

An Evaluation of Reporting Accuracy in SIPP-EHC Field Test Data Using 2008 SIPP and Administrative Records*

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September 7, 2012

1 Introduction

In 2006, the U.S. Census Bureau began a complete redesign of the Survey of Income and Program Participation (SIPP).¹ The new survey instrument, SIPP-EHC,² is scheduled to become the production survey instrument for the SIPP program beginning in 2014. Three field tests of the new instrument have taken place (in 2008, 2010, and 2011) and two more are scheduled (for 2012 and 2013).

In this report we use administrative records linked to data from the 2010 and 2011 field tests of SIPP-EHC and to benchmark samples from 2008 SIPP to assess the accuracy of reporting about program participation in the SIPP-EHC data. The objective of the study is to identify aspects of the SIPP-EHC survey to improve before the beginning of the 2014 panel. In addition, we investigate the accuracy impact of SIPP-EHC's longer reference period (one year as opposed to 4 months in SIPP). In particular, we test whether reporting about months earlier in the reference period are less accurate than reports for more recent months, a hypothesis we will refer to as *telescoping*.

We evaluate the accuracy of reporting in SIPP-EHC about four programs: Supplemental Security Income (SSI), Old-Age Survivor and Disability Insurance (OASDI), Medicare, and Supplemental Nutrition Assistance Program (SNAP). We find evidence of lower under-reporting of SSI participation in SIPP-EHC than in benchmark samples from 2008 SIPP. Contrastingly, we find more

*We would like to thank Gary Benedetto, Judy Eargle, Jason Fields, and Bruce Meyer for helpful comments and Benjamin Miller for excellent research assistance. We are grateful to Amy O'Hara and Dennis Donahue of the Census Bureau's Center for Administrative Records Research and Application for facilitating access to and interpretation of the SNAP and Medicare administrative data. For a remarkably expedited provision of the CY2010 SSI and OASDI administrative data, we are grateful to Stuart Friedrich and his staff at SSA, and, at the Census Bureau, to Vickie Kee and the staff of Data Preparation Branch, and to the Center for Economic Studies Data Staff. This report is released to inform interested parties of ongoing research and to encourage discussion of work in progress. Any views expressed on statistical, methodological, technical, or operational issues are those of the authors and not necessarily those of the U.S. Census Bureau. Some of the data used in this paper are confidential; the results have been reviewed to ensure that no confidential information is disclosed. The U.S. Census Bureau supports external researchers' use of some of these data items through the Census Bureau's Research Data Center network (www.census.gov/ces).

¹See National Research Council (2009) and Moore, et al. (2009) for background on SIPP and the redesign.

²The SIPP-EHC instrument incorporates an event history calendar (EHC) portion.

under-reporting of OASDI participation in SIPP-EHC than in the benchmark samples, but we do find that the accuracy of OASDI reporting improved in 2011 SIPP-EHC relative to 2010 SIPP-EHC. We find more under-reporting of Medicare and SNAP participation in 2010 SIPP-EHC than in the benchmark sample. We find that accuracy of reporting in 2010 SIPP-EHC about participation in SNAP and SSI is lower for months earlier in the reference period, a pattern consistent with the telescoping hypothesis. We find no such evidence for reporting about OASDI or Medicare. We find higher or similar levels of accuracy of reported benefit amounts for OASDI, SSI, and SNAP in 2010 SIPP-EHC relative to the corresponding benchmark sample.

To investigate reporting accuracy in the field test and benchmark data, we classify each person-month fact-of-participation report in the data as false negative (FN), false positive (FP), true negative (TN), or true positive (TP) based on agreement between the survey report and the corresponding measure in the administrative records. We classify a report about participation in a particular program as false negative if the administrative records for the program indicate that the sample person participated in the program in a particular month, but the corresponding survey report disagrees. For true positive reports, we calculate, where applicable, the difference between the survey-reported benefit amount and the benefit amount recorded in the administrative data. For SSI and OASDI, we document the progress in accuracy that was achieved in the 2011 SIPP-EHC relative to the 2010 SIPP-EHC.

The benchmark samples, drawn from 2008 SIPP, that we employ for each of the 2010 and 2011 SIPP-EHC field tests precisely match the field-test-specific sample restrictions of the two field tests. We evaluate the accuracy of reporting in a given SIPP-EHC field test of relative to the corresponding benchmark sample by comparing rates of false negatives and rates of false positives, and by comparing mean differences between survey-reported benefit amounts and administratively-recorded amounts. Our difference-in-difference approach allows us to gauge SIPP-EHC accuracy relative to SIPP and permits the comparison of accuracy across SIPP-EHC field tests despite the differences in sample composition across the SIPP-EHC field tests. The approach also addresses the possibility of measurement error in the administrative records. While the administrative data are not necessarily without error, random assignment of sample units to SIPP and SIPP-EHC suggests that error in the administrative data will be uncorrelated with assignment to the two surveys and should not bias the comparison of our accuracy measures across SIPP-EHC and SIPP.

This report is the first to use administrative records as a benchmark for evaluating data from SIPP-EHC. A recent Census Bureau working paper (2010 SIPP-EHC Data Evaluation Workgroup 2011) compares program participation rates for SNAP, TANF, WIC, Medicare, and Medicaid and employment rates between 2010 SIPP-EHC and benchmark samples from 2008 SIPP. Moore, et al (2009) compare responses in SIPP and SIPP-EHC surveys for a sample that was first interviewed in SIPP and then re-interviewed using an early version of the SIPP-EHC instrument.

The use of administrative records for evaluation of SIPP data quality dates back to the earliest SIPP panel (Marquis and Moore, 1990). Abowd and Stinson (2011) use administrative data to estimate measurement error in SIPP annual job earnings. Our analysis is related to the work of Meyer and Goerge (2011) on misreporting of SNAP participation in the Current Population Survey and the American Community Survey.

Section 2 of this report describes the survey and administrative data used in our analysis. Section 3 presents an analysis of misreporting of program participation reporting in SSI, OASDI, Medicare,

and SNAP, including an analysis of the telescoping hypothesis. Sections 4 and 5 present more detailed analysis of reporting of OASDI and SSI, respectively. We conclude in Section 6.

2 Data

The comparability of the samples for the 2010 and 2011 SIPP-EHC field tests to 2008 SIPP was an essential part of the design of the SIPP-EH field tests. The Assignment of units (addresses) to the samples for 2008 SIPP, 2010 SIPP-EHC, and 2011 SIPP-EHC was random. Following the 2000 Decennial Census, the Census Bureau created a number of samples designed for use with future SIPP panels. One of these samples was used for the 2004 Panel. For the 2008 panel, two of such samples were combined.³ The samples for each of the 2010 and 2011 SIPP-EHC field tests were created by combining two SIPP samples and then retaining only those units that were from the unit frame, from self-representing primary sampling units (PSU), and from the low-income within-PSU stratum. In addition, each field test sample design restricted interviewing to certain states and Census Bureau field offices.

For our analysis, we created two benchmark samples from 2008 SIPP that match the sample designs of each of the 2010 and 2011 SIPP-EHC fields tests by imposing the field-test-specific sample restrictions on the 2008 SIPP sample. We also re-weight the units in the benchmark samples to account for the over-sampling of certain states in 2008 SIPP relative to the SIPP-EHC field test samples.⁴ Neither the SIPP-EHC field test samples nor the benchmark samples from 2008 SIPP are nationally representative.

The reference years for the 2010 and 2011 SIPP-EHC field tests were calendar years 2009 and 2010 (CY2009 and CY2010), respectively. Monthly reports from waves 2 to 5 of 2008 SIPP provide information on all of the months of CY2009 to create the benchmark sample for 2010 SIPP-EHC, and waves 5 to 8 cover all of CY2010 to create the benchmark sample for 2011 SIPP-EHC.

The data from the SIPP-EHC have not been edited and no missing data items have been imputed. We drop imputed data for our benchmark samples from 2008 SIPP.

Sample persons in the survey data and person records in the administrative data have each been assigned, where possible, a unique person identifier called the Protected Identification Key (PIK) as part of standard Census Bureau processing (see Mulrow, Mushtaq, Pramanik, and Fontes, 2011). We use these PIKs to link person-month data from the surveys to the administrative records. Not all persons are successfully assigned a PIK. To account for selection in which sample persons are assigned a PIK and included in our analysis, we estimate a model of successful PIK assignment as a function of survey variables and re-weight our linked sample by the inverse of the probability of having a PIK assigned.

In Table 1, we present participation rates in the four programs as documented in the surveys or administrative records (AR) as indicated. We calculate these participation rates for 2010 SIPP-EHC and for the corresponding benchmark sample from 2008 SIPP by regressing participation indicators on an indicator for person-months from 2010 SIPP-EHC (*sippehc=1*) versus person-

³Only one of these was used in its entirety. It was supplemented with state-specific amounts of sample from the other.

⁴See previous footnote.

months from the benchmark sample (*sippehc=0*), and a constant (*_cons*). The coefficient on the constant gives the participation rate for the benchmark sample, and the coefficient on *sippehc* gives the difference between the participation for 2010 SIPP-EHC and the participation rate for the benchmark sample. For SSI, Medicare, and SNAP, we obtain the result that the 2010 SIPP-EHC and benchmark samples are similar in rates administratively-recorded program participation. For SSI and Medicare, we find differences between 2010 SIPP-EHC and the benchmark sample in rates of survey-reported program participation, suggesting that there are differences in reporting between the 2010 SIPP-EHC and 2008 SIPP. The difference between the samples on administratively-recorded OASDI participation merits further investigation.

In Table 2, we present average benefit amounts for SSI, OASDI, and SNAP for the 2010 SIPP-EHC and benchmark samples as documented in the surveys and the administrative records. The only difference between the 2010 SIPP-EHC and the benchmark sample is for the survey-reported amounts for SSI; Section 2.2 describes how aspects of the 2010 SIPP-EHC instrument may explain this difference. The lack of differences in average benefit amounts across the samples for the other programs and for SSI based on the administrative data suggests that the different levels of misreporting of fact-of-participation across 2010 SIPP-EHC and the benchmark samples that was indicated in Table 1 may, nevertheless, be for sample persons drawn from similar distributions of beneficiaries.

