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Issue BRIEF

Current Population Survey: Issues Continue for Retirement Plan Participation and Retiree Income Estimates

By Craig Copeland, Ph.D., Employee Benefit Research Institute

AT A GLANCE

The Annual Social and Economic Supplement (fielded in March of each year) to the Current Population Survey (CPS), conducted by the U.S. Census Bureau, is one of the most-cited sources of income data for those whose ages are associated with being retired (typically ages 65 or older). In 2014, the U.S. Census Bureau conducted a redesign of the CPS questionnaire to improve income estimates that were reported from the survey. After the CPS redesign, despite no changes to the retirement plan questions, the estimates of the percentage of workers who participated in an employment-based retirement plan decreased dramatically.

This *EBRI Issue Brief* enumerates the top-level results on the percentage of workers participating in an employment-based retirement plan from the 2017 CPS (which asks about participation in 2016), and compares the results with those found in prior years both before and after the redesign of the CPS questionnaire. This allows for an evaluation of the latest results to see if the participation results in 2016 are still being affected by the questionnaire changes. In addition, the trend in total and pension income for those ages 65 or older is examined over the same period, along with a comparison of the aggregate pension income found in CPS with Internal Revenue Service (IRS) data.

This study finds various results about retirement plan participation and the income of individuals ages 65 or older. Specifically, the results from the redesigned questionnaire indicate:

- ***Lower overall percentage of workers participating in a retirement plan:*** Compared with the 2013 estimate before the questionnaire redesign, the 2016 estimate shows a reduction of 13.5 percentage points in the percentage of full-time, full-year wage and salary workers ages 21-64 participating in a retirement plan—from 54.5 percent before the questionnaire redesign to 41.0 percent in 2016.
- ***Declines in participation among those most likely to participate:*** Since the redesign, the survey has shown ongoing, substantial declines among full-time, full-year wage and salary workers with the highest likelihoods of participating in each of four important demographic groups. For example, among those ages 55-64, the percentage participating in a plan fell from 57.1 percent in 2013 (redesigned) to 48.1 percent in 2016.
- ***Discrepancy in the participation trend relative to another government survey:*** Under the Bureau of Labor Statistics' National Compensation Survey (NCS), the percentage of private-sector wage and salary workers at establishments with 500 or more employees participating in an employment-based retirement plan remained relatively flat between 2013 and 2016, at around 76 percent. In contrast, similar numbers from the CPS found that the percentage participating *decreased* from 64 percent before the redesign in 2013 to 47 percent in 2016.
- ***A higher percentage reporting pension income:*** The percentage of Americans ages 65 or older reporting they received pension/annuity income increased from 30.6 percent in 2013 before the redesign to 35.4 percent in 2014 and 2016.

- ***Generally, higher overall reported income.*** The average pension/annuity income for those ages 65 or older increased from $18,628 before the redesign in 2013 to $20,317 after the redesign, and then reached $22,335 in 2016. The median income increased from $12,300 to $13,212, before climbing to $14,358 in 2016.

While the redesign improved the income estimates from CPS, the impact on the retirement plan participation numbers is problematic—potentially erroneously giving the impression the percentage of workers participating has declined. Consequently, unless modifications are made to the CPS, continuing to use it for estimating the participation in employment-based retirement plans will provide misleading and inaccurate estimates and conclusions about these plans. Furthermore, even after the redesign, the aggregated CPS pension/annuity income only amounted to approximately 55 percent to 65 percent of the similar income reported by the IRS.

Craig Copeland is a senior research associate at the Employee Benefit Research Institute (EBRI). This *Issue Brief* was written with assistance from the Institute's research and editorial staffs. Any views expressed in this report are those of the author and should not be ascribed to the officers, trustees, or other sponsors of EBRI, EBRI-ERF, or their staffs. Neither EBRI nor EBRI-ERF lobbies or takes positions on specific policy proposals. EBRI invites comment on this research.

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Current Population Survey: Issues Continue for Retirement Plan Participation and Retiree Income Estimates

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Introduction

The Annual Social and Economic Supplement (fielded in March of each year) to the Current Population Survey (CPS), conducted by the U.S. Census Bureau, is one of the most-cited sources of income data for those whose ages are associated with being retired (typically ages 65 or older).[1] In response to research showing that the survey misclassified and generally under-reported income, particularly pension income,[2] the U.S. Census Bureau in 2014 conducted a redesign of the CPS questionnaire that altered and added to the questions on income.[3,4] When such a change is made in a survey questionnaire, results can be affected–not just in the responses to changed questions, but also to results from other areas of the survey.[5] From the CPS redesign, one such impact appeared to be on the estimates of the percentage of workers who participate in an employment-based retirement plan.

Using this annual March CPS data, the Employee Benefit Research Institute (EBRI) has done annual reports on employment-based pension participation among civilian noninstitutionalized workers, including studies after the full implementation of the survey redesign.[6,7] The basis of these studies are the two questions in the March CPS that ask workers if other than Social Security did any employer or union that you worked for in the prior year have a pension or other type of retirement plan for any of its employees and then whether the worker was included in that plan. These two questions were not part of the changes in the redesign of the income questions in the questionnaire.

This *EBRI Issue Brief* enumerates the top-level estimates of the percentage of workers participating in an employment-based retirement plan from the 2017 CPS (which asks about participation in 2016) and compares these results with prior years both before and after the redesign of the CPS questionnaire. As has occurred since the redesign, the results showed declines that were inconsistent with another government survey where participation in employment-based retirement plans has been found to hold steady from 2011–2016.

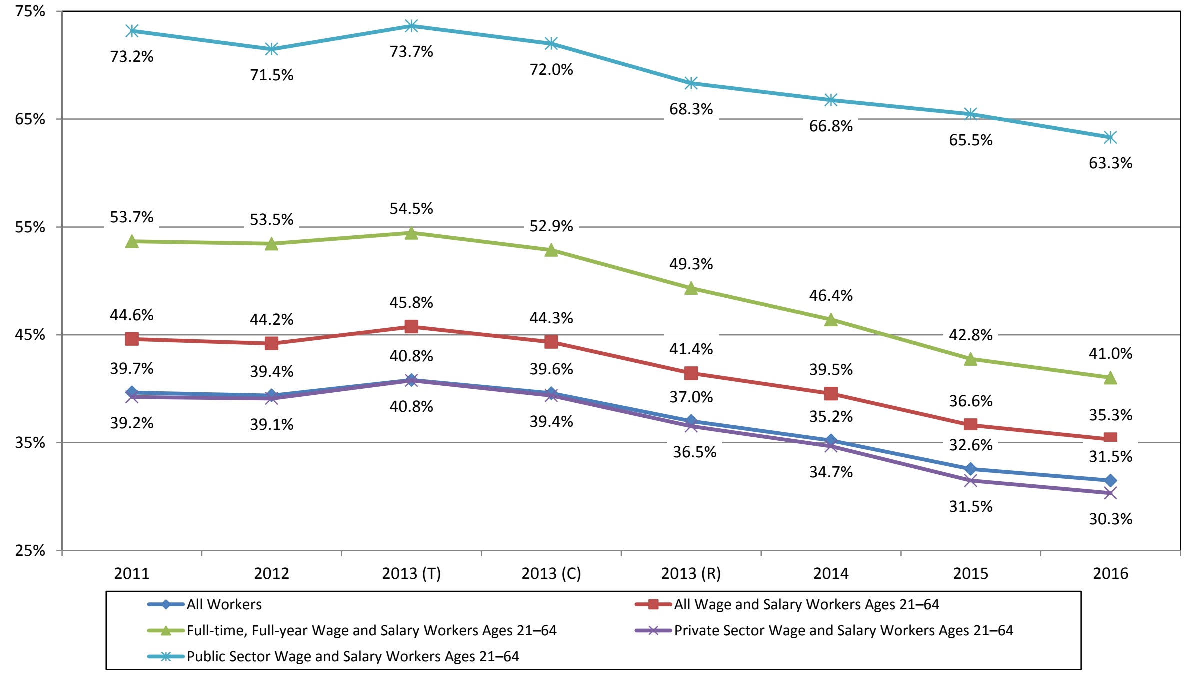
In addition to the retirement plan participation estimates, the trend in total and pension income for those ages 65 or older is examined over the same period (both before and after the redesign). Furthermore, the aggregate pension income found in CPS is compared to the aggregate pension income found in Internal Revenue Service (IRS) data. A discussion is also presented of a study using individual level administrative income data obtained through the Social Security Administration that is matched to the CPS respondents so that the CPS income can be compared to the administrative data at the individual level.

