

An Assessment of the Current Population Survey and the Survey of Income and Program Participation Using Social Security Administrative Data

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Introduction

This analysis assesses the accuracy of Social Security and Supplemental Security Income (SSI) benefit data in the March supplement of the Current Population Survey (CPS) and the Survey of Income and Program Participation (SIPP) for persons aged 65 or older in 1996. CPS and SIPP respondents who report their Social Security number can be matched to Social Security administrative records that contain benefit payment information. The availability of the administrative payments increases the reliability of the benefit information, and therefore the overall income measure. Correct measurement of benefit receipt and amounts is crucial for accurate income and poverty analysis because Social Security is a major source of income for the elderly and Supplemental Security Income (SSI) is a major source of income for the low-income elderly.

The March 1997 CPS and a twelve-month file from the 1996 SIPP Panel are used in the analysis.¹ Benefit information is provided by two administrative data sources: the Master Beneficiary Record (MBR) for Social Security benefits and the Supplemental Security Record (SSR) for Federal and federally-administered State SSI benefits. For individuals who have an administrative match, the receipt and annual amount of Social Security and SSI reported in the respective survey is compared to the administrative benefit information. In addition, aggregate measures of Social Security and SSI benefits are compared from the self-reported survey amounts and the administrative benefit amounts. To analyze the impact on poverty status, the administrative benefit information is substituted for the survey information and total annual income is recalculated. After this substitution, the poverty rate is reduced for the sample of analysis in both surveys for the elderly, including various demographic groups within the elderly. The accuracy of survey benefits for the subsample of respondents with imputed Social Security or SSI receipt status or benefit amount is also analyzed. The absolute value of the difference between the survey benefits and the administrative benefits is greater, on average, for this subsample when compared to respondents who answered the survey questions. In addition, implications for future analysis with these surveys are discussed. Because the comparisons of survey and administrative benefit information are restricted to respondents who have an SSN match and match rates differ between the two surveys, direct comparisons cannot be made between the CPS and the SIPP for the various estimates. Instead the focus of the comparison is the accuracy of the two surveys in terms of benefit receipt and amounts relative to the administrative benefit information, and the extent to which poverty estimates are affected when the administrative benefit information is used.

The CPS and the SIPP

This analysis uses the March 1997 CPS, which provides income data for calendar year 1996. Unfortunately data for the calendar year 1996 is not available for all rotation groups in the SIPP sample.² Therefore, for this analysis, information from the first twelve available months (the first three waves) is used for the SIPP sample. For example, the twelve months for rotation group one include December 1995 through November 1996.³ All results are weighted unless otherwise noted.

The March supplement of the CPS provides detailed information on labor force participation and annual income for a large cross section of households in the United States. The SIPP focuses on income rather than labor force participation, and therefore encompasses a wider range of income and non-monetary sources than the CPS. The official poverty rate for the U.S. is measured using the March supplement to the CPS. In 1995, the National Academy of Science proposed an overhaul of the official poverty measure, which included changes in the construction of poverty thresholds and in the measure of

¹ Because both surveys represent the noninstitutionalized population, they do not cover the full Social Security and SSI beneficiary population.

² The SIPP sample is divided into four rotation groups. One rotation group is interviewed each month, starting in April 1996, and asked about the previous four months.

³ The focus on the first three waves was chosen because it minimized attrition. Another option was to use March 1996 through February 1997 as the twelve months of analysis for all rotation groups, but that approach would have required information from wave four.

family resources (Citro and Michael, 1995). Because the NAS recommendation of a more inclusive measure of family resources imposed more data requirements, the NAS panel also recommended the SIPP eventually be used to estimate the official poverty statistics.

CPS respondents are interviewed in March and questioned about income from the previous calendar year. The recall period for the SIPP is shorter than for the CPS. SIPP respondents are asked about income in the previous four months. The structure of the CPS produces an incongruence between income and family status. The CPS interview in March records the respondent's current family status, but the annual income measures are for the previous calendar year. Because the SIPP interview collects information on a monthly basis, it provides a more accurate relationship between family structure and income. The poverty threshold variable is based on family size for that month so it may vary monthly. Less slippage occurs with the structure of the SIPP compared to the CPS in terms of family composition and income sources.

