Social Security's Role in Economic Security: Evidence and Insight from an Analysis of Multiprogram Participation

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Abstract

We use the 2014 and 2018 panels of the Survey of Income and Program Participation to assess multiprogram participation — the number of public programs or subsidies that an individual is a beneficiary of at a given time. Our aim is to understand the combined reach of the 16 programs that constitute the country's social welfare system. We start by mapping participation across age and income groups, and then use regressions to identify what predicts participation or lack of participation among those same groups. We end with a comparison of household income shares from private income, from all public benefits aside from Social Security, and benefits from Social Security. There is no normative assessment of whether more program participation is good or bad, however, we do find evidence of a fractured system and Social Security as a bedrock of household income among the poor.

Citation

Introduction

The United States' social program spending spans the array of public programs that direct in-kind or cash payments from the government to individuals for some social aim. These programs vary in their funding structure (e.g., dedicated payroll taxes versus general revenue), eligibility type (e.g., entitlement versus not), eligibility test (e.g., insured situation, disability status, or current income), benefit administrator (e.g., federal or state), and benefit type (e.g., cash, voucher, or subsidy paid to a third party). Combinations of funding, eligibility, administrator, and type range from traditional welfare to self-sustaining social insurance to service subsidies. Program history begins with the Social Security Act of 1935. The creation, expansion, amendment and deletion of programs, which began soon after 1935, has continued through the American Rescue Plan Act of 2021. In this paper, we aim to understand the combined reach of those programs by mapping participation in 16 federal programs among age and income groups, with a particular focus on the reach of Social Security.

Our use of "reach" is intentional. A more evaluative assessment of the social welfare system, like effectiveness or efficiency, is not possible. Any one program can be assessed for its ability to meet objectives, but the pantheon of programs lacks either a singular or common goal. A unified measurement is hindered by varying program scopes and benefit types. For example, social welfare spending can be assessed on how well it reduces or mitigates poverty, but not all programs are targeted toward poor people and therefore an aim to reduce poverty would render certain programs, such as workers' compensation, ineffective by design. Further, not all benefits are typically counted in poverty measurements, therefore an aim to reduce poverty would render

certain programs, such as energy supports, irrelevant by design. A more versatile measure, like security or stability, would be fitting to encompass diverse programs such as Special Supplemental Nutrition Program (SNAP) for Women, Infants, and Children (WIC) and Unemployment Insurance (UI), but insecurity and instability are not solely experienced by those receiving public benefits. A more versatile measure may thus identify a need that households receiving few or no benefits would also experience, rendering the system insufficient by design. Reach does not carry an ulterior motivation of evaluation; it is simply a question of who gets what.

We are motivated by three relevant trends that each carry an implication for reach, if not in the same direction. First, the distribution of social welfare spending has evolved over the past 50 years as programs are reformed and populations eligible for benefits expanded or declined. This has resulted in more spending overall, but less on the very poor (Ben-Shalom et al. 2012; Kosar and Moffitt 2017; Moffitt and Pauley 2018). Second, income volatility has increased since the 1970s, a trend at both the bottom and top of the earnings distribution (Gottschalk et al. 1994; Gottschalk and Moffitt 2009; Dynan et al. 2012; Ziliak et al. 2011; Hardy and Ziliak 2014; Hardy 2017) that could render households eligible, ineligible, or eligible again, quite quickly. Third, the administrative costs of applying for and maintaining enrollment in public programs can serve as a disincentive in seeking benefits (Herd and Moynihan 2019; Moynihan, Herd, and Harvey 2015). It is unclear how these trends combine to impact program availability, eligibility, and participation, and therefore overall reach of the social welfare system.