Trends in Retirement Plan Participation

In the 2014 CPS, which provided results for 2013, a split-sample was used where both the traditional questionnaire (the questionnaire before any changes were made to the income questions) and the redesigned questionnaire (with the revised income questions) were used to conduct the survey. As such, three sets of nationally represented results were available from the CPS that year: the traditional survey results, the redesigned survey results, and combined survey results where both the responses from the traditional and redesigned surveys were combined into one set of results.[8] With the changes in the survey, the estimates of employment-based retirement plan participation were significantly different before and after the redesign (in 2013 and in 2011–2012 compared with 2014–2016), and the trends in participation have had substantially larger year-to-year changes after the redesign than before it.

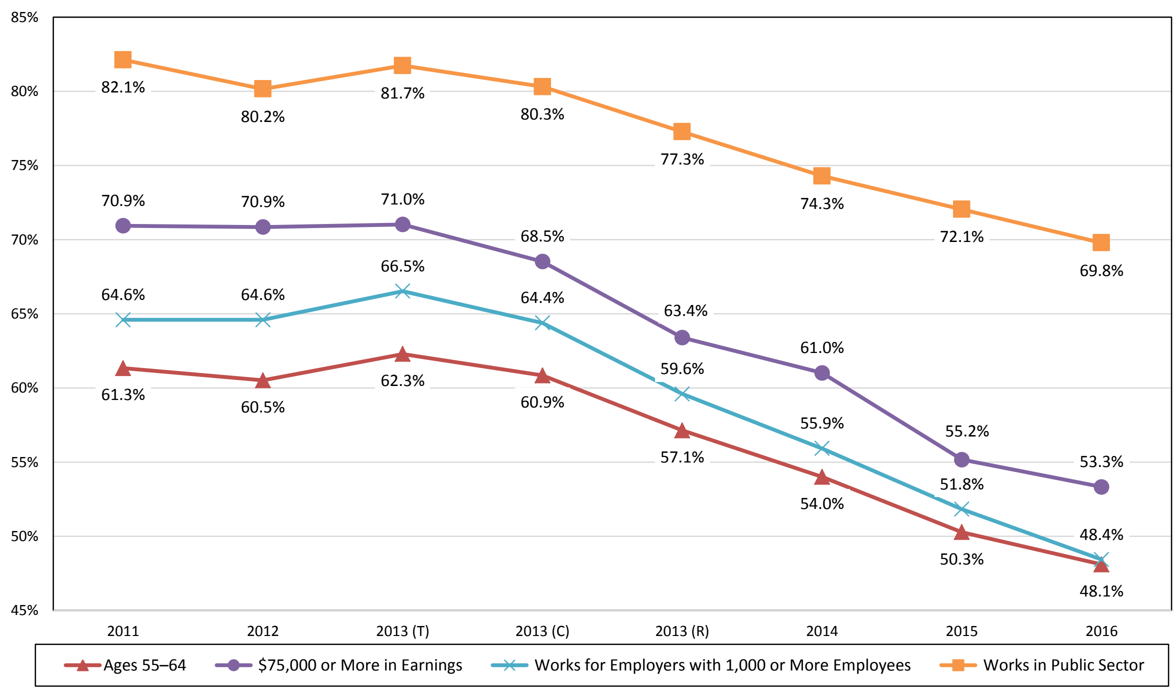
Under the traditional survey design in 2014, the percentage of all civilian noninstitutionalized workers[9] found to be participating in an employment-based retirement plan in 2013 was 40.8 percent, compared with 36.5 percent under the redesigned questionnaire, a difference of 4.3 percentage points (Figure 1).[10] Looking at other workforce cohorts, for

Figure 1
Percentage of Various Workforces Participating in an Employment-based Retirement Plan Using the Current Population Survey Traditional vs. Redesigned Questionnaire, 2011-2016



Source: Employee Benefit Research Institute estimates of the March Current Population Survey 2012-2017.
(T)-traditional questionnaire/(R)-redesigned questionnaire/(C)-combined results. Both the traditional and redesigned questionnaires were fielded in 2014 (2013 results). The 2011-2012 results were from the traditional, while the 2014-2016 results were from the redesigned questionnaire.

Figure 2
Percentage of Full-time, Full-year Wage and Salary Workers Ages 21-64 Participating in an Employment-based Retirement Plan Using the Current Population Survey Traditional vs. Redesigned Questionnaire, by Various Characteristics, 2011-2016



Source: Employee Benefit Research Institute estimates of the March Current Population Survey 2012-2017.
(T)-traditional questionnaire/(R)-redesigned questionnaire/(C)-combined results. Both the traditional and redesigned questionnaires were fielded in 2014 (2013 results). The 2011-2012 results were from the traditional, while the 2014-2016 results were from the redesigned questionnaire. Dollar amounts in 2016 dollars.

full-time, full-year wage and salary workers ages 21–64, the difference was even larger at 5.2 percentage points (54.5 percent traditional vs. 49.3 percent redesigned) and for public-sector workers ages 21–64 the difference was 5.4 percentage points.

The 2015–2017 surveys (2014–2016 results, respectively) continued using the redesigned questionnaire, and the percentages of workers participating in an employment-based retirement plan were found to have continuously decreased among each of the specified workforce definitions in each of the years. For example, the percentage of full-time, full-year wage and salary workers ages 21–64 participating in a plan declined by 2.9 percentage points from the 2013 redesign estimate to 2014, by 3.6 percentage points from 2014 to 2015, and by 1.8 percentage points from 2015 to 2016. Compared with the 2013 estimate under the traditional questionnaire design, the 2016 estimate shows a reduction in the percentage participating of 13.5 percentage points.

Demographic Trends—Focusing on full-time, full-year wage and salary workers ages 21–64, there were substantial declines among these workers with the highest likelihoods of participating in each of four important demographic groups (Figure 2). Among those ages 55-64, the reported percentage participating in a plan fell from 57.1 percent in 2013 (redesigned) to 48.1 percent in 2016. Furthermore, for employees working for employers with 1,000 or more employees, the percentage participating declined from 59.6 percent in 2013 (redesigned) to 48.4 percent, and 63.4 percent to 53.3 percent for those workers with earnings of $75,000 or more. The percentage of public sector workers participating dropped from 77.3 percent to 69.8 percent. Declines among each of these demographic groups were found during each successive year, including 2016.

Number of Workers Participating—It is possible for the *percentage* of workers participating in a retirement plan to go down at the same time as the *number* of workers participating in a pension remains the same or even increases, if the additional number of workers in the labor force increases by more than the number of additional retirement-plan participants. However, this was not the case from the estimates of CPS survey results. Indeed, the number of full-time, full-year wage and salary workers ages 21–64 estimated to be participating in an employment-based retirement plan decreased from 51.4 million under the traditional 2013 estimate to 41.0 million in the 2016 estimate (Figure 3).