The SIPP is not a panacea for better income and poverty measurement. The SIPP is a panel data set and respondents are interviewed every four months. The 1996 Panel, for example, consists of 12 waves of interviews that cover December 1995 to February 2000. The interviewer is not able to contact some respondents at each wave, and over time some respondents drop out of the survey completely. This creates an attrition bias because respondents who drop out of the survey tend to differ from those who do not in terms of certain characteristics, such as income. The accuracy of SIPP estimates may be affected by this attrition bias, which is not an issue with the CPS.

Another advantage of the CPS relative to the SIPP is that the CPS data is released in a timelier manner. Data collected in March are released in late September or early October of the same year. The release of the SIPP data is not as regimented. Additionally certain SIPP panels have been affected by budget cuts.⁴ The CPS is less susceptible to budget cuts because the survey is currently the source of the official unemployment and poverty statistics.

An additional difference between the surveys concerns the Medicare Supplementary Medical Insurance (SMI) premium. This premium is deducted from the Social Security benefit check if a beneficiary receives Medicare Part B coverage. In the CPS, respondents are asked to report their Social Security benefits before any deduction for the SMI premium. In the 1996 SIPP panel, respondents are asked to report their benefits net of the SMI premium deduction. This difference in the Social Security benefit question between the surveys would, all else equal, lower the amount of Social Security income reported in the SIPP relative to the CPS.⁵

Although this paper focuses on the comparison of survey-reported and administrative benefit information for the subsample of persons with an administrative match, comparison of the full CPS and SIPP samples provides a useful starting point. For the full sample of persons aged 65 or older, 90.1 percent receive Social Security and 4.5 percent receive SSI in the CPS compared to the SIPP, in which 94.7 percent receive Social Security and 6.4 percent receive SSI. Examination of the administrative data may establish whether either or both surveys underestimate or overestimate the number of the recipients. For the full sample, 10.8 percent of persons aged 65 or older are in poverty in 1996 according to the CPS, compared to 8.9 percent in the SIPP. The impact of administrative benefit information on the poverty rates for the respective surveys may provide some explanation of this differential.

Social Security administrative data

Respondents who report their Social Security number (SSN) can be matched to Social Security administrative records, such as the MBR, which contains Social Security benefit payment information, and the SSR, which contains SSI benefit payment information. Previous researchers have utilized this information, including Huynh, Rupp, and Sears (2002) who examined monthly receipt and benefit amounts for persons aged 18 or older in the 1993 and 1996 SIPP Panels. The availability of the administrative payments increases the reliability of the overall income measures. This is particularly true for the elderly population for whom these benefits are major income sources.

⁴ For example, the 2000 panel was stopped, and the sample size for the 2001 panel was reduced after the first wave due to budget considerations.

⁵ The usual monthly SMI premium was \$46.10 in 1995, \$42.50 in 1996, and \$43.80 in 1997. The annual amount for 1996 is \$510. Because the twelve months to which the SIPP sample applies varies slightly by rotation group, the twelve month amount of the SMI premium varies from \$510 to \$513.60.

In the March 1997 CPS, 75 percent of persons aged 15 or older have a valid match compared to 86 percent in the SIPP file.⁶ For persons aged 65 or older, the CPS match rate is 69 percent. The match rates vary by demographic group, as illustrated in Table 1. For example, the match rate for married persons in the CPS exceeds the rate for nonmarried persons by almost 11 percentage points. This suggests that whether or not a respondent has an SSN match is nonrandom in the CPS. The match rate varies less across demographic groups in the SIPP. Given these differences between surveys and across demographic groups, the numbers based on the matched sample presented in this paper should not be construed as representative of the elderly population. However, the analysis of the matched sample does provide an indication of the accuracy of the survey benefit data.

