan is a DB Plan	3,022,653	19%
Primary Plan is a DC Plan	2,890,716	81%
Average Net Worth	\$254,372	

Single Workers

	Count	Percentage
Total Population	17,794,127	
Sponsored	12,748,252	72%
Participating Population	10,129,866	57%
Primary Plan is a DB Plan	1,937,084	19%
Primary Plan is a DC Plan	8,192,782	81%
Average Net Worth	\$133,724	

Single Parent Workers

	Count	Percentage
Total Population	11,360,396	
Sponsored	7,056,759	62%
Participating Population	5,340,960	47%
Primary Plan is a DB Plan	984,606	18%
Primary Plan is a DC Plan	4,356,354	82%
Average Net Worth	\$110,385	

Source: 2008 Survey of Income and Program Participation (SIPP) Panel, waves 10 and 11. Sample is limited to persons age 25-64 who worked in the past four months for at least 20 hours, and had positive earnings.

Table 8: Poverty Projections for Current Near-Retirement Population

Percent of Poverty Threshold	Percent of Population		Number of People	
	Less than 50%	2%	358,571	
	51 to 100%	7%	1,535,819	
	101 to 200%	24%	4,900,262	
	201 to 300%	20%	4,068,937	
	More than 300%	47%	9,741,993	

Source: Authors' analysis of SIPP 2008 panel data, waves 10 and 11. Data universe is all U.S. residents aged 55-64 who worked during the reference period (August 2011-March 2012) and had positive earnings. Sample does not include unpaid family members or members of the Armed Forces. Projections assume that a person will retire at age 65, and take into account retirement savings, as well as all other assets owned, including home equity. Details on how projections were created are discussed in the technical appendix.

Projected Retirement Income Deficit for Those Near Retirement Age

Given how much workers near the retirement age have already saved under the current system in the United States, we can predict how close workers will be to the federal poverty line once they stop working and enter retirement. Because the federal poverty line is a conservative measure of the standard of well-being for workers, we look at twice the poverty line to estimate how many people will be at risk of living in poor conditions in retirement. We also include the value of home equity in people's net worth.

Table 8 shows that 33 percent of current workers aged 55 to 64 are likely to be poor or near-poor (less than 200% FPL) in retirement based on their current levels of retirement savings and total assets. Additionally, close to 2 percent of near-retirement workers will find themselves in extreme poverty, with less than 50 percent of the poverty threshold. This means that many workers will experience downward mobility when they retire, if they are able to retire at all.

Because the SIPP is a large data set, it is possible to calculate or estimate predicted poverty and near-poverty levels for near-retirement workers once they retire for the largest 20 states. The results in Table 9 demonstrate that while a sizable share of the elderly population will be at risk of living in poverty in all states, some states are better off than others. Workers in Massachusetts and Virginia are more likely

to enjoy a secure retirement than their counterparts nationally, with 22 percent of workers 55 to 64 likely to be at-risk for a poor standard of living in retirement. On the other end of the spectrum, 41 percent of near-retirement workers in Florida may experience poverty or near-poverty in retirement based on their current savings levels, followed by North Carolina and Texas.

Table 9: Poverty Projections for Workers Near Retirement in 20 Largest States

State	Poor, Under 100% of FPL*	Near-Poor, 101% to 200% of FPL	Total At-Risk
Arizona	12%	16%	28%
California	12%	23%	35%
Florida	14%	27%	41%
Georgia	7%	27%	34%
Illinois	7%	19%	26%
Indiana	9%	28%	36%
Maryland	7%	17%	24%
Massachusetts	5%	17%	22%
Michigan	9%	27%	36%
Missouri	7%	23%	30%
New Jersey	11%	19%	30%
New York	11%	20%	32%
North Carolina	11%	30%	41%
Ohio	9%	27%	37%
Pennsylvania	5%	26%	30%
Tennessee	10%	21%	32%
Texas	13%	26%	39%
Virginia	6%	17%	22%
Washington	7%	25%	32%
Wisconsin	9%	27%	35%

Source: Authors' analysis of SIPP 2008 panel data, waves 10 and 11. *The Federal Poverty Level (FPL) is the set minimum amount of gross income that a family needs for food, clothing, transportation, shelter and other necessities. In the United States, this level is determined by the Department of Health and Human Services. FPL varies according to family size. The number is adjusted for inflation and reported annually in the form of poverty guidelines. Public assistance programs, such as Medicaid in the U.S., define eligibility income limits as some percentage of FPL.

