Are US Workers Ready for Retirement? Trends in Plan Sponsorship, Participation, and Preparedness

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Only 44 percent of workers in the United States have access to a retirement plan at work. Except for those workers with defined benefit plans, most middle-class US workers will not have adequate retirement income. Fifty-five percent of near-retirees will only have Social Security income at age 65.

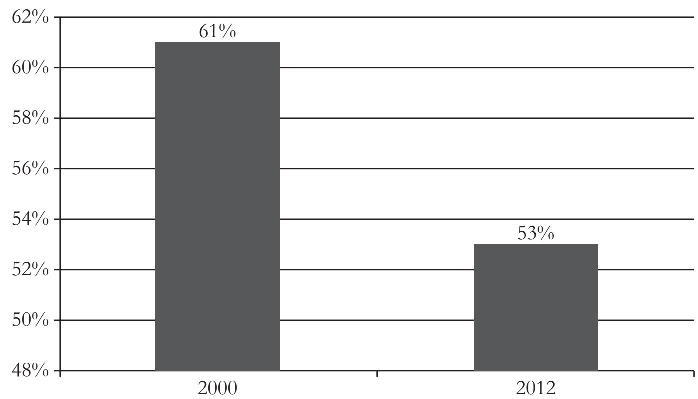
Introduction

Most workers need a workplace retirement plan to supplement their Social Security to achieve an adequate retirement income—defined here as a 70 percent replacement rate at age 65. However, only 44 percent of workers in the United States participate in a retirement plan at work. The lack of retirement readiness is not caused by the Great Recession but by two structural trends: not enough people have access to a retirement plan at work and, when they do, the amounts saved are often not enough to ensure adequate retirement living standards.

Between 1999 and 2011, the availability, distinct from participation, of employer-sponsored retirement plans in the United States declined from 61 percent to 53 percent. [Ghilarducci, Teresa and Saad-Lessler, Joelle. "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, 2014. Forthcoming in the *Industrial and Labor Relations Review*.] All workers, regardless of sex, race, industry, firm size, and union status, experienced a drop in coverage rates. However, being in a union was somewhat protective; union workers experienced a 6 percent drop in coverage while non-union worker rates dropped 14 percent.

Coverage is a measure of access; participation is a measure of accumulation. Forty-four percent of US workers did not participate in employer-sponsored retirement plans in 2011, mainly because their employer did not offer one. And 46 million more prime working-age people (ages 25 to 64) had no access, because they were not working in 2011. (This is the latest data available as of Fall 2014.) When employees participate in a retirement plan at work, the amounts saved are often inadequate to maintain their standard of living in retirement. The future of retirement income security in the United States is bleak. Fifty-five percent of households with heads near retirement age (55 to 64 years old) will subsist almost entirely on Social Security income or will not be able

Figure 1. US Employer-Based Retirement Plan Sponsorship Rates



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

to retire. {These are households where none of the members participates in a retirement plan at work, and who have saved too little to fund their retirement.}

On average, households with defined contribution (DC) plans have more money in retirement than those with nothing, but most DC plans will still not have enough. Only low- and middle-class households with a defined benefit plan will have adequate replacement rates.

The first section of the article reports the decline in sponsorship; the second section discusses participation; and the last section examines the retirement readiness of the 22 million people nearest retirement age. The technical appendix contains our methodology.

The 2000 and 2012 Current Population Survey (CPS), a joint program administered by the Census Bureau and the Bureau of Labor Statistics, provides information on coverage and participation, not income or wealth. Schieber and Miller {Miller, Billie Jean and Sylvester Schieber, "Employer Plans, IRAs and Retirement Income Provision: Making a Molehill Out of a Mountain," *Towers Watson Insider*, October 2013} object to the way the CPS reports pension income. Instead of the CPS, we use the Survey of Income and Program Participation (SIPP) to project retirement income and readiness. {The SIPP asks questions designed to capture the economic profile of people in the United States. Approximately 14,000 to 36,700 households are interviewed in the United States over a two-and-a-half to four-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 four-month recall period and interviews are conducted in person or over the telephone. This report uses data from August 2011 to March 2012, waves 10 and 11 of the 2008 panel of the SIPP. The data was collected in the fourth reference month for each rotation (from August 2011 to November 2011 for wave 10, and December 2011 to March 2012 for wave 11).}

