

Online Appendix

for “The Poverty Reduction of Social Security and Means-Tested Transfers”

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A. Adjusting for Incomplete Linkage

The administrative data are linked to the SIPP using Personal Identification Keys (PIKs) created by the Person Identification Validation System (PVS) of the U.S. Census Bureau (Wagner and Layne, 2014). For each record in the administrative and survey data, the PVS uses the name, date of birth, sex, and address to search for a matching record in a reference file derived from the SSA’s Numerical Identification file (Numident). The Numident contains all transactions recorded against every Social Security Number. If a matching record is found, the Social Security Number from the reference file is scrambled and transformed into a PIK. Approximately 98-99% of the administrative records are associated with a PIK. In contrast, approximately 94% of families in the SIPP contain at least one member associated with a PIK. Because we cannot link to administrative data the 6% of survey families in which no individual has a PIK, we adjust family weights in the survey using inverse probability weighting (IPW) to account for this incomplete linkage.

To understand the IPW process, consider a binary variable equaling 1 if anyone in the survey family is associated with a PIK and 0 otherwise. We estimate a probit model using this binary indicator as the dependent variable and a variety of demographic and economic characteristics of the family and family head as independent variables. We estimate separate models for each wave. Table A1 reports the marginal effects associated with each covariate from a probit regression over all family-months in Wave 1 of the 2008 SIPP. Using the coefficients underlying these marginal effects, we construct for each family in a given month the predicted probability that it contains a member associated with a PIK. We then multiply the survey family weights by the inverse of these predicted probabilities. This delivers adjusted family weights correcting for the bias from incomplete linkage

of SIPP records to PIKs. The consistency of this adjustment rests on the assumption that linkage to a PIK is uncorrelated with transfer program receipt and incomes, conditional on observable characteristics (see Wooldridge, 2007). For estimates of SNAP and TANF, the predicted probabilities are calculated only over those states and years for which we have administrative SNAP and TANF data, respectively.

There are a few caveats to keep in mind with the IPW adjustment. First, recall that the PIK reference file is the SSA's Numident – but note also that an individual is likely only eligible for SSA benefits like OASDI and SSI (as measured in the administrative data) if he/she appears in the Numident. Therefore, being associated with a PIK will be correlated with administrative OASDI and SSI receipt simply because a prerequisite for both is appearing in the Numident. To try and account for this, we include as covariates in the probit model survey-reported OASDI and SSI receipt, which serve as proxies for appearing in the Numident (which one can think of as an omitted variable). As expected, Table A8 shows a positive and statistically significant relationship between survey-reported OASDI receipt and being associated with a PIK. In contrast, the coefficient on survey-reported SSI is statistically insignificant, which makes sense given that it is likely highly correlated with survey-reported OASDI.

There are also potential biases due to the linkage process that we do not explicitly correct for but which we discuss here. First, suppose an individual receives a transfer and does not have a PIK in the survey data, but this individual belongs to a survey family in which only non-recipient individuals have PIKs. We would incorrectly classify this family as a non-recipient and thereby understate the true poverty reduction of that transfer.¹ Second, we are unable to link to survey data the small share of administrative records not associated with a PIK.² Consequently, a small number of families that are true recipients will instead be classified as non-recipients, understating transfer receipt according to the combined data.

Another potential source of bias comes from families that move between states within a wave (and is relevant for SNAP and Public Assistance, for which we have administrative data for a subset of states). In particular, consider a family that received SNAP or Public Assistance in a state earlier in an interview wave but no is longer receiving benefits after moving to their current state of

¹ One might worry that this issue is especially relevant for transfers like OASDI and SSI, which are disbursed to individuals rather than to households or families. However, it is likely that true recipients of OASDI and SSI will have PIKs since recipients of SSA benefits generally have SSNs and the reference file for the PVS is the SSA's Numident.

² While one could theoretically also apply IPW to the administrative data, there is often too little demographic information in the administrative data.

residence. The administrative data for their current state of residence would not report the prior receipt, meaning we would once again understate the true effect of that transfer. Finally, individuals in the survey may be assigned to incorrect PIKs. If true recipients (non-recipients) are incorrectly assigned to PIKs that are absent (present) in the administrative program data, then we would understate (overstate) the poverty reduction of these transfers.

In sum, all of these potential biases (with the exception of the last) lead to an underestimate on the part of the combined data of the true poverty reduction of these transfers. In addition, if we make the reasonable assumption that the families affected by these errors have reporting rates higher than those of true non-recipients and lower than those of true recipients, then we would see an underestimate of false negatives and an overestimate of false positives. This implies that the linked data understate the difference in program effects between estimates from the survey and combined data. For a further discussion of these issues, see Meyer et al. (2017) and the appendix to Meyer and Mittag (2017).

B. Additional Results

Pre-Tax Cash Income as Base Income

In addition to the market income measure that we use as the base for the poverty rate calculations in the main text, we consider pre-tax cash income as an alternative measure of base income. This measure is also what the U.S. Census Bureau uses as income when calculating the official poverty rate. In our context, a difficulty associated with using such a measure is that the base from which we assess the anti-poverty effects of cash transfers (which are captured in pre-tax cash income) will differ from the base from which we assess the effects of in-kind transfers (which are not included in pre-tax cash income).³ In particular, we calculate the effect of a cash and non-cash transfer by comparing the poverty rate after subtracting from and adding to the base income (respectively) to the poverty rate with the base income.