CONCLUSION

The analysis in this report has found that employer sponsorship of retirement plans in the United States has eroded over the past decade, dropping from 61 percent coverage of active workers in 1999 to 53 percent in 2011.²¹ Moreover, 68 percent of the working population did not have a retirement plan because they were not sponsored, did not participate or were not employed. Overall participation in an employer-sponsored retirement plan is low, resulting in 55 percent of near-retirement households in the U.S. who will likely have to subsist almost exclusively on their Social Security income or be unable to retire at all.²² Unmarried households—33 percent of the U.S. population—are at a particular disadvantage because they cannot supplement their own savings with those of a spouse. While defined contribution plans are an important part of many workers' retirement security, DC savings alone will not be sufficient to replace pre-retirement earnings.²³ The only workers protected from a significant reduction in their standard of living when they retire are the dwindling number of workers with traditional defined benefit plans.

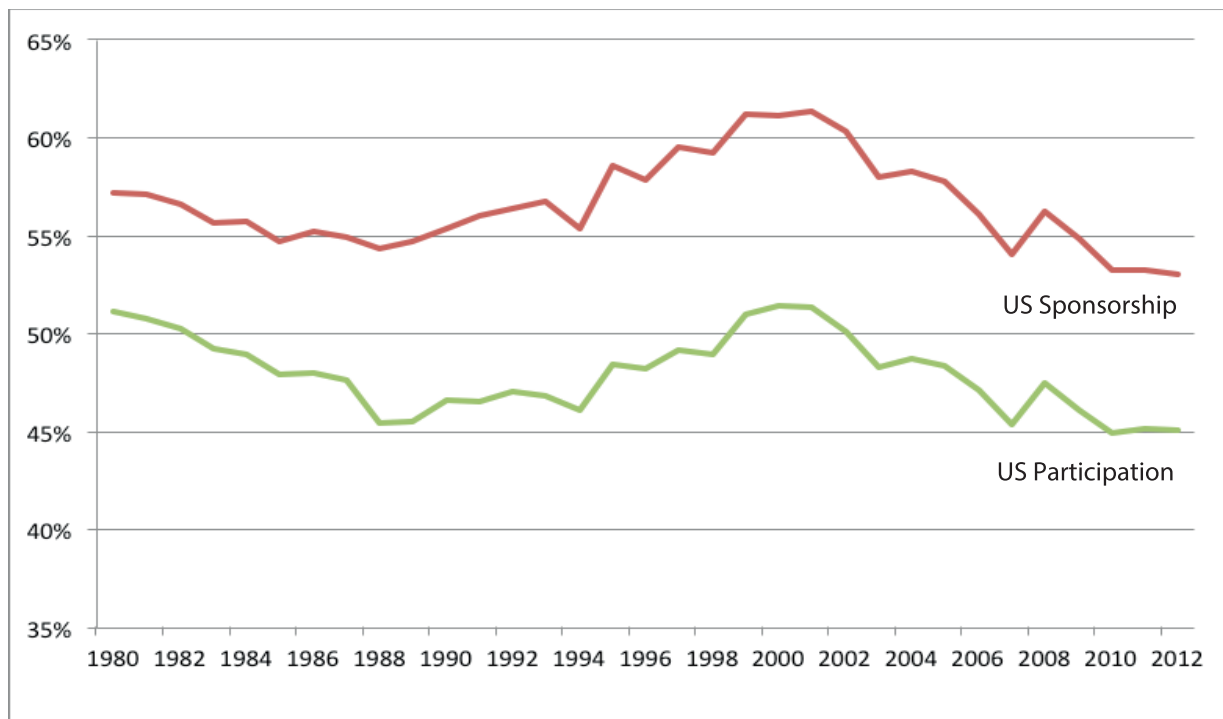
The consequences of declining sponsorship and low participation rates will be higher rates of poverty and a diminished ability for workers to maintain their standard of living in retirement. While a sizable share of the elderly population will be at-risk of living in poverty in all U.S. states, we find that some states will fare better than others. Workers in Massachusetts and Virginia are more likely to enjoy a secure retirement than their counterparts nationally, with 22 percent of workers 55 to 64 likely to be at-risk for a poor standard of living in retirement. On the other end of the spectrum, 41 percent of near-retirement workers in Florida may experience poverty or near-poverty in retirement based on their current savings levels, followed by North Carolina and Texas.