The rest of this section describes the construction of survey and administrative measures that we compare in our analysis.

2.1 OASDI Data

The variables pertaining to OASDI benefit receipt are created using five different data sources: 2008 SIPP, 2010 SIPP-EHC, 2011 SIPP-EHC, Social Security Administration (SSA) Master Beneficiary Record, and SSA Payment History Update System.

From the 2008 SIPP panel, we used the monthly indicators for receipt and amounts from the edited person-month wave files, dropping cases that were imputed. We identified receipt and amounts for individuals, taking self-reports for adults and merging adult-reports about benefits to children to the corresponding child records.

From the 2010 SIPP-EHC, we used reported monthly receipt indicators and monthly amounts. These reports were from a section question-by-question (non-EHC) section of the 2010 SIPP-EHC instrument. We dropped cases that were missing. Respondents were asked to select all the months they received the benefit and list a separate amount for each month. As in 2008 SIPP, amounts reported by parents on behalf of their children were linked back to the children's records.

The questions about OASDI receipt were redesigned for the 2011 SIPP-EHC. Respondents were asked if they received benefits during the reference period. Those who reported receiving benefits were asked if they were currently receiving benefits. If they were not, then they were asked when they stopped. Next, they were asked when those benefits had begun. This information was collected for as many as two spells of OASDI participation. From these responses, we constructed a monthly history of receipt indicators for calendar year 2010. The benefit amounts for each spell were collected by asking for the latest amount received and then asking whether there had been any earlier changes in benefit amount. Up to three such changes were collected in the instrument. Using this information, we assigned the benefit amount for each month of CY2010.

Our administrative data about OASDI come from two SSA databases that record benefit eligibility and payments: MBR and PHUS. The MBR records monthly eligibility and records dates and reasons for the beginning and ending of eligibility. It also records amounts that individuals were eligible to receive based on the calculation of the Primary Insurance Amount (PIA) from a person's own work history or the work history of his or her spouse.

It is possible for the MBR to record OASDI eligibility for an individual in a month in which the individual received no OASDI benefit payment. For this reason, SSA maintains a separate database called the Payment History Update System (PHUS) that records actual payments sent to recipients. When comparing amounts, we use the amount recorded in the PHUS.⁵

Disability benefits are particularly prone to discrepancies between MBR-recorded eligibility and PHUS-recorded non-payment because of the way the appeals process is documented in the Master Beneficiary Record. If a person is initially denied benefits but is eventually granted benefits on appeal, these benefits will often be back-paid to some point determined by the appeals process. In the MBR, benefit receipt would be recorded as having begun at this back-pay-to date, but the individual would receive a lump sum check at the time of benefit approval. Since large numbers of disability cases are awarded only on appeal, it can be difficult to tell in the MBR when respondents actually began receiving checks. The payment histories provided in the PHUS clarifies these cases.

The MBR data extract used by the Census Bureau records up to four different types of OASDI benefit for each OASDI beneficiary: type of benefit at time of initial receipt and type of benefit at time of current receipt, and these for benefits received under the person's own eligibility and benefits received under a spouse's eligibility. We use the administrative types-of-benefits and the accompanying dates of initial and current receipt to create a type-of-benefit history for the survey reference year (either CY2009 or CY2010) that allows up to two benefit types in a given month. For example, if a person began receiving disability benefits in 2000 and then switched to retirement benefits when they reached the full retirement age in June 2009, this person would be coded as having disability benefits from January to May 2009 and retirement benefits from June to December 2009. If the person also received spouse benefits in 2009, this would be coded as a second reason in the appropriate months.

Both the 2008 SIPP and 2010 and 2011 SIPP-EHC asked respondents to report why they received benefits, and responses were categorized as retired, disabled, spouse, widow, child, or other. Respondents were allowed to report up to two types of benefits.

2.2 SSI Data

We created variables pertaining to SSI participation and benefit receipt from the surveys and from the administrative records. From each survey data source (2008 SIPP, 2010 SIPP-EHC, and 2011 SIPP-EHC) we create person-month-level indicators of SSI receipt for both adults and children. For adults, we also sum state and federal SSI benefit amounts to measure total SSI benefit amount, and we create indicators of source(s) of SSI benefits (state only, federal only, and both federal and state).

⁵We do not, however, include the Medicare premium that is deducted from the check before it is mailed or direct deposited. Both SIPP and SIPP-EHC surveys collect Medicare premiums, but the amounts are collected separately from the main OASDI amounts reported.

In 2010 SIPP-EHC, reports about SSI receipt were collected from adult sample persons (ages 15 or more years at the time of interview), but each report also included information about receipt on behalf of any children. However, in cases where benefits were received on behalf of children, the reports are not clear as to whether the adult sample person also received benefit for self. In these cases, we treat both the adult and child as receiving SSI.

In 2011 SIPP-EHC, a change was made to the SIPP-EHC instrument to collect reports about SSI at the person level even for children. By design, this avoids the the issue of confounded participation and benefit amounts between adults and children.

For 2008 SIPP, we construct the measures from edited data, but we drop any imputed data to maintain comparability with the unedited data from SIPP-EHC. Reports about SSI participation in 2008 SIPP are made by adults only, but these reports distinguish between federal SSI received for self and on behalf of children. Receipt of state SSI benefit, however, is not separately reported for self or on a child's behalf. We attribute the state receipt to the adult only, child only, or both adult and child to match the reported receipt of federal SSI.

From the administrative data on SSI, we construct measures of participation, benefits, and source of benefits at the person-month level. While nationwide records are available on payment of federal SSI benefits, records of payment of state SSI benefits are available only for states that elected to have their state SSI programs administered by SSA. Since we create and use fact-of-receipt indicators for all of the states, these will understate participation to the extent that beneficiaries in states for which we have no state SSI records receive state SSI benefit without also receiving federal SSI benefits. We calculate our measures of total benefit amount and source of SSI benefits only for states with SSA-administered state SSI programs.

2.3 Medicare

We create indicators for Medicare participation from unedited 2008 SIPP and 2010 SIPP-EHC data. Responses of “Don't Know” or “Refused” have been coded as non-participation.

Medicare administrative records from the Centers for Medicare and Medicaid Services document the starting and ending dates of medicare eligibility. Based on these dates, we construct monthly indicators for Medicare eligibility to compare to the monthly reports in the survey data.

In order to focus our analysis of reporting of medicare participation on the elderly, we code both our survey- and administrative-based measures of medicare participation as not in universe for sample persons less than 65 years of age at time of interview.

2.4 SNAP Data

To construct our survey measures of SNAP participation we use unedited data for both 2008 SIPP and 2010 SIPP-EHC. In both surveys, data is collected as reports from every adult (age 15 or older at time of interview) about the SNAP unit to which the sample person belongs, if any. The questions are designed to collect the monthly amount received collectively by the SNAP unit and the composition of the SNAP unit.

In both 2008 SIPP and the SIPP-EHC field tests, there was limited flexibility in the reporting

about the dynamics of the composition of the SNAP unit over the survey-specific reference period. This is a potential source of reporting error to be investigated.

The possibility of multiple SNAP reports per sample person means that conflicting reports must be aggregated to determine the survey measure of SNAP participation for each sample person. We treat a sample person as having a report of SNAP participation if any member of the household reports SNAP participation for the sample person. Since it is not clear to whom a missing report should be applied beyond the person for whom the response is given, we treat “don’t know” and “refused” responses as reports of no participation.

For CY2009, the only SNAP administrative records available to the Census Bureau as of November 2011 were for the State of Texas. These records provide a month-by-month record of SNAP benefit for each SNAP benefit unit. A SNAP benefit unit is typically the same as the household but is designed to at least be contained within the household. The administrative records include identifying information for persons in each SNAP unit in each month.

3 Basic Analysis of Reporting of Program Participation: SSI, OASDI, Medicare, and SNAP

In Table 3, we report false negative (FN) and false positive (FP) rates for four programs: SSI, OASDI, Medicare, and SNAP. The false negative rate for a program and survey is the percentage of the person-months of administratively-recorded program participation for sample persons in the survey that were not reported in the survey. We calculate false negative rates for 2010 SIPP-EHC and for the corresponding benchmark sample from 2008 SIPP by regressing an indicator of a false negative report on *sippehc*, an indicator for the SIPP-EHC survey (*sippehc*=1) vs. the benchmark sample (*sippehc*=0) and a constant (*_cons*). The coefficient on the constant gives the false negative rate for person-months from the benchmark sample, and the coefficient on *sippehc* gives the difference between the false negative rate for 2010 SIPP-EHC and the false negative rate for the benchmark sample. The false positive rate gives the percentage person-months of reported participation among the person-months of no administratively-recorded participation for sample-persons.

In Column 1 of Table 3, the coefficient on *sippehc* is -0.182, indicating that the false negative rate for 2010 SIPP-EHC reporting of SSI participation is 18.2 percentage points lower than the false negative rate of 42.4% for the benchmark sample.⁶ The false positive rate for reporting of SSI participation in 2010 SIPP-EHC is 1.9 percentage points higher than the corresponding rate of 1.0% for the CY2009 benchmark sample. These rates are explored in more detail in Section 5.

The false negative rate for reporting of OASDI participation in 2010 SIPP-EHC is 15.2 percentage points higher than the false negative rate of 16.3% for the benchmark sample. The false positive rate for reporting of OASDI participation in 2010 SIPP-EHC is 0.6 percentage points lower than the corresponding rate of 2.1% for the comparison sub-sample from 2008 SIPP. These rates are explored in more detail in Section 4, in which the rates are reported by type of OASDI benefit (own and spousal retirement benefits, disability benefits, and widow and child survivor benefits), and the rates are also calculated for 2011 SIPP-EHC.

⁶Again, we emphasize that these statistics are from a not-sample-weighted sub-sample of units from 2008 SIPP that match the sample design of 2010 SIPP-EHC. Reported results do not reflect misreporting in 2008 SIPP overall and the sub-sample is not representative of the U.S. population.

The false negative rate for reporting of Medicare participation in 2010 SIPP-EHC is 4.1 percentage points higher than the 9.4% false negative rate for the benchmark sample for 2008 SIPP. The false positive rates for reporting of Medicare participation in 2010 SIPP-EHC and the benchmark sample are both approximately 36%. These surprisingly large false positive rates merit further investigation.