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 the main causes of the predicted decline in retiree living standards. Note the decline is likely underreported because ours, and most other retirement readiness reports, do not project income available at age 75 or 85 that usually does not rise to pay for inflation and higher-than-average medical and other consumer items paid for by the elderly. {Please refer to arguments for an elder consumer price index that recognizes that the consumption baskets of the elderly differ substantially from the rest of the population because of the over-reliance on medical goods and services and the consumption of items in smaller packages. The elderly have not been able to take advantage of bulk buying, because they commonly live alone in smaller spaces.} Our readiness calculations are most likely optimistic because they are based on predicted replacement rates only at age 65.

Employer-Sponsored Retirement Plans in the United States

Many US employers have continued their traditional and integral role in the US retirement system by providing a platform for their employees to save for retirement, and in most cases, the employer contributes to their employees' retirement plans to attract and retain high quality workers. Employer plans help workers by automatically deducting contributions from their paycheck, reducing the temptation to spend more on immediate consumption.

The employers' decisions to sponsor a retirement plan at all and to sponsor a defined benefit (DB) or DC plan and employers' choices of investment vehicles in the DC plans, their eligibility rules, the rules about withdrawals, and the vendors who design and administer and market the plan to their employees greatly influence what choices their employees will make, how much they will save, and the risks and net-of-fee rate of returns the employees will get.

This article concerns the first crucial choices that the employer makes—whether to offer a plan and whether to offer a DB and/or DC retirement plan. Ghilarducci and Saad-Lessler found that employer sponsorship of retirement plans fell by eight percentage points from 2000 to 2012, signifying a secular downward trend in retirement security for US residents. As of 2012, only 53 percent of employed US residents age 25 to 64 worked for an employer that offered access to a DB or DC plan. [Ghilarducci, Teresa and Saad-Lessler, Joelle, "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 (2014). Forthcoming in the *Industrial and Labor Relations Review*.]

Participation Is Different Than Sponsorship

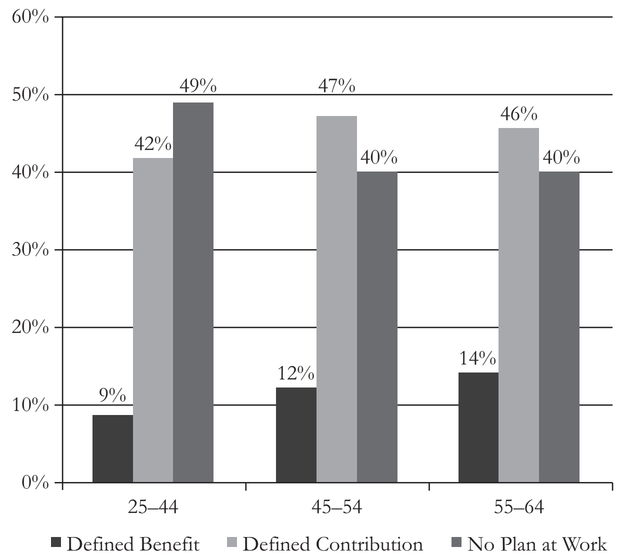
Even if an employer sponsors a retirement plan, participation is not guaranteed. An employer is permitted to exclude employees with less than one year of service, who work part-time, or are younger than 21. [*See* U.S. Department of Labor, *What You Should Know About Your Retirement Plan.* "Federal law 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.*] Moreover, structurally, DB plans engender more participation because DB plans may require employee mandatory contributions to accrue benefits or may allow participants to opt out, guaranteeing that each worker has a retirement account. In contrast, workers voluntarily choose to participate in a DC retirement plan or to contribute to a 401(k) plan.

