Retirement Plan Coverage by Firm Size: An Update

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Previous research indicates that small businesses tend to be less likely than larger ones to offer retirement benefits to their employees. This means that resolving issues of adequate retirement savings requires an understanding of the role businesses play in retirement policy and how a business's decision on offering retirement benefits determines workers' choices regarding retirement savings. The relationship between firm size and retirement plan sponsorship is particularly important given the Obama administration's retirement proposals to create automatic individual retirement accounts. Obviously, accurate information is important for policymakers not only in formulating retirement income-security policies that would better target workers not covered by a retirement plan, but also to assess more fully the impact of policy alternatives on workers' retirement plan behavior.

In this article, we build on our previous work and provide an update of the relationship between pension plan coverage and firm size among private-sector workers, using data from the Survey of Income and Program Participation (SIPP) for 3 years: 2006, 2009, and 2012. More specifically, we report on three important measures: the proportions of employers who offered a retirement plan, the proportions of employees who participated in a retirement plan, and the proportions of employees who took up a retirement plan conditional on their employers having offered one. Following previous work, our measures of pension coverage and participation take into account, and correct for, survey-response errors in the SIPP by using information in the W-2 records regarding tax-deferred earnings to defined contribution plans. Our findings show that compared with 2006, the offer and participation rates of any pension plan increased in 2009 and 2012; the differences were relatively small, but statistically significant. Although offer and participation rates differed substantially by firm size throughout the period, take-up rates (conditional on plans being offered) differed little among workers in firms with 10 or more employees.

Introduction

Previous research has shown that a substantial proportion of workers in the private sector have no access to a pension plan,[1] and that workers in large firms are more likely to have access to pensions than those in small firms. Hence, the primary challenge for both researchers and policymakers interested in retirement security has been how to expand pension coverage and participation, as a means of saving for retirement, so that workers have enough income in retirement to avoid sharp drops in their living standards. Policymakers have implemented many options—such as Simplified Employee Pension (SEP) plans and Savings Incentive Match Plans for Employees (SIMPLE)—to help small businesses overcome some of the obstacles of sponsoring retirement plans. More recently, the current administration has proposed new policies to expand retirement savings. Under the Obama administration's automatic individual retirement account (IRA) proposal, employers in

Selected Abbreviations

DB	defined benefit
DC	defined contribution
IRA	individual retirement account
SIPP	Survey of Income and Program Participation

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business for at least 2 years and who have more than 10 employees would be required to offer an automatic IRA option to employees, under which regular contributions would be made to that IRA through payroll deductions. However, employers who sponsor a qualified retirement plan (for example, SEP or SIMPLE) for their employees would not have to provide an automatic IRA for those employees. According to the administration's proposal, employers would not have to match employee contributions nor choose or arrange default investments options. Instead, a low-cost, standard type of investment alternative would be prescribed by statute or regulation (Department of the Treasury 2014, 141–144). It is estimated that through this automatic IRA program, approximately 75 million employees working in private-sector firms with more than 10 employees who are not currently offered any pension plan would be able to save for retirement (Iwry and John 2007).

From a research and policymaking point of view, it is very important to have accurate estimates of pension coverage, participation, and take up to estimate the impact of new proposals. In general, in estimating pension coverage, researchers rely heavily on survey reports; however, the estimates of access or plan offering vary widely. Iwry and John (2007), using information from the 2004 Survey of Consumer Finances, estimated that half of the workforce had no employer-provided plan. Our estimates from Current Population Survey (CPS) data for 2012 indicate that 51 percent of private-sector employees aged 21–64 were offered a pension plan from their employer, and 42 percent reported inclusion in the plan. Using data from the 2006 Survey of Income and Program Participation (SIPP), Dushi, Iams, and Lichtenstein (2011, Table 1) estimated that 65 percent of private-sector employees aged 21–64 self-reported being offered a retirement plan; that proportion increases to 72 percent when self-reported data are augmented with information from the matched W-2 payroll records. Consistent with those authors' findings, the Employment Benefit Research Institute, based on their 2014 Retirement Confidence Survey, reported that 70 percent of workers were offered a retirement plan (Helman and others 2014, 18). Wu and Rutledge (2014, Table 2), using data from the Health and Retirement Study (HRS) for older workers (aged 50–58) over the 1992–2010 period, estimated that about 76 percent of workers were offered a retirement plan by their employer. Among workers in low-income households (with income of less than 300 percent of the federal poverty level), 59 percent were offered a plan compared with 82 percent of workers in households that were not low income.[2]

A recent analysis by Munnell and Bleckman (2014) suggests that estimates of plan coverage depend on the sector of employment (public or private); hours of work (any, part time, or full time); definition used (employer offering, employee inclusion, or participation); and the source of assessment (employers or employees). The authors compared estimates from employers' reports in the Bureau of Labor Statistics' National Compensation Survey (NCS) with estimates from respondents' reports in the CPS. Their findings showed that in the NCS, pension coverage of workers aged 25–64 varied from 64 percent to 79 percent. In the CPS, 52 percent to 63 percent of workers reported being covered by a pension plan depending on hours of work and sector of employment (Munnell and Bleckman 2014, Table 2).[3] Furthermore, the authors observed that estimates of participation in retirement plans were more similar in the NCS and CPS than estimates regarding plan access and offering.[4] Plausibly, this may suggest that the concepts of access and offer are more abstract for survey respondents than the concept of pension plan participation.