The false negative rates for reporting of SNAP participation in 2010 SIPP-EHC and in the comparison sub-sample are 38.9% and 31.7%, respectively. The universe for this regression is all person-months for which participation in the Texas SNAP program was indicated in the administrative records and for which the survey response regarding SNAP participation was not missing. The false positive rates for reporting of SNAP participation in 2010 SIPP-EHC and 2008 SIPP are both approximately 6.3%. The universe for this regression is all person-months from sample units with original sample addresses in the state of Texas. Clearly, for some of these person-months, Texas was no longer (or not yet) the state of residence. Therefore, some of these false positive SNAP participation reports may actually reflect participation in a state other than Texas.

The longer one-year reference period in SIPP-EHC (relative to SIPP's 4 month reference period) raises the question of telescoping (or memory decay) in survey responses, that is, whether the accuracy of survey reports will be lower for months earlier in the reference period (further in the past). In order to investigate this possibility, in Table 4, we report estimates of linear time trends in false negative and false positive rates in the reporting of program participation in 2010 SIPP-EHC and the benchmark sample from 2008 SIPP. We perform this estimation by including in our regressions a variable, *month* that indicates the number of months since December 2008 for the person-month observation. We also interact *month* with *sippehc* to obtain the difference in trend between the two surveys. We find no evidence of time trends to either rate for any program except for false negatives rate in SSI and SNAP. The false negative rate in SNAP reporting in 2010 SIPP-EHC is decreasing relative to the rate for the benchmark sample over the course of CY2009 at a rate of 1.2 percentage points per month. This finding is consistent with the hypothesis of telescoping in reporting of program participation in SIPP-EHC's longer reference period. The SSI false negative rate for the benchmark sample increases over the course of CY2009, but there is no time trend to the false negative rate for SSI reporting in 2010 SIPP-EHC. This is also consistent with the hypothesis of telescoping in 2010 SIPP-EHC. We find no evidence of telescoping in reports of month-by-month participation in OASDI or Medicare.

In Table 5, we report differences between survey-reported benefit amounts and the corresponding administratively-recorded benefit amounts. The differences are calculated as the value of the survey-reported measure less the administrative records measure. Observations include only person-months for which the administrative records and survey report agree that a benefit was paid/received and that the survey-reported benefit amount is not missing. For the benchmark sample, the average difference between survey-reported and administratively-recorded amounts is not statistically different from zero. For 2010 SIPP-EHC, the survey reported amount of SSI benefits exceeds the administratively-recorded amount by \$107.30 on average.⁷ In the benchmark sample, the survey-reported OASDI benefits are \$79.02 greater, on average, than the corresponding administratively-recorded amounts. In 2010 SIPP-EHC, the survey-reported amount of OASDI

⁷We noted in Section 2.2 that SSI benefit amounts for sample persons in 2010 SIPP-EHC are actually the sum of benefits received for self and any children or guardian. We have not estimated the extent to which the aggregation of adult and child benefits in 2010 SIPP-EHC might explain the SSI results in Table 5.

benefits is only \$14.79 greater, on average, than the administratively-recorded amount. The average differences in survey-reported SNAP amounts and administrative records amounts are understated by approximately \$15.59 on average in both the 2010 SIPP-EHC or the benchmark sample. We also report estimates of linear time trends for differences in survey-reported and administratively recorded amounts; we find no evidence of such trends to these differences.

4 Detailed Analysis of Reporting of OASDI Participation

In this section, we take a more detailed look at the agreement between survey and administrative data on participation in the OASDI program. For both the 2010 and 2011 SIPP-EHC, we examine the reporting of OASDI benefits by the types of benefit received: retirement (own and spouse), disability, and survivor (widow and child) benefits. We revisit the analyses of the preceding section (false negative rates, false positives rates, and differences in reported and administrative amounts) for each benefit type and across CY2009 and CY2010. We also look at agreement between the survey reports and the administrative records on the year of first benefit and on the types of benefits received in each month and annual rates. We also investigate selection on administratively-recorded OASDI benefit amount as to which sample persons fail to report OASDI benefit receipt.

In Table 6, we present false negative rates (based on the MBR) for reporting in 2010 and 2011 SIPP-EHC and in the benchmark samples of OASDI participation (of any type) by type of OASDI benefit recorded in the MBR. Individuals who, according to the MBR, were dually entitled to OASDI benefits are included in both categories. For example, some beneficiaries received both own and spousal retirement benefits.

For each benefit type except spousal retirement benefits, the false negative rate is higher in the 2010 SIPP-EHC than in the benchmark sample. For person-months of retiree benefit, the false negative rate in 2010 SIPP-EHC is 15.5 percentage points higher in 2010 SIPP-EHC than the 3.8% false negative rate for the comparison 2008 SIPP sub-sample. For person-months of disability benefit, the false negative rate in 2010 SIPP-EHC is 18.5 percentage points higher than the 29.1% false negative rate in the benchmark sample. For person-months of widow benefits, the false negative rate in 2010 SIPP-EHC is 14.6 percentage points higher than the 6.1% false negative rate in the comparison sub-sample. For person-months of benefit to children, the false negative rate in 2010 SIPP-EHC is 11.5 percentage points higher than the 43.3% false negative rate in the comparison sub-sample.

We find improvement in the accuracy of reporting about OASDI retirement benefits in 2011 SIPP-EHC relative to 2010 SIPP-EHC.⁸ Table 7 presents results from comparing the differences between SIPP-EHC samples and the corresponding benchmark samples across CY2009 and CY2010. The coefficients labeled 1.sippehc#2010.year give these difference-in-differences estimates. The difference in false negative rate between 2011 SIPP-EHC and the CY2010 benchmark sample for person-months of retirement benefits was 6.7 percentage points lower than the same difference for 2010 SIPP-EHC. Many refinements were made to the OASDI portion of the SIPP-EHC instrument between the 2010 and 2011 field tests, which may explain this improvement. For none of the other

⁸Special thanks to Stuart Friedrich and his staff at SSA for creating these extracts and to Vickie Kee and the staff of the Data Preparation Branch, CES Data Staff at the Census Bureau for expediting the data transfer and internal processing.

benefit types was there a statistically significant difference in the differences. Comparing differences in this way is useful despite differences in state composition of the samples for the two field tests since the benchmark samples for 2008 SIPP for each field test have been created to match the sample designs of each sample field test.

In Table 8 we present calculations of the percentage of reports classified as false negatives (based on the MBR) for which, in fact, the PHUS records no payment. As discussed in Section 2, the MBR is a record of eligibility for OASDI benefits and the PHUS is a record of payment of OASDI benefits. We investigate whether this nuance affects our results because survey respondents may interpret questions about participation in programs as pertaining to eligibility for benefits or receipt of benefit payments. For 2010 SIPP-EHC, we found that nearly 3.7% of the false negative (based on MBR) person-months of reports about OASDI retirement benefits would be classified as true negatives based on the PHUS. This rate is 6.5% lower than for the benchmark sample. There was no statistically significant difference in this difference between 2010 SIPP-EHC and 2011 SIPP-EHC. For disability benefits, the rates of false classification as false negative are 13.7% for 2010 SIPP-EHC and 32.9% for the comparison sub-sample. Again, the difference was similar for 2011 SIPP-EHC. For widow benefits, 24% of the false negatives in the CY2009 benchmark sample were misclassified, but in neither 2010 SIPP-EHC, 2011 SIPP-EHC, nor the CY2010 benchmark sample was there a statistically significant proportion of the false negatives that were misclassified as such. The unusual spike in misclassified false negatives for widow benefits in the CY2009 benchmark sample merits further investigation. For spousal benefits, there was no statistically significant proportion of the reports classified as false negatives for which no payment was indicated in the PHUS. For OASDI benefits to children, 11.5% of person-months of benefits in the CY2009 benchmark sample had no payment indicated in the PHUS, and the corresponding rate for 2010 SIPP-EHC was not statistically different.

Table 9 contains calculations of rates of false negative reporting about participation in OASDI programs for any month of CY2009. We classify a person-year observation as a false negative report for CY2009 if no OASDI participation was reported for any month of CY2009 and the eligibility in at least one month of CY2009 was indicated in the MBR. We expected that some individuals would be able to report receipt at some point during the year even if they failed to correctly identify the particular month(s) of benefit receipt. We hypothesized that if such mis-identification of months of participation were more common in the SIPP-EHC, then the differences between the two surveys would be smaller for the any-month false negative rate than for the month-by-month false negative rate. In the first column of Table 9, we present person-level rates of any-month false negative reporting for CY2009. The 2010 SIPP-EHC false reporting rate for OASDI participation for any month of CY2009 is 16.7 percentage points higher than the 8.9% rate in the benchmark sample from 2008 SIPP. To compare this difference with the person-month-level difference between 2010 SIPP-EHC and the benchmark sample from 2008 SIPP (presented in column 3), we first weight the person-level any-month report by the number of months of recorded participation for each sample person; the resulting estimates are presented in column 2. In column 4, we present estimates of the difference between the month-by-month and any-month false negative rates across the two surveys. For the benchmark sample for 2008 SIPP, the any-month false negative rate is 9.2 percentage points lower than the month-by-month false negative rate. The same difference for 2010 SIPP-EHC is reduced by 3.1 percentage points. This suggests that failure to report any receipt for the year accounts for more of the month-by-month false negative rate in SIPP-EHC than in the benchmark

sample.

We investigate the possibility of selection in which person-months of OASDI receipt were not reported in the surveys by comparing mean total OASDI benefit amounts as recorded in the PHUS for false negative and true positive reports. In Tables 10 and 11, we present comparisons of these means by survey and release year and by types of benefits received. We find evidence of selection on administratively-recorded benefit among only for widow benefits, and even in this case we find no statistically significant difference between the selection in SIPP-EHC and benchmark samples.