This paints a discouraging picture of retirement readiness for U.S. workers as of 2011. But how will things look in 10 or 20 years? Are the trends identified in the report likely to reverse themselves? To help answer these questions, Figure 6 plots retirement sponsorship and participation rates for the U.S. from 1980 through 2012.

The trends are discouraging. Retirement plan sponsorship has fallen nationally, a downward trend that started in 2000. Retirement plan participation rates follow the same pattern. This suggests that the declining sponsorship and participation rates identified in this report are not a temporary artifact of the 2008-2009 recession, but a product of persistent structural trends. If these trends continue, it is likely that retirement plan sponsorship and participation rates will continue to sink and the retirement readiness of U.S. workers is likely to get worse in the absence of efforts to improve the situation.

In 2014, Ghilarducci and Saad-Lessler²⁴ found that declining bargaining power of workers, along with a decrease in firm size, were the largest predictors of the drop in sponsorship rates. Therefore, policies that address diminished bargaining power and work to increase workers' access to employment-based retirement savings vehicles are necessary to reverse the erosion of future retirement income. This includes creation of Guaranteed Retirement Accounts (GRAs), or personal retirement accounts funded by mandated contributions from workers and employers and converted to annuities upon retirement.

Figure 6: Historical Perspective on Pension Sponsorship and Participation in the U.S.



Source: March Supplement data from the CPS, from the IPUMS²⁵ data. Sample is limited to persons ages 25-64.

TECHNICAL APPENDIX

27

Methodology

We use the March Supplements of the 2000 and 2012 Current Population Survey (CPS). In particular, we use the variable PENSION which asks whether the respondent's union or employer for his or her longest job during the preceding calendar year offered a pension or other retirement plan to any of its employees, and, if so, whether the respondent was included in that plan. The question specifically excluded retirement support from Social Security. Pension sponsorship and participation from the CPS data refer to employer-based retirement plan status in 1999 and 2011, respectively. This question was only asked of respondents who worked in the previous calendar year. All tabulations reflect weighted counts using the March Supplement weights.

To compute projected income we use the Retirement Expectations module in wave 11 of the 2008 SIPP panel, as well as the Assets and Liabilities, Real Estate, Stocks and Mutual Funds, Value of Business, Rental Properties, Interest Earning and Other Financial Assets modules in wave 10 of the 2008 SIPP panel.

The reference period is different for wave 10 and wave 11. The data for these modules was collected in the fourth reference month for each rotation (from August 2011-November 2011 for wave 10, and December 2011-March 2012 for wave 11). Because wave 10 and wave 11 are four months apart, their samples are not identical. Wave 10 contains 79,321 observations, while wave 11 contains 78,101 observations. The merged data set has 71,879 observations. There were 7,442 observations in wave 10 that were not in wave 11. There were 6,222 observations in wave 11 that were not in wave 10.