Table 1: Percentage of survey respondents aged 65 or older with an SSN match, unweighted

	CPS		SIPP	
	Unweighted N	Percentage	Unweighted N	Percentage
All persons	15,955	69.3	10,314	85.7
Men	6,578	71.8	4,186	87.4
Women	9,377	67.5	6,128	84.5
Married	8,544	74.2	5,294	86.0
Nonmarried	7,411	63.6	5,020	85.3
White	14,301	69.9	8,976	86.2
Black	1,214	63.0	1,057	83.5
Hispanic	1,071	67.6	489	83.2

The self-reported Social Security information is compared to two different MBR payment variables. The Monthly Benefit Credited (MBC) reflects the benefit amount before any deduction for the SMI premium, and the Monthly Benefit Payable (MBP) reflects the benefit amount after the deduction. The MBR payment information used in this analysis reflects payment eligibility rather than actual payments.⁷ Self-reported SSI benefits are compared to the sum of federal and federally-administered state SSI, which are paid to the beneficiary as a single check or electronic transfer.⁸ Huynh, Rupp, and Sears (2002) conclude that the SIPP SSI benefit represents the sum of federal and federally-administered state SSI. Unlike the MBR, the SSR payment information reflects the actual check received.

Aggregate benefits

The initial analysis compares the aggregate amount of Social Security and SSI benefits reported in the CPS and the SIPP to the administrative records (Table 2). According to the respective survey questionnaires, the CPS should reflect the gross Social Security amount (MBC) and the SIPP should reflect the net amount (MBP). Both surveys capture aggregate Social Security benefits well when compared to the applicable MBR benefit variables. The aggregate amount of Social Security reported in the CPS is less than one percent below the aggregate amount of gross Social Security benefits (MBC). For the SIPP, the aggregate amount of survey reported Social Security benefits exceeds the aggregate amount of net Social Security benefits (MBP) by only two percent.

The aggregate SSI survey amounts are compared to the sum of Federal SSI and federally-administered State SSI benefits (Table 2). The CPS amount is over 20 percent below the sum of federally-administered SSI benefits. The SIPP aggregate SSI benefits underestimate the aggregate amount of federally-administered benefits by approximately 8 percent. However, a

⁶ For this analysis, the Summary Earnings Record provides the universe of SSNs for matching with the SIPP, and the Numident file provides the universe for the CPS. Cases are also excluded if the survey recorded birth year and the administrative data birth year differ by more than 5 years.

⁷ Social Security retroactively adjusts the MBR to reflect the amount that should have been paid when there is a change in beneficiary status or the calculation of the benefit. Although this may contribute to discrepancies with the survey information, it is unlikely the difference would be large and in a particular direction. The Payment History Update System (PHUS) file includes the actual Social Security benefit payment history and has recently become available. Preliminary analysis using the PHUS had a negligible effect on the results. Sears and Rupp (2003) compare the MBR and the PHUS for the SIPP.

⁸ The SSA administrative record does not have benefit information for state-administered state SSI payments. In 2001, State-administered SSI accounted for approximately 21 percent of State SSI supplementation.

comparison of the aggregate amount of benefits masks the reason for any discrepancies. In the next sections, comparisons of benefit receipt and amounts add other layers to the picture.

Table 2: Percentage difference between aggregate survey-reported and administrative benefits for persons aged 65 or older with an SSN match, weighted

	CPS	SIPP
Social Security		
Compared to gross benefit (MBC)	-0.8	-7.3
Compared to net benefit (MBP)	4.8	2.0
SSI		
Compared to federally administered SSI	-20.7	-7.9

Receipt of benefits by persons aged 65 or older

The administrative and self-reported data may differ in the percentage of people who report receiving the source and for recipients, the amount of income reported from the source. The initial comparison is the overall percentage of persons who receive Social Security and SSI according to the various sources. For Social Security, the CPS underestimates and the SIPP overestimates the overall number of beneficiaries, as illustrated in Table 3. A similar pattern is observed for receipt of federally-administered SSI benefits.

A comparison of the overall percentage, however, masks some of the inconsistencies in reported receipt status. The self-reported data results in beneficiaries classified as nonbeneficiaries and vice versa. In terms of accurately classifying Social Security beneficiaries, both surveys do well. 99.5 percent of SIPP respondents who receive Social Security benefits according to the MBR report Social Security receipt in the SIPP, compared to 95.2 percent of Social Security beneficiaries in the CPS. The SIPP also does well classifying SSI beneficiaries. For federally-administered SSI, the SIPP correctly identifies 92.7 percent of the SSI beneficiaries according to the SSR, compared to only 68.8 for the CPS. The two data sources are more similar when comparing the percentage of nonbeneficiaries who are correctly classified. Approximately 40 percent of persons who do not receive Social Security and approximately 1 percent of respondents who do not receive SSI according to SSA records are incorrectly classified as beneficiaries by both surveys.