We evaluate the agreement of the reported benefit amounts for true positive person-month reports, the administratively-recorded OASDI benefit amounts. In Tables 12 and 13 we present, by types of benefits, mean differences between the survey-reported and administratively-recorded amounts for SIPP-EHC and benchmark samples for 2008 SIPP across CY2009 and CY2010. We find a difference in these means between SIPP-EHC and the benchmark samples for benefits to children and in CY2010, for spousal retirement benefits. Benefits to children appear to be over-reported on average in the benchmark samples by nearly \$200. The over-reporting is nearly \$150 less in the 2011 SIPP-EHC. The difference in these differences across the two reference years is not statistically significant. Spouse benefits are over-reported in the benchmark sample by approximately \$120 on average. In 2011 SIPP-EHC, the amount is under-reported on average by \$10. The difference in the differences across the two reference years is not statistically significant.

We next evaluate survey responses about the year of first receipt of benefits. We calculate the difference between the reported year of first benefit receipt and the year of first eligibility according to the MBR. The MBR begins in 1962 so we coded a handful of reports of earlier start years as beginning in 1962. We present our estimations in Table 14. We find no statistically significant difference in the differences across 2010 SIPP-EHC and the benchmark sample. To more precisely estimate the difference between the two surveys, we estimate a second specification in which we include the number of years since the benefits began. However, we still find no statistically significant difference in the differences across 2010 SIPP-EHC and the benchmark samples from 2008 SIPP. Understanding of the second column in Table 14 is enhanced by looking at the second row of Table 15, which shows the fitted values for the estimations. Survey responses in both surveys about year of first benefit are about 2.5 years more recent than the recorded year of first benefit.

Table 16 contains rates of disagreement about type of benefit between survey-reports and the administrative data. For each person-month of benefit of a particular type, we calculate the percentage of person-months that were reported in the survey as receiving some type of OASDI benefit but did not report any benefits of the particular type. We repeat this calculation for each type of benefit and for both CY2009 and CY2010. In the first column of Table 16, the coefficient on *sippehc* indicates that there was no difference between the 2010 SIPP-EHC and the benchmark sample in the rate of disagreement about whether the OASDI benefits included retirement benefits. The rate in the benchmark sample is 10.4%. Similarly there is no significant difference in these rates between the 2011 SIPP-EHC and the corresponding benchmark sample. In fact, the only difference between SIPP-EHC and the benchmark samples that we detect in these rates is for widow benefits in CY2010. In this case the rate of disagreement is nearly 14 percentage points lower in SIPP-EHC than in the CY2010 benchmark sample from 2008 SIPP. We also note that the disagreement rates about receipt of widow and spouse benefits are very high, as high as 75% and 87.8%, respectively.

5 Detailed Analysis of Reporting of SSI Participation

In this section, we take a more detailed look at misreporting of SSI participation in 2010 and 2011 SIPP-EHC relative to the benchmark samples: we investigate false negative reports about SSI participation across 2010 and 2011 SIPP-EHC for adults and children, misreporting about the source of SSI benefits (federal, state, or both), misreporting about any participation during the reference year, and the extent of selection on benefit amount as to which person months of SSI participation are misreported.

We first revisit the false negative rates for reporting about SSI participation that were discussed in Section 3. In Table 18, we compare the false negative rates for SSI reporting in SIPP-EHC and comparison samples from 2008 SIPP across CY 2009 and CY2010. In column 1, we present results for adult sample persons (at least 15 years of age at time of interview). We find no statistically significant change in the accuracy of SIPP-EHC relative to benchmark samples across 2010 SIPP-EHC and 2011 SIPP-EHC for these sample persons, either adults or children.

We next evaluate to what extent the differences in false negative rates between 2010 SIPP-EHC and the benchmark sample from 2008 SIPP arise from failure to report any administratively-recorded SSI participation for the SIPP-EHC reference year as opposed to mis-identification of the specific month(s) of participation. Column 1 of Table 19 gives the person-level rates of false reporting about any SSI participation in CY2009. We find no statistically significant difference between the rates for SIPP-EHC and SIPP. The false negative rate is approximately 21% for both surveys. We repeat the comparison in column 2, weighting the person-level false reporting measure by the number of months of SSI participation in CY2009 for each sample person; the weighted person-level false negative rate for both surveys is approximately 19.3%. We restate the false negative rate for person-months of SSI participation in column 3. In column 4, we compare the person-month rates with the weighted person-level rate to confirm that there is no statistically significant difference ($p=.0108$) in the two rates for 2010 SIPP-EHC, and that the person-month rate for the CY2009 benchmark sample is 22.8 percentage points higher than the weighted person-level rate for the same sample persons. These results suggest that the under-reporting about SSI participation in 2010 SIPP-EHC stems from erroneous reports of no participation at all rather than for respondents identifying some but not all of the months of SSI participation in the reference year. The latter pattern appears to be relatively more important for misreporting in benchmark sample from 2008 SIPP.

We also investigate the accuracy of reporting in the surveys about the source of SSI benefits. In Table 20, we present calculations by source of SSI benefit (federal only, state only, or both federal and state) of the percentage of person-month reports of SSI benefits survey-reported as coming from each source type. We restrict attention to states for which administratively-recorded data on state SSI were available to use, namely those states for which payments are included in the federal SSI records.⁹ Column 1 shows that among person-months of administratively-recorded state-only SSI receipt, the percentage reported as such in 2010 SIPP-EHC is approximately 30%, and the corresponding percentage for the benchmark sample is not statistically different from zero.

⁹In the 2010 SIPP EHC the following states were included in our state SSI payments evaluation: CA, LA, MD, MA, NY, RI. The following states were not included: CT, IL, TX, WI. In the 2011 SIPP EHC the following states were included: CA, GA, LA, MD, MA, MI, MO, NY, OH, PA, TN. The following states were not included: AZ, CT, IL, IN, MO, TX, VA

Columns 2, 5, and 8 indicate that the majority of person-months of SSI receipt, regardless of source, were reported in the benchmark sample as being federal only. With the exception of the federal-only category, the source of SSI benefits was more accurately reported in 2010 SIPP-EHC than in the benchmark sample. It should be noted that since we only examine reporting of source for sample persons in states for which the federal and state payments are received in a combined payment from SSA, these are perhaps person-months less likely to accurately report any state component to the payment.

Finally, we consider whether there is selection on benefit amount in reporting of SSI participation in the surveys. We compare mean administratively-recorded SSI benefit amounts for false negative and true positive reports and across the surveys. In Table 21, the coefficient on `_cons` gives the mean SSI benefit for person-months of accurately reported SSI participation in the benchmark sample. The coefficient on `1.fn.ssi` gives the difference in mean SSI benefit between false negative and true positive person months for the benchmark sample. In column 1, we find no evidence of selection on *total* SSI benefit amount as to which SSI recipients are misreported in either 2010 SIPP-EHC or the benchmark sample. We do find that false negative person-months corresponded to lower state SSI benefit amounts in both surveys, and slightly more so in 2010 SIPP-EHC.

6 Conclusion

We employed administrative data on program participation for sample persons in 2008 SIPP and in SIPP-EHC field tests to compare the accuracy of SIPP-EHC data with the accuracy of field-test-specific benchmark samples from 2008 SIPP data. We found programs and measures for which the SIPP-EHC data is at least as accurate as comparable SIPP data (such as SSI). For other programs (such as OASDI), we found that there is room for improvement as the Census Bureau continues to refine and test the SIPP-EHC instrument.

In this report we have documented where there are possible misreporting problems. It is our hope that this information can inform on-going efforts to improve SIPP-EHC data quality. The information in this report is relevant to instrument refinement and to the development of editing (including imputation) processes for SIPP-EHC.

We have considered only a handful of programs in this report. As administrative records become available, similar analysis can be performed for TANF and Medicaid. Administrative records for housing subsidies are also available for comparison with the survey data. Accuracy of reported employment and employer characteristics in SIPP-EHC is the subject of separate report (Stinson, Gathright, and Skog, 2012). As administrative records for CY2010 become available for more programs, the progress in accuracy in 2011 SIPP-EHC relative to 2010 SIPP-EHC can be evaluated.

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Table 1: Rates of program participation

	SSI		OASDI		MEDICARE		SNAP	
	Survey	AR	Survey	AR	Survey	AR	Survey	AR
<i>sippehc</i>	0.025*** (0.003)	-0.007 (0.004)	-0.042*** (0.005)	-0.020*** (0.005)	-0.039** (0.013)	-0.000 (0.010)	-0.024 (0.014)	-0.023 (0.013)
<i>_cons</i>	0.049*** (0.002)	0.068*** (0.003)	0.141*** (0.004)	0.146*** (0.005)	0.877*** (0.009)	0.938*** (0.008)	0.185*** (0.011)	0.189*** (0.010)
<i>N</i>	193144	193483	190429	193483	27157	27079	32612	32612

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Source: 2010 SIPP-EHC, 2008 SIPP, administrative records from Social Security Administration (SSI & OASDI), Center for Medicare & Medicaid Services (Medicare), Ray Marshall Center (SNAP). The table presents the results of ordinary least squares regression of indicators of participation in the indicated programs as documented in administrative records (AR) or survey reports (survey). The variable *_cons* denotes the constant. The variable *sippehc* is an indicator for person-month observations from 2010 SIPP-EHC (*sippehc* = 1) versus person-month observations from a benchmark sample drawn from 2008 SIPP (*sippehc* = 0). The 2010 SIPP-EHC sample is not nationally representative. The benchmark sample is designed to be comparable to the 2010 SIPP-EHC and is, therefore, also not nationally representative. Only sample persons assigned a PIK are included in this analysis. We have weighted the included sample persons to represent both the linked and unlinked sample persons. We have also re-weighted the observations to account for state over-sampling in 2008 SIPP relative to 2010 SIPP-EHC. We have not employed any other weighting factor. Sample persons for which participation in a program was not reported are omitted from the survey-based estimates for the program. Medicare program participation is analyzed only for sample persons age 65+ at time of interview. SNAP program participation is only analyzed for sample units in Texas. Standard errors are clustered at the person level.