Since the merged data set drops a number of observations, it does not exactly mimic population numbers in the general population. For example, the weighted population count for the U.S. is 306.5 million for wave 10 alone, and 307.5 million for wave 11 alone. We use weights from the fourth reference month of wave 11 data for the merged sample. The merged sample represents 278 million, which is less than the 313 million in the U.S. population as of March 1, 2012.

The Retirement Expectations module asks respondents whether their primary source of income in the previous four months was from a job or a business. Based on that answer, occupation, industry, firm size, and class of worker status was assigned from the most important job/business for that person.

Sponsorship of a retirement plan is defined as the respondent answering affirmatively a question about whether their employer (at their most important job/business) offers a retirement plan, and/or later in the survey, the respondent says that their employer offers a 401(k) plan.

Participation in a retirement plan is defined as the respondent stating that their employer sponsors a retirement plan, they participate in such a plan, and/or they participate in a 401(k) plan through their employer. The worker's most important retirement plan was deemed to be a defined benefit (DB) plan if they answered that the plan was based on earnings and years on the job, or if it was a cash balance plan, or they stated that the plan benefits would be increased or decreased because of participation in the Social Security program. Alternatively, the most important plan was determined to be Defined

Contribution (DC) plan if the respondent stated that they had an individual account plan, or they had a 401(k) plan. For those who had only one plan, the most important plan was classified as a DC plan if they stated that they could choose the investments in the plan, or if they could take (or had already taken) out a loan against the plan, or if the contributions to the plan are tax deferred and employer contributions depend fully or in part on the employee's contributions. The latter characteristics were asked about all retirement plans, not just the primary plan; therefore they could only be used to ascertain the nature of the most important retirement plan for those who had only one retirement plan.

Respondents were asked about the value of their assets. The SIPP sample gives us a snapshot of earnings and assets for workers aged 25-64 in 2011. Assets include non-interest earning checking accounts (jointly owned and solely owned), interest earning accounts (jointly owned and solely owned), bonds and securities (jointly owned and solely owned), savings bonds (solely owned), equity in stocks and mutual funds (jointly owned and solely owned), cash value of life insurance policies, equity in other financial investments,

market value of IRA/KEOGH accounts, the value of solely-owned retirement DC accounts, the equity in rental properties not on the land of residence jointly-owned and solely-owned, home equity (adjusted for share of ownership), mobile home (adjusted for share of ownership), other real estate (adjusted for share of ownership), business equity (adjusted for share of ownership), and money owed to the respondent for the sale of a business. We then subtract the debt owed jointly and solely for loans, store bills/credit cards, and other debt. This gives us a measure of current net worth.

For household calculations, household members include the reference person, a spouse or unmarried partner, and a parent residing in the household. Children, other relatives, or other nonrelatives living in the household are excluded. Therefore, there are three kinds of households: single person households only contain the reference person, once all children, other relatives and non-relatives are excluded; married couple households contain the reference person and their spouse, and maybe a parent; other households are not married couples, and yet have more than one member – this could include unmarried couples living with or without a

parent, or a single individual living with a parent. Household net worth excludes the net worth of children, other relatives, or non-relatives who reside in the household, but does include net worth of parents and unmarried partners who reside in the household.

A household is identified as a DB household if one of the members of the household has a DB plan as their primary retirement plan. Households are identified as a DC household if none of the members has a DB plan, and at least one of the members has a DC plan. Households are identified as having no retirement plan if none of the members has a retirement plan of either kind at their current employer.

When calculating the annuity value of assets, for a single person household and for other household types, the annuity value was calculated using values from the Fidelity Guaranteed Income Estimator for a hypothetical male in the U.S., who was born on June 1, 1952 (they were 60 at the time the sample was collected in 2012). These calculations are for a lifetime annuity without beneficiaries. However, for a married couple households, the annuity value was calculated

for a couple residing in the U.S., where one person is a male born on June 1, 1952 (they were 60 at the time the sample was collected in 2012), and the other person is a female born on June 1, 1952. These calculations are for a lifetime annuity where the survivor receives 100 percent benefit, with-out beneficiaries.