Our initial method for estimating reach centers on multiprogram participation. We start with a comprehensive mapping. For each individual in our sample — the combined 2014 and 2018 panels of the Survey of Income and Program Participation (SIPP) — we measure the number of public programs they receive, up to the 16 we study, and then aggregate summaries of participation by age, income, and age-by-income groups. This provides a density of participation. A potential drawback of multiprogram participation is that it does not have a singular interpretation. On the one hand, the distribution of participation can be informative as to which age or income groups are "missed" by the social welfare system; in this case, fewer is bad. On the other hand, the distribution of participation can be informative as to which age or income groups are "burdened" by the social welfare system's complex, disparate administration; in this case, more is bad.

Our second method for estimating reach explores the role of disability status, race, and ethnicity in predicting patterns of non- and multiprogram participation. While disability may merit eligibility for certain programs, race and ethnicity do not. We contrast these two aspects in tracing out patterns of participation to understand what type of access or barriers individuals interacting with the social welfare system face.

Our final method is to examine program income as a share of total household income. In contrast to examining reach via number of programs, here we examine reach via program contribution to household income, again by age, income, and age-by-income groups. In our density analysis, we are neutral across specific programs and look only at the number participated in. In this income analysis, we measure the contribution of Social Security separately from all other programs.

For anyone fluent in social programs, it is clear that one program in particular is different from the rest. Social Security—which covers Old Age, Survivors, and Disability Insurance (OASDI)—is not only the largest spending program, it also gives out cash rather than an in-kind benefit, is not means tested, is relatively unchanged in eligibility rules or benefit amounts since the amendments of 1983 and, even before that, is largely unchanged in coverage since the addition of disability in 1956. In some ways it can be considered a social program system unto itself but, at the very least, Social Security is special in that it is large and consistent. In our accounting analysis, we divide household income into three mutually exclusive and exhaustive categories: private income, program income not from Social Security, and Social Security income. For each age-by-income group, we present the average share of total household income from each of the three sources. To get a broader picture of the reach of Social Security, we estimate the distribution of the share of household income from Social Security income for each age-by-income group.

Our findings from all three methods — density, patterns, and income — reveal a system with varying reach. The participation landscape for nonelderly individuals is volatile with few clear patterns. While the sixteen programs we consider have no cohesive goal, thirteen are targeted to low-income individuals or households, yet there are poor children and nonelderly adults who participate in no programs, and higher income individuals who participate in four or more programs. The pattern analysis reveals that for children and nonelderly adults, both Hispanic and non-Hispanic Black individuals are less likely to be nonparticipants (i.e., participating in zero programs) and more likely to participate in multiple programs than white individuals. For elderly adults,

the trend is reversed with Hispanic and non-Hispanic Black elderly adults more likely to be nonparticipants and Hispanic elderly adults less likely to participate in multiple programs. On the other hand, our income analysis shows deeply uneven levels of receipt not fully predicted by age and income. Social Security is the backbone of income for very poor households — despite not being one of the thirteen means-tested programs specifically directed at them.

Our findings are also prolific, with myriad tables, and foster numerous questions if few definitive answers of how our social welfare should be structured. We aim to be concise yet comprehensive and note throughout where additional research is warranted. In the next section, we give a brief background of multiprogram analysis and introduce our methods before presenting each result in turn: density, patterns, and income.

Background

In a series of papers, Weinberg (1985, 1987, 1991) provided the foundation for multiprogram participation research in the U.S. His motivation was to understand how well the transfer system filled the "poverty gap": the difference between pretransfer cash income and the poverty level and whether the transfer system, through its balkanized programs, met this gap. As he points out, the programs in the transfer system were "designed independently to meet the needs of particular population groups and therefore have different goals, administrative procedures, and most important, eligibility criteria" (Weinberg 1985). He identifies levels of nonparticipation among the poor and makes suggestions on how to improve it, with the goal of poverty reduction.