Table 2: Program benefit amounts

	SSI		OASDI		SNAP	
	Survey	AR	Survey	AR	Survey	AR
<i>sippehc</i>	171.2*** (25.96)	31.98 (17.18)	11.48 (22.03)	28.49 (17.87)	-11.16 (27.28)	-21.90 (30.74)
<i>_cons</i>	563.6*** (19.94)	563.7*** (13.60)	835.7*** (17.34)	812.9*** (14.19)	273.5*** (20.47)	278.4*** (22.83)
<i>N</i>	7148	14377	16511	29509	1808	1276

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Source: 2010 SIPP-EHC, 2008 SIPP, and administrative records from Social Security Administration (SSI & OASDI), and Ray Marshall Center (SNAP). The table presents the results of ordinary least squares regression of benefit amounts from the indicated programs as documented in administrative records (AR) or survey reports (survey). The variable *_cons* denotes the constant. The variable *sippehc* is an indicator for person-month observations from 2010 SIPP-EHC (*sippehc* = 1) versus person-month observations from a benchmark sample drawn from 2008 SIPP (*sippehc* = 0). The 2010 SIPP-EHC sample is not nationally representative. The benchmark sample is designed to be comparable to the 2010 SIPP-EHC and is, therefore, also not nationally representative. Only sample persons assigned a PIK are included in this analysis. We have weighted the included sample persons to represent both the linked and unlinked sample persons. We have also re-weighted the observations to account for state over-sampling in 2008 SIPP relative to the 2010 SIPP-EHC. We have not employed any other weighting factor. Sample persons for which a program benefit amount was not reported are omitted from the survey-based estimation for the program. SNAP program participation is only analyzed for sample units in Texas. Standard errors are clustered at the person level.

Table 3: Rates of false negative and false positive reporting about program participation

	SSI		OASDI		MEDICARE		SNAP	
	FN	FP	FN	FP	FN	FP	FN	FP
<i>sippehc</i>	-0.182*** (0.025)	0.019*** (0.002)	0.152*** (0.016)	-0.006** (0.002)	0.041** (0.013)	-0.081 (0.071)	0.072* (0.032)	0.006 (0.007)
<i>_cons</i>	0.422*** (0.019)	0.011*** (0.001)	0.163*** (0.011)	0.021*** (0.002)	0.094*** (0.008)	0.362*** (0.056)	0.317*** (0.024)	0.063*** (0.005)
<i>N</i>	14366	178778	28770	161659	23762	1601	5898	26905

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Source: 2010 SIPP-EHC, 2008 SIPP, administrative records from Social Security Administration (SSI & OASDI), Center for Medicare & Medicaid Services (Medicare), Ray Marshall Center (SNAP). The table presents the results of ordinary least squares regression of indicators of false negative (FN) or false positive (FP) reports, as indicated, about participation in the indicated program. The variable *_cons* denotes the constant. The variable *sippehc* is an indicator for person-month observations from 2010 SIPP-EHC (*sippehc* = 1) versus person-month observations from a benchmark sample drawn from 2008 SIPP (*sippehc* = 0). The 2010 SIPP-EHC sample is not nationally representative. The benchmark sample is designed to be comparable to the 2010 SIPP-EHC and is, therefore, also not nationally representative. Only sample persons assigned a PIK are included in this analysis. We have weighted the included sample persons to represent both the linked and unlinked sample persons. We have also re-weighted the observations to account for state over-sampling in 2008 SIPP relative to the 2010 SIPP-EHC. We have not employed any other weighting factor. Sample persons for which the survey report about participation in a given program is missing were omitted from the corresponding analysis. SNAP program participation is only analyzed for sample units in Texas. Standard errors are clustered at the person level.

Table 4: Time trends in rates of false negative and false positive reporting about program participation

	SSI		OASDI		MEDICARE		SNAP	
	FN	FP	FN	FP	FN	FP	FN	FP
1.sippehc	-0.140*** (0.031)	0.020*** (0.002)	0.139*** (0.019)	-0.003 (0.002)	0.034* (0.016)	-0.087 (0.099)	0.147** (0.046)	0.003 (0.009)
month	0.006* (0.003)	0.000 (0.000)	-0.001 (0.001)	0.000* (0.000)	-0.001 (0.002)	0.014 (0.009)	-0.006 (0.004)	0.001 (0.001)
1.sippehc#c.month	-0.007* (0.003)	-0.000 (0.000)	0.002 (0.002)	-0.001* (0.000)	0.001 (0.002)	0.002 (0.010)	-0.012* (0.005)	0.000 (0.001)
_cons	0.384*** (0.026)	0.009*** (0.001)	0.171*** (0.014)	0.018*** (0.002)	0.104*** (0.013)	0.265** (0.087)	0.358*** (0.036)	0.055*** (0.007)
<i>N</i>	14366	178778	28770	161659	23762	1601	5898	26905

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Source: 2010 SIPP-EHC, 2008 SIPP, administrative records from Social Security Administration (SSI & OASDI), Center for Medicare & Medicaid Services (Medicare), Ray Marshall Center (SNAP). The table presents the results of ordinary least squares regression of indicators of false negative (FN) or false positive (FP) reports, as indicated, about participation in the indicated program. The variable *_cons* denotes the constant. The variable *sippehc* is an indicator for person-month observations from 2010 SIPP-EHC (*sippehc* = 1) versus person-month observations from a benchmark sample drawn from 2008 SIPP (*sippehc* = 0). The variable *month* is the number of months since December 2008. The # operator indicates an interaction between variables. The 2010 SIPP-EHC sample is not nationally representative. The benchmark sample is designed to be comparable to the 2010 SIPP-EHC and is, therefore, also not nationally representative. Only sample persons assigned a PIK are included in this analysis. We have weighted the included sample persons to represent both the linked and unlinked sample persons. We have also re-weighted the observations to account for state over-sampling in 2008 SIPP relative to the 2010 SIPP-EHC. We have not employed any other weighting factor. Sample persons for which the survey report about participation in a given program is missing were omitted from the corresponding analysis. SNAP program participation is only analyzed for sample units in Texas. Standard errors are clustered at the person level.

Table 5: Differences between survey-reported and administratively-recorded benefit amount

	ssi	ssi	oasdi	oasdi	snap	snap
1.sippehc	107.3*** (29.36)	53.28 (41.72)	-64.23*** (15.35)	-69.56*** (19.82)	4.554 (11.98)	22.46 (19.42)
month		-9.550 (8.727)		-0.105 (2.089)		-2.716 (1.501)
1.sippehc#c.month		9.071 (8.888)		0.829 (2.464)		-2.157 (2.288)
_cons	-46.20 (24.29)	11.00 (37.25)	79.02*** (11.87)	79.61*** (17.68)	-15.59* (7.876)	0.688 (12.14)
<i>N</i>	5200	5200	14287	14287	1297	1297

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Source: 2010 SIPP-EHC, 2008 SIPP, administrative records from Social Security Administration (SSI & OASDI), Ray Marshall Center (SNAP). The table presents the results of ordinary least squares regression of the difference between survey-reported and administratively-recorded benefit amounts for the indicated program. The variable *_cons* denotes the constant. The variable *sippehc* is an indicator for person-month observations from 2010 SIPP-EHC (*sippehc* = 1) versus person-month observations from a benchmark sample drawn from 2008 SIPP (*sippehc* = 0). The variable *month* is the number of months since December 2008. The # operator indicates an interaction between variables. The 2010 SIPP-EHC sample is not nationally representative. The benchmark sample is designed to be comparable to the 2010 SIPP-EHC and is, therefore, also not nationally representative. Only sample persons assigned a PIK are included in this analysis. We have weighted the included sample persons to represent both the linked and unlinked sample persons. We have also re-weighted the observations to account for state over-sampling in 2008 SIPP relative to the 2010 SIPP-EHC. We have not employed any other weighting factor. Sample persons for which the survey report about benefit received from a program is missing were omitted from the corresponding analysis. SNAP program participation is only analyzed for sample units in Texas. Standard errors are clustered at the person level.

Table 6: Rates of false negative reporting about OASDI receipt by types of OASDI benefit received

	RETIRED		DISABLED		WIDOW		SPOUSE		CHILD	
	CY2009	CY2010								
<i>sippehc</i>	0.155*** (0.015)	0.088*** (0.018)	0.185*** (0.039)	0.128** (0.044)	0.146*** (0.029)	0.128*** (0.035)	0.106 (0.057)	0.104 (0.065)	0.115* (0.050)	0.069 (0.063)
<i>_cons</i>	0.038*** (0.007)	0.053*** (0.007)	0.291*** (0.029)	0.266*** (0.023)	0.061*** (0.017)	0.046*** (0.011)	0.156*** (0.041)	0.146*** (0.032)	0.433*** (0.036)	0.430*** (0.033)
<i>N</i>	15073	12170	6308	4966	4956	4083	2087	1809	3759	2768

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Source: 2010 SIPP-EHC, 2011 SIPP-EHC, 2008 SIPP and OASDI administrative records from Social Security Administration. The table presents the results of ordinary least squares regression of indicators of false negative (FN) reports about receipt of OASDI benefits of the indicated type and in CY2009 and CY2010 as indicated. The variable *_cons* denotes the constant. The variable *sippehc* is an indicator for person-month observations from 2010 SIPP-EHC (*sippehc* = 1) versus person-month observations from a benchmark sample drawn from 2008 SIPP (*sippehc* = 0). Neither the 2010 SIPP-EHC sample nor the 2011 SIPP-EHC sample is nationally representative. The benchmark samples for each SIPP-EHC field test, drawn from the 2008 SIPP sample, are designed to be comparable to each SIPP-EHC field test and are, therefore, also not nationally representative. Only sample persons assigned a PIK are included in this analysis. We have also re-weighted the observations to account for state over-sampling in 2008 SIPP relative to 2010 SIPP-EHC. We have also re-weighted the observations to account for state over-sampling in 2008 SIPP relative to the 2010 and 2011 SIPP-EHC. We have not employed any other weighting factor. Sample persons for which the survey report about OASDI participation or type of OASDI benefit was missing were omitted from the analysis. Standard errors are clustered at the person level.