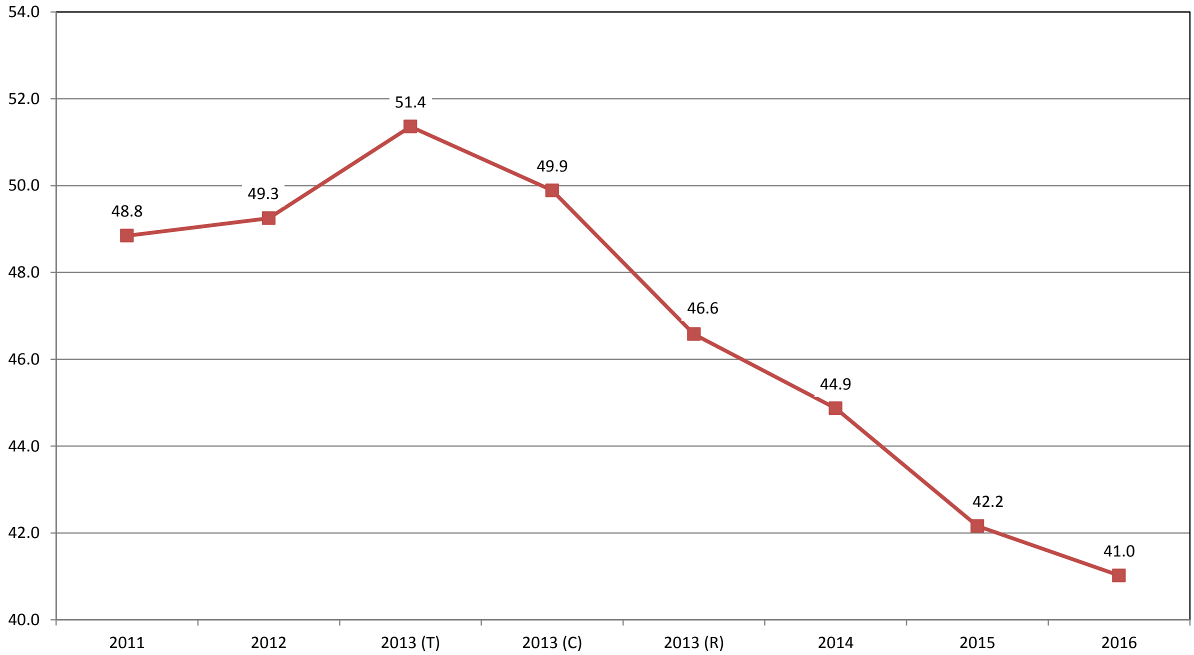
Comparison with Bureau of Labor Statistics Data

Not only were the 2014–2016 declines found in the CPS estimates larger than at any point since at least 1987,[11] the declines were not consistent with the findings from the Bureau of Labor Statistics' National Compensation Survey (NCS).[12] This survey found that the percentage of private-sector wage and salary workers at establishments with 500 or more employees participating in an employment-based retirement plan *increased* from 76 percent in 2013 to 77 percent in 2014, and then returned to 76 percent in 2015 and 2016 (Figure 4). In contrast, using the most comparable data in the CPS,[13] the percentage of full-time, full-year wage and salary workers who worked for a private-sector employer with 500 or more employees was found to *decrease* from 64 percent for the traditional questionnaire and 58 percent from the redesigned questionnaire in 2013 to 55 percent in 2014, to 50 percent in 2015, and to 47 percent in 2016.

Comparison with Internal Revenue Service (IRS) Data

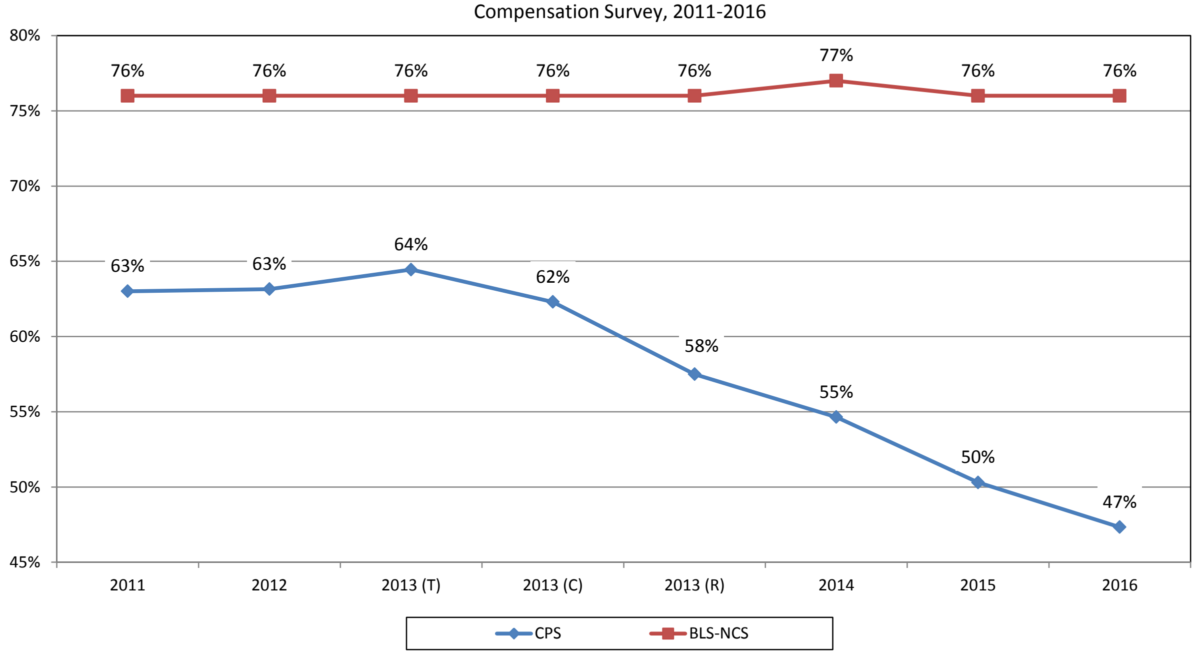
In a paper by Brady and Bass (2018),[14] the authors present tabulations from the IRS' Statistics of Income (SOI) Division that show that the percentage of workers with an employment-based retirement plan held steady from 2013 to 2014. This was in contrast to the result found in the CPS showing a decline during that period, even when just looking at the redesigned results. Furthermore, they show that the results from the SOI Form W-2 study indicate that the percentage of employees participating in an employment-based retirement plan has been higher than what has been found in the CPS for many years prior to the CPS questionnaire redesign.

Figure 3
Number of Full-time, Full-year Wage and Salary Workers Ages 21-64 Who Participate in an Employment-based Retirement Plan Using the Current Population Survey Traditional vs. Redesigned Questionnaire, 2011-2016
(in millions)



Source: Employee Benefit Research Institute estimates of the March Current Population Survey 2012-2017.
(T)-traditional questionnaire/(R)-redesigned questionnaire/(C)-combined results. Both the traditional and redesigned questionnaires were fielded in 2014 (2013 results).
The 2011-2012 results were from the traditional, while the 2014-2016 results were from the redesigned questionnaire.

Figure 4
Percentage of Wage and Salary Workers Working for Private Sector Employers with 500 or More Employees Participating in an Employment-based Retirement Plan, Current Population Survey vs. Bureau of Labor Statistics National Compensation Survey, 2011-2016



Source: Employee Benefit Research Institute estimates of the March Current Population Survey 2012-2017.
(T)-traditional questionnaire/(R)-redesigned questionnaire/(C)-combined results. Both the traditional and redesigned questionnaires were fielded in 2014 (2013 results).
The 2011-2012 results were from the traditional, while the 2014-2016 results were from the redesigned questionnaire. (Only CPS was redesigned. The BLS number was entered twice for 2013.) CPS-Current Population Survey/ BLS-NCS-Bureau of Labor Statistics National Compensation Survey (See http://www.bls.gov/ncs/ebs/benefits/2016/ownership_private.htm.)
The CPS population is restricted to private wage and salary workers who worked full-time, full-year and were not in the Agricultural or Private Household industries.