More recent work has examined participation in a fixed set of programs, such as SNAP and Temporary Assistance to Needy Families (TANF; Purtell et al. 2012), or participation by a set of individuals, such as families with children (Edelstein, Pergamit, and Ratcliffe 2016), or individuals receiving a particular benefit, such as SNAP (Moffitt 2015). Each of these studies often have the motivation in understanding the role or recipients of a particular program better. Reese (2006) uses the 2001 and 2004 panels of the SIPP to estimate participation in eleven programs, very similar to our analysis but excluding general assistance (GA), workers' compensation, energy assistance through Low-income Housing Energy Assistance Program (LIHEAP), and childcare assistance; it is the most comparable paper and takes a wholistic approach to understanding multiprogram participation. (Of note, all of these papers use at least one SIPP panel, but none use the redesign launched with the 2014 panel.) A related literature to multiple program participation is the research examining marginal tax rates facing program participants (Holt and Romich 2007; Kosar and Moffitt 2017; Maag et al. 2012; Romich 2006; Wolfe 2002).

Although Weinberg's research had a clear frame for assessing the performance of the social welfare system, most multiprogram participation analysis does not have the same type of evaluative goal. In that way, our work is highly influenced by Bitler and Hoynes (2016), which explored how poverty has fluctuated with labor market conditions and, in turn, to what extent the safety net responds to the same cyclicality. It considered multiple programs and the notion that income-based programs should be responsive to changes in income. Our aim of estimating reach can seem less ambitious in comparison, because it is not looking at response to a particular event.

Yet, in some ways our paper looks at the response to changes in program access not tied to a single event. Prior research has noted that reducing the length and complexity of application, simplifying the paperwork necessary to prove work requirements at recertification, reducing the frequency of recertification, and extending the hours that offices are open to receive applications increases enrollment of eligible applicants (Andrews and Smallwood 2012; Bartlett et al. 2004; Blank and Ruggles 1996; Fricke et al. 2015; Gundersen and Oliveira 2001; Nicoll 2015; Pinard et al. 2017; Tiehen et al. 2012), while shifting in-person offices to call centers reduces enrollment of eligible applicants (Wu and Meyer n.d.). How people are meant to access programs matters for enrollment. Less clear is how overall participation and multiprogram participation has changed as the underlying administrative burdens have shifted.

Data and methods

The Survey of Income and Program Participation (SIPP) is a national survey designed as a continuous series of longitudinal panels that measure the dynamics of, as the name suggests, income and program participation in the United States. The survey has been redesigned a number of times since first introduced in 1983. The most recent redesign was tested in the 2014 SIPP, a four-year panel in which respondents were interviewed annually, instead of multiple times within a year, and in which there were no topical modules. The 2014 SIPP collected data from 2013 to 2016. Starting with the 2018 SIPP, a new panel begins each year, overlapping so that any single year contains

four panels. In this paper we use the 2014, 2018, 2019, 2020, and 2021 panels.[1] We

detail sample sizes by year of data and panel below.

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[1] The 2019 panel was discontinued after one wave. See United States Census Bureau (2021).

Table 1: SIPP Panels and sample size in study, by years of observation

Year	2014 Panel	2018 Panel	2019 Panel	2020 Panel	2021 Panel
2013	870,352				
2014	676,105				
2015	556,943				
2016	492,776				
2017		763,186			
2018		422,860	170,744		
2019		395,834		226,505	
2020		356,883		139,198	174,597

Source: U.S. Census Bureau, Survey of Income and Program Participation. Sample counts are person-month and make no restriction for inclusion.

This paper's central research question is to understand the extent of multiprogram participation in the U.S., especially as it relates to poverty. Although seemingly straightforward, measuring participation across income groups requires many definitional decisions about i) programs, ii) participation, and iii) income, which we will discuss in turn.