Table 7: Rates of false negative reporting about OASDI receipt by types of OASDI benefit received across CY2009 and CY2010

	retire	disab	widow	spouse	child
1.sippehc	0.155*** (0.015)	0.185*** (0.039)	0.146*** (0.029)	0.106 (0.057)	0.115* (0.050)
2010.year	0.015* (0.007)	-0.025 (0.027)	-0.014 (0.014)	-0.011 (0.031)	-0.003 (0.034)
1.sippehc#2010.year	-0.067** (0.023)	-0.056 (0.054)	-0.017 (0.043)	-0.003 (0.076)	-0.045 (0.072)
_cons	0.038*** (0.007)	0.291*** (0.029)	0.061*** (0.017)	0.156*** (0.041)	0.433*** (0.036)
<i>N</i>	27243	11274	9039	3896	6527

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Source: 2010 SIPP-EHC, 2011 SIPP-EHC, 2008 SIPP and OASDI administrative records from Social Security Administration. The table presents the results of ordinary least squares regression of indicators of false negative (FN) reports about receipt of OASDI benefits of the indicated type and in CY2009 and CY2010 as indicated. The variable *_cons* denotes the constant. The variable *sippehc* is an indicator for person-month observations from 2010 SIPP-EHC (*sippehc* = 1) versus person-month observations from a benchmark sample drawn from 2008 SIPP (*sippehc* = 0). The indicator 2010.year is equal to 1 for observations from CY2010 and equal to 0 for observations from CY2009. The # operator indicates an interaction between variables. Neither the 2010 SIPP-EHC sample nor the 2011 SIPP-EHC sample is nationally representative. The benchmark samples for each SIPP-EHC field test, drawn from the 2008 SIPP sample, are designed to be comparable to each SIPP-EHC field test and are, therefore, also not nationally representative. Only sample persons assigned a PIK are included in this analysis. We have weighted the included sample persons to represent both the linked and unlinked sample persons. We have also re-weighted the observations to account for state over-sampling in 2008 SIPP relative to the 2010 and 2011 SIPP-EHC. We have not employed any other weighting factor. Sample persons for which the survey report about OASDI participation or type of OASDI benefit was missing were omitted from the analysis. Standard errors are clustered at the person level.

Table 8: Percentage of “false negative” reports for which no payment is recorded in the PHUS

	retire	disab	widow	spouse	child
1.sippehc	-0.065* (0.028)	-0.137* (0.060)	-0.216* (0.108)	-0.049 (0.085)	0.071 (0.047)
2010.year	-0.024 (0.032)	-0.103 (0.055)	-0.221* (0.107)	-0.057 (0.087)	-0.005 (0.039)
1.sippehc#2010.year	0.053 (0.039)	0.062 (0.073)	0.223* (0.108)	0.073 (0.111)	-0.060 (0.064)
_cons	0.102*** (0.027)	0.329*** (0.052)	0.240* (0.107)	0.118 (0.078)	0.115*** (0.034)
<i>N</i>	3052	4065	1144	761	3127

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Source: 2010 SIPP-EHC, 2011 SIPP-EHC, 2008 SIPP and OASDI administrative records from Social Security Administration. The table presents the results of ordinary least squares regression of indicators of whether payment of OASDI benefits was recorded in the PHUS. The universe for each regression are the “false negative” reports about receipt of OASDI benefits of the indicated type. The variable *_cons* denotes the constant. The variable *sippehc* is an indicator for person-month observations from 2010 SIPP-EHC (*sippehc* = 1) versus person-month observations from a benchmark sample drawn from 2008 SIPP (*sippehc* = 0). The indicator *2010.year* is equal to 1 for observations from CY2010 and equal to 0 for observations from CY2009. The # operator indicates an interaction between variables. Neither the 2010 SIPP-EHC sample nor the 2011 SIPP-EHC sample is nationally representative. The benchmark samples for each SIPP-EHC field test, drawn from the 2008 SIPP sample, are designed to be comparable to each SIPP-EHC field test and are, therefore, also not nationally representative. Only sample persons assigned a PIK are included in this analysis. We have weighted the included sample persons to represent both the linked and unlinked sample persons. We have also re-weighted the observations to account for state over-sampling in 2008 SIPP relative to the 2010 and 2011 SIPP-EHC. We have not employed any other weighting factor. Sample persons for which the survey report about OASDI participation was missing were omitted from the analysis. Standard errors are clustered at the person level.

Table 9: Rates of false negative reporting about any OASDI receipt during CY2009

	est1	est2	est3	est4
1.sippehc	0.167*** (0.015)	0.174*** (0.014)	0.152*** (0.016)	0.152*** (0.016)
1.py				-0.082*** (0.007)
1.sippehc#1.py				0.022* (0.009)
_cons	0.089*** (0.010)	0.081*** (0.009)	0.163*** (0.011)	0.163*** (0.011)
<i>N</i>	2502	28770	28770	57540

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Source: 2010 SIPP-EHC, 2008 SIPP and OASDI administrative records from Social Security Administration. The table presents the results of ordinary least squares regression of indicators of false negative reporting about OASDI receipt during CY2009 at the person-year or person-month level as indicated. The variable *_cons* denotes the constant. The variable *sippehc* is an indicator for person-month observations from 2010 SIPP-EHC (*sippehc* = 1) versus person-month observations from a benchmark sample drawn from 2008 SIPP (*sippehc* = 0). The indicator *1.py* equals 1 for the person year observations and 0 for person-month observations. The # operator indicates an interaction between variables. The 2010 SIPP-EHC sample is not nationally representative. The benchmark sample is designed to be comparable to the 2010 SIPP-EHC and is, therefore, also not nationally representative. Only sample persons assigned a PIK are included in this analysis. We have weighted the included sample persons to represent both the linked and unlinked sample persons. We have also re-weighted the observations to account for state over-sampling in 2008 SIPP relative to the 2010 SIPP-EHC. The person-year observations in Columns 2 and 4 are weighted by the number of months of OASDI receipt for the sample person during CY2009. We have not employed any other weighting factor. The estimates in Column 4 come from pooling the person-month and weighted person-year observations. Sample persons for which the survey report about OASDI participation was missing were omitted from the analysis. Standard errors are clustered at the person level.

Table 10: Average OASDI benefit between false negative and true positive OASDI reports by type of benefit

	RETIRED		DISABLED		WIDOW		SPOUSE		CHILD	
	CY2009	CY2010	CY2009	CY2010	CY2009	CY2010	CY2009	CY2010	CY2009	CY2010
1.fn_oasdi	-86.70 (105.70)	-50.88 (76.41)	-0.08 (103.34)	-82.62 (61.50)	-157.78** (56.68)	-148.88 (76.94)	-40.93 (163.65)	-6.93 (114.41)	37.33 (63.63)	4.77 (50.73)
1.sippehc	27.20 (25.08)	46.01 (27.18)	38.99 (57.41)	68.32 (77.99)	-21.37 (36.31)	10.50 (38.39)	27.35 (44.57)	-22.74 (37.46)	-12.78 (50.12)	73.97 (64.06)
1.fn_oas c	71.31 (111.95)	-1.19 (95.94)	19.90 (132.26)	260.75 (154.81)	105.49 (77.93)	177.92 (116.05)	72.28 (171.40)	33.92 (126.02)	25.54 (82.45)	-76.17 (93.58)
_cons	908.27*** (19.56)	919.94*** (15.96)	947.30*** (38.75)	946.43*** (30.34)	994.34*** (27.62)	1015.02*** (22.96)	485.65*** (37.68)	499.42*** (25.95)	496.69*** (35.40)	510.80*** (32.56)
N	14940	12067	5689	4654	4876	4060	2039	1777	3423	2580

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Source: 2010 SIPP-EHC, 2011 SIPP-EHC, 2008 SIPP and OASDI administrative records from Social Security Administration. The table presents the results of ordinary least squares regression of the administratively-recorded amount of OASDI benefit of the type indicated and in the indicated calendar year. The variable *_cons* denotes the constant. The variable *sippehc* is an indicator for person-month observations from 2010 SIPP-EHC (*sippehc* = 1) versus person-month observations from a benchmark sample drawn from 2008 SIPP (*sippehc* = 0). The indicator *1.fn_oasdi* is equal to 1 for false negative reports and 0 for true positive reports. The # operator indicates an interaction between variables. Neither the 2010 SIPP-EHC sample nor the 2011 SIPP-EHC sample is nationally representative. The benchmark samples for each SIPP-EHC field test, drawn from the 2008 SIPP sample, are designed to be comparable to each SIPP-EHC field test and are, therefore, also not nationally representative. Only sample persons assigned a PIK are included in this analysis. We have weighted the included sample persons to represent both the linked and unlinked sample persons. We have also re-weighted the observations to account for state over-sampling in 2008 SIPP relative to the 2010 and 2011 SIPP-EHC. We have not employed any other weighting factor. Sample persons for which the survey report about OASDI participation or type of OASDI benefit was missing were omitted from the analysis. Standard errors are clustered at the person level.

Table 11: Average OASDI benefit for false negative and true positive OASDI reports by type of benefit across CY2009 and CY2010

	retire	disab	widow	spouse	child
1.fn_oasdi	-86.704 (105.688)	-0.079 (103.314)	-157.780** (56.656)	-40.928 (163.510)	37.333 (63.605)
1.sippehc	27.204 (25.082)	38.989 (57.392)	-21.374 (36.301)	27.352 (44.534)	-12.785 (50.104)
1.fn_oasdi#1.sippehc	71.311 (111.939)	19.896 (132.219)	105.491 (77.900)	72.282 (171.246)	25.540 (82.422)
2010.year	11.672 (12.907)	-0.878 (35.149)	20.676 (19.188)	13.773 (26.376)	14.117 (25.493)
1.fn_oasdi#2010.year	35.828 (96.890)	-82.539 (107.820)	8.898 (87.171)	33.995 (88.074)	-32.564 (73.962)
1.sippehc#2010.year	18.806 (29.950)	29.330 (90.482)	31.879 (43.236)	-50.091 (44.613)	86.752 (70.339)
1.fn_oasdi#1.sippehc#2010.year	-72.504 (118.804)	240.854 (196.475)	72.431 (134.156)	-38.364 (114.593)	-101.710 (119.974)
_cons	908.273*** (19.562)	947.305*** (38.742)	994.342*** (27.606)	485.646*** (37.648)	496.686*** (35.383)
<i>N</i>	27007	10343	8936	3816	6003

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

[h] Source: 2010 SIPP-EHC, 2011 SIPP-EHC, 2008 SIPP and OASDI administrative records from Social Security Administration. The table presents the results of ordinary least squares regression of the administratively-recorded amount of OASDI benefit of the type indicated. The variable *_cons* denotes the constant. The variable *sippehc* is an indicator for person-month observations from 2010 SIPP-EHC (*sippehc* = 1) versus person-month observations from a benchmark sample drawn from 2008 SIPP (*sippehc* = 0). The indicator *1.fn_oasdi* is equal to 1 for false negative reports and 0 for true positive reports. The # operator indicates an interaction between variables. The indicator *2010.year* is equal to 1 for observations from CY2010 and equal to 0 for observations from CY2009. Neither the 2010 SIPP-EHC sample nor the 2011 SIPP-EHC sample is nationally representative. The benchmark samples for each SIPP-EHC field test, drawn from the 2008 SIPP sample, are designed to be comparable to each SIPP-EHC field test and are, therefore, also not nationally representative. Only sample persons assigned a PIK are included in this analysis. We have weighted the included sample persons to represent both the linked and unlinked sample persons. We have also re-weighted the observations to account for state over-sampling in 2008 SIPP relative to the 2010 and 2011 SIPP-EHC. We have not employed any other weighting factor. Sample persons for which the survey report about OASDI participation or type of OASDI benefit was missing were omitted from the analysis. Standard errors are clustered at the person level.