Table A2 displays the poverty reduction of each transfer, as well as the corresponding base poverty rates and gaps, under this alternative base income. The ordinal ranking of programs in terms

³ The U.S. Census Bureau's Supplemental Poverty Measure addresses this by using a measure of post-tax, post-income as the base income. Thus, the poverty-reduction effect of a given transfer can be obtained by examining what the poverty rate would have been without that transfer against what the poverty rate is under the post-tax, post-transfer base income. However, we choose not to employ this method here for several reasons – including the possibility that it may introduce more error (e.g., from poorly reported cash transfers) into the poverty calculations.

of their anti-poverty effects remains mostly unchanged compared to the results in Table 5 under the original base income. OASDI continues to lift the largest number of people out of poverty, followed by SNAP, the EITC, SSI, housing assistance, and Public Assistance. However, the reduction in both the poverty rate and poverty gap is larger for every means-tested transfer in Table A2 than in Table 5. Consequently, under a base income measure of pre-tax cash income, the contrast between OASDI and means-tested transfers in their anti-poverty effects becomes less pronounced. In addition, as one would expect with a broader measure of the base income, each program targets the pre-transfer poor less in Table A2 than in Table 5.

Finally, we continue to see similar patterns in the estimates generated by the survey and combined survey and administrative data, with the survey data underestimating the poverty reduction of Public Assistance and yielding similar results to those from the combined data for OASDI, SSI, and SNAP. However, there are some small differences. For SSI, the survey data now understate both the reduction in the poverty rate and the extent to which the program targets the poor. For SNAP, the survey data now overstates the reduction in the poverty rate.

Representativeness of SNAP and TANF States

Recall that the poverty-reduction estimates for SNAP and Public Assistance are calculated only over those states and years for which we have administrative data for SNAP and TANF, respectively. To assess whether these states are comparable to the entire country, Tables A3 and A4 reproduce Table 5 for each of these sets of states. The estimates for the poverty reduction of OASDI, SSI, housing assistance, and the EITC in these states are very similar to those for the entire country in terms of relative and absolute magnitudes. Some small differences worth noting are that the pre-transfer poverty rate is slightly lower and the survey-reported effect of SSI on the poverty rate is slightly overstated for these states. For the SNAP states, we also see marginally larger anti-poverty effects of OASDI, housing assistance, and the EITC compared to the U.S. (using the combined estimates). For the TANF states, we see a larger effect of OASDI but a smaller effect of housing assistance.

Table A5 compares summary statistics on survey reports of transfer receipt and demographic characteristics between the full sample as well as the states and years for which we have administrative data for SNAP, TANF, and SNAP and TANF together. By and large, the demographic characteristics of these states are similar to the U.S. on a number of dimensions, although they are somewhat more educated and less Hispanic. Furthermore, there seems to be

slightly fewer recipients of transfer programs in the SNAP and TANF states, compared to the full sample. Despite these small differences, the overall comparability of these columns suggests that the estimated poverty reduction of SNAP and TANF are generalizable to the rest of the United States.

Poverty Reduction of Programs Included Only in the Survey

We also analyze the poverty reduction of programs for which we have only survey reports and not administrative data. While this paper has shown that the SIPP is on average a well-reported survey for the six key programs examined, there may yet be reporting errors associated with some of these other programs. Meyer et al. (2015) show that the SIPP does especially poorly in reporting unemployment insurance and workers' compensation, two social insurance programs for which we do not have administrative data. With this caveat, Table A6 estimates the survey-reported effects of unemployment insurance (UI), veterans' benefits, workers' compensation, WIC, and other welfare. Other welfare consists of child support payments, foster child payments, and what the SIPP designates as "other welfare".

Among these programs, UI has the largest anti-poverty impact, decreasing the poverty rate by 3.2% and filling the poverty gap by 4.8%. Based on these survey estimates, UI would rank against the key programs analyzed in this paper as the fourth most important transfer in lifting individuals out of poverty – behind OASDI, the EITC, and SNAP and ahead of housing assistance, SSI, and Public Assistance. However, the true poverty reduction of UI is likely even larger given its underreporting in the SIPP. Veterans' benefits and other welfare are associated with smaller but non-trivial anti-poverty effects, each reducing the poverty rate and gap by 1.4-1.6% and 2.0-2.3%, respectively. Workers' compensation and WIC yield the smallest reductions in poverty among the programs in Table A6, although the estimates for workers' compensation are likely to be especially underreported (Meyer et al., 2015). Finally, note that each of the programs in Table A6 targets no more than 60% of its dollars to the pre-transfer poor. This is consistent with the majority of these transfers being social insurance programs rather than means-tested transfers.

Effects of SSI, Public Assistance, and Housing Assistance Using Only the Administrative Data

Recall that we combine survey and administrative data to obtain preferred estimates of the poverty reduction of SSI, Public Assistance, and housing assistance. In Table A7, we examine how the impacts of these programs on deep poverty, poverty, and near poverty change when we use only the

administrative data. For SSI, the administrative data cover only federally-administered benefits, so we compare the estimates using the administrative data to survey reports of federally-administered SSI (which we can separate from state-administered SSI). For Public Assistance, the administrative data cover only TANF while the survey data cover both TANF and other types of state and local cash assistance. As a result, we understate by construction the administrative estimates of Public Assistance relative to the survey. For housing assistance, the administrative data encompass only programs under HUD jurisdiction, meaning we exclude benefits from non-HUD programs.