One reason for the variation across population surveys is that survey respondents may incorrectly report their pension plan information. Previous research has documented the widespread inconsistencies between survey-reported characteristics of defined benefit (DB) pensions and the plan characteristics detailed in the employer Summary Plan Description (Mitchell 1988; Gustman and Steinmeier 2004, 2005; Gustman, Steinmeier, and Tabatabai 2009). Respondent-reporting error is also found when survey respondents answered questions about defined contribution (DC) plans (Dushi and Iams 2010; Dushi, Iams, and Lichtenstein 2011; Dushi and Honig 2014). Using SIPP data matched to Social Security W-2 tax records, Dushi and Iams (2010) found that the participation rate in DC plans based on respondents' self-reports was lower than the rate when using W-2 records (by 11 percentage points), suggesting that respondents either do not understand the survey questions about participation or they do not recall making a decision to participate in a DC plan. The authors also found inconsistencies between the survey report and the W-2 records regarding contribution amounts to DC plans. Dushi and Honig (2014), using data for older workers in the HRS, found that although respondents interviewed in 1998 and 2004 were more likely to correctly report whether they were included in DC plans, they were no more accurate in reporting whether they contributed to their plans than were respondents interviewed in 1992. The authors also found that respondents in the three cohorts (1992, 1998, and 2004) significantly overstated their annual contributions. Given the presence of respondent-reporting errors, researchers have used different approaches to correct for them, such as examining information from employers' Summary Plan Descriptions,[5] examining respondents' pension reports when those individuals are near retirement or newly retired,[6] or by supplementing survey reports of participation in DC plans with data from W-2 tax records.[7]

According to our recent analysis of the 2006 SIPP data matched to respondents' W-2 records, overall, about 28 percent of private-sector workers aged 21–64 did not have access to any type of retirement plan through their workplace (Dushi, Iams, and Lichtenstein 2011, Table 1). Moreover, 50 percent of private-sector workers in small firms (with fewer than 100 employees) had no retirement plans available, compared with about 16 percent of workers in large firms (with 100 or more employees). By contrast, conditional on the employer offering a retirement plan, the take-up rate among workers in small and large firms was essentially the same—about 80 percent, suggesting that employees in small firms are as likely to take up the plan once they are offered. These substantial differences in offer rate by firm size suggest that it is important to make it easier for small firms to provide some sort of retirement plan to their employees.

The purpose of this analysis is to update our previous estimates based on data from early 2006 (Dushi, Iams, and Lichtenstein 2011) with data from the summer of 2009 and early 2012. Two major influences are reflected in the findings using the 2009 and 2012 data. First, the 2006 Pension Protection Act, among other legislative changes, allowed employers to enroll their employees automatically in DC-type plans. As a result, enrollment in retirement plans is quite likely to have increased because default enrollment leads to higher participation rates.[8] Second, evidence indicates that the Great Recession of 2007–2009 had an impact on employers' matching contributions to DC plans (Towers Watson 2010), and that it also led to a reduction in employees' participation and contributions to such plans (Dushi, Iams, and Tamborini 2013; Dushi and Iams 2015). Hence, it is plausible to expect that these changes have influenced the overall offer, participation, and take-up rates of retirement plans after 2006, and it is likely that the impact of those changes differ by firm size. Thus, our estimates of offer, participation (inclusion), and take-up rates of retirement plans for 2006, 2009, and 2012 may, to some extent, provide evidence of the impact of the 2006 Pension Protection Act and the Great Recession of 2007–2009. In addition, using the responses of the same individual in 2009 and 2012, we assess changes in pension coverage over the 2009–2012 period among private-sector workers by firm size.

Our findings show that offer and participation rates of any retirement plan in 2009 and 2012 were significantly higher than the offer and participation rates in 2006.[9] The participation rate in any pension plan among all private-sector employees increased from 58 percent in 2006 to around 62 percent in 2012 (the difference is statistically significant at the 5 percent level). The take-up rate also significantly increased, from 80 percent in 2006 to around 83 percent in 2009 and 2012. While throughout the period, offer and participation rates differed substantially by firm size, there was little difference in the take-up rate of any retirement plan (conditional on being offered) among workers in firms with 10 or more employees.

The following four sections of the article provide a discussion of the data and methodology, describe the findings of our analysis, address policy changes, and present overall conclusions.

Data and Methodology

The data for this study come from the SIPP, which is conducted by the Census Bureau. The SIPP is the principal, nationally representative household survey for the entire labor force, monitoring pension type, coverage and participation, and the shift from DB to DC plans. More specifically, we use data from the Topical Module on Retirement and Pension Plan Coverage of the 2004 SIPP Panel; respondent interviews were conducted over the 4-month period from February to May 2006. In addition, we also use data from topical modules 3 and 11 of the 2008 SIPP Panel; pension information was reported in the summer of 2009 and again in early 2012. The sample for this analysis consists of private-sector wage and salary workers aged 21–64.[10] Our measurement of firm size is based on employee self-reported responses.[11]

In the topical module, SIPP respondents are asked if the employer offered a pension or retirement plan and whether they were included in the plan.[12] If respondents were included in a plan, they are asked about the type of plan. Then, the SIPP collects information about whether the respondents have contributed to an individual account or retirement plan during the survey year, whether the contributions were tax-deferred, the amount and frequency of contributions, and whether their employers contributed to the plan and the amount of the employer contributions.[13]

Dushi, Iams, and Lichtenstein (2011) documented the presence of reporting errors in the SIPP that were either because of the respondent misunderstanding the survey questions or other reporting procedures, such as Census imputation of missing data[14]—regarding offer, participation, and take-up rates. In this analysis, we supplement SIPP data with information from the respondent's W-2 payroll tax records.[15] Similar to the method used in our previous article, we adjust the survey reports with information from W-2 tax records regarding tax-deferred contributions to DC plans, to correct for the presence of measurement error in self-reports of DC plans and to obtain a more accurate picture of the pension offer, participation, and take-up rates.[16] The main field of interest from the W-2 record is whether in a given year there were tax-deferred contributions to a retirement plan.[17] The presence of positive tax-deferred contributions in the W-2 record is an indication that the respondent not only was offered, but also participated in a DC plan. Thus, we define a respondent as being *offered* any pension plan if he or she reported that the employer offered a pension plan, an investment account plan, a tax-deferred retirement savings plan, or if his or her W-2 tax record indicated tax-deferred earnings to a retirement account; *offer* of a DC plan is defined similarly.[18] We define *participation* in a pension plan if the respondent reported inclusion in a plan, or if the W-2 record indicated the presence of tax-deferred earnings to a retirement account, whereas we define *participation* in a DC plan only according to information in the W-2 record.[19] We define *take up* as a respondent participating in a pension plan, conditional on being offered a plan; *take up* of a DC plan is defined similarly.[20] In this analysis, we use information in the W-2 record that corresponds to the year of the survey (that is, tax-deferred contributions in 2006 for the early 2006 survey data, the 2009 records for the summer of 2009 survey data, and the 2011 records for early 2012 survey data).[21]

We first present the offer, participation, and take-up rates of any type of pension plan (DC, DB, or cash balance)[22] and then separately present the rates for DC plans, by firm size. Next, we estimate the change in offer, participation, and take up between 2009 and 2012 among respondents interviewed in both topical modules.