Table 12: Average difference between survey-reported and administratively-recorded OASDI benefit amounts by type of OASDI benefit

	RETIRED		DISABLED		WIDOW		SPOUSE		CHILD	
	CY2009	CY2010	CY2009	CY2010	CY2009	CY2010	CY2009	CY2010	CY2009	CY2010
<i>sippehc</i>	-27.327 (17.237)	-61.376 (46.195)	-54.226 (53.675)	58.667 (98.380)	19.373 (44.314)	-56.592 (36.024)	-18.059 (43.837)	-132.893** (42.680)	-210.590*** (57.327)	-148.989** (54.593)
<i>_cons</i>	37.425*** (10.873)	90.829*** (12.305)	-17.795 (42.694)	-173.492* (70.092)	-2.279 (24.141)	52.983 (31.885)	105.865*** (28.041)	122.611*** (24.862)	324.074*** (49.294)	194.127*** (39.523)
<i>N</i>	8375	4671	2471	1500	2570	1501	1125	668	1420	682

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Source: 2010 SIPP-EHC, 2011 SIPP-EHC, 2008 SIPP and OASDI administrative records from Social Security Administration. The table presents the results of ordinary least squares regression of the differences between survey-reported and administratively-recorded OASDI benefits of the types indicated. The variable *_cons* denotes the constant. The variable *sippehc* is an indicator for person-month observations from 2010 SIPP-EHC (*sippehc* = 1) versus person-month observations from a benchmark sample drawn from 2008 SIPP (*sippehc* = 0). Neither the 2010 SIPP-EHC sample nor the 2011 SIPP-EHC sample is nationally representative. The benchmark samples for each SIPP-EHC field test, drawn from the 2008 SIPP sample, are designed to be comparable to each SIPP-EHC field test and are, therefore, also not nationally representative. Only sample persons assigned a PIK are included in this analysis. We have weighted the included sample persons to represent both the linked and unlinked sample persons. We have also re-weighted the observations to account for state over-sampling in 2008 SIPP relative to the 2010 and 2011 SIPP-EHC. We have not employed any other weighting factor. Sample persons for which the survey report about OASDI participation or type of OASDI benefit was missing were omitted from the analysis. Standard errors are clustered at the person level.

Table 13: Average difference between survey-reported and administratively-recorded OASDI benefit amounts by type of OASDI benefit across CY2009 and CY2010

	retire	disab	widow	spouse	child
1.sippehc	-27.327 (17.235)	-54.226 (53.655)	19.373 (44.297)	-18.059 (43.793)	-210.590*** (57.304)
2010.year	53.403*** (16.028)	-155.697 (80.583)	55.262 (34.345)	16.746 (36.295)	-129.947* (50.543)
1.sippehc#2010.year	-34.049 (49.156)	112.893 (110.927)	-75.964 (53.288)	-114.834 (60.387)	61.601 (69.433)
_cons	37.425*** (10.872)	-17.795 (42.678)	-2.279 (24.131)	105.865*** (28.013)	324.074*** (49.274)
<i>N</i>	13046	3971	4071	1793	2102

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Source: 2010 SIPP-EHC, 2011 SIPP-EHC, 2008 SIPP and OASDI administrative records from Social Security Administration. The table presents the results of ordinary least squares regression of the differences between survey-reported and administratively-recorded OASDI benefits of the types indicated and in the calendar years indicated. The variable *_cons* denotes the constant. The variable *sippehc* is an indicator for person-month observations from 2010 SIPP-EHC (*sippehc* = 1) versus person-month observations from a benchmark sample drawn from 2008 SIPP (*sippehc* = 0). The indicator *2010.year* is equal to 1 for observations from CY2010 and equal to 0 for observations from CY2009. The # operator indicates an interaction between variables. Neither the 2010 SIPP-EHC sample nor the 2011 SIPP-EHC sample is nationally representative. The benchmark samples for each SIPP-EHC field test, drawn from the 2008 SIPP sample, are designed to be comparable to each SIPP-EHC field test and are, therefore, also not nationally representative. Only sample persons assigned a PIK are included in this analysis. We have weighted the included sample persons to represent both the linked and unlinked sample persons. We have also re-weighted the observations to account for state over-sampling in 2008 SIPP relative to the 2010 and 2011 SIPP-EHC. We have not employed any other weighting factor. Sample persons for which the survey report about OASDI participation or type of OASDI benefit was missing were omitted from the analysis. Standard errors are clustered at the person level.

Table 14: Difference in survey-reported and administratively-recorded year of first receipt of OASDI benefits

	est1	est2
Indicator for EHC (=1)	0.303 (0.704)	0.615 (0.555)
years_since_start		0.532*** (0.038)
Constant	2.408*** (0.524)	-4.213*** (0.506)
Observations	7256	7256

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Source: 2010 SIPP-EHC, 2008 SIPP and OASDI administrative records from Social Security Administration. The table presents the results of ordinary least squares regression of the differences between survey-reported and administratively-recorded year of first receipt of OASDI benefits. The variable *_cons* denotes the constant. The variable *sippehc* is an indicator for person-month observations from 2010 SIPP-EHC (*sippehc* = 1) versus person-month observations from a benchmark sample drawn from 2008 SIPP (*sippehc* = 0). The variable *years_since_start* is the year of interview less the year of first OASDI benefit receipt as recorded in the administrative records. The 2010 SIPP-EHC sample is not nationally representative. The benchmark sample is designed to be comparable to the 2010 SIPP-EHC and is, therefore, also not nationally representative. Only sample persons assigned a PIK are included in this analysis. We have weighted the included sample persons to represent both the linked and unlinked sample persons. We have also re-weighted the observations to account for state over-sampling in 2008 SIPP relative to the 2010 SIPP-EHC. We have not employed any other weighting factor. Sample persons for which the survey report about OASDI participation or year of first receipt of OASDI benefits was missing were omitted from the analysis. Standard errors are clustered at the person level.

Table 15: Difference in survey-reported and administratively-recorded year of first receipt of OASDI benefits (fitted)

	SIPP	SIPP-EHC
Average differences	2.41	2.71
Average differences with year control	2.58	2.85
Observations	2604	4652

Source: 2010 SIPP-EHC, 2008 SIPP and OASDI administrative records from Social Security Administration. The table presents the fitted values from estimation of ordinary least squares regression of the differences between survey-reported and administratively-recorded year of first receipt of OASDI benefits. The variable *_cons* denotes the constant. The variable *sippehc* is an indicator for person-month observations from 2010 SIPP-EHC (*sippehc* = 1) versus person-month observations from a benchmark sample drawn from 2008 SIPP (*sippehc* = 0). The variable *years_since_start* is the year of interview less the year of first OASDI benefit receipt as recorded in the administrative records. The 2010 SIPP-EHC sample is not nationally representative. The benchmark sample is designed to be comparable to the 2010 SIPP-EHC and is, therefore, also not nationally representative. Only sample persons assigned a PIK are included in this analysis. We have weighted the included sample persons to represent both the linked and unlinked sample persons. We have also re-weighted the observations to account for state over-sampling in 2008 SIPP relative to the 2010 SIPP-EHC. We have not employed any other weighting factor. Sample persons for which the survey report about OASDI participation or year of first receipt of OASDI benefits was missing were omitted from the analysis. Standard errors are clustered at the person level.

Table 16: False negative reports about type of OASDI benefits received by type of OASDI benefits

	RETIRED		DISABLED		WIDOW		SPOUSE		CHILD	
	CY2009	CY2010								
<i>sippehc</i>	0.016 (0.017)	0.030 (0.019)	0.022 (0.035)	-0.006 (0.039)	-0.089 (0.046)	-0.139** (0.052)	-0.009 (0.053)	-0.074 (0.066)	-0.000 (0.055)	0.133 (0.083)
<i>_cons</i>	0.104*** (0.012)	0.083*** (0.008)	0.142*** (0.023)	0.151*** (0.019)	0.692*** (0.032)	0.750*** (0.024)	0.858*** (0.037)	0.878*** (0.028)	0.179*** (0.039)	0.206*** (0.037)
<i>N</i>	13036	11155	3777	3432	4201	3694	1633	1502	1901	1499

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Source: 2010 SIPP-EHC, 2011 SIPP-EHC, 2008 SIPP and OASDI administrative records from Social Security Administration. The table presents the results of ordinary least squares regression of indicators for false negative reports about the type of OASDI benefits received for the indicated type of benefits and in the indicated calendar year. The variable *_cons* denotes the constant. The variable *sippehc* is an indicator for person-month observations from 2010 SIPP-EHC (*sippehc* = 1) versus person-month observations from a benchmark sample drawn from 2008 SIPP (*sippehc* = 0). Neither the 2010 SIPP-EHC sample nor the 2011 SIPP-EHC sample is nationally representative. The benchmark samples for each SIPP-EHC field test, drawn from the 2008 SIPP sample, are designed to be comparable to each SIPP-EHC field test and are, therefore, also not nationally representative. Only sample persons assigned a PIK are included in this analysis. We have weighted the included sample persons to represent both the linked and unlinked sample persons. We have also re-weighted the observations to account for state over-sampling in 2008 SIPP relative to the 2010 and 2011 SIPP-EHC. We have not employed any other weighting factor. Sample persons for which the survey report about OASDI participation or type of OASDI benefit was missing were omitted from the analysis. Standard errors are clustered at the person level.