As expected, the effects of these programs using only the administrative data are smaller than the effects obtained using the combined data in Tables 5 and 6. However, the degrees to which the estimates change vary by program and the threshold examined. For SSI, the estimates for the reduction in the poverty rate using just the administrative data range from 84% to 91% (across the thresholds) of the estimates using the combined data. Estimates using just the administrative data are even more attenuated for Public Assistance and housing assistance, constituting 62-75% and 67-70% (respectively) of the estimates using the combined data. For these three programs, the attenuation appears to be least pronounced at the deep poverty threshold and most pronounced at the near poverty threshold. When ranked against the key means-tested transfers in this paper, housing assistance loses the most ground when using only the administrative HUD data, falling behind SSI and SNAP in its effect on the deep poverty rate and behind all programs outside of Public Assistance in its effect on the poverty and near poverty rate. Finally, it is worth pointing out that the impact of Public Assistance on the poverty rate using just the administrative data (and omitting non-TANF Public Assistance benefits) still exceeds the estimates calculated from the survey data.

Complete Analysis for Family Types

Table A8 carries out the complete analysis in Table 5 for each family type. Figures 2a-3a already illustrate the impacts of each program by family type on the poverty rate, and Table A8 describes these results along with impacts on the poverty gap and the targeting of transfer dollars to the pre-transfer poor. Since the patterns in filling the poverty gap are similar to those on the poverty rate (and are partly addressed in Figure 3b), this subsection focuses on the targeting of program dollars.

Among single parents, single childless individuals, the elderly, the disabled, and the unemployed, program dollars tend to be most targeted to the pre-transfer poor. These patterns are starkest for the unemployed, for which 95-100% of dollars associated with each program go to the

pre-transfer poor. For the majority of family types, the survey data tend to overstate the degree to which most programs target the pre-transfer poor. For SNAP, we see this overstatement for every family type. For OASDI and Public Assistance, this overstatement persists for all family types except for the unemployed and the elderly, respectively. In contrast, the survey data understates the targeting of SSI dollars to the pre-transfer poor for all family types except for single parents and single childless individuals.

C. Description of Survey and Administrative Variables

In this section, we describe the SIPP variables used to calculate survey estimates of the poverty reduction of these programs. We also explain in greater detail how we constructed benefit amounts for housing assistance and the EITC from the administrative HUD and IRS data, respectively.

Survey Variables

For each transfer among OASDI, SSI, SNAP, and Public Assistance, we use amounts reported in the SIPP at the family level. For OASDI, we use the variable labeled as “aggregated total...family Social Security for this month in dollars.”⁴ For SSI, we use the variable labeled as “aggregated total...family Supplemental Security Income for this month.” For SNAP, we use the variable labeled as “aggregated total...family food stamps received for this month.” For Public Assistance, we use the variable labeled as “aggregated total...family income from public assistance payments such as AFDC or TANF for this month.” For housing assistance, we use receipt reported in the SIPP at the household level. In particular, we designate recipients of housing assistance as those who report residing in a public housing project and/or receiving government subsidized rent.

We also list the specific interview questions asked to SIPP respondents regarding receipt of each of the aforementioned transfer programs:⁵

- OASDI: “Did [NAME] receive any Social Security payments?”
- SSI: “Did [NAME] receive any income from a program called Supplemental Security Income – that is, SSI?”
- SNAP: “Was [NAME] authorized to receive food stamps?”

⁴ For the 2008 SIPP Data Dictionary, see <https://www.census.gov/programs-surveys/sipp/tech-documentation/data-dictionaries/data-dictionaries-2008.html>.

⁵ For the 2008 SIPP questionnaires, see <https://www.census.gov/programs-surveys/sipp/tech-documentation/questionnaires/2008-questionnaires.html>.

- Public Assistance: “Did [NAME] receive any cash assistance from a state or county welfare program such as TANF...?”
- Housing: “Is this public housing – that is, is it owned by a local housing authority or other public agency?” OR “Is the rent here lower because the Federal, State, or Local government is paying part of the cost?”

Constructing Administrative Values of Housing Assistance

Our administrative microdata for housing assistance come from PIC and TRACS files from the Department of Housing and Urban Development. Table A9 lists all of the programs in these files (spanning 2008-13), with recipients of public housing and Section 8 assistance (both tenant- and voucher-based) together constituting more than 94% of all recipients in these files. Observations in each of these files are initially at the year level, and we convert these data to the monthly level by making use of the certification date. In particular, we consider a household as active and receiving payments in a given month if it is within twelve months of the certification date. If a household is associated with multiple certification dates within a twelve-month period, then we keep the record associated with the most recent certification date. If a household is still associated with multiple records for a given month (which could come from an individual living in multiple households receiving assistance, incorrect PIK assignment, etc.), then we keep the record with the highest assistance amount.

To calculate the actual assistance amounts, we subtract total tenant payment from gross rent. This is slightly complicated by gross rent being missing for all public housing records in the administrative microdata (as Table A9 indicates). To address this, we impute gross rent for records with missing values based on the average gross rent for households in the administrative data by five-digit zip code, household size, and calendar year (and subsequently by just five-digit zip code and calendar year if gross rent is still missing). In a small fraction of cases, households that are missing gross rent are also missing zip codes or are located in zip codes where no other household in the administrative data has non-missing gross rent for that calendar year. We drop these records, which is another reason why the poverty reduction estimates using the combined survey and administrative data may be slightly underestimated. However, since these cases account for approximately 1% of observations in the administrative data, the bias from these errors should be rather small.