Results

Our findings cover the following three focal areas: (1) offer, participation, and take-up rates of any type of retirement plan; (2) offer, participation, and take-up rates of DC plans; and (3) changes in offer, participation, and take-up rates over time among respondents who stayed in the same job and those who changed jobs.

Offer, Participation, and Take-Up Rates of Any Type of Retirement Plan

Offer, participation, and take-up rates of any retirement plan by firm-size categories among private-sector workers for each of the 3 years under study are shown in Table 1. Overall, the offer rate seems to have increased only slightly (by 3 percentage points) between 2006 and 2009, and from there it remained the same in 2012 (columns 1–3). A similar pattern is observed among employees working in firms with 100 or more employees. By contrast, offer rates decreased among workers in firms with fewer than 10 employees, from 34 percent in 2006 to 28 percent in 2012, suggesting that the Great Recession of 2007–2009 may have played a role. Interestingly, in firms with 10–24 and 25–49 employees, the offer rates were almost the same in 2006 and 2009, but increased in 2012 (by 4–5 percentage points). Among workers in firms with 50–99 employees, the offer rate decreased from 70 percent in 2006 to 67 percent in 2009, and then increased again to 73 percent in 2012. It is worth noting here that the offer rates among firms with fewer than 100 employees were much lower (around 50 percent) than those in firms with 100 or more employees (around 87 percent), suggesting that a policy such as the proposed automatic IRA, which targets smaller firms, is likely to have an important impact on access to retirement plans. Not surprisingly, the offer rates increased with firm size, and firms with fewer than 10 employees had the lowest offer rate (28 percent in 2012).

Table 1.
Offer, participation, and take-up rates of any retirement plan among private-sector workers in 2006, 2009, and 2012, by firm-size categories (in percent)

Firm size (number of employees)	Offer of any retirement plan			Participation in any retirement plan			Take up of any retirement plan		
	2006 (1)	2009 (2)	2012 (3)	2006 (4)	2009 (5)	2012 (6)	2006 (7)	2009 (8)	2012 (9)
All	72	75 *	75 *	58	63 *	61 *	80	83 *	82 *
100 or more	84 †	87 *†	87 *†	68 †	73 *†	71 *†	81 †	84 *†	82 *†
Fewer than 100	50	50	52 *	39	40	42 *	79	79	80 *
Fewer than 10	34	33	28 *	28	27	23 *	83	82	82
10–24	46	46	51 *	36	35	42 *	77	78	82 *
25–49	60	59	63 *	46	47	51 *	77	81	80 *
50–99	70	67 *	73 *	54	52 *	57 *	78	78	78
10 or more	77 †	81 *†	80 *†	62 †	67 *†	65 *†	80 †	83 *	82 *
Number of observations	23,753	20,499	14,464	23,753	20,499	14,464	15,631	15,525	10,873

SOURCE: Data are from the 2006 topical module 7 of the 2004 Survey of Income and Program Participation (SIPP) Panel and the 2009 and 2012 topical modules 3 and 11, respectively, of the 2008 SIPP Panel. Samples from both panels are matched to Social Security W-2 records.

NOTES: The samples consist of private-sector wage and salary workers aged 21–64 at the interview year. Estimates are weighted using survey weights. Offer is defined as equal to 1 if the employer offers any retirement plan (either a defined benefit (DB), defined contribution (DC), or cash balance plan) and 0 otherwise. Participation is defined as equal to 1 if the respondent reports either inclusion in a DB plan or active participation (that is, making tax-deferred contributions) in a DC plan and 0 otherwise. Conditional on being offered any retirement plan, take up is defined as equal to 1 if the respondent participates in a plan and 0 otherwise. The three definitions adjust the respondent's report in the SIPP with information in the W-2 record (that is, if the W-2 record indicates a positive tax-deferred contribution). In other words, if a SIPP respondent reports not being offered (or participating in) a pension plan and the W-2 record indicates that he or she made a tax-deferred contribution to a DC account in the survey year, then the respondent is classified as being offered and participating in a retirement plan.

* denotes that the difference in the rates in each row between 2006 and 2009 (and/or between 2006 and 2012) is statistically significant at the 5 percent or better level.

† denotes that the difference in the rates within each column between firms with 100 or more employees and firms with fewer than 100 employees and between firms with 10 or more employees and firms with fewer than 10 employees is statistically significant at the 5 percent or better level.

Columns 4–6 reveal that overall participation rates in a pension plan (that is, inclusion) significantly increased from 58 percent in 2006 to around 61 percent in 2012, suggesting that changes in offer rates quite likely have contributed to the increase in participation. This pattern also suggests that the larger increase from 2006 to 2009 could be because of the 2006 Pension Protection Act, whereas the decrease from 2009 to 2012 could be because of the Great Recession of 2007–2009. The same pattern is evident among firms with 100 or more employees. By contrast, the participation rate in smaller firms (those with 10–24 and 50–99 employees) slightly decreased in 2009, but it increased in 2012. Among firms with fewer than 10 employees, the participation rate decreased from 28 percent in 2006 to 23 percent in 2012. Similar to the offer rate, the participation rate of workers in firms with fewer than 100 employees was much lower (a difference of about 30 percentage points) than the rate of their counterparts in firms with 100 or more employees. Although the participation rates increased with firm size, in 2012, the rate remained below 25 percent for firms with fewer than 10 employees and below or near 50 percent for firms with 10–24 and 25–49 employees, respectively.