Table 3: Comparison of survey and administrative benefit receipt for persons aged 65 or older with an SSN match, weighted

	Social Security		Federally-administered SSI	
	CPS	SIPP	CPS	SIPP
<i>Overall percentage classified as beneficiaries</i>				
According to survey self-report	90.5	94.8	4.4	6.4
According to SSA administrative record	91.4	92.5	5.3	6.1
Unweighted N	11,053	8,835	11,053	8,835
<i>Percentage of beneficiaries (as defined by SSA administrative record)</i>				
Correctly classified as beneficiary	95.2	99.5	68.8	92.7
Incorrectly classified as nonbeneficiary	4.8	0.5	31.2	7.3
Unweighted N	10,066	8,150	612	635
<i>Percentage of nonbeneficiaries (as defined by SSA administrative record)</i>				
Correctly classified as nonbeneficiary	59.9	62.2	99.2	99.2
Incorrectly classified as beneficiary	40.1	37.8	0.8	0.8
Unweighted N	987	685	10,441	8,200

Benefit amounts

The benefit amount according to the administrative record and the survey information may also differ, even if both sources correctly identify the respondent's beneficiary status. The sample for this comparison is restricted to persons who are beneficiaries according to both sources, and therefore, have a positive administrative and survey-reported benefit. The distribution of the difference between the annual survey reported and administrative benefit amounts is presented in Table 4. The CPS questionnaire intends to capture the gross Social Security benefit amount (MBC) and the SIPP questionnaire intends to capture the net Social Security benefit (MBP) after the SMI premium is deducted. Respondents may mistakenly report the net instead of gross benefit or vice versa. A particular concern for the CPS is that the respondent will report the net amount because that is what the benefit check reflects. To verify that the surveys record the intended amount, the survey-reported amounts for both surveys are compared to the administrative MBC and MBP amounts.

According to the comparison of annual survey and benefit amounts, the CPS more accurately reflects the gross benefit and the SIPP more accurately reflects the net benefit. For 47 percent of the beneficiaries, the SIPP amount is within \$100 of the administrative net amount compared with 7 percent within \$100 of the administrative gross amount. 24 percent of the beneficiaries in the CPS have a self-reported Social Security benefit that is within \$100 of the gross amount compared with 7 percent within \$100 of the administrative net amount. Both surveys also accurately reflect annual SSI benefits for a large percentage of beneficiaries. Almost 55 percent of CPS beneficiaries and 47 percent of SIPP beneficiaries report SSI benefits within \$100 of the administrative sum of the federally-administered benefits.

Table 4: Percentage distribution of the difference between the survey and administrative annual benefit amounts for persons aged 65 or older with an SSN match with positive benefit amounts for both sources, weighted

	CPS			SIPP		
	SS (gross)	SS (net)	SSI	SS (gross)	SS (net)	SSI
Less than -2000	11.3	9.3	3.8	10.8	8.4	4.7
-2000 to -1001	6.3	4.7	3.9	9.9	6.5	6.5
-1000 to -501	8.3	4.2	6.4	46.2	6.3	8.0
-500 to -251	7.1	3.2	5.0	14.5	7.2	10.0
-250 to -101	5.2	2.8	5.0	3.3	8.3	10.6
-100 to -1	6.3	2.5	18.7	2.6	17.0	19.9
Zero	12.3	1.3	16.2	1.7	16.9	11.9
1 to 100	5.9	2.8	19.8	2.7	13.0	15.0
101 to 250	8.3	5.0	7.3	1.2	4.8	5.2
251 to 500	8.6	11.5	3.0	1.6	3.4	2.7
501 to 1000	8.5	35.1	2.7	1.7	3.1	2.4
1001 to 2000	4.1	8.3	3.7	1.8	2.5	2.6
Over 2000	7.9	9.3	4.5	2.1	2.6	0.6
Unweighted N	9,594	9,594	424	8,103	8,103	589

Poverty status

Because Social Security and SSI are such important sources of income to the low-income elderly, this analysis substitutes the annual benefit information from the SSA administrative records for the self-reported benefit amounts and determines poverty status based on the recalculated total annual family income for persons with an SSN match (Table 5). If the person's spouse also has an SSN match, the spouse's survey information is replaced with the administrative information.⁹ The sample of analysis includes only persons with an SSN match, so these CPS and SIPP poverty estimates are not directly comparable. However, this analysis will illustrate the extent to which survey results are affected by differences between self-reporting of Social Security and SSI benefits and administrative record amounts.