Constructing Administrative Values of the EITC

Our administrative EITC amounts are calculated from incomes reported in IRS 1040 Forms and represent estimated amounts for all tax units the IRS believes to be eligible. To calculate the credit for which a tax unit is eligible in calendar year t , we use characteristics and incomes of the tax unit for tax year $t-1$. First, a tax unit must have an adjusted gross income (AGI) under a given threshold to be eligible for the credit. These thresholds are available in the annual IRS 596 publications and vary by filing status (single or joint), the number of qualifying children, and calendar year.⁶ Note that EITC qualifying children are not the same as dependents in a tax unit.⁷

The IRS 596 publications also have an Earned Income Credit table that links the credit amounts to earned income ranges, with these amounts varying also by filing status and the number of qualifying children. Earned income includes wages/salaries/tips/other taxable employee pay, union strike benefits, long-term disability benefits received prior to minimum retirement age, and net earnings from self-employment.⁸ Because the credit amounts are annual, we convert them into monthly credits by dividing the total amount by twelve and evenly spreading them across all months in the calendar year.

D. Sources for Expenditures on Transfers

This section lists publicly available sources for the expenditures on transfer programs shown in Figures 1a and 1b (for calendar year 2008).

Social Insurance Programs

For Social Security, we obtain numbers from the “Benefit Payments” column under the Social Security Administration’s Old-Age, Survivors, and Disability Insurance Trust Funds Expenditures table (<https://www.ssa.gov/oact/STATS/table4a3.html#fna>). For Unemployment Insurance, we take the sum of Regular UI Benefits, Extended Benefit Programs (Federal-State Extended Programs), Federal Supplemental Benefits, Unemployment Compensation for Federal Employees, Unemployment Compensation for Ex-Service Members, Federal Extended Programs, Disaster

⁶ See <https://www.irs.gov/pub/irs-pdf/p596.pdf> for the IRS 596 publication pertaining to the most recent tax year.

⁷ For qualifying child rules from the IRS, see <https://www.irs.gov/credits-deductions/individuals/earned-income-tax-credit/qualifying-child-rules>.

⁸ See <https://www.irs.gov/credits-deductions/individuals/earned-income-tax-credit/earned-income>.

Unemployment Allowance, Trade Readjustment Allowance, and Federal Additional Compensation. Dollar payments on the U.S. are available from the U.S. Department of Labor in Section B1 of <http://workforcesecurity.doleta.gov/unemploy/chartbook.asp>. For Disaster Unemployment Assistance dollar payments, see http://workforcesecurity.doleta.gov/unemploy/dua_activities.asp. (from the U.S. Department of Labor). Trade Readjustment Allowance dollar payments are available from Table 7 in “Trade Adjustment Assistance for Workers” from the Congressional Research Service’s Report for Congress.

For Workers’ Compensation, we obtain dollar payments for dollar payments from Table 4 of Sengupta et al. (2013) and cash payments for the Black Lung program from the U.S. Department of Labor (<http://www.dol.gov/owcp/dcmwc/statistics/TotalBenefitsPayment.htm>) and Table H3 of Sengupta et al. (2012). The amounts for veterans’ benefits are obtained from Table 8.5 (Outlays for Mandatory and Related Programs) from the Office of Management and Budget’s Historical Tables (<https://www.whitehouse.gov/omb/historical-tables>).

Means-Tested Transfers

For the EITC and the child tax credit, we obtain dollar payments from the IRS Statistics of Income’s Historical Table of selected income and tax items from individual income tax returns (<https://www.irs.gov/statistics/soi-tax-stats-historical-table-1>). For SSI, data on federal amounts and federally-administered state supplementation are available from the Social Security Administration in Table 2 of https://www.ssa.gov/policy/docs/statcomps/ssi_asr/2012/sect01.html, and data on state-administered supplementation are available in Table 3.12 from the National Income and Product Accounts Tables of http://www.bea.gov/iTable/index_nipa.cfm. Numbers on housing assistance are available from Table 8.7 (Outlays for Discretionary Programs) from the Office of Management and Budget’s Historical Tables (<https://www.whitehouse.gov/omb/historical-tables>).

SNAP amounts are available at the monthly level from the U.S. Department of Agriculture’s Food and Nutrition Service (<https://www.fns.usda.gov/pd/supplemental-nutrition-assistance-program-snap>). Public Assistance amounts constitute the sum of TANF dollar payments and General Assistance dollar payments. TANF amounts are available from the U.S. Department of Health and Human Services’ Administration for Children and Families, and we convert fiscal year totals for the combined spending of federal and state funds on “Basic Assistance” into calendar year totals (<http://www.acf.hhs.gov/programs/ofa/programs/tanf/data-reports>). General Assistance dollar

payments are available in Table 3.12 from the National Income and Product Accounts Tables of http://www.bea.gov/iTable/index_nipa.cfm.

For school food programs, we use the total federal cost of the National School Lunch, School Breakfast, and Special Meals Programs available from the U.S. Department of Agriculture’s Food and Nutrition Service (<https://www.fns.usda.gov/pd/child-nutrition-tables>). WIC numbers are also obtained from the U.S. Department of Agriculture’s Food and Nutrition Service and reflect the total of food costs and nutrition services and administrative costs (<https://www.fns.usda.gov/pd/wic-program>). Finally, our LIHEAP numbers come from the U.S. Department of Health and Human Services’ Administration for Children and Families, and we convert fiscal year totals for total funds available to states into calendar year totals (<https://www.acf.hhs.gov/ocs/resource/liheap-annual-report-statistics>).