What the CPS Redesign Shows for Income

While the redesigned CPS questionnaire had a negative impact on the estimated levels of workers participating in employment-based retirement plans, it appears to have improved the estimates on the sources of income for those ages 65 and older. In particular, while the estimated percentage of all workers participating in a plan dropped from 40.8 percent in 2013 (traditional) to 31.5 percent in 2016 (Figure 5), the estimated percentage of Americans ages 65 or older[15] who received pension/annuity income[16] increased from 30.6 percent in 2013 (traditional) to 35.4 percent in 2014 and 2016.

The incidence of the various sources of pension/annuity income also changed after the questionnaire redesign. The percentage of those ages 65 or older with private sector employer defined benefit plan income increased from 18.4 percent in 2013 under the traditional questionnaire to 20.4 percent under the redesigned questionnaire. Subsequently, the percentage decreased to 18.9 percent by 2016 (Figure 6). The percentage with public sector defined benefit plan income had only a small increase after the redesign in 2013, but it increased from 9.5 percent under the redesigned questionnaire in 2013 to 11.6 percent in 2016.

The income source with the largest jump after the redesign was the percentage with defined contribution (DC) plan and/or individual retirement account (IRA) withdrawals, which went from 1.6 percent in 2013 under the traditional questionnaire to 9.9 percent under the redesigned questionnaire in 2013. However, this percentage declined to 7.9 percent in 2014, but trended upward in 2015 and 2016 to 8.3 percent and 8.6 percent, respectively. The percentage of those ages 65 or older with either individual annuity income or other pension/retirement income sources also increased after the questionnaire redesign.

In addition to the increase in the percentage of individuals ages 65 or older with pension/annuity income, the average and median income received by these individuals also increased after the questionnaire redesign. The average pension/annuity income for those ages 65 or older increased from $18,628 before the redesign in 2013 to $20,317 after the redesign in 2013, reaching $22,335 in 2016. The median also increased from $12,300 to $13,212 (Figure 7), but dipped to $12,840 in 2014, before climbing to $14,358 in 2016.

While the average and median total pension/annuity income increased after the redesign in 2013, the average and median levels of two of the major components of pension/annuity decreased after the redesign.

The average public sector employer defined benefit pension income of those having this income decreased from $26,434 before the redesign in 2013 to $20,272 after the redesign in 2013 (Figure 8). The average for this income then increased from 2014-2016, reaching $24,036 in 2016—which is still lower than the pre-redesign level.

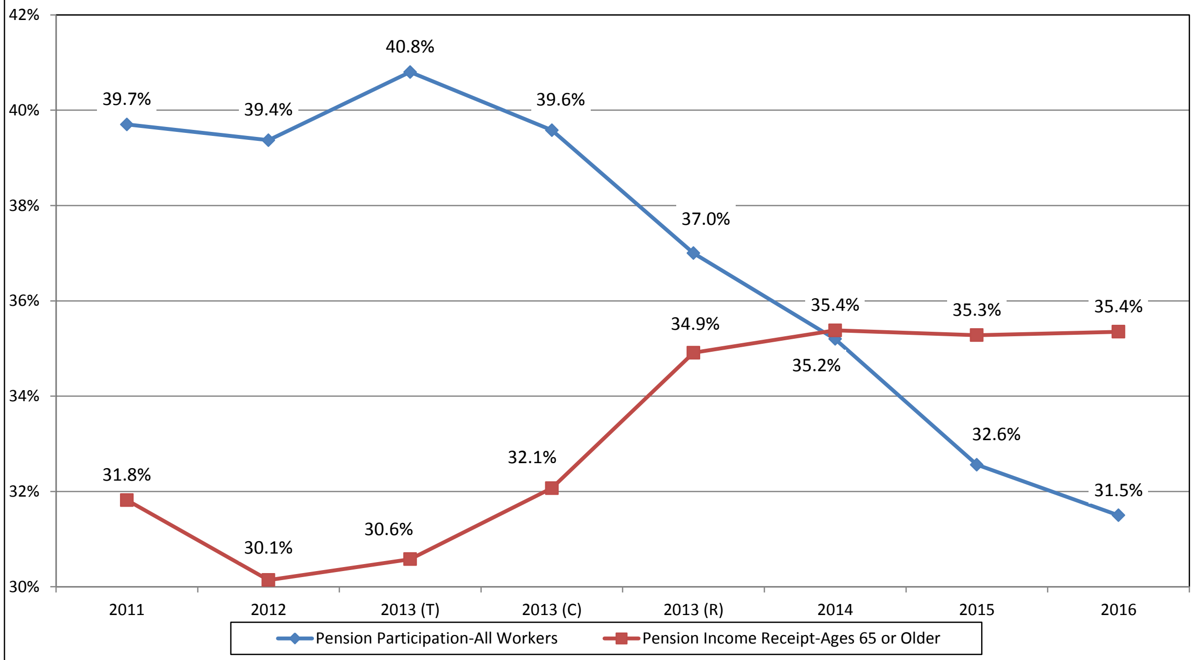
The average DC/IRA withdrawal income fell dramatically from $19,809 before the redesign in 2013 to $11,156 after the redesign. After 2013, the average DC/IRA withdrawal income vacillated for several years before leveling off in 2016 at $11,354—which, again, is lower than its pre-redesign level.

In contrast, the average private sector employer defined benefit plan income increased from $13,154 before to $15,087 after the redesign in 2013. This average leveled off in 2016 to $14,823.

The median levels of these sources of pension/annuity income essentially followed the same patterns as the average levels. The median public sector employer defined benefit plan income reached $19,044 in 2016, while the median private sector defined benefit (DB) plan income rested at $9,372 in 2016 (Figure 9). The median DC/IRA withdrawal income was $5,280 in 2016.

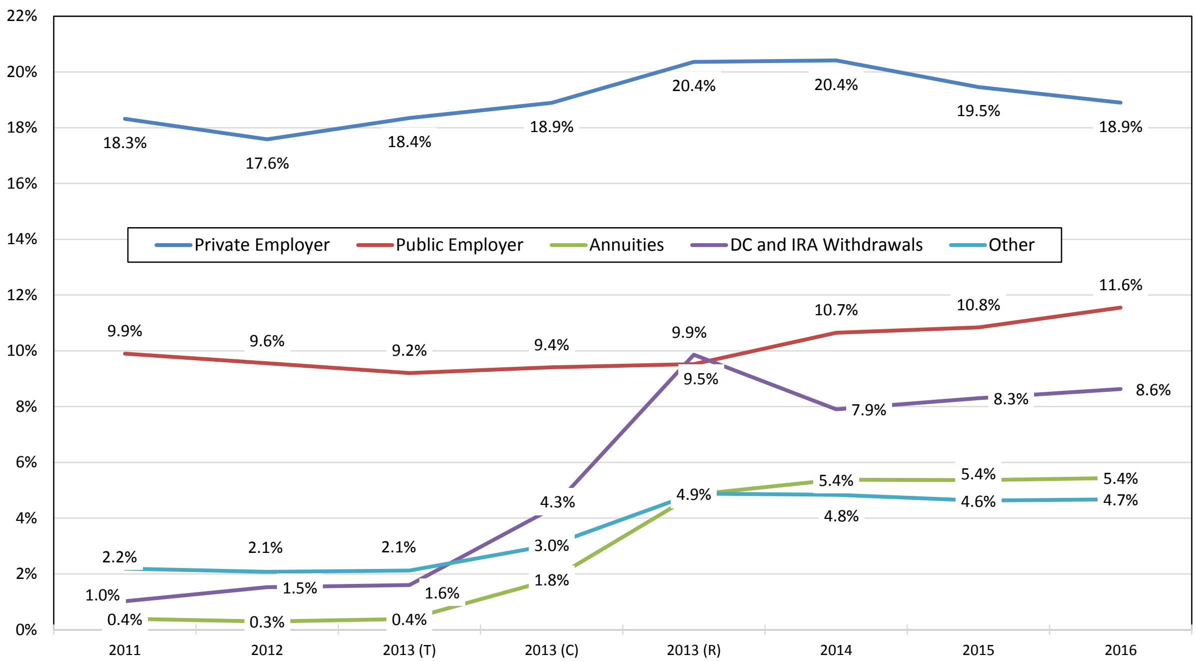
The drop in the median and average DC/IRA withdrawal income after the redesign can be attributed at least partially to the large increase in the incidence of this type of income, where smaller irregular withdrawals were picked up due to the redesign of the questionnaire. The change in the public sector employer DB plan average and median incomes is due to the reporting of some of the previously reported public sector DB income as individual annuities or other pension/annuity income after the redesign, leading to an increase in the incidence of these other types of income.