For this analysis, poverty status is calculated with two slightly different methodologies: the first substitutes the gross Social Security benefit before any deduction (the MBC amount) and the second substitutes the net Social Security benefit after the

⁹ Of married persons aged 65 or older with an SSN match, 97 percent have a spouse with an SSN match. Administrative records are not used for any other family members.

SMI premium is deducted (the MBP amount). Although current poverty determination guidelines specify that insurance premiums should not be deducted from the income compared to the poverty threshold, the SIPP interview requests the net amount. In addition to allowing the assessment of the SIPP, using the two methodologies illustrates the impact of the SMI premium, approximately \$510 in 1996, on the poverty rate of various demographic groups.

Table 5: Percentage of persons aged 65 or older with family income below the poverty line, weighted

	CPS					SIPP			
	Unwgt N	Survey amount	Adjusted (gross SS)	Adjusted (net SS)		Unwgt N	Survey amount	Adjusted (gross SS)	Adjusted (net SS)
All persons	11,053	9.5	9.1	10.1		8,835	8.9	7.7	8.6
Men	4,726	5.9	5.6	6.2		3,659	5.8	4.8	5.3
Women	6,327	12.3	11.7	13.1		5,176	11.3	9.9	11.0
Married	6,336	3.9	3.6	4.1		4,551	2.9	2.1	2.3
Nonmarried	4,717	16.9	16.2	18.0		4,284	15.9	14.2	15.8
White	9,999	8.3	7.8	8.8		7,740	7.2	6.1	6.9
Black	765	23.7	23.2	24.8		883	26.7	23.4	25.4
Hispanic	724	24.5	24.0	25.3		407	20.5	19.3	20.4

In the CPS for all demographic groups presented in Table 5, the poverty rates are slightly lower after the gross Social Security administrative amount (MBC) is substituted for the survey-reported amount. The SIPP poverty rates are also lower after substituting the administrative benefit information for most demographic groups, whether the gross or the net Social Security benefit is used. However, for the nonmarried and Hispanics, the difference between the survey-based poverty rate and the adjusted rate with the net benefit is almost zero. For this limited sample of respondents with an SSN match, whether the Social Security benefit before or after the SMI deduction is used impacts the poverty rate. For both surveys, the poverty rate is approximately one percentage point higher when the net Social Security benefit is used rather than gross Social Security benefit. For nonmarried persons and blacks, the difference is almost two percentage points.

The change in the overall percentage of elderly persons in poverty conceals the extent to which the poverty status of individuals is misclassified. Although the change in the overall poverty rate for the matched sample is less than one percentage point, poverty status is incorrectly assigned for 5.4 percent of the CPS sample and 2.5 percent of the SIPP sample (Table 6). To be consistent with the respective questionnaires, Table 6 reflects the adjustment with the gross Social Security benefit for the CPS and with the net Social Security benefit for the SIPP.

Table 6: Percentage of persons aged 65 or older with poverty status change after substitution of administrative benefits, weighted

	CPS	SIPP
Poverty status does not change	94.6	97.5
Change from in poverty to not in poverty	2.9	1.4
Change from not in poverty to in poverty	2.5	1.1

Imputations

In both the CPS and the SIPP, answers are imputed when a respondent does not answer a certain interview item. Additionally there are some cases when the entire interview is imputed for a respondent. This occurs for 9.9 percent of the full unweighted elderly CPS sample because the respondent completes the basic CPS interview but does not complete the March supplement. In the SIPP, 2.3 percent (unweighted) of elderly SIPP respondents have at least one wave entirely imputed due to a noninterview. These noninterviews, described as Type Z interview status, occur if a person refuses to be interviewed or is unavailable for an interview and a proxy interview cannot be conducted.¹⁰ This analysis considers imputations due to noninterview as well as imputations due to item nonresponse.