Poverty projections are constructed from the sample of people ages 55-64 who are currently working, with positive earnings, who are not unpaid family members or members of the Armed Forces. Their final earnings are calculated by growing their current earnings at a rate of 2.5 percent per year. This value of final earnings, along with tenure at their current job is used to calculate their projected DB balances if they currently participate in a DB plan as their primary pension plan. The value of final earnings from all jobs is also

used to project Social Security benefits upon retirement, where Social Security bend points are projected as the 2012 bend points plus a 2.5 percent adjustment per year until retirement. Final net worth estimates are calculated by growing current net worth at a rate of 6 percent per year. These final net worth numbers are transformed into annuity values using the Fidelity Guaranteed Income Estimator, for a representative individual born in June 1, 1952, who wishes to receive the annuity value beginning in January 1, 2017 (when they turn 65). The projected annuity values are added to projected Social Security benefits, minus \$100 Medicare monthly payment, and compared with the projected poverty threshold at retirement (current poverty threshold + a yearly inflation adjustment of 3 percent).

31 Table 10: Demographic, Social, and Economic Composition of the Working Population Aged 25-64, 2010-2012

Source: CPS March Supplement, 2010-2012. Sample is limited to workers age 25-64. Agriculture and mining industries are excluded.

		U.S.
Gender	Male	53%
	Female	47%
Age	25-44	53%
	45-54	28%
	55-64	20%
Race	White	67%
	Black	11%
	Asian	05%
	Hispanic	14%
	Other	02%
Firm Size	1-10 Employees	20%
	10-99 Employees	21%
	100-499 Employees	13%
	500-999 Employees	05%
	1000+ Employees	40%
Citizenship	Citizen	91%
	Non-Citizen	09%
Worker Classification	Self-Employed	10%
	Wage & Salary	74%
	Government	08%
Industry	Construction	07%
	Manufacturing	11%
	Transport, Communications, Utilities	05%
	Wholesale & Retail Trade	16%
	Finance, Insurance, Real Estate	07%
	Business & Repair Services	08%
	Personal Services	03%
	Entertainment & Recreation Services	02%
	Professional Services	28%
	Public Administration	06%
Union Status	Covered by Union Contract	14%
	Not Covered by Union Contract	86%

Table 11: Detailed Analysis of DB and DC Participation by Social, Economic, and Personal Characteristics

32

		Defined Benefit	Defined Contribution	Not Included
Gender	All Workers	16%	63%	20%
	Male	17%	65%	19%
	Female	16%	62%	22%
	25-44	14%	62%	24%
	45-54	18%	66%	17%
	55-64	20%	64%	16%
	White	17%	65%	18%
	Black	14%	59%	27%
	Asian	13%	70%	17%
	Hispanic	13%	57%	30%
Citizenship	Other	16%	60%	24%
	Non-Citizen	10%	56%	34%
Worker Classification	Citizen	17%	64%	20%
	Self-Employed	12%	78%	10%
	Private Sector Wage Salaried	12%	65%	23%
Industry	Public Sector	28%	59%	13%
	Construction	19%	64%	17%
	Manufacturing	14%	72%	14%
	Warehouse	21%	60%	19%
	Wholesale Trade	09%	74%	17%
	Finance, Insurance, Real Estate	12%	73%	15%
	Education, Health Care, Social Services	18%	61%	21%
	Other Services	15%	62%	23%
	Public Administration	30%	61%	09%
	Military	46%	43%	11%
	Retail Trade	10%	56%	33%
	Information Services	16%	69%	15%
	Professional, Scientific, Management	10%	68%	22%
	Arts, Recreation, Accommodation & Entertainment	12%	48%	40%

Source: Authors' analysis of SIPP 2008 panel data. Data universe is all residents of U.S. aged 25-64 who worked during the reference period the entire time (August 2011-March 2012) at an employer that offered a retirement plan.