Figure 5
Comparison of the Percentage of All Workers Participating in an Employment-based Pension Plan vs. Percentage of Those Ages 65 or Older Who Are Receiving Pension Income Using the Current Population Survey Traditional and Redesigned Questionnaires, 2011-2016



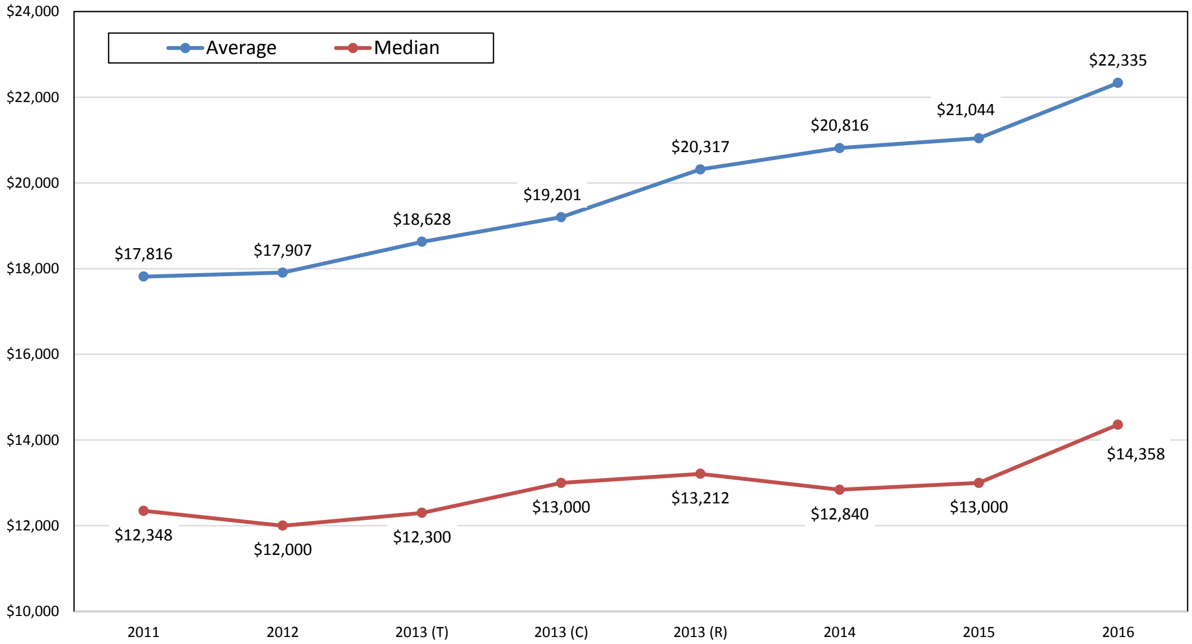
Source: Employee Benefit Research Institute estimates of the March Current Population Survey 2012-2017.
(T)-traditional questionnaire/(R)-redesigned questionnaire/(C)-combined results. Both the traditional and redesigned questionnaires were fielded in 2014 (2013 results).
The 2011-2012 results were from the traditional, while the 2014-2016 results were from the redesigned questionnaire.

Figure 6
Percentage of Those Ages 65 or Older Who Are Receiving Pension/Annuity Income Using the Current Population Survey Traditional and Redesigned Questionnaires, by Income Source, 2011-2016



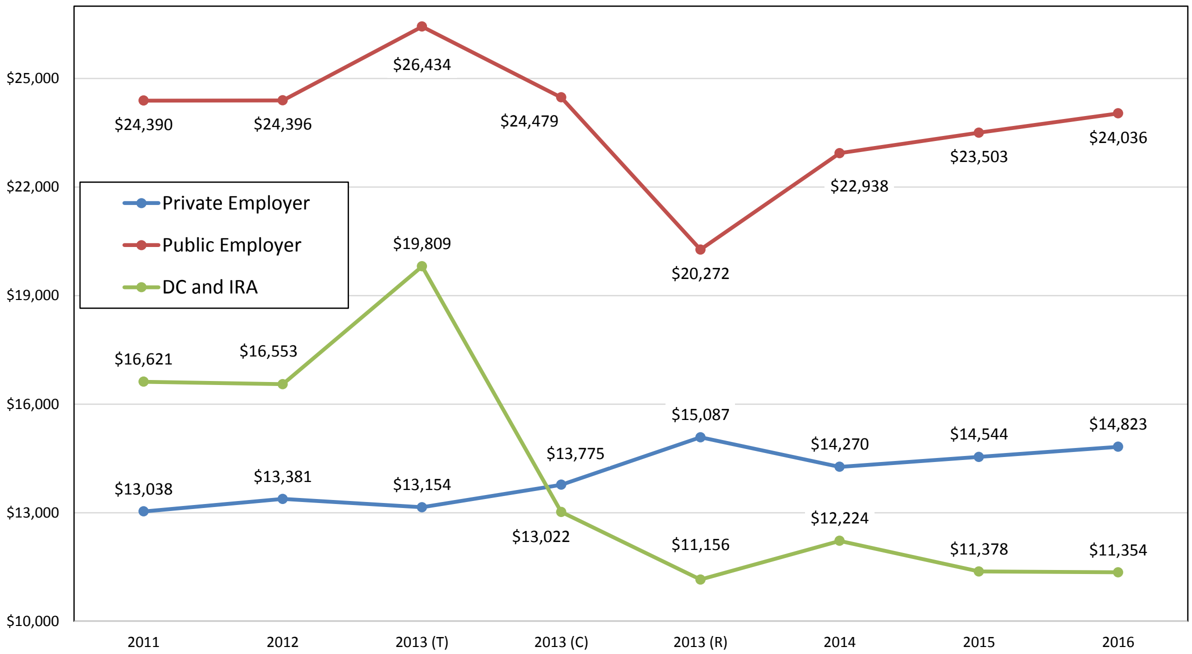
Source: Employee Benefit Research Institute estimates of the March Current Population Survey 2012-2017.
(T)-traditional questionnaire/(R)-redesigned questionnaire/(C)-combined results. Both the traditional and redesigned questionnaires were fielded in 2014 (2013 results).
The 2011-2012 results were from the traditional, while the 2014-2016 results were from the redesigned questionnaire.