Retirement plan sponsorship and participation rates are underreported because the CPS only asks respondents about their retirement plans if they worked in the previous calendar year. In 2012, 28 percent of the US population age 25 to 64 (including 5.76 percent who are unemployed and 22.55 percent who are not in the labor force) were not asked about retirement plans and as non-workers do not have access to an employer-sponsored plan, therefore the sponsorship and participation rates are underreported. There are 168 million people in the United States who are age 25 to 64; 72 percent of them work, and only 53 percent of them work for an employer that sponsors a retirement plan and only 83 percent of them whose employer sponsors a retirement plan actually participate. Therefore, only 44 percent (.53 multiplied by .83) of US workers participated in an employer-sponsored retirement plan in 2012. Furthermore, considering the non-working 25 to 64 year olds, close to two thirds (60 percent) of the working-age population did not have a retirement plan because their employers sponsored none, they could not participate in the plan that was sponsored, or they were not working at all.

Who Is Ready for Retirement?

Between August 2011 and March 2012, 55 percent of workers worked for employers who sponsored a retirement plan. [Data universe is all residents of the United States age 25 to 64 who worked during the reference period the entire time (August 2011 to March 2012) for at least 20 hours per week and had positive earnings. Sample does not include unpaid family members, members of the armed forces, those working in agriculture, or businesses that were unincorporated or earning less than $2,500 per year.] Eleven percent of workers had a DB plan as their primary retirement plan and 44 percent had a DC plan as their primary retirement plan. Forty-five percent of US workers had no access to any plan at work. The type of retirement plan that is available has an important impact on the likelihood of participating in a plan when offered, and thereby on the probability

Figure 2. Primary Retirement Plan Type by Age Group in the United States, 2011–2012



Source: Authors' analysis of SIPP 2008 panel data. Data universe is all US residents age 25 to 64 who worked during the reference period the entire time (August 2011 to March 2012) for at least 20 hours per week and had positive earnings. Sample does not include unpaid family members, members of the Armed Forces, those working in agriculture, or businesses that were unincorporated or earning less than $2,500 per year.

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. Being a public sector worker is the most important factor determining DB plan access. Twenty-eight percent of "Public Administration" workers have access to a DB plan. Younger workers age 25 to 44 have the lowest rate of DB participation, with a 9 percent participation rate. This means that DB coverage will not get any higher as the labor force ages. Furthermore, younger workers have an overall lower rate of retirement plan sponsorship at work. Fifty-one percent of workers age 25 to 44 have a retirement plan at their current employer, compared to 59 percent of workers age 45 to 64. {See the technical appendix for details on DB and DC participation by social, economic, and personal characteristics.}

We use the SIPP to project retirement readiness though others use the Survey of Consumer Finances (SCF). The SCF and the SIPP both gather financial and demographic data on households that can be used to estimate projections of retirement income security. The SIPP is larger, so we can estimate retirement income security at the state level for the 20 largest states and identify retirement readiness by race, age, and income. {SIPP economists recommend state-level analysis only for the 20 largest states.}

A complete evaluation of US residents' readiness for retirement must take into account income from all sources including financial assets—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, business equity, and debt. These estimates do not include the present cash value of projected Social Security or DB pension benefits. Only the financial preparedness of near-retirement households (those age 55 to 64) is considered. Because younger households have more time to accumulate savings for retirement, their current net worth may not reflect the level of preparedness they will have when they reach retirement.

The average net worth of near-retirement households is $183,272 for single person households, $500,380 for married couple households, and $191,189 for other household types. Their average net worth can be converted to a cash income stream of $11,532 per year for single person households, $26,556 for married couple households, and $12,036 for other household types. {These estimates 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 single-life annuity value was calculated for a hypothetical male who was born on June 1, 1952. However, for married couple households, the joint-and-survivor annuity value was calculated for a couple, one person is a male and one is a female, and both were born on June 1, 1952. The Fidelity Guaranteed Income Calculator requires a state of residence in order to make the calculations. However, because only seven states have a premium tax on annuities, we chose a state with no premium tax.}

However, net worth among the near-retirees is highly concentrated. Average net worth numbers are high because the few households with very high net worth bring up the average. Median asset values are more relevant because they are not skewed towards very wealthy households. The cash income stream realized from annuitizing the median net worth of the

Table 1. Household Net Worth by Household Type in the United States, 2011–2012

Age Group		Single Person Household	Married Couple Household	Other Households*
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.