Conditional on being offered a pension plan, the overall take-up rate increased from 80 percent in 2006 to 83 percent and 82 percent in 2009 and 2012, respectively (columns 7–9); the increase was small, but statistically significant at the 5 percent level. Thus, the slight increase in offer rates (by about 3 percentage points) quite likely led to a proportional increase in take-up rates (by about 2–3 percentage points).

Interestingly, the take-up rates in firms with 10 or more employees follow the same pattern, whereas in firms with fewer than 10 employees, the take-up rates were almost unchanged over the period. Furthermore, the take-up rates in firms with fewer than 10 employees were as high as the take-up rates in firms with 100 or more employees and, in general, they were higher (by 4–6 percentage points in 2006 and 2009) than the rates in firms with 10–24 employees. This finding suggests that workers in small firms are not much different in their decision to take up retirement plans when offered; therefore, increasing the offer rate among workers in small firms would plausibly increase their participation in such plans and help bolster their retirement security.

Offer, Participation, and Take-Up Rates of DC Plans

As DB plans are being "frozen" or eliminated, DC plans are becoming the dominant type of retirement plan available to employees (Bureau of Labor Statistics 2010, Table 2). Overall, we find that among private-sector workers, the offer rate of DC plans increased from 60 percent in 2006 to 63 percent in 2009, and then declined to 61 percent in 2012; those changes while small in magnitude, are statistically significant at the 5 percent level (Table 2, columns 1–3). As expected, the offer rate in 2012 was substantially higher among workers in firms with 100 or more employees than in firms with fewer than 100 employees (72 percent versus 40 percent). Among firms with

Table 2.
Offer, participation, and take-up rates of DC plans among private-sector workers in 2006, 2009, and 2012, by firm-size categories (in percent)

Firm size (number of employees)	Offer of a DC plan			Participation in a DC plan			Take up of a DC plan		
	2006 (1)	2009 (2)	2012 (3)	2006 (4)	2009 (5)	2012 (6)	2006 (7)	2009 (8)	2012 (9)
All	60	63 *	61 *	44	46 *	45 *	73	74 *	73
100 or more	71 †	73 *†	72 *†	53 †	55 *†	53 †	74 †	75 *†	74 †
Fewer than 100	39	38	40 *	27	26	28	70	67 *	70
Fewer than 10	24	23	20 *	17	16	14 *	71	69 *	72 *
10–24	36	34 *	38 *	24	22 *	26 *	68	65 *	69
25–49	48	45 *	48	34	31 *	34	70	68 *	70
50–99	59	53 *	59	41	35 *	40	70	66 *	68 *
10 or more	65 †	67 *†	65 †	48 †	50 *†	48 †	73 †	74 *†	73
Number of observations	23,753	20,499	14,464	23,753	20,499	14,464	14,403	12,872	8,867

SOURCE: Data are from the 2006 topical module 7 of the 2004 Survey of Income and Program Participation (SIPP) Panel and the 2009 and 2012 topical modules 3 and 11, respectively, of the 2008 SIPP Panel. Samples from both panels are matched to Social Security W-2 records.

NOTES: The samples consist of private-sector wage and salary workers aged 21–64 at the interview year. Estimates are weighted using survey weights. The three definitions adjust the respondent's report in the SIPP with information in the W-2 record (that is, if the W-2 record indicates a positive tax-deferred contribution). More specifically, offer is defined as equal to 1 if the employer offers a defined contribution (DC) retirement plan and 0 otherwise. If a SIPP respondent reports not being offered a DC plan and the W-2 record indicates that he or she made a tax-deferred contribution to a DC plan in the survey year, then the respondent is classified as being offered a DC plan. By contrast, if the SIPP respondent reported being offered a DC plan, but the W-2 record indicates that no contributions were made, we consider the respondent as being offered because there is no way we can tell from the W-2 record whether the offer was made or not. The definitions of participation in and take up of a DC plan take into account only information in the W-2 record, if the respondent made a tax-deferred contribution in the survey year. Thus, participation is defined as equal to 1 if the respondent, according to the W-2 record, made tax-deferred contributions in a DC plan and 0 otherwise. Conditional on being offered a DC plan, take up is defined as equal to 1 if the respondent participates in a DC plan and 0 otherwise.

* denotes that the difference in the rates in each row between 2006 and 2009 (and/or between 2006 and 2012) is statistically significant at the 5 percent or better level.

† denotes that the difference in the rates within each column between firms with 100 or more employees and firms with fewer than 100 employees and between firms with 10 or more employees and firms with fewer than 10 employees is statistically significant at the 5 percent or better level.

fewer than 100 employees, the proportion offered a plan increased with firm size, from about 20 percent in firms with fewer than 10 employees to 59 percent in firms with 50–99 employees. Over the period, among firms with fewer than 100 employees, the offer rate slightly decreased in 2009 compared with 2006, but then increased again in 2012. An exception is firms with fewer than 10 employees, where the offer rate decreased throughout the period.

Among all private-sector workers, over the period under study, around 45 percent had made tax-deferred contributions to DC plans as indicated by their W-2 tax records (columns 4–6); the increase in the participation rate between 2006 and 2009 and between 2006 and 2012 was small (by 1–2 percentage points), but statistically significant. Similar to previous patterns, in 2012, workers in large firms with 100 or more employees were more likely to participate in DC plans than were their counterparts in small firms with fewer than 100 employees (53 percent versus 28 percent, respectively. Participation rates in small firms range from 14 percent in firms with fewer than 10 employees to 40 percent in those with 50–99 employees. Except in the smallest firm (with fewer than 10 employees), where the rates decreased monotonically over the study period, participation rates in the firms with 10–24, 25–49, and 50–99 employees dipped in 2009, but bounced back to previous levels in 2012.