Receipt of Social Security or SSI is imputed for a fairly small number of elderly respondents in both surveys (Table 7). For the full sample of elderly persons (unweighted), only 11.3 percent in the CPS and 4.6 percent in the SIPP have Social

¹⁰ Of the 2.3 percent of respondents with at least one month of Type Z interview status, 77.5 percent were Type Z for four months, 15.8 percent for eight months, and only 6.7 percent for twelve months.

Security receipt status imputed. Receipt of SSI is imputed for 11.7 percent in the CPS and 4.1 percent in the SIPP. These SIPP numbers reflect respondents who have imputed benefit information for at least one month out of the 12 months.¹¹ The overall accuracy of the SIPP imputations may be better compared to the CPS because information from previous waves can be utilized. The imputation of benefit amounts occurs more frequently than the imputation of benefit receipt. In the CPS, 26.9 percent of Social Security beneficiaries and 19.8 percent of SSI beneficiaries have the amount of benefits imputed. The amount of benefits for at least one month is imputed in the SIPP for 32 percent of Social Security and 23 percent of SSI beneficiaries.

Table 7: Percentage aged 65 or older with imputed Social Security or SSI, unweighted

	CPS			SIPP	
	Full sample	Matched sample		Full sample	Matched sample
<i>Receipt imputed</i>					
Social Security	11.3	7.4		4.6	3.8
SSI	11.7	7.9		4.1	3.3
<i>Amount imputed (beneficiaries only)</i>					
Social Security	26.9	19.7		32.0	26.7
SSI	19.8	14.1		23.0	21.5

The incidence of imputation is slightly lower for the subsample of elderly persons with an SSN match compared to the overall sample (Table 7).¹² For those with a match who are classified as a beneficiary according to the survey, the administrative record, or both, the annual survey benefit is compared to the administrative benefit. The absolute value of this difference is greater, on average, for respondents who have either benefit receipt or amount imputed, compared to the respondents who provided answers to the survey questions (Table 8).¹³ For annual Social Security benefits, the mean of the absolute value of the difference is \$2024 higher in the CPS and \$960 higher in the SIPP for respondents with imputations. For respondents with SSI receipt or amount imputed, the absolute value of the difference between the survey annual benefit amount and the administrative benefit amount is \$736 higher in the CPS and \$573 in the SIPP, on average, when compared to persons without imputations. The need for imputations introduces much potential for error into the measurement of benefits. The SIPP self-reported responses are actually fairly accurate when neither receipt nor benefits are imputed with a mean difference of \$653 for Social Security benefits and \$699 for SSI benefits.

Table 8: Mean of the absolute value of the difference between the survey and administrative annual benefit amount for persons aged 65 or older, by imputation status, weighted

	CPS			SIPP	
	Unweighted N	Mean		Unweighted N	Mean
Social Security					
Imputed receipt or amount	1,304	3,619		2,239	1,613
Neither imputed	9,106	1,595		6,172	653
SSI					
Imputed receipt or amount	52	2,294		149	1,272
Neither imputed	640	1,558		552	699

The percentage of persons with a change in poverty status after substitution of the administrative benefits demonstrates the effect of inaccurate imputations (Table 9). For respondents with no Social Security or SSI imputations, poverty status changes for only 4.2 percent of persons in the CPS and 1.9 percent in the SIPP. However, if receipt or benefit amount is

¹¹ The SIPP imputes benefits for fewer respondents if only the first wave is considered. The percentage of respondents with imputations increases when twelve months are considered because of increased imputations in the later waves.

¹² This may reflect the selectivity of respondents with an SSN match. However, it is not surprising that respondents who are more willing to provide their SSN are also more willing to answer questions on benefit receipt and amounts.

¹³ For consistency with the respective questionnaires, the CPS Social Security benefit is compared to the gross administrative benefit and the SIPP Social Security benefit is compared to the net administrative benefit.

imputed for Social Security or SSI, 10.1 percent of persons in the CPS and 4.3 percent in the SIPP have a change in poverty status after substituting the administrative benefits.