Figure 7
Average and Median Pension/Annuity Income of Those Ages 65 or Older Who Are Receiving Such Income
Using the Current Population Survey Traditional and Redesigned Questionnaires, 2011-2016



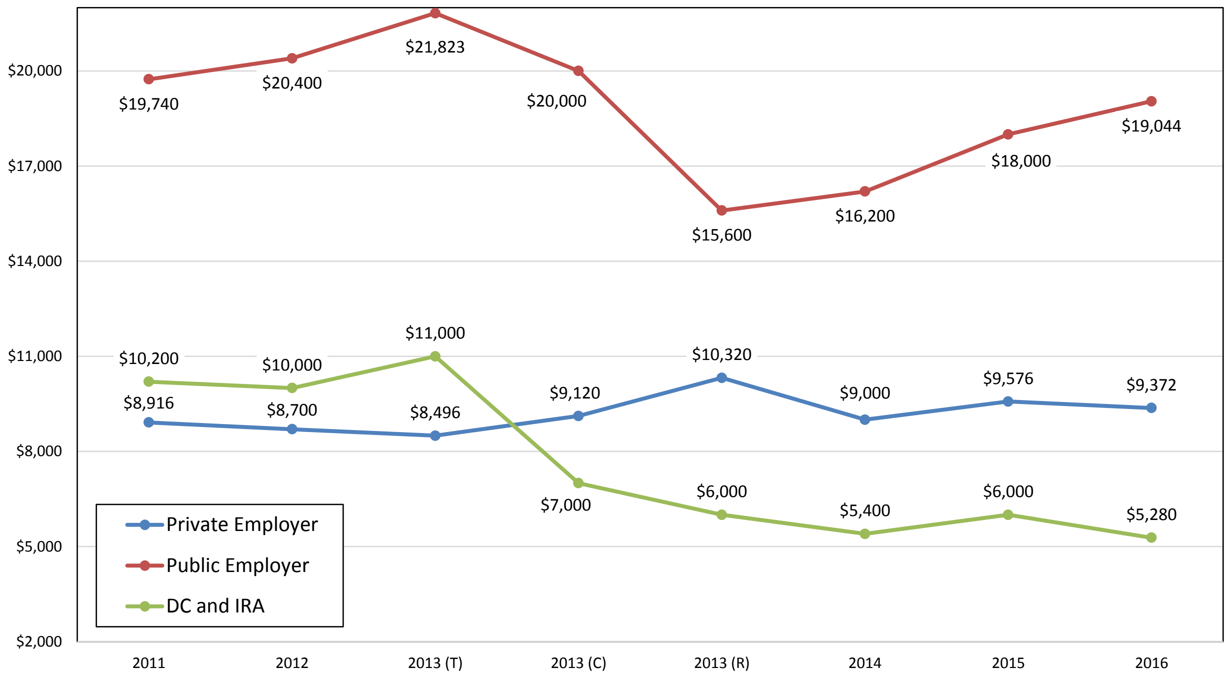
Note: All dollar figures are nominal values.
Source: Employee Benefit Research Institute estimates of the March Current Population Survey 2012-2017.
(T)-traditional questionnaire/(R)-redesigned questionnaire/(C)-combined results. Both the traditional and redesigned questionnaires were fielded in 2014 (2013 results). The 2011-2012 results were from the traditional, while the 2014-2016 results were from the redesigned questionnaire.

Figure 8
Average Pension/Annuity Income of Those Ages 65 or Older Who Are Receiving Such Income
Using the Current Population Survey Traditional and Redesigned Questionnaires, by Source, 2011-2016



Note: All dollar figures are nominal values.
Source: Employee Benefit Research Institute estimates of the March Current Population Survey 2012-2017.
(T)-traditional questionnaire/(R)-redesigned questionnaire/(C)-combined results. Both the traditional and redesigned questionnaires were fielded in 2014 (2013 results). The 2011-2012 results were from the traditional, while the 2014-2016 results were from the redesigned questionnaire.

Figure 9
Median Pension/Annuity Income of Those Ages 65 or Older Who Are Receiving Such Income
Using the Current Population Survey Traditional and Redesigned Questionnaires, by Source, 2011-2016



Note: All dollar figures are nominal values.
Source: Employee Benefit Research Institute estimates of the March Current Population Survey 2012-2017.
(T)-traditional questionnaire/(R)-redesigned questionnaire/(C)-combined results. Both the traditional and redesigned questionnaires were fielded in 2014 (2013 results). The 2011-2012 results were from the traditional, while the 2014-2016 results were from the redesigned questionnaire.

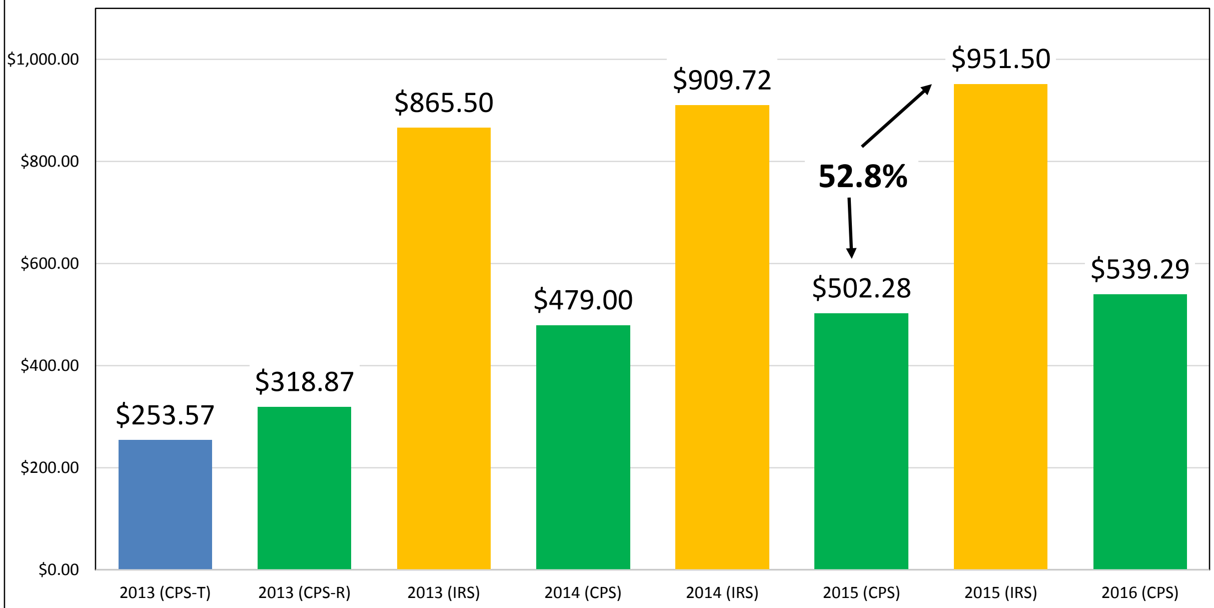
Comparison of CPS With IRS Data

One way to test how much additional pension/annuity income the redesign of the CPS questionnaire was able to capture is by aggregating all of this income across all individuals in the survey both before and after the redesign. In order to see how this CPS income compares to IRS tabulations, the CPS numbers can then be compared with the total income from pension/annuity income and taxable IRA withdrawals reported in IRS reports of tax return data.[17] Under the traditional CPS questionnaire in 2013, $253.57 billion in pension/annuity income (including DC and IRA withdrawals) was estimated, while the total under the redesigned questionnaire was $318.87 billion (Figure 10). For comparison, the total pension/annuity and taxable IRA withdrawals reported to the IRS was $865.50 billion. In other words, the traditional design CPS number was 29.3 percent of the IRS number, while the redesigned number was 36.8 percent. The aggregate CPS number has continued to grow, with the 2015 CPS total growing to 52.8 percent of the 2015 IRS number.

However, the IRS income categories do not exactly match up with the income categories in the CPS. Consequently, expanding the pension/annuity income in the CPS by adding income that is categorized as survivor and disability income, which includes some income that is categorized as pension/annuity income by the IRS, provides another comparison point. When including this additional income, CPS goes from 32.3 percent (traditional in 2013) of the 2013 IRS number to 40.5 percent (redesigned) (Figure 11). The 2015 CPS number with the additional income grew to 62.5 percent of the 2015 IRS number.