Overall, about three-quarters of employees who were offered a DC plan took it up (columns 7–9). The take-up rates remained almost unchanged over the period in firms with 100 or more employees, and they decreased only slightly in 2009 in firms with fewer than 100 employees. Interestingly, in 2012, there was no substantial difference in the take-up rates by firm size, ranging from 72 percent in firms with fewer than 10 employees to 68 percent in firms with 50–99 employees and up to 74 percent in firms with 100 or more employees. These findings suggest that the main factor in lower participation rates among workers in smaller firms may be the lack of an offer of a DC plan. Hence, if all uncovered workers were offered a DC plan or an IRA plan in 2012, all else being equal, one would expect that about three-quarters of them may have participated.

Changes in Offer, Participation, and Take-Up Rates Over Time

In Tables 1 and 2, we treat the samples in 2009 and 2012 as two separate cross sections; in fact, both samples are from the 2008 Panel of the SIPP. Hence, the cross-section estimates allow for the possibility that over the period, survey respondents may have gained or lost pension coverage for different reasons, or they may have even opted out of the survey. Next, we take advantage of the panel aspect of the 2008 SIPP and examine changes in individuals' offer, participation, and take-up rates over the period, from the first pension module conducted in the summer of 2009 to the second pension module conducted in early 2012. To the best of our knowledge, no one has used this panel aspect to examine changes over time, particularly by firm size. We restrict the sample to respondents who were interviewed and had a wage and salary job in both 2009 and 2012.[23]

Because changes in offer, participation, and take-up rates are affected by whether respondents changed jobs over the period, we present estimates separately for workers who were in the same job in both years (that is, "job stayers") and those who were in a different job in both years (that is, "job changers").[24] For 2009 and 2012, the percentage distribution of offer, participation, and take-up rates by firm-size categories is given in Tables 3a, 3b, and 3c, respectively, for the overall sample and separately for job stayers and job changers. Among all workers who stayed in the same job over the period, 68 percent were offered a plan in both years, and 56 percent participated in a plan in both years (Tables 3a and 3b, respectively, panel A, column 4). An additional 16 percent of respondents were not offered a plan in both years, and 27 percent did not participate (Tables 3a and 3b, respectively, panel A, column 1); the 11 percentage point difference between those two rates suggests that a nontrivial proportion elected not to participate in a plan even when offered. Table 3a also shows that among job stayers, 9 percent of respondents who were not offered a plan in 2009 were offered a plan in 2012 (panel A, column 2), whereas 7 percent of respondents who were offered a plan in 2009 were not offered a plan in 2012 (column 3); the latter figure reflects either respondents' misreport of plan offers in one of the two interviews, Census imputation error, or changes in plan offering by employers (although less likely).

We derive the take-up rates only for workers who were offered a plan in both years. Thus, among job stayers, 82 percent of employees continued to take up a plan in both 2009 and 2012 (Table 3c, panel A, column 4), whereas the 5 percent who took up the plan in 2009 seemed to have decided not to take it up in 2012 (column 3). An additional 7 percent decided to take up the offered plan in 2012, although they were also offered one in 2009 (column 2); however, another

Table 3a.
Percentage distribution of offer rates of any retirement plan among private-sector workers, by whether those workers were in the same or a different job in 2009 and 2012 and by broad firm-size categories (in percent)

Firm size (number of employees)	Not offered in 2009 or 2012 (1)	Not offered in 2009, but offered in 2012 (2)	Offered in 2009, but not offered in 2012 (3)	Offered in 2009 and in 2012 (4)	Total number
			Panel A: Job stayers (in the same job)		
All	16	9	7	68	10,850
Fewer than 100	32	9	11	48	3,577
100 or more	6	9	5	80	7,073
Fewer than 10	55	6	13	26	986
10 or more	10	10	6	74	9,664
			Panel B: Job changers (in a different job)		
All	31	29	8	32	4,201
Fewer than 100	52	21	8	19	1,473
100 or more	16	38	4	42	2,341
Fewer than 10	71	10	9	10	459
10 or more	24	34	5	37	3,355

SOURCE: Data are from the 2009 and 2012 topical modules 3 and 11, respectively, of the 2008 Survey of Income and Program Participation (SIPP) Panel matched to Social Security W-2 records.

NOTES: The sample consists of private-sector wage and salary workers aged 21–64 at the 2009 survey interview. The sample of respondents is divided into two subsamples: (1) workers who were in the same job in both 2009 and 2012 and (2) those who were in different jobs in 2009 and 2012.

Estimates are weighted using survey weights. Offer is defined as equal to 1 if the employer offers any retirement plan (either a defined benefit (DB), defined contribution (DC), or cash balance plan) and 0 otherwise. This definition adjusts the respondent's report in the SIPP with information in the W-2 record (that is, if the W-2 record indicates a positive tax-deferred contribution). In other words, if a SIPP respondent reports not being offered a pension plan and the W-2 record indicates that he or she made a tax-deferred contribution to a DC account in the survey year, then the respondent is classified as being offered a retirement plan.

The authors performed the Chi^2 test of the difference in percentage distribution between job stayers (Panel A) and job changers (Panel B) for each firm-size category and found that the differences are statistically significant at the 5 percent level.

7 percent did not take up the offer in either year (column 1). These findings suggest that the majority of respondents who stayed in the same job did not change their take-up decision over this 3-year period.

As expected, job stayers in large firms (with 100 or more employees) were more likely than their counterparts in small firms (with fewer than 100 employees) to have been offered a plan and to have participated in that plan in both years (Tables 3a and 3b, panel A, column 4). A substantially larger proportion of job stayers in small firms (32 percent) were not offered a plan in both years, compared with only 6 percent of workers in large firms (Table 3a, column 1). Interestingly, similar proportions (9 percent) of job stayers in large and small firms who were not offered a plan in 2009 were newly offered one in 2012. Table 3b (column 2) shows that the proportion of workers who started participating in 2012 was only slightly higher in large firms than it was in small firms (11 percent versus 9 percent). In addition, compared with large firms, a slightly higher proportion of job stayers in small firms who participated in a plan in 2009 stopped participating in 2012 (9 percent versus 6 percent, column 3). Workers' decisions to take up a plan varied very little by firm size (Table 3c). Although the proportions of job stayers who were not offered or did not participate in a plan in both years were substantially higher among those in firms with fewer than 10 employees (Tables 3a and 3b, column 1), the take-up rate was similar to the overall rate (Table 3c, column 1).