Table 17: False negative reports about type of OASDI benefits received by type of OASDI benefits across CY2009 and CY2010

	retire	disab	widow	spouse	child
1.sippehc	0.016 (0.017)	0.022 (0.035)	-0.089 (0.046)	-0.009 (0.053)	-0.000 (0.055)
2010.year	-0.021 (0.011)	0.009 (0.023)	0.059* (0.027)	0.020 (0.035)	0.026 (0.029)
1.sippehc#2010.year	0.015 (0.023)	-0.028 (0.049)	-0.050 (0.062)	-0.065 (0.079)	0.133 (0.088)
_cons	0.104*** (0.012)	0.142*** (0.023)	0.692*** (0.032)	0.858*** (0.037)	0.179*** (0.039)
<i>N</i>	24191	7209	7895	3135	3400

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Source: 2010 SIPP-EHC, 2011 SIPP-EHC, 2008 SIPP and OASDI administrative records from Social Security Administration. The table presents the results of ordinary least squares regression of indicators for false negative reports about the type of OASDI benefits received for the indicated type of benefits. The variable *_cons* denotes the constant. The variable *sippehc* is an indicator for person-month observations from 2010 SIPP-EHC (*sippehc* = 1) versus person-month observations from a benchmark sample drawn from 2008 SIPP (*sippehc* = 0). The indicator *2010.year* is equal to 1 for observations from CY2010 and equal to 0 for observations from CY2009. The # operator indicates an interaction between variables. Neither the 2010 SIPP-EHC sample nor the 2011 SIPP-EHC sample is nationally representative. The benchmark samples for each SIPP-EHC field test, drawn from the 2008 SIPP sample, are designed to be comparable to each SIPP-EHC field test and are, therefore, also not nationally representative. Only sample persons assigned a PIK are included in this analysis. We have weighted the included sample persons to represent both the linked and unlinked sample persons. We have also re-weighted the observations to account for state over-sampling in 2008 SIPP relative to the 2010 and 2011 SIPP-EHC. We have not employed any other weighting factor. Sample persons for which the survey report about OASDI participation or type of OASDI benefit was missing were omitted from the analysis. Standard errors are clustered at the person level.

Table 18: Rates of false negative reporting about SSI participation by age group across CY2009 and CY2010

	Age ge 15	Age lt 15	All
1.sippehc	-0.182*** (0.026)	-0.181* (0.077)	-0.182*** (0.025)
2010.year	0.044* (0.019)	0.042 (0.054)	0.045* (0.018)
1.sippehc#2010.year	-0.034 (0.034)	0.190 (0.103)	-0.005 (0.034)
_cons	0.396*** (0.020)	0.598*** (0.058)	0.422*** (0.019)
<i>N</i>	21903	2775	24678

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Source: 2010 SIPP-EHC, 2011 SIPP-EHC, 2008 SIPP and administrative records from Social Security Administration about benefits paid under the Supplemental Security Income program. The table presents the results of ordinary least squares regression of indicators of false negative reports about receipt of SSI benefits. The variable *_cons* denotes the constant. The variable *sippehc* is an indicator for person-month observations from 2010 SIPP-EHC (*sippehc* = 1) versus person-month observations from a benchmark sample drawn from 2008 SIPP (*sippehc* = 0). The indicator 2010.year is equal to 1 for observations from CY2010 and equal to 0 for observations from CY2009. The # operator indicates an interaction between variables. Neither the 2010 SIPP-EHC sample nor the 2011 SIPP-EHC sample is nationally representative. The benchmark samples for each SIPP-EHC field test, drawn from the 2008 SIPP sample, are designed to be comparable to each SIPP-EHC field test and are, therefore, also not nationally representative. Only sample persons assigned a PIK are included in this analysis. We have weighted the included sample persons to represent both the linked and unlinked sample persons. We have also re-weighted the observations to account for state over-sampling in 2008 SIPP relative to the 2010 and 2011 SIPP-EHC. We have not employed any other weighting factor. Sample persons for which the survey report about SSI participation was missing were omitted from the analysis. Standard errors are clustered at the person level.

Table 19: Rates of false negative reporting about any SSI receipt during CY2009

	est1	est2	est3	est4
1.sippehc	0.025 (0.025)	0.042 (0.025)	-0.182*** (0.025)	-0.182*** (0.025)
1.py				-0.228*** (0.015)
1.sippehc#1.py				0.224*** (0.015)
_cons	0.206*** (0.020)	0.193*** (0.019)	0.422*** (0.019)	0.422*** (0.019)
<i>N</i>	1254	14366	14366	28732

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Source: 2010 SIPP-EHC, 2008 SIPP and administrative records from Social Security Administration about benefits paid under the Supplemental Security Income program (SSI). The table presents the results of ordinary least squares regression of indicators of false negative reporting about SSI receipt during CY2009 at the person-year or person-month level as indicated. The variable *_cons* denotes the constant. The variable *sippehc* is an indicator for person-month observations from 2010 SIPP-EHC (*sippehc* = 1) versus person-month observations from a benchmark sample drawn from 2008 SIPP (*sippehc* = 0). The indicator *1.py* equals 1 for the person year observations and 0 for person-month observations. The # operator indicates an interaction between variables. The 2010 SIPP-EHC sample is not nationally representative. The benchmark sample is designed to be comparable to the 2010 SIPP-EHC and is, therefore, also not nationally representative. Only sample persons assigned a PIK are included in this analysis. We have weighted the included sample persons to represent both the linked and unlinked sample persons. We have also re-weighted the observations to account for state over-sampling in 2008 SIPP relative to the 2010 SIPP-EHC. The person-year observations in Columns 2 and 4 are weighted by the number of months of SSI receipt for the sample person during CY2009. We have not employed any other weighting factor. The estimates in Column 4 come from pooling the person-month and weighted person-year observations. Sample persons for which the survey report about SSI participation was missing were omitted from the analysis. Standard errors are clustered at the person level.

Table 20: Survey-reported source of SSI benefits by administratively-recorded source of SSI benefits for CY2009

	St—St	Fed—St	Both—St	St—Fed	Fed—Fed	Both—Fed	St—Both	Fed—Both	Both—Both
<i>sippehc</i>	0.294** (0.099)	-0.659*** (0.103)	0.364** (0.111)	0.178** (0.062)	-0.353*** (0.078)	0.175** (0.061)	0.397*** (0.030)	-0.598*** (0.030)	0.200*** (0.023)
<i>_cons</i>	0.054 (0.050)	0.852*** (0.077)	0.095 (0.066)	-0.000 (.)	1.000 (.)	-0.000 (.)	0.021 (0.011)	0.972*** (0.012)	0.007 (0.005)
<i>N</i>	437	437	437	524	524	524	4686	4686	4686

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Source: 2010 SIPP-EHC, 2008 SIPP and administrative records from Social Security Administration about benefits paid under the Supplemental Security Income program (SSI). The table presents the results of ordinary least squares regression of indicators of survey-reported receipt of SSI from state only, federal only, or from both state and federal as indicated by the same categories for administratively-recorded source of SSI benefits. The variable *_cons* denotes the constant. The variable *sippehc* is an indicator for person-month observations from 2010 SIPP-EHC (*sippehc* = 1) versus person-month observations from a benchmark sample drawn from 2008 SIPP (*sippehc* = 0). The 2010 SIPP-EHC sample is not nationally representative. The benchmark sample is designed to be comparable to the 2010 SIPP-EHC and is, therefore, also not nationally representative. Only sample persons assigned a PIK are included in this analysis. We have weighted the included sample persons to represent both the linked and unlinked sample persons. We have also re-weighted the observations to account for state over-sampling in 2008 SIPP relative to the 2010 SIPP-EHC. The person-year observations in Columns 2 and 4 are weighted by the number of months of SSI receipt for the sample person during CY2009. We have not employed any other weighting factor. The estimates in Column 4 come from pooling the person-month and weighted person-year observations. Sample persons for which the survey report about source of SSI benefits was missing were omitted from the analysis. Standard errors are clustered at the person level.

Table 21: Average amount of SSI benefit for false negative and true positive reports by source of SSI benefit for CY2009

	amt	fedamt	stamt
1.fn_ssi	-20.686 (22.595)	4.470 (21.123)	-20.404** (7.903)
1.sippehc	18.434 (20.700)	36.375 (18.878)	-16.943* (7.098)
1.fn_ssi#1.sippehc	39.544 (34.813)	10.192 (32.962)	20.786 (12.190)
_cons	572.756*** (17.178)	515.023*** (15.579)	129.870*** (6.004)
<i>N</i>	14366	13319	10010

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Source: 2010 SIPP-EHC, 2008 SIPP and administrative records from Social Security Administration about benefits paid under the Supplemental Security Income program (SSI). The table presents the results of ordinary least squares regression of the administratively-recorded SSI benefit amount by the administratively-recorded source(s) of SSI benefit: both state and federal (amt), federal only (fedamt) and state only (stamt). The variable *_cons* denotes the constant. The variable *sippehc* is an indicator for person-month observations from 2010 SIPP-EHC (*sippehc* = 1) versus person-month observations from a benchmark sample drawn from 2008 SIPP (*sippehc* = 0). The indicator 1.fn_ssi is equal to 1 for false negative reports and 0 for true positive reports. The # operator indicates an interaction between variables. The 2010 SIPP-EHC sample is not nationally representative. The benchmark sample is designed to be comparable to the 2010 SIPP-EHC and is, therefore, also not nationally representative. Only sample persons assigned a PIK are included in this analysis. We have weighted the included sample persons to represent both the linked and unlinked sample persons. We have also re-weighted the observations to account for state over-sampling in 2008 SIPP relative to the 2010 SIPP-EHC. We have not employed any other weighting factor. Sample persons for which the survey report about source(s) or amount of SSI benefits was missing were omitted from the analysis. Standard errors are clustered at the person level.