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 supplement any defined benefit pension and Social Security benefits, if household members were eligible for such payments. [The average monthly benefit awarded in 2012 for a male retiree 65 years of age is $19,194 and for a female is $14,523. Social Security Administration, *Annual Statistical Supplement,* 2012.]

The average net worth for married households is $500,000, while the median net worth is $300,000. This means 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. Calculating annuities for the median net worth result in $7,176 for married households, $2,076 for single households, and $2,388 for other households. A substantial proportion of the near-retirement population has not accumulated enough net worth to supplement Social Security and guarantee adequate retirement income.

We include home equity in net worth calculations because, in theory, all household assets could be liquidated, including the home, and the entire net worth can be "annuitized" through the purchase of a guaranteed income annuity from a private financial institution. In practice, most homeowners are unlikely to sell their homes when they retire and annuitize the value

Table 2. Household Net Worth by Household Type in the United States, 2011–2012, Broken Down by Household Income Category

Household Income Category		Single Person Household	Married Couple Household	Other Households*
Bottom 50% ($0-$52,296)	Mean	$129,984	$262,240	$107,874
	Median	$32,950	$135,300	$38,000
Middle 51–90% ($52,297–$140,352)	Mean	$344,242	$510,178	$238,176
	Median	$230,000	$365,000	$140,000
Top 10% ($140,353+)	Mean	$766,184	$961,362	$642,518
	Median	$435,500	$745,500	$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.

Table 3. Total Liquid Assets of Near-Retirement Households Age 55–64 in the United States, 2011–2012

Total Household 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 to 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.

of their equity. Aside from the emotional attachment to their homes, in many cases, selling the home to pay rent results in lower quality and more expensive housing.

We calculate projected wealth from financial assets easily liquidated and converted to an annuitized income stream without selling the home. Thirty percent of US households who are at or near retirement age have less than $10,000 in liquid assets—for example, 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 a married couple where both members turn 65 in 2014 would receive $58 per week). In other words, 54 percent of near-retirement households have too little saved, and will rely almost exclusively on Social Security and any defined benefit pensions they have. [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.] Twenty-six percent of the households have more than $300,000 in liquid assets. These households will be able to realize an adequate cash income stream from their retirement savings.

In 2012, 9.5 million households out of nearly 22 million, or 45 percent of households, had members with a retirement plan with the current employer. Households who are near-retirement age with at least one member participating in a DB plan had the highest projected retirement income, followed by households with DC plans, and households with no retirement plan at their current employer. In fact, the median projected 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 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 be annuitized. These households will have to rely exclusively on Social Security benefits in retirement.

Table 4. Total Assets* of Near-Retirement Households in the United States by Retirement Plan Status, 2011–2012

	Households Without a Retirement Plan with Their Current Employer		Households with DB Plans		Households with DC Plans	
Assets/Liabilities	**Mean**	**Median**	**Mean**	**Median**	**Mean**	**Median**
Investments	$71,606	$4,450	$159,665	$64,600	$159,094	$52,500
Other Assets	$60,049	$0	$67,482	$0	$79,591	$0
Retirement Savings (IRA, KEOGH, 401K, 403B)	$46,917	$0	$125,733	$52,673	$126,265	$55,000
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
Number of Households	11,911,441		2,505,642		7,074,874	
Home Equity	$90,805	$35,000	$123,234	$90,000	$118,508	$80,000
Household Income	$47,312	$33,996	$98,861	$81,996	$95,476	$75,204

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. 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 to 64.

Table 5. 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.

We compute replacement rates 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 percent, after retirement of 3.6 percent, an annual earnings increase of 2.5 percent, inflation rate of 3 percent, income tax rate of 11 percent, tax rate in retirement of 8 percent, and a lifespan of 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. The sample is limited to people ages 55 to 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 reported above. The replacement rate is the ratio of retirement income to pre-retirement earnings.