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Table A1. Determinants of a Family Having a PIK

Dependent Variable: Anyone in Family Has PIK			
Variable	Marginal Effect	Variable	Marginal Effect
Single, No Children	-0.0748*** (0.00484)	Black, Non-Hispanic	0.00401 (0.00276)
Single, Children	0.00163 (0.00462)	White, Non-Hispanic	0.0206*** (0.00233)
Multiple Inds, No Children	-0.0292*** (0.00352)	Citizen	0.0934*** (0.00237)
# Family Members < 18	0.00849*** (0.00144)	Hispanic * Citizen	0.0175*** (0.00371)
# Family Members ≥ 18	0.0226*** (0.00214)	Employed	-0.0231*** (0.00167)
Age 16-29	-0.0278*** (0.00180)	Total Family Income	9.68e-07*** (1.55e-07)
Age 30-39	-0.0136*** (0.00194)	Rural	0.00949*** (0.00171)
Age 50-59	0.0248*** (0.00215)	Married	-0.0186*** (0.00257)
Age 60-69	0.0335*** (0.00271)	Rec. Hous. Assist. in Svy	0.0266*** (0.00315)
Age ≥ 70	0.0448*** (0.00358)	Rec. OASDI in Svy	0.0245*** (0.00286)
Less than High School	-0.0171*** (0.00227)	Rec. SSI in Svy	0.00231 (0.00386)
High School Graduate	-0.0128*** (0.00195)	Disabled	0.0107** (0.00447)
College Graduate and Beyond	0.000551 (0.00184)	Anyone in Family Disabled	0.00621 (0.00398)
Hispanic	-0.0350*** (0.00330)		

Observations: 186,177

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Notes: This table displays the results (in marginal effects) of a probit regression of a binary variable on whether anyone in the family has a PIK on a set of covariates for Wave 1 of the 2008 SIPP. The observation level is a family head in a month, and the regression uses family weights. Robust standard errors are calculated using the delta method.

Table A2. Poverty Reduction of OASDI and Means-Tested Transfers (Using Pre-Tax Cash Income as Base)

Program	Base Poverty Rate (%)	% Decrease in Poverty Rate with Transfer		Base Poverty Gap (mil.)	% of Poverty Gap Filled by Transfer		% of Dollars Going to Pre-Transfer Poor	
		Survey	Admin		Survey	Admin	Survey	Admin
OASDI	22.98	29.46	30.07	27,311	40.89	40.45	43.06	41.66
SSI	17.20	5.70	6.63	18,202	11.31	11.28	61.46	65.94
SNAP*	15.39	11.44	11.24	15,344	16.17	17.28	65.81	59.74
PA**	15.58	0.77	1.03	16,726	1.67	2.19	71.67	68.39
Housing	16.22		8.63	16,143		9.90		53.01
EITC	16.22		9.12	16,143		9.54		34.69

*These estimates are for the 12 states and years for which we have administrative SNAP data.

**These estimates are for the 30 states for which we have administrative TANF data.

Notes: Because the base income is pre-tax cash income, we calculate the poverty-reduction effects of cash transfers (OASDI, SSI, and PA) relative to the base income minus that cash transfer and the poverty-reduction effects of non-cash transfers (SNAP and housing assistance) relative to just the base income. While the EITC is a cash transfer, it is technically disbursed post-tax; as a result, we calculate the poverty-reduction effect of the EITC relative to the pre-tax base income (without first subtracting it). For OASDI, SSI, housing assistance, and the EITC, calculations are over all families and unrelated individuals from waves 1-14 of the 2008 SIPP Panel, excluding group quarters and unrelated individuals under age 15. For SNAP and PA, calculations are over the states and years for which we have administrative SNAP and TANF data, respectively. The administrative amounts for OASDI, SSI, SNAP, PA, and housing assistance represent actual amounts received, while the administrative amounts for the EITC represent eligible EITC benefits calculated from 1040 tax returns. The administrative values for SSI combine administrative federally-administered amounts and survey-reported state-administered amounts. The administrative values for PA and housing assistance combine administrative amounts and survey-reported (for PA) and imputed (for housing) amounts for survey respondents reporting receipt that do not appear in the administrative data. Poverty rates are weighted by family size. Dollar amounts are in 2008 dollars, using an adjusted CPI-U. For SNAP and PA, the numbers are scaled to be representative of the full sample.

Table A3. Poverty Reduction of OASDI and Means-Tested Transfers (SNAP States)

Program	Average Monthly Recipient Families (mil.)		Average Monthly Transfer per Recipient Family (\$)		% Decrease in Poverty Rate with Transfer		% of Poverty Gap Filled by Transfer		% of Dollars Going to Pre-Transfer Poor	
	Survey	Admin	Survey	Admin	Survey	Admin	Survey	Admin	Survey	Admin
OASDI	6.91	7.02	1,400	1,455	31.87	33.10	45.90	46.20	65.59	64.13
SSI	1.15	1.11	638	559	1.97	1.50	5.59	5.14	75.48	78.75
SNAP	2.83	3.47	284	266	4.15	4.21	7.55	7.89	79.95	72.41
Housing		1.27		651		2.72		7.52		80.84
EITC		6.04		154		4.76		4.85		45.89