In another comparison of the CPS income done before the redesign, U.S. Census researchers Bee and Mitchell match the individuals in the CPS sample with their income reported to the federal government.[18] For the 2013 survey (2012 results before the redesign), they find that CPS only captures 76 percent of the total income from the federal government administrative data of those ages 65 or older, including just 48 percent of retirement income. While they find a substantial underreporting of DC and IRA withdrawal income, they also find a sizable amount of DB/annuity income that was underreported in the CPS.

Figure 10
Comparison of Aggregate Pension/Annuity Income Including DC and IRA Distribution Income from the Current Population Survey and Taxable IRA Distributions and Pension/Annuity Income from IRS Tax Data, 2013-2016
(in billions of (nominal) dollars)



Source: Employee Benefit Research Institute estimates of the March Current Population Survey 2014-2017.
(T)-traditional questionnaire/(R)-redesigned questionnaire. Both the traditional and redesigned questionnaires were fielded in 2014 (2013 results).
IRS, Statistics of Income Division, Individual Tax Returns, Preliminary Data, 2014 and 2015. *SOI Bulletin*, Spring 2016 and Spring 2017, https://www.irs.gov/pub/irs-soi/soi-a-inpd-id1606.pdf and https://www.irs.gov/pub/irs-soi/soi-a-inpd-id1703.pdf.

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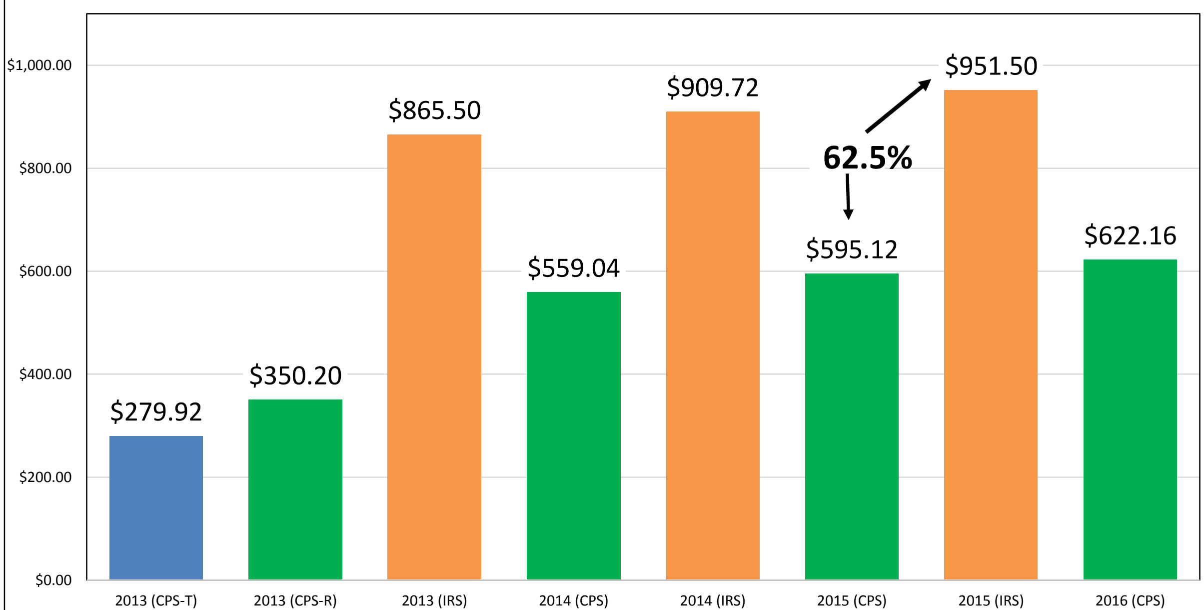

Source: Employee Benefit Research Institute estimates of the March Current Population Survey 2014-2017.
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IRS, Statistics of Income Division, Individual Tax Returns, Preliminary Data, 2014 and 2015. *SOI Bulletin*, Spring 2016 and Spring 2017, https://www.irs.gov/pub/irs-soi/soi-a-inpd-id1606.pdf and https://www.irs.gov/pub/irs-soi/soi-a-inpd-id1703.pdf.

While these results were from the CPS before the redesign, they do give a benchmark of how much income was *not* captured in the CPS before the redesign and the magnitude of the income that the redesign would need to capture to replicate the administrative data. From the comparison to the aggregate IRS and the study linking CPS to administrative data, it is clear that the CPS redesign was not able to capture all of the income that these other sources are showing. When the increases in retirement income from figures 10 and 11 are calculated, approximately 25 percent more income was captured from the redesign of the CPS, whereas the Bee and Mitchell study shows that the additional retirement income would have needed to increase by 100 percent (or doubled) to match the administrative data.

Conclusion

While the redesign of the CPS questionnaire achieved one of its primary goals of capturing more income—especially pension income—it appears to have negatively affected the pension participation estimates from the survey. As shown in this study, the estimated retirement plan participation levels of current workers were markedly lower after the revision. Furthermore, the groups of workers most affected were those with the highest likelihoods of participation—older, higher earners, and employees of larger employers.

Despite the improvement in the level of income captured after the CPS redesign, the redesigned CPS still does not appear to have been able to capture all of the income that administrative data shows exists for older Americans. This result has important implications on the understanding of the retirement income sources (and levels of income) of those ages 65 or older. In particular, the amount of income derived from Social Security. Using only the CPS data from the traditional design in 2013, it estimated that 65 percent of Social Security beneficiaries received 50 percent or more of their income from Social Security and 36 percent receive 90 percent or more. In comparison, Mitchell and Bee find that with the administrative data matching that 50 percent of these beneficiaries derive at least half of their income from Social Security and only 18 percent having 90 percent or more.[19] Furthermore, the underreporting of pension income greatly understates the importance of the employment-based retirement plan system on the incomes of the elderly.

While the redesign improved the income estimates from CPS, the impact on the retirement plan participation numbers is problematic—potentially erroneously giving the impression the percentage of workers participating has declined. Consequently, unless modifications are made to the CPS,[20] using it for estimating the participation in employment-based retirement plans will provide misleading and inaccurate estimates and conclusions about these plans. The support for this assessment includes the much lower level of participation found under the redesigned questionnaire estimates relative to the traditional questionnaire estimates in 2013, the considerable decline in the estimated number of retirement plan participants after the redesign of the CPS questionnaire, and the inconsistent time series in the participation levels in CPS relative to other federal government surveys (i.e., NCS).

Rather modest modifications could be made within the CPS questionnaire along the lines of other federal government surveys to improve the retirement plan participation estimates.[21, 22] Until that time, any person or organization using the data or those reading analyses from the CPS data need to be aware of the issues with the data. The estimates from the most recent surveys could easily be misconstrued as erosions in coverage, as opposed to an issue with the design of the survey.

Endnotes

[1] The U.S. Census Bureau conducts the Current Population Survey (CPS) for the Bureau of Labor Statistics and currently interviews about 54,000 households. It contains numerous questions about individuals' work statuses, employers, incomes, and basic demographic characteristics. Consequently, the CPS provides detailed information about workers from a broad sample of Americans. For more detail about the survey see, http://www.census.gov/programs-surveys/cps/about.html

[2] For example, see Bruce Meyer, Wallace K. C. Mok, and James X. Sullivan. "The Under-Reporting of Transfers in Household Surveys: Its Nature and Consequences." Harris School Working Paper #09.03, 2009 and John L. Czajka and Gabrielle Denmead. "Income Data for Policy Analysis: A Comparative Assessment of Eight Surveys." Mathematica Reference No.: 6302-601, 2008 available at http://www.mathematica-mpr.com/~/media/publications/PDFs/incomedata.pdf

[3] For a complete explanation of the changes to the survey, see Jessica L. Semega and Edward Welniak, Jr. "The Effects of the Changes to the Current Population Survey Annual Social and Economic Supplement on Estimates of Income," *Proceedings of the 2015 Allied Social Science Association (ASSA) Research Conference*, available at http://www.census.gov/content/dam/Census/library/working-papers/2015/DEMO/ASSA-Income-CPSASEC-Red.pdf

[4] See Craig Copeland, "Examining the New Income Measures in the Current Population Survey," *EBRI Notes*, no. 5 (Employee Benefit Research Institute, May 2015): pp. 8–15 for another comparison of the income received by those ages 65 or older under the traditional and redesigned questionnaires.