Table 3b.
Percentage distribution of participation rates of any retirement plan among private-sector workers, by whether those workers were in the same or a different job in 2009 and 2012 and by broad firm-size categories (in percent)

Firm size (number of employees)	Did not participate in 2009 or 2012 (1)	Did not participate in 2009, but participated in 2012 (2)	Participated in 2009, but did not participate in 2012 (3)	Participated in 2009 and in 2012 (4)	Total number
			Panel A: Job stayers (in the same job)		
All	27	10	7	56	10,850
Fewer than 100	44	9	9	39	3,577
100 or more	18	11	6	65	7,073
Fewer than 10	64	5	10	21	986
10 or more	22	11	7	60	9,664
			Panel B: Job changers (in a different job)		
All	49	19	7	25	4,201
Fewer than 100	64	14	7	15	1,473
100 or more	38	25	4	33	2,341
Fewer than 10	78	8	6	8	459
10 or more	44	22	5	28	3,355

SOURCE: Data are from the 2009 and 2012 topical modules 3 and 11, respectively, of the 2008 Survey of Income and Program Participation (SIPP) Panel matched to Social Security W-2 records.

NOTES: The sample consists of private-sector wage and salary workers aged 21–64 at the 2009 survey interview. The sample of respondents is divided into two subsamples: (1) workers who were in the same job in both 2009 and 2012 and (2) those who were in different jobs in 2009 and 2012.

Estimates are weighted using survey weights. Participation is defined as equal to 1 if the respondent reports either inclusion in a defined benefit (DB) or active participation (that is, making tax-deferred contributions) in a defined contribution (DC) plan and 0 otherwise. These definitions adjust the respondent's report in the SIPP with information in the W-2 record (that is, if the W-2 record indicates a positive tax-deferred contribution). In other words, if a SIPP respondent reports not participating in a pension plan and the W-2 record indicates that he or she made a tax-deferred contribution to a DC account in the survey year, then the respondent is classified as participating in a retirement plan.

The authors performed the Chi^2 test of the difference in percentage distribution between job stayers (Panel A) and job changers (Panel B) for each firm-size category and found that the differences are statistically significant at the 5 percent level.

The percentage distributions may not sum to 100 because of rounding.

Not surprisingly, offer, participation, and take-up rates were much lower among workers who changed jobs between 2009 and 2012 than among those who remained in the same job during the period (Tables 3a, 3b, and 3c, panel B compared with panel A). Thus, while only 16 percent of job stayers were not offered a plan in both years, a significantly higher proportion of job changers (31 percent) were not offered a plan in both years (Table 3a, panels A/B, column 1). By contrast, about two-thirds of job stayers were offered a pension plan in both years, compared with a third of job changers (column 4). It is interesting to note that a higher proportion of job changers than of job stayers (29 versus 9 percent) who did not have a pension offer in 2009, had an offer in 2012 (column 2). This suggests that there was some decision among job changers to move from jobs that did not offer a retirement plan to jobs that did offer a plan. Furthermore, 49 percent of job changers did not participate in a plan in both years, compared with 27 percent of their job stayer counterparts (Table 3b, panels A/B, column 1); the difference is significant at the 5 percent level. Workers who remained in the same job over the 2009–2012 period were significantly more likely to participate in a plan in both years than were those who changed jobs (column 4).

Table 3c.
Percentage distribution of take-up rates of any retirement plan among private-sector workers, by whether those workers were in the same or a different job in 2009 and 2012 and by broad firm-size categories (in percent)

Firm size (number of employees)	Did not take up in 2009 or 2012 (1)	Did not take up in 2009, but took up in 2012 (2)	Took up in 2009, but did not take up in 2012 (3)	Took up in 2009 and in 2012 (4)	Total number
			Panel A: Job stayers (in the same job)		
All	7	7	5	82	7,408
Fewer than 100	7	7	5	81	1,692
100 or more	7	7	4	82	5,707
Fewer than 10	9	6	5	80	250
10 or more	7	7	4	82	7,149
			Panel B: Job changers (in a different job)		
All	8	9	5	78	1,388
Fewer than 100	8	9	7	77	290
100 or more	8	9	6	77	1,017
Fewer than 10	4	9	7	80	46
10 or more	8	9	6	77	1,261

SOURCE: Data are from the 2009 and 2012 topical modules 3 and 11, respectively, of the 2008 Survey of Income and Program Participation (SIPP) Panel matched to Social Security W-2 records.

NOTES: The sample consists of private-sector wage and salary workers aged 21–64 at the 2009 survey interview. The sample of respondents is divided into two subsamples: (1) workers who were in the same job in both 2009 and 2012 and (2) those who were in different jobs in 2009 and 2012.

Estimates are weighted using survey weights. Conditional on being offered any retirement plan, take up is defined as equal to 1 if the respondent participates in a plan and 0 otherwise. This definition adjusts the respondent's report in the SIPP with information in the W-2 record (that is, if the W-2 record indicates a positive tax-deferred contribution). In other words, if a SIPP respondent reports not taking up the offered pension plan and the W-2 record indicates that he or she made a tax-deferred contribution to a defined contribution (DC) account in the survey year, then the respondent is classified as taking up the plan. Take-up rates are calculated conditional on the respondent being interviewed in both years and of being offered a pension plan in both years.

The authors performed the Chi^2 test of the difference in percentage distribution between job stayers (Panel A) and job changers (Panel B) for each firm-size category and found that the differences are statistically significant at the 5 percent level.

The percentage distributions may not sum to 100 because of rounding.