Workers with a DB plan had the highest replacement rates at 75 percent. Those with DC plans had a 62 percent replacement rate, slightly higher than that of those with no retirement plan at work (57 percent). These findings are in line with what has been found in previous research. [See the following studies for a detailed analysis of the employer-sponsored pension system in the United States and for evidence that

Table 6. Retirement Plan Statistics and Asset Accumulation for Workers Age 25 to 64 by Household Composition, 2011–2012

Married Workers	**Count**	**Percentage**
All Married Workers		
Total Population	58,240,268	
Sponsored Population	40,376,760	69%
Participating Population	34,529,515	59%
Primary Plan: DB	6,849,809	20%
Primary Plan: DC	27,679,706	80%
Mean Net Worth	$205,353	
Married Workers with Neither Spouse Participating in a Retirement Plan		
Total Population	25,570,054	
Primary Plan: DB	0	0%
Primary Plan: DC	0	0%
Mean Net Worth	$138,236	
Married with One Spouse Participating in a Retirement Plan		
Total Population	18,616,146	
Primary Plan: DB	3,827,156	21%
Primary Plan: DC	14,788,990	79%
Mean Net Worth	$221,993	
Married with Both Spouses Participating in a Retirement Plan		
Total Population	15,913,369	
Primary Plan: DB	3,022,653	19%
Primary Plan: DC	12,890,716	81%
Mean Net Worth	$254,372	
Other Households Workers	**Count**	**Percentage**
Total Population	11,360,396	
Sponsored Population	7,056,759	62%
Participating Population	5,340,960	47%
Primary Plan: DB	984,606	18%
Primary Plan: DC	4,356,354	82%
Mean Net Worth	$110,385	
Single Workers	**Count**	**Percentage**
Total Population	17,794,127	
Sponsored Population	12,748,252	72%
Participating Population	10,129,866	57%
Primary Plan: DB	1,937,084	19%
Primary Plan: DC	8,192,782	81%
Mean Net Worth	$133,724	

Source: 2008 Survey of Income and Program Participation (SIPP) Panel, waves 10 and 11. Sample is limited to persons age 25 to 64 who worked in the past 4 months for at least 20 hours, and had positive earnings.

Table 7. Retirement Poverty Projections for Current Population Near Retirement

Percent of Poverty Threshold	Percent of Population	Number of Population
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 US residents age 55 to 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.

Table 8. Retirement Poverty Projections for Near-Retirement Workers in 20 Largest States

State	Poor	Near-Poor	Total At-Risk
	100% of Federal Poverty Level* or Less	101 to 200% of Federal Poverty Level	
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	5%	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 United States, define eligibility income limits as some percentage of FPL.

employer-sponsored retirement plans are correlated with higher savings rates and individual wealth accumulation: Bailliu, Jeannine N. and Helmut Reisen, "Do Funded Pensions Contribute to Higher Aggregate Savings? A Cross-Country Analysis." *Review of World Economics,* Vol. 134, No. 4, 692–711 (1998); Bloom, David E., David Canning, Richard K. Mansfield, and Michael Moore, "Demographic Change, Social Security Systems, and Savings," *Journal of Monetary Economics*. Vol. 54, Issue 1, 92–114 (2007); Gale, William G., John Sabelhaus, and Robert E. Hall, "Perspectives on the Household Saving Rate," *Brookings Papers on Economic Activity,* Vol. 1999, No. 1, 181–224 (1999).] 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 lifestyle in retirement. In other words, with the exception of those with access to a DB plan at work, most US workers will find themselves realizing low replacement rates.

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. Single workers are more likely than married workers or workers in other households 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 assets (in terms of average current net worth) than single-person households and other households. Married households have $222,000 if one spouse has a plan and $254,000 if both spouses do. Single households where the household member has a plan have accumulated only $138,000. This puts unmarried households at a considerable disadvantage because they cannot supplement their own savings with those of a spouse.