Table 12:
Retirement Readiness of Individuals based on
their Retirement Plan

	Primary Retirement Plan Type		
	DB	DC	None
Earnings	\$51,420	\$48,528	\$24,936
Debt	\$-	\$25	\$-
Liquid Assets	\$105,750	\$125,000	\$27,500
Retirement Savings	\$19,200	\$39,584	\$-
Home Equity	\$50,000	\$49,500	\$27,500
DB Balance	\$19,362	\$-	\$-
Replacement Rate	75%	62%	57%

Source: 2008 Survey of Income and Program Participation (SIPP) Panel waves 10-11. All debt, liquid assets, retirement savings, home equity, and value of the DB plan are median values of the sample aged 55-64. Sample is limited to people ages 55-64 who worked August 2011-March 2012 and who had positive earnings.

ENDNOTES

1. There are multiple reasons for non-participation in employer-sponsored retirement plans including ineligibility as well as a lack of affordability.
2. These are households where none of the members participate in a retirement plan at work, and who have saved too little to fund their retirement.
3. The CPS is a survey of households conducted each month to obtain comprehensive data on the labor force. Roughly 60,000 households are sampled across the United States by highly trained interviewers. Answers to survey questions from this representative group of households are used to make inferences about the entire population.
4. The SIPP asks questions that are designed to capture the economic profile of people in the United States. Approximately 14,000-36,700 households are interviewed in the United States over a 2½ - 4 year period about their cash and non-cash income, retirement plan participation, taxes, assets, liabilities, and participation in government transfer programs. The survey uses a 4-month recall period and interviews are conducted in person or over the telephone. This report uses data from waves 10 and 11 of the 2008 panel of the SIPP. The data for these modules was collected in the 4th reference month for each rotation (from August 2011-November 2011 for wave 10, and December 2011-March 2012 for wave 11).
5. Because the CPS data reference a worker's situation in the previous year, data from 2000 and 2012 is used to analyze sponsorship levels in 1999 and 2011.
6. Specifically, respondents were asked if their employer or union for their longest job held during the preceding calendar year had a pension or other retirement plan for any of the employees, and, if so, whether they were included in that plan.
7. This includes 6.4% who were unemployed and 22.3% who were not in the labor force.
8. Unionized workers were workers who were members of a union, or who were not members of a union, but were covered by a union contract.
9. See U.S. Department of Labor. What You Should Know About Your Retirement Plan. "Federal law allows employers to include certain groups of employees and exclude others from a retirement plan. For example, your employer may sponsor one plan for salaried employees and another for union employees. Part-time employees may be eligible if they work at least 1,000 hours per year, which is about 20 hours per week." <http://www.dol.gov/ebsa/publications/wyskapr.html#chapter2>
10. We use the CPS data to determine the fraction of U.S. workers who are participating in an employer-sponsored plan. The CPS asks respondents if their union or employer-sponsored a pension or other retirement plan for any of the employees, and, if so, whether they were included in that plan.
11. Data universe is all residents of the U.S. aged 25-64 who worked during the reference period. This number differs from the CPS estimate because it comes from a different survey, with differently phrased questions. Moreover, while the SIPP data refers to Dec 2011- March 2012, CPS sponsorships numbers refer to the 2011 calendar year.
12. These numbers were computed from the Fidelity Guaranteed Income Calculator, given interest rate conditions on September 25, 2014. For a single person household and for 'other' households, the annuity value was calculated for a hypothetical male who was born on June 1, 1952 (they were 59 during the reference period for wave 10). These calculations are for a lifetime annuity without beneficiaries. However, for married couple households, the annuity value was calculated for a couple, where one person is a male born on June 1, 1952, and the other person is a female born on June 1, 1952. These calculations are for a lifetime annuity where the survivor continues to receive 100% benefit, without beneficiaries. The Fidelity Guaranteed Income Calculator requires a state of residence in order to make the calculations. However, because only 7 states have a premium tax on annuities, we chose a state with no premium tax.