Notes: Calculations are over all families and unrelated individuals from waves 1-14 of the 2008 SIPP Panel in those states and years for which we have administrative SNAP data, excluding group quarters and unrelated individuals under age 15. They are not scaled to be representative of the full sample. The administrative amounts for OASDI, SSI, SNAP, and housing assistance represent actual amounts received, while the administrative amounts for the EITC represent eligible EITC benefits calculated from 1040 tax returns. The administrative values for SSI combine administrative federally-administered amounts and survey-reported state-administered amounts. The administrative values for housing assistance combine administrative amounts and imputed amounts for survey respondents reporting receipt that do not appear in the administrative data. Poverty rates are weighted by family size. Dollar amounts are in 2008 dollars, using an adjusted CPI-U. The pre-transfer poverty rate and gap (in \$ millions) are 29.43% and \$7,995.

Table A4. Poverty Reduction of OASDI and Means-Tested Transfers (TANF States)

Program	Average Monthly Recipient Families (mil.)		Average Monthly Transfer per Recipient Family (\$)		% Decrease in Poverty Rate with Transfer		% of Poverty Gap Filled by Transfer		% of Dollars Going to Pre-Transfer Poor	
	Survey	Admin	Survey	Admin	Survey	Admin	Survey	Admin	Survey	Admin
OASDI	13.28	13.67	1,351	1,409	32.59	34.25	45.22	46.11	67.40	66.05
SSI	2.06	2.05	615	557	1.89	1.66	5.60	5.24	78.02	81.02
PA	0.52	0.78	290	266	0.20	0.33	0.77	1.01	83.59	80.06
Housing		2.35		541		1.86		5.92		80.33
EITC		11.74		150		4.58		4.50		45.01

Notes: Calculations are over all families and unrelated individuals from waves 1-14 of the 2008 SIPP Panel in those states for which we have administrative TANF data, excluding group quarters and unrelated individuals under age 15. They are not scaled to be representative of the full sample. The administrative amounts for OASDI, SSI, PA, and housing assistance represent actual amounts received, while the administrative amounts for the EITC represent eligible EITC benefits calculated from 1040 tax returns. The administrative values for SSI combine administrative federally-administered amounts and survey-reported state-administered amounts. The administrative values for PA and housing assistance combine administrative amounts and survey-reported (for PA) and imputed (for housing) amounts for survey respondents reporting receipt that do not appear in the administrative data. Poverty rates are weighted by family size. Dollar amounts are in 2008 dollars, using an adjusted CPI-U. The pre-transfer poverty rate and gap (in \$ millions) are 30.13% and \$15,954.

Table A5. Characteristics of Full Sample, SNAP States, and TANF States

	Full Sample	SNAP States and Years	TANF States	SNAP & TANF States and Years
<i>Transfer Receipt</i>				
OASDI Receipt Rate	28.46%	28.11%	28.43%	29.05%
Average OASDI \$ Received	\$383	\$398	\$387	\$416
SSI Receipt Rate	4.92%	4.07%	4.28%	4.02%
Average SSI \$ Received	\$32	\$26	\$27	\$26
SNAP Receipt Rate	10.98%	10.80%	10.84%	11.13%
Average SNAP \$ Received	\$31	\$32	\$31	\$33
PA Receipt Rate	1.12%	0.97%	1.00%	1.07%
Average PA \$ Received	\$4	\$3	\$3	\$3
<i>Family Head Demographics</i>				
Age 18-39	31.61%	31.06%	33.00%	31.69%
Age 40-64	47.98%	49.05%	46.95%	48.21%
Age 65 and Over	20.26%	19.77%	19.88%	19.99%
Education < High School	10.80%	9.89%	9.66%	9.70%
Education High School	25.00%	25.63%	26.28%	26.43%
Education Some College	14.35%	14.38%	14.82%	14.19%
Black	12.54%	13.05%	11.81%	11.06%
Hispanic	12.44%	10.18%	7.11%	10.49%
<i>Pre-Transfer Poverty Status</i>				
Poverty Rate	30.96%	29.43%	30.13%	30.95%
Poverty Gap (\$ millions)	\$44,401	\$41,964	\$44,106	\$43,572

Notes: This table displays survey-reported measures of transfer receipt and demographics for several samples: the full SIPP sample (i.e., families and unrelated individuals from waves 1-14 of the 2008 SIPP Panel, excluding group quarters and unrelated individuals under age 15), the states and years for which we have administrative SNAP data, the states for which we have administrative TANF data, and the states and years for which we have both administrative SNAP and TANF data. Average dollars received are unconditional monthly dollars. Demographic characteristics correspond to the family head. Dollar amounts are in 2008 dollars, using an adjusted CPI-U. Numbers are scaled to be representative of the full sample.

Table A6. Poverty Reduction of Other Social Insurance and Transfer Programs with Only Survey Reports

Program	Average Monthly Recipient Families (mil.)	Average Monthly Transfer per Recipient Family (\$)	% Decrease in Poverty Rate with Transfer	% of Poverty Gap Filled by Transfer	% of Dollars Going to Pre-Transfer Poor
Unemployment Insurance	6.74	854	3.20	4.77	51.48
Veterans' Benefits	3.23	897	1.42	2.27	60.41
Workers' Compensation	0.72	1,197	0.45	0.67	54.06
WIC	5.27	58	0.32	0.41	59.92
Other Welfare*	6.67	466	1.55	2.06	38.00

*This category encompasses child support payments, foster child payments, and what the SIPP designates as "other welfare".