Policy Changes

To increase retirement plan participation, the current administration's focus is on increasing plan offerings. According to Iwry and Johns (2007), the automatic IRA plan would apply to employers with 10 or more employees, who do not sponsor a pension plan of any type and who have been in business for at least 2 years. Disregarding the 2-year requirement in the proposal, our data suggest that about three-quarters of private-sector workers were in firms that offered any type of pension plan (Table 1, columns 1–3). Under the automatic IRA, employees without a pension plan offer would automatically be enrolled in an IRA plan, although they have the choice of opting out of the plan. Our estimates indicate that take-up rates of those employees would be around 80 percent (columns 7–9). Hence, if the automatic IRAs were introduced to all private-sector employees not offered *any* pension plan by their employer, we would expect the overall participation rate to increase by about 21 percentage points.[25] If the automatic IRAs were introduced to only workers in firms with 10 or more employees who were not offered a DC plan, then the overall participation rate would increase by about 25 percentage points.[26] Note that our estimates assume the same take-up rate as that in the case of plans without automatic enrollment, suggesting that the take-up rate may be even higher under automatic enrollment, all else being equal.

Conclusion

It is well documented that the self-reported rates of offer, participation, and take up identified by workers are prone to reporting error either because of misunderstanding of survey questions or reporting procedures, such as Census imputation of missing data. However, accurate information regarding whether employers offer a retirement plan to their employees and whether workers participate in the plan is important for both researchers and policymakers.

In this analysis, we update our previous estimates for 2006 with estimates from more recent years (2009 and 2012) and provide more accurate rates by supplementing SIPP survey reports with information on tax-deferred contributions in W-2 records. We find that the percentage of employees who were offered a retirement plan increased from 72 percent in 2006 to 75 percent in 2012, whereas the participation rate in any retirement plan among all private-sector workers increased from 58 percent to 61 percent over this period (while the magnitude of the increase is relatively small, the difference is statistically significant at the 5 percent level). However, conditional on being offered a pension plan, about four-fifths of employees took up a plan, and the take-up rate increased between 2006 and 2012 (a small but statistically significant change).

Regarding the relationship between firm size and the employer's decision to offer a plan and the worker's decision to participate in a plan, we find that, in general, offer and participation rates were higher among firms with 100 or more employees than they were among firms with fewer than 100 employees. While the offer rate of the latter group increases with firm size, overall it was still at 52 percent among small firms in 2012. Interestingly, despite differences in offer rates by firm size, the take-up rates—conditional on being offered—were similar across firm sizes and across years.

Findings based on the longitudinal panel of respondents working in both 2009 and 2012 reveal that offer, participation, and take-up rates were higher among workers who remained in the same job over the period than among workers who had a different job in 2012 than the one they held in 2009. Among job stayers, about 56 percent participated in a plan in both years, whereas about 27 percent did not participate in either year. By contrast, only 25 percent of job changers participated in a plan in both years, while 49 percent did not participate in either year. The proportions of job stayers who did not participate in both years were substantially higher among workers in firms with fewer than 10 employees than they were for those in firms with 10 or more employees (22 percent versus 64 percent); respective proportions were even higher among job changers (44 percent versus 78 percent). It is worth noting that job changers in firms with 10 or more employees were about two times more likely than job stayers to participate in a plan in 2012, but not in 2009 (22 percent versus 11 percent), suggesting that about a third of workers who changed jobs over the period moved into jobs that offered retirement plans.

Overall, the main implication of our findings is that, contrary to widely accepted beliefs, the proportion of private-sector workers with pension offers and participation is higher than previous research has found, suggesting that future retirees may have wider access to retirement funds because of higher participation. Yet, workers in small firms (with fewer than 100 employees) are less likely to have an offer of or to participate in any pension plan than are workers in large firms (with 100 or more employees).

As noted earlier, the Obama administration's proposal for an automatic IRA is aimed at the workforce employed by companies with 10 or more employees that do not offer any type of pension plan. According to our estimates, if automatic IRAs were introduced to all private sector-workers not offered *any* pension plan, then the participation rate in 2012 would have been higher by about 21 percentage points. If automatic IRAs were instead introduced to private-sector workers in firms with 10 or more employees who were not offered a DC plan, then their participation rate in 2012 would have been about 25 percentage points higher. It is also worth noting that while such policy is likely to increase participation among employees who are not offered a pension plan, more work needs to be done to promote financial literacy, to provide education, and/or to implement automatic enrollment to increase participation among workers who have a plan offer, but choose not to participate. This would raise those workers' awareness of the importance of saving in tax-deferred plans for their retirement preparedness.

Appendix

Table A-1.
Pension plan offer, participation, and take-up rates, by private- and public-sector status, full- and part-time status, and data source (in percent)

Sector, job status, and data source	Offer	Participation	Take up
Private sector			
Full time			
NCS [a]	70	60	85
SIPP or W-2 reports [b]	75	63	84
Part time			
NCS [a]	31	23	73
SIPP or W-2 reports [b]	49	27	55
State and local public sector			
Full time			
NCS [c]	99	95	97
SIPP or W-2 reports [b]	92	85	92
Part time			
NCS [c]	39	37	93
SIPP or W-2 reports [b]	75	41	55

SOURCES: Data are from the 2004 Survey of Income and Program Participation (SIPP) Panel, wave 7 topical module conducted in 2006, Social Security W-2 tax records, and National Compensation Survey data.

a. Department of Labor, National Compensation Survey: Employee benefits in private industry in the United States, March 2007, Table 1.

b. Authors' calculations using data from the 2004 SIPP Panel, wave 7 topical module conducted in 2006 matched to W-2 tax records (Social Security Administration's Detailed Earnings Records). The definition of offer, participation, and take-up rates takes into account a respondent's report in the SIPP and/or if the W-2 tax record indicates a positive tax-deferred contribution amount. If the respondent in the SIPP reports not being offered or participating in a pension plan and the W-2 record indicates a positive tax-deferred contribution amount, then he or she is classified as being offered a plan and participating in a pension plan.

c. Department of Labor, National Compensation Survey: Employee benefits in state and local governments in the United States, September 2007, Table 1.

Notes

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[1] Throughout the article, we use "pension plan" and "retirement plan" interchangeably.