Knowing how much workers near retirement age have already saved, we predict how close workers will be to the federal poverty line once they stop working and enter retirement. {The poverty threshold for single individuals age 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.}

Because the federal poverty line is a conservative measure of the standard of well-being for workers, the convention is to look at twice the poverty line to estimate how many people will be at risk for living in poor conditions in retirement. We also include the value of home equity in people's net worth. Thirty-three percent of current workers age 55 to 64 are likely to be poor or near-poor in retirement based on their current levels of total assets. Additionally, close to 2 percent of near-retirement workers will find themselves in extreme poverty, with assets of 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.

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.

Conclusion

Employer sponsorship of retirement plans has declined precipitously. {This finding is consistent with other studies of trends in retirement plan sponsorship. *See* Purcell, Patrick, "Pension Sponsorship and Participation: Summary of Recent Trends," Federal Publications, Paper 543 (2008), *http://digitalcommons.ilr.cornell.edu/key_workplace/543*; United States Government Accountability Office, "Retirement Savings: Automatic Enrollment Shows Promise for Some Workers, but Proposals to Broaden Retirement Savings for Other Workers Could Face Challenges," (2009), *http://www.gao.gov/new.items/d1031.pdf*; United States General Accounting Office, "Private Pensions: Issues of Coverage and Increasing Contribution Limits for Defined Contribution Plans," September 2001, *http://www.gao.gov/new.items/d01846.pdf*.} Overall participation in employer-provided retirement plans is low. Fifty-five percent of near-retirement households will likely subsist almost exclusively on Social Security income or be unable to retire at all. {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.} This paints a discouraging picture of retirement readiness for US workers.

We conclude retirement plan sponsorship and participation rates are not likely to recover. The downward trend started in 2000 and is not a temporary artifact of the 2008–2009 recession, but a product of persistent structural trends, such as the unwillingness of employers to voluntarily offer a plan. If these trends continue, more US workers will face poverty or near-poverty when they retire. In addition, 45,962,820 prime-age people in United States were not working in 2012 and, by definition, did not participate in a current employer's retirement plan.

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 due to their high risk and unpredictable savings levels. {Browning, E.S., "Retiring Boomers Find 401(k) Plans Fall Short," The Wall Street Journal, February 19, 2011} The only workers who are protected from a significant reduction in their standard of living when they retire are the dwindling number of workers with traditional defined benefit plans. In 2014, Ghilarducci and Saad-Lessler {Ghilarducci, Teresa and Saad-Lessler, Joelle, "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, July 2014} found 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 the diminished bargaining power and work to increase workers access

Figure 3. Historical Perspective on Pension Sponsorship and Participation in the US

Source: March Supplement data from the CPS, from the IPUMS [Miriam King, Steven Ruggles, J. Trent Alexander, Sarah Flood, Katie Genadek, Matthew B. Schroeder, Brandon Trampe, and Rebecca Vick. *Integrated Public Use Microdata Series, Current Population Survey: Version 3.0*. [Machine-readable database]. Minneapolis: University of Minnesota, 2010] data. Sample is limited to persons ages 25 to 64.

to employment-based retirement savings vehicles can help reverse some of the erosion in future retirement income.

TECHNICAL APPENDIX

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.

Because 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 United States 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 US 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 his or her employer (at the most important job/business) offers a retirement plan, and/or later in the survey, the respondent says that the employer offers a 401(k) plan.

Participation in a retirement plan is defined as the respondent stating that his or her employer sponsors a retirement plan, he or she participates in such a plan, and/or participates in a 401(k) plan through the employer. The worker's most important retirement plan was deemed to be a defined benefit (DB) plan if he or she answered that the plan was based on earnings and years on the job, or if it was a cash balance plan, or 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 a defined contribution (DC) plan if the respondent stated that he or she had an individual account plan or 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 age 25 to 64 in 2011. Assets include non-interest earning checking accounts

Table 9. Demographic, Social, and Economic Composition of the Working Population, Ages 25 to 64, 2012