Notes: Calculations are over all families and unrelated individuals from waves 1-14 of the 2008 SIPP Panel, excluding group quarters and unrelated individuals under age 15. Poverty rates are weighted by family size. Dollar amounts are in 2008 dollars, using an adjusted CPI-U. The pre-transfer poverty rate and gap (in \$ millions) are 30.96% and \$44,401.

Table A7. Results for Different Definitions of SSI, Public Assistance, and Housing Assistance

Program	Average Monthly Recipient Families (mil.)		Average Monthly Transfer per Recipient Family (\$)		% Decrease in Poverty Rate with Transfer		% of Poverty Gap Filled by Transfer		% of Dollars Going to Pre-Transfer Poor	
	Survey	Admin	Survey	Admin	Survey	Admin	Survey	Admin	Survey	Admin
<u>≤50% of Poverty Line</u>										
SSI					6.54	6.42	9.35	9.22	69.79	70.60
PA*					0.43	0.47	1.39	1.24	71.94	68.29
Housing						5.10		7.62		68.62
<u>≤100% of Poverty Line</u>										
SSI	6.55	6.59	587	554	2.00	2.01	6.25	6.05	78.72	80.52
PA*	1.44	1.56	290	249	0.20	0.23	0.77	0.69	83.59	80.38
Housing		5.19		582		1.78		5.00		80.73
<u>≤150% of Poverty Line</u>										
SSI					0.81	0.85	4.14	4.01	84.73	86.88
PA*					0.07	0.08	0.49	0.45	88.32	86.68
Housing						0.72		3.35		87.95

**These estimates are for the 30 states for which we have administrative TANF data.

Notes: This table shows the poverty reduction (for deep poverty, traditional poverty, and near poverty) of SSI, PA, and housing assistance when we examine only federally-administered SSI and use only administrative data for TANF and HUD programs for PA and housing assistance, respectively. As a result, the administrative estimates for PA and housing assistance are understated by construction. For SSI and housing assistance, calculations are over all families and unrelated individuals from waves 1-14 of the 2008 SIPP Panel, excluding group quarters and unrelated individuals under age 15. For PA, calculations are for the states and years for which we have administrative TANF data. The administrative estimates represent actual amounts received. Poverty rates are weighted by family size. Dollar amounts are in 2008 dollars, using an adjusted CPI-U. The pre-transfer deep poverty rate and gap (in \$ millions) are 22.37% and \$19,970 for the entire linked sample and 22.08% and \$20,365 for the TANF states. The pre-transfer poverty rate and gap (in \$ millions) are 30.96% and \$44,401 for the entire linked sample and 30.13% and \$44,106 for the TANF states. The pre-transfer near poverty rate and gap (in \$ millions) are 39.71% and \$75,738 for the entire linked sample and 38.73% and \$74,559 for the TANF states.

Table A8. Poverty Reduction of OASDI and Means-Tested Transfers (by Family Type)

Program	Average Monthly Recipient Families (mil.)		Average Monthly Transfer per Recipient Family		% Decrease in Poverty Rate with Transfer		% of Poverty Gap Filled by Transfer		% of Transfer Dollars to Base Poor	
	Survey	Admin	Survey	Admin	Survey	Admin	Survey	Admin	Survey	Admin
<u>Single Parents (Non-Elder.)</u>										
OASDI	0.47	0.86	780	1,052	1.07	3.13	5.30	7.73	85.48	63.16
SSI	0.51	0.77	625	710	1.00	2.27	5.28	8.46	92.83	89.95
SNAP*	3.57	4.22	351	343	6.41	7.09	20.45	21.91	90.78	84.93
PA**	0.61	0.88	301	277	0.15	0.40	3.39	4.36	96.40	93.26
Housing		1.81		670		5.92		17.45		84.58
EITC		5.39		242		8.72		13.61		61.12
<u>Multi. Parents (Non-Eldery)</u>										
OASDI	2.09	2.48	1,008	1,182	6.17	7.78	11.23	12.39	44.60	41.42
SSI	1.20	1.35	707	682	3.01	3.51	7.02	8.06	61.67	65.33
SNAP*	4.09	5.10	401	380	8.83	8.68	17.71	18.61	69.82	60.51
PA**	0.50	0.78	305	275	0.50	0.75	1.68	2.18	68.67	63.25
Housing		1.16		752		3.31		7.50		64.34
EITC		10.59		217		9.43		13.66		41.65
<u>Single Childless (Non-Elder.)</u>										
OASDI	3.37	3.76	952	992	11.84	13.45	21.00	23.11	91.77	90.85
SSI	1.92	1.76	629	568	2.51	1.58	9.90	8.19	97.09	96.54
SNAP*	3.76	4.63	176	140	0.82	0.51	5.44	5.16	89.07	84.47
PA**	0.15	0.22	194	183	0.00	0.03	0.25	0.34	94.02	90.18
Housing		2.15		514		1.86		7.82		82.54
EITC		7.76		85		1.21		2.40		42.01