[2] It is worth noting that in the overall population, offer rates are quite likely to vary by age and income level. Given that the HRS sample is comprised of people aged 51 or older, the offer rates are likely to be higher than they are for people at younger ages.

[3] The NCS estimates reveal that pension access among private-sector workers was 65 percent in 2012 and 64 percent in 2013 (Table 2 in Bureau of Labor Statistics 2012 and 2013). These estimates appear to be for all workers with any hours of work.

[4] We compared offer, participation, and take-up rates from 2007 NCS data with 2006 SIPP data separately for public and private-sector workers and by whether they were full- or part-time workers. The estimates provided in the Appendix (Table A-1) show that among private-sector full-time workers, offer and participation rates are slightly higher in the SIPP (after adjustment with W-2 record data) than in the NCS, whereas there are no differences in the take-up rates.

[5] See Mitchell (1988); Gustman and Steinmeier (2004, 2005); and Gustman, Steinmeier, and Tabatabai (2009).

[6] See Chan and Huff Stevens (2004) and Hurd and Rohwedder (2007).

[7] See Turner, Muller, and Verma (2003); Dushi and Iams (2010); Dushi, Iams, and Lichtenstein (2011); and Dushi and Honig (2014).

[8] See Madrian (2012) for a summary of previous literature on the impact of automatic enrollment on participation rates.

[9] Moving forward, we use the term "significant" to mean statistically significant, even if the magnitude of the change is not substantial.

[10] The reported estimates are weighted using person-sample weights and also account for the SIPP's complex sampling procedures.

[11] The automatic IRA proposal's focus is on firms with more than 10 employees. However, in our tabulation, we refer to firms with 10 or more employees. It is worth noting that in 2012, the Census Bureau changed the firm-size category ranges. In 2012, the firm sizes were categorized as follows: fewer than 10, 10–25, 26–50, 51–99, and 100 or more. In 2006 and 2009, the firm sizes were categorized as follows: fewer than 10, 10–24, 25–49, 50–99, and 100 or more. In this analysis, we describe the data using firm-size categories from 2006 and 2009. We have no way of knowing the impact on our estimates of such change in firm-size categories.

[12] The Employee Retirement Income Security Act (ERISA) permits certain restrictions regarding employees who are eligible to participate in a retirement plan when an employer offers one. The SIPP question assumes that the employer offers a retirement plan to the respondent and the respondent is eligible to participate in the plan. However, it may be the case where an employee works in a firm that offers a plan, but he or she is not yet eligible to participate in that plan. Thus, to the extent that such an employee reports that his or her employer offered a plan, but he or she was not eligible to participate in it, the offer rate will be biased upward. In addition, when asked whether the respondent is included in the plan, the wording of "being included" might be interpreted differently by different workers.

[13] See Dushi and Iams (2010) for a more detailed discussion of the SIPP questionnaire structure regarding pensions.

[14] Dushi and Iams (2010) discuss these types of errors and the follow-up question regarding DC plans that lead to higher offer and participation rates. Other researchers who produced lower rates using the same 2004 SIPP data seem to have not used this follow-up question.

[15] We find that when tax records are used, both pension offer and participation rates are higher than those estimated when using only the worker's self-reported information.

[16] About 85 percent of respondents in the 2004 SIPP Panel and 94 percent in the 2008 Panel have had their survey reports matched to their Social Security W-2 records.

[17] Starting in 1990, the W-2 tax record contains a separate field for the amounts of tax-deferred contributions to retirement accounts. Starting in 2005, for each job a worker holds in a given year, the W-2 record contains information (in addition to total compensation, taxable earnings, and so forth) on the amount of earnings that were tax deferred to a retirement plan and the type of plan (401(k), 403(b), 408, 457, and 501 accounts).

[18] Note that the lack of a tax-deferred contribution in the W-2 record does not necessarily indicate that the employee was not offered a DC plan or any other pension plan. We have no way of knowing from the W-2 records whether the self-reported information regarding the plan offer was valid or not because the employee may have been offered a plan, but chose not to participate in it.

[19] We do not classify as DC plan participants those respondents who according to self-reports were in plans that did not require them to contribute to the plan and for whom only the employer was making contributions to the account. For that group, the W-2 record indicates no tax-deferred contributions. Dushi and Iams (2010) indicated that less than 3 percent of respondents in the SIPP were in this group.

[20] For more detailed definitions of offer, participation, and take up, see Dushi, Iams, and Lichtenstein (2011).

[21] W-2 records for 2012 were not available at the time this work was completed.

[22] Technically, a cash balance plan is considered a DB plan.

[23] We focus on wage and salary workers in both years because pensions are offered only to those who are employed. According to our estimates, about 72 percent of wage and salary workers in our sample were in the same job in both 2009 and 2012, while 28 percent changed jobs in that period. It is plausible that workers in the latter group were at risk of not being offered a plan in the new job or of changing their pension participation and take-up decision in the new job when a plan was offered.

[24] Note that the sample of workers who changed jobs between 2009 and 2012 excludes those who lost their jobs by 2012 and those who reported self-employment in 2012.

[25] We estimate the percentage as the proportion of employees not offered a pension plan multiplied by the take-up rate of those who were offered a plan (see Table 1, columns 1–3 and 7–9). For any pension, about 22 percent in 2006 (0.28×0.80), about 21 percent in 2009 (0.25×0.83), and about 21 percent in 2012 (0.25×0.82) would be expected to participate if the take-up rates of offered employees were applied. Corresponding proportions for DC retirement plans (Table 2, columns 1–3 and 7–9) would be about 26 percent in 2006 (0.35×0.73), about 24 percent in 2009 (0.33×0.74), and about 26 percent in 2012 (0.35×0.73).

[26] According to Karamcheva and Sanzenbacher (2010), the characteristics of workers choosing jobs that offer pensions may differ from those of workers choosing jobs without pension offers, which in turn is quite likely to have an effect on participation rates. The authors estimated that the participation rate observed among workers who were in jobs that offered pensions would decrease by 23 percent when applied to workers in jobs without pension offers.

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