	US
Gender	
Male	53%
Female	47%
Citizenship Status	
Non-Citizens	9%
Citizens	91%
Age Group	
25–44	53%
45–54	28%
55–64	20%
Race	
White Non-Hispanic	67%
Black Non-Hispanic	11%
Asian Non-Hispanic	5%
Hispanic	14%
Other	2%
Classification of Worker	
Self-Employed	10%
Wage and Salary Workers	74%
Government	8%
Firm Size	
Less than 10 employees	20%
10–99 employees	21%
100–499 employees	13%
500–999 employees	5%
1000+ employees	40%
Union Status	
Not covered by a union contract	86%
Covered by a union contract	14%
Industry*	
Construction	7%
Manufacturing	11%
Transport, Communications, Utilities	5%
Wholesale & Retail Trade	16%
Finance, Insurance & Real Estate	7%
Business & Repair Services	8%
Personal Services	3%
Entertainment & Recreation Services	2%
Professional Services	28%
Public Administration	6%

Source: CPS March Supplement, 2010–2012. Sample is limited to workers age 25 to 64.

*Agriculture and mining industries are excluded.

Table 10. Detailed Analysis of DB and DC Participation by Social, Economic, and Personal Characteristics

		Defined Benefit	Defined Contribution	No Plan at Work
	All Workers	11%	44%	45%
Gender	Female	11%	45%	44%
	Male	11%	44%	45%
Race	White	13%	48%	39%
	Black	10%	41%	49%
	Asian	8%	44%	48%
	Hispanic	6%	28%	66%
	Other	10%	44%	47%
Age	25–44	9%	42%	49%
	45–54	12%	47%	40%
	55–64	14%	46%	40%
Worker Classification	Private Sector Worker	8%	43%	48%
	Public Sector Worker	25%	54%	21%
	Self-Employed	3%	15%	82%
Firm Size	Under 25 Employees	4%	18%	78%
	25 to 99 Employees	8%	43%	49%
	100+ Employees	14%	54%	32%
Income Group	Low ($1–$29,028)	6%	25%	69%
	Middle ($29,029–$53,004)	12%	48%	40%
	High (more than $53,004)	16%	60%	24%
Industry	Mining	7%	54%	39%
	Construction	8%	29%	63%
	Manufacturing	10%	54%	36%
	Wholesale Trade	6%	49%	45%
	Retail Trade	7%	40%	54%
	Transportation, Communication, Utilities	15%	44%	41%
	Information Services	12%	51%	37%
	Finance, Insurance & Real Estate	9%	55%	36%
	Professional, Scientific, Management	6%	41%	54%
	Education, Health Care, Social Services	14%	49%	37%
	Arts, Recreation, Accommodation & Entertainment	5%	21%	74%
	Other Services	7%	25%	68%
	Public Administration	28%	55%	17%

Source: Authors' analysis of SIPP 2008 panel data. Data universe is all US residents, age 25–64 who worked during the reference period the entire time (August 2011–March 2012) for at least 20 hours per week and had positive earnings. Sample does not include unpaid family members, members of the Armed Forces, those working in agriculture, or businesses that were unincorporated, or earning less than $2,500 per year.

(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.

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 non-relatives 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 the 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.

Households are identified as a DB household if one of the members of the household has a DB plan as the 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 households, the annuity value was calculated for a hypothetical male in the United States, 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 married couple households, the annuity value was calculated for a couple residing in United States, where one person is a male born on June 1, 1952 (they were 60 at the

Table 11. Retirement Readiness of Individuals Based on Their Retirement Plan

Retirement Readiness of Individuals Based on Their Retirement Plan			
	DB Plan	Only DC Plan	No Retirement Plan
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. All debt, liquid assets, retirement savings, home equity, and value of the DB plan are median values of the sample age 55 to 64. Sample is limited to people age 55 to 64 who worked August 2011–March 2012, and who had positive earnings.

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, without beneficiaries.

Poverty projections are constructed from the sample of people ages 55 to 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 projected poverty threshold at retirement (current poverty + a yearly inflation adjustment of 3 percent). ■