Program	Average Monthly Recipient Families (mil.)		Average Monthly Transfer per Recipient Family		% Decrease in Poverty Rate with Transfer		% of Poverty Gap Filled by Transfer		% of Transfer Dollars to Base Poor	
	Survey	Admin	Survey	Admin	Survey	Admin	Survey	Admin	Survey	Admin
<u>Multi. Childless (Non-Elder.)</u>										
OASDI	5.92	6.01	1,236	1,337	32.06	32.85	38.57	38.76	45.28	43.99
SSI	1.37	1.26	736	621	5.46	4.19	9.48	7.93	60.56	63.45
SNAP*	1.51	1.98	230	201	1.82	2.13	4.96	5.15	70.17	63.33
PA**	0.08	0.11	356	298	0.12	0.18	0.25	0.30	65.96	64.20
Housing		0.62		624		1.76		3.46		55.11
EITC		6.55		94		2.98		2.82		27.26
<u>Elderly</u>										
OASDI	24.92	24.65	1,447	1,491	74.39	75.20	86.73	85.68	69.61	69.13
SSI	1.58	1.64	543	480	1.50	1.20	4.14	3.95	88.87	90.89
SNAP*	2.01	2.33	155	162	0.66	0.78	1.63	1.83	87.89	81.57
PA**	0.12	0.17	246	257	0.05	0.08	0.14	0.23	84.21	87.85
Housing		1.75		547		0.89		5.12		94.42
EITC		2.25		90		0.50		0.66		56.94
<u>Disabled</u>										
OASDI	11.35	11.81	1,214	1,309	30.53	32.74	46.03	47.79	69.08	67.54
SSI	5.03	4.54	681	624	6.33	5.01	17.42	15.36	80.15	84.52
SNAP*	6.44	7.21	251	231	3.45	3.25	9.86	9.81	85.56	81.53
PA**	0.59	0.79	284	274	0.24	0.35	1.04	1.31	86.01	84.56
Housing		3.00		587		2.23		10.71		89.85
EITC		6.85		160		3.43		4.43		60.28

Program	Average Monthly Recipient Families (mil.)		Average Monthly Transfer per Recipient Family		% Decrease in Poverty Rate with Transfer		% of Poverty Gap Filled by Transfer		% of Transfer Dollars to Base Poor	
	Survey	Admin	Survey	Admin	Survey	Admin	Survey	Admin	Survey	Admin
<u>Unemployed (Non-Elderly)</u>										
OASDI	4.52	4.83	1,149	1,198	22.62	24.69	33.06	35.19	95.14	95.37
SSI	2.35	2.13	677	619	3.59	2.32	13.01	10.82	99.41	99.84
SNAP*	3.48	3.93	189	161	0.23	0.02	5.82	5.66	99.67	99.65
PA**	0.19	0.26	257	231	0.05	0.05	0.42	0.52	100.00	100.00
Housing		1.73		543		0.79		8.17		99.84
EITC		2.19		95		0.02		1.84		99.12
<u>Employed</u>										
OASDI	32.42	32.86	1,348	1,403	35.08	36.48	50.32	50.85	71.09	70.28
SSI	6.10	6.16	650	600	2.77	2.57	7.63	7.33	81.34	83.38
SNAP*	11.27	13.23	285	268	3.38	3.38	7.19	7.49	84.92	79.19
PA**	1.19	1.68	295	275	0.18	0.27	0.78	1.01	86.99	84.73
Housing		5.57		613		1.87		7.53		88.37
EITC		16.85		172		3.49		4.01		56.01

*These estimates are for the 12 states and years for which we have administrative SNAP data.

**These estimates are for the 30 states for which we have administrative TANF data.

Notes: For OASDI, SSI, housing assistance, and the EITC, calculations for each family type are over all families and unrelated individuals from waves 1-14 of the 2008 SIPP Panel, excluding group quarters and unrelated individuals under age 15. For SNAP and PA, calculations are over the subset of states and years for which we have administrative SNAP and each data, respectively. The administrative amounts for OASDI, SSI, SNAP, PA, and housing assistance represent actual amounts received, while the administrative amounts for the EITC represent eligible EITC benefits calculated from 1040 tax returns. The administrative values for SSI combine administrative federally-administered amounts and survey-reported state-administered amounts. The administrative values for PA and housing assistance combine administrative amounts and survey-reported (for PA) and imputed (for housing) amounts for survey respondents reporting receipt that do not appear in the administrative data. Poverty rates are weighted by family size. Dollar amounts are in 2008 dollars, using an adjusted CPI-U. For SNAP and PA, the numbers are scaled to be representative of the full sample. The pre-transfer poverty rates and gaps for each family type can be found in Table 7 of the main text.

Table A9. Breakdown of Programs in Administrative HUD Data

Program Type	% in PIC	% in TRACS	% in Combined PIC/TRACS	% with Non-Missing Gross Rent
Public Housing	34.19		23.11	99.56
Section 8 Tenant-Based	63.71		43.05	99.89
Section 8 Moderate Rehab.	0.93		0.63	0
Section 8 Certificate	0.10		0.07	99.66
Miscellaneous	1.07		0.72	99.99
Section 8 Project-Based		86.60	28.08	100.00
Rent Supplement		0.65	0.21	100.00
Section 236/RAP		0.84	0.27	100.00
Section 236		2.24	0.73	100.00
Section 221(d)(3) BMIR		0.18	0.06	100.00
Section 202 PRAC		7.43	2.41	100.00
Section 811 PRAC		2.00	0.65	100.00
Section 202/162 PAC		0.06	0.02	100.00

Notes: This table shows the share of households in each of the administrative PIC and TRACS files as well as the combined PIC/TRACS file receiving assistance from a given HUD program (spanning calendar years 2008-13). It also indicates for each assistance program the share of households with non-missing values for gross rent.