13. According to the Social Security Administration, Annual Statistical Supplement, 2012, we can estimate that the average male would receive \$19,194 in annual Social Security income and the average female retiree 65 years of age would receive \$14,523 in annual Social Security income.
14. Note that the poverty threshold for single individuals aged 65 and over was \$11,011 in 2012, while the threshold for two person households with the household head age 65 and over was \$13,891. These thresholds are not adjusted to account for increased health costs as people age.
15. For anecdotal evidence of the financial difficulties facing those at or near-retirement, see: Browning, E.S., "Retiring Boomers Find 401(k) Plans Fall Short," The Wall Street Journal, February 19, 2011; Farnham, Alan, "Record Pessimism About Retirement," ABC News, March 18, 2011; Farrell, Chris, "The Rising Price of Retirement," Bloomberg Businessweek, April 12, 2011.
16. Munnell, Alicia H., Anthony Webb and Francesca Golub-Sass, 2012, "The National Retirement Index: An Update," Issue Brief, Boston: Center for Retirement Research at Boston College, no. 12-20: http://crr.bc.edu/wp-content/uploads/2012/11/IB_12-20-508.pdf
17. Rhee, Nari, 2013, "The Retirement Savings Crisis: Is It Worse Than We Think?" Washington, D.C.: National Institute on Retirement Security: http://www.nirsonline.org/storage/nirs/documents/Retirement%20Savings%20Crisis/retirementsavingscrisis_final.pdf
18. NIRS uses the Fidelity Investment standard, which recommends a minimum of 8 times income in retirement savings for retirement at age 67, as a benchmark.
19. VanDerhei, J. 2012 "Retirement Income Adequacy for Boomers and GenXers: Evidence from the 2012 EBRI Retirement Security Projection Model," EBRI Notes v33n5, pp. 2-14: http://www.ebri.org/pdf/notespdf/EBRI_Notes_05_May-12.RSPM-ER.Cvg1.pdf
20. Miller K., Madland D. and Weller C.E. 2013. "The Reality of the Retirement Crisis," <https://www.americanprogress.org/issues/economy/report/2015/01/26/105394/the-reality-of-the-retirement-crisis/>
21. This finding is consistent with other studies of trends in retirement plan sponsorship. See: Purcell, Patrick, "Pension Sponsorship and Participation: Summary of Recent Trends" (2008). Federal Publications. Paper 543, http://digitalcommons.ilr.cornell.edu/key_workplace/543; United States Government Accountability Office. 2009a, "Retirement Savings: Automatic Enrollment Shows Promise for Some Workers, but Proposals to Broaden Retirement Savings for Other Workers Could Face Challenges," <http://www.gao.gov/new.items/d1031.pdf>; United States General Accounting Office. 2001. "Private Pensions: Issues of Coverage and Increasing Contribution Limits for Defined Contribution Plans," September. <http://www.gao.gov/new.items/d01846.pdf>.
22. If Social Security benefits erode any further because of policy changes and an ever increasing premium for Medicare, workers in their 20s and 30s will be much worse off when it is time to retire.
23. See Browning, E.S., "Retiring Boomers Find 401(k) Plans Fall Short," The Wall Street Journal, February 19, 2011.
24. Ghilarducci, Teresa and Saad-Lessler, Joelle. (2014) "Explaining the Decline in Offer Rate of Employer Retirement Plans Between 2001-2012." Schwartz Center for Economic Policy Analysis and Department of Economics, The New School for Social Research, Working Paper Series. Published in the Industrial and Labor Relations Review
25. Miriam King, Steven Ruggles, J. Trent Alexander, Sarah Flood, Katie Genadek, Matthew B. Schrorder, Brandon Tramp, and Rebecca Vick. Integrated Public Use Microdata Series, Current Population Survey: Version 3.0. [Machine-readable database]. Minneapolis: University of Minnesota, 2010

Schwartz Center For Economic Policy Analysis

6 East 16th Street, 11th Floor

212.229.5901 x1

scepa@newschool.edu

www.economicpolicyresearch.org