Table 9: Percentage of persons aged 65 or older with poverty status change after substitution of administrative benefits, by imputation status, weighted

	CPS			SIPP	
	Imputed benefits	No imputed benefits		Imputed benefits	No imputed benefits
Poverty status does not change	89.9	95.8		95.7	98.1
Change from in poverty to not in poverty	5.7	2.2		2.5	1.1
Change from not in poverty to in poverty	4.4	2.0		1.8	0.8
Unweighted N	2,097	8,956		2,322	6,513

Conclusion

In this analysis, the survey-reported Social Security and SSI annual benefit information are compared to the administrative benefit information for persons 65 or older in the CPS and the SIPP with an SSN match. The CPS and the SIPP capture Social Security and SSI benefits fairly well in comparison with administrative benefit data. Both surveys reflect aggregate benefits well, especially Social Security benefits. On the individual level, the SIPP overestimates and the CPS underestimates slightly the percentage of Social Security and SSI beneficiaries. Both surveys correctly classify approximately the same percentage of nonbeneficiaries, and the SIPP is more accurate in terms of classifying beneficiaries. Of persons who are beneficiaries according to the administrative records, the SIPP correctly identifies 99 percent of Social Security beneficiaries and 93 percent of SSI beneficiaries. The CPS correctly identifies 95 percent of Social Security beneficiaries while correctly identifying only 69 percent of SSI beneficiaries. When the sample is restricted to beneficiaries in both the survey and the administrative record, the SIPP is within \$100 of the Social Security administrative amount almost twice as often as the CPS (47 versus 24 percent). The CPS is within \$100 for SSI slightly more often than the SIPP (55 versus 47 percent). When the administrative benefit information is substituted, over 5 percent of CPS respondents and almost 3 percent of SIPP respondents change poverty status. The overall poverty rate is slightly lower for both surveys when the administrative information is used.

The subsample of persons with imputed Social Security or SSI information is also examined. The impact of using administrative Social Security and SSI benefit records is largest for this group. The mean of the absolute value of the difference between the survey benefits and the administrative benefits is much greater for this subsample than for persons who do not have imputed Social Security or SSI information. Additionally, a greater percentage of this subsample changes poverty status after the administrative benefits are substituted: 10 percent in the CPS and 4 percent in the SIPP.

An issue that should be considered for future analysis is the treatment of the SMI premium in the survey question for Social Security benefit amounts. Whether a survey chooses to request the gross or the net Social Security benefit, the decision should be clearly expressed to the survey data user. For the subsample of respondents with an SSN match, the exclusion of the SMI premium from income increases the elderly poverty rate by approximately one percentage point. For wave 6 of the 2001 Panel, the SIPP changed the Social Security benefit question to reflect the amount before any deductions. In the 2004 panel, there will be a separate question about the SMI premium. This change will allow the researcher to capture the full Social Security benefit amount.

Another concern for future research using survey data linked to administrative data is the SSN match rate. The administrative benefit information is available for a smaller percentage of the full CPS sample than the full SIPP sample. Unfortunately the SSN match rate falls for both surveys in later years. For example, the percentage of respondents aged 15 or older in the March 2000 CPS with an SSN match is only 68 percent. For the 2001 SIPP Panel, only 64 percent of respondents with information for the twelve months of 2001 have an SSN match. Obviously the potential gains from using the administrative data fall as the match rate decreases. Even if future analyses retain the entire sample by using the survey information for unmatched persons, the adjusted information would be used for only a select group. The Social Security administrative information provides a valuable resource for benefits and earnings of persons of all ages. These longitudinal records also provide the ability to follow survey respondents after the time frame of the survey has elapsed. Low match rates jeopardize these types of analyses.

References

Citro, Constance F. and Robert T. Michael. 1995. *Measuring Poverty: A New Approach*. Washington, DC: National Academy Press.

Huynh, Minh, Kalman Rupp, and James Sears. 2002. "The Assessment of Survey of Income and Program Participation (SIPP) Data Using Longitudinal Administrative Records." SIPP Working Paper No. 238. Washington, DC: U.S. Census Bureau.

Sears, James, and Kalman Rupp. 2003. "Exploring Social Security Payment History Matched with the Survey of Income and Program Participation." FCSM Conference 2003.