[5] The effects of the redesign could result from various issues such as providing more information on the definitions of various retirement plans in the new, more detailed questions on income; causing individuals to answer differently than when the detailed information was not provided; increasing the length of survey, which could cause more individuals to not complete the survey or to answer the questions without thought in order to finish the survey more quickly due to fatigue.

[6] For example, the most recent publication before the survey redesign is Craig Copeland. "Employment-Based Retirement Plan Participation: Geographic Differences and Trends, 2013." *EBRI Issue Brief,* no. 405 (Employee Benefit Research Institute, October 2014).

[7] See Craig Copeland, "Another Year After the Current Population Survey Redesign and More Questions About the Survey's Retirement Plan Participation Estimates," *EBRI Notes,* Vol. 37, no.12 (Employee Benefit Research Institute, November 21, 2016): pp. 1–14 and Craig Copeland, "The Effect of the Current Population Survey Redesign on Retirement Plan Participation Estimates," *EBRI Notes,* no.12 (Employee Benefit Research Institute, December 2015): pp. 2–11 for the prior studies on the CPS redesign and retirement plan participation. These studies provide more detail about the changes in the survey and the impact on the retirement plan participation estimates, as well as ideas for modifying the questionnaire to improve the estimates. An important note is that the estimates in this 2015 study differ from the 2016 and 2018 studies, as only civilian workers are included in the 2016 and 2018 estimates, whereas all noninstitutionalized workers are included in 2015 study. Furthermore, the 2016 and 2018 studies add the combined 2013 estimates and make refinements in the populations being compared so that they are as directly comparable as possible.

[8] The U.S. Census Bureau conducted a split sample design on the 2014 March CPS. Five-eighths of the sample received the traditional questionnaire and three-eighths of the sample received the redesigned questionnaire. Weights were developed for each sample to provide nationally representative estimates of the variables in the survey. In addition, weights were developed for the combined sample to also have nationally representative estimates.

[9] For the remainder of this study when talking about workers, only civilian, noninstitutionalized workers are examined. Other qualifiers on the population of interest could change as such by age of workers or full-time, full-year status as noted, but the term *civilian-noninstitutionalized population* will not be repeated but should be understood.

[10] While the CPS provides detail about the workers who participate in employment-based pension plans (or retirement plans—used interchangeably in this study, as has been done in prior analyses of these data)–it does *not* provide for the questions that are reported about the specifics of the plans such as the worker's plan type or whether the individual worker is eligible to participate in the plan sponsored by his or her employer or union. This makes the definition of terms in this study important:

In this discussion, the term *percentage of workers participating in a plan* is not synonymous with the standard retirement plan term *participation rate*, which is generally understood to mean the percentage of eligible workers who participate in a plan. Consequently, *participation rate* is not used in this analysis; instead, the terms *participation level* or *percentage participating* are used. To reiterate, those terms refer to the fraction of workers in the specified work force who participate in an employment-based pension or retirement plan regardless of the workers' eligibility to participate in a plan. (An eligible worker is one who is offered a plan and meets the requirements to participate.)

Lastly, the term *participating in a plan (or pension or retirement plan)* as used here always refers to a pension or retirement plan provided through an employment-based arrangement, *not* a plan such as an individual retirement account (IRA) that workers can fund outside of an employment-based arrangement. Furthermore, since there isn't a distinction made in the data between defined benefit and defined contribution plans, participation includes either plan type.

[11] See Copeland (2016) for a comparison of the full trend in participation going back to 1987.

[12] The National Compensation Survey (NCS) is conducted annually in March by the Bureau of Labor Statistics by surveying Untied States businesses about their compensation cost trends, incidence of benefits, and detailed benefit provisions. Estimates from the NCS are for civilian workers—workers in private industry and in state and local government—by various employee and employer characteristics. Federal Government, agricultural, private household, and self-employed workers are excluded. For more detail on the NCS, see http://www.bls.gov/ncs/ebs/benefits/2015/overview.htm

[13] The National Compensation Survey (NCS) is fielded in March of each year and asks about workers during that month. The NCS includes all civilian workers, except for federal government, agricultural, and private household workers and the self-employed (only private sector workers are included in this study's comparison). The CPS is a survey of all noninstitutionalized individuals in American households. The pension questions in the CPS are asked of anyone who worked during the prior year about their pension participation in that year. The CPS estimates are filtered to match the NCS universe as closely as possible, where the CPS estimates in this section are only for civilian full-time, full-year wage and salary workers working for private sector employers with 500 or more employees but *not* in the agricultural or private household industries.

[14] See Peter J. Brady and Steven Bass, "Who Participates in Retirement Plans, 2014." *ICI Research Perspective* 24, no. 1 April 2018 available at www.ici.org/pdf/per24-01.pdf for more information about the study.

[15] This still only includes the civilian noninstitutionalized population, as it did for the retirement plan participation.

[16] Pension income includes income from traditional pension plans, defined contribution plans, and individual retirement accounts (IRAs). The redesign of the questionnaire was better able to capture irregular withdrawals (i.e., one time lump sums) from DC plans and IRAs that were missed under the traditional questionnaire.

[17] The IRS uses the term *taxable IRA distributions* in its reports. To be consistent with the terminology used in this study, *taxable withdrawals* are equivalent to *taxable distributions*.

[18] Adam Bee and Joshua Mitchell, "Do Older Americans Have More Income Than We Think?" U.S. Census Bureau SEHSD Working Paper 2017-39, July 2017 https://www.census.gov/content/dam/Census/library/working-papers/2017/demo/SEHSD-WP2017-39.pdf.

[19] See Bee and Mitchell (2017) page 23 for further details about this result.

[20] Both the Survey of Income and Program Participation (SIPP) and the Survey of Consumer Finances (SCF) have modified their pension participation questions at least once. A typical addition was a follow-up question to try to capture those contributing to a defined contribution (401(k)-type) plan. As mentioned in the text, this type of question could be asked without adding questions, but by altering the current questions now or reordering them. Yet, the CPS's focus is on poverty, income sources, and health insurance ownership. Consequently, any potential changes to improve pension participation numbers would need to be considered against adversely affecting the focus of the survey.

[21] See Copeland (2016) for a further discussion of the CPS retirement plan questions and potential refinements to the survey questionnaire that could improve the results from CPS on retirement plan participation.

[22] Another possible avenue to determine retirement plan coverage from the CPS is to match federal government administrative data with the CPS respondents in a manner similar to that of the income study. Two U.S. Census Bureau researchers are currently working on this matching of CPS respondents. Their findings thus far are in Michael Gideon and Joshua Mitchell, "Which Employers Sponsor Defined Contribution Retirement Plans? Evidence from Linked Employer-Employee Administrative Records." Social, Economic, and Housing Statistics Division, U.S. Census Bureau, Prepared for the AEA Annual Conference January 6-8, 2017, https://www2.census.gov/foia/records/GideonMitchell_AEA2017Jan.pdf. This study is in addition to the Brady and Bass study cited above.

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