Programs

We take the broadest view possible and measure participation in sixteen spending programs, which we outline in Table 2. For each, we denote funding structure (e.g., dedicated payroll taxes versus general revenue), eligibility type (e.g., entitlement versus not), eligibility test (e.g., insured situation, disability status, or current income), benefit administrator (e.g., federal or state), and benefit type (e.g., cash, voucher, or subsidy paid to a third party). We show this for the means-tested cash programs (SSI, TANF, and GA), the nonmeans-tested cash programs (OASDI, UI, workers' compensation, and veterans benefits), the food programs (SNAP, WIC, school lunch), subsidies (housing, LIHEAP, and childcare assistance), and health insurance (Medicare

and Medicaid) that comprise our pantheon of programs. We also include the Earned Income Tax Credit (EITC), though no other credits.[2]

Participation

In the final column of Table 2, we note how each program is measured in the SIPP (e.g., person-level, household-level, monthly, annually). Of all the programs, most are measured at the person-month level with the exception of energy assistance, which is measured by household-year, and school lunches, which are measured at the person-year. For our analysis, we measure participation at the person-month level. For energy assistance, we assign everyone in the household the benefit for each month in the reference year. For school lunches, we assign the benefit for each month in the reference year, both for children who indicate they receive school lunch and for parents who indicate their child receives school lunch.

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[2] This is due to reporting; EITC receipt is reported in the SIPP but no other tax credit's receipt is included. We could simulate eligibility for a tax credit using a model such as Taxsim. However, we would then be comparing reported receipt of a credit to imputed eligibility of a credit.

Table 2: Summary of programs included in participation and how they are measured in the SIPP

Program	Benefit Administration	Benefit Types	Funding Structure	Eligibility Type*	Eligibility Test	SIPP measurement and notes
Supplemental Security Income (SSI)	Federal	Cash	Federal general revenue	Entitled	Two-part: must be elderly, blind or disabled; must have low enough income and assets	Person-month; child participation measured separate from adult
Temporary Assistance to Needy Families (TANF)	State	Cash	Federal general revenue allocated to states via block grant	Not entitled	Federal law directs states to support "needy families with children," states decide what constitutes needy and other eligibility requirements	Person-month; child participation assigned with adult participation
General Assistance (GA)	State or County	Cash	State general revenue	Not entitled	Generally serves low-income adults without children; eligibility varies by state but often is directed to disabled individuals	Person-month
Social Security (OASDI)	Federal	Cash	Federal payroll tax	Entitled	Two-part: workers must have contributed sufficient payroll taxes; must meet insured situation (old-age, disability of self or old-age, disability, or death of parent or partner)	Person-month; child participation measured separate from adult
Unemployment Insurance (UI)	State	Cash	State payroll tax	Entitled	Three-part: workers must have worked enough prior to unemployment; lost their job through no fault of their own, and be actively looking for work	Person-month; adult participation not assigned to children
Workers' Compensation (WC)	State	Cash	State payroll tax	Entitled	Workers injured on the job may apply for benefits for medical only claims (no cash), temporary disability, or permanent disability.	Person-month; adult participation not assigned to children
Veterans benefits	Federal	Cash, subsidies, and vouchers	Federal general revenue	Entitled	Sufficient years of service in the armed services or degree of disability.	Person-month; includes five separate types of benefits but summarized as

						any; not assigned to children
Supplemental Nutrition Assistance (SNAP)	State	Voucher for approved food items	Federal general revenue	Entitled	One-part: households are eligible if their gross income, net income, and assets fall below a certain level; that level varies by household type, certain groups are categorically ineligible (striking workers, full-time students, undocumented immigrants) and some have time limits (nondisabled adults without dependents)	Person-month; adult participation assigned to children
Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)	State	Voucher for approved food items	Federal general revenue allocated to states via formula grant	Not entitled	Multipart: Individuals must be categorically eligible (women pregnant and up to six weeks after delivery, breastfeeding up to a year after delivery, nonbreastfeeding up to six months postpartum, infant, children up to age 5), income test based on state but not to exceed 185% of the FPL or participation in adjunctive program (SNAP, TANF, Medicaid), and nutrition risk from a medical risk (such as anemia) or diet risk.	Person-month; adult participation assigned to children under 5
National School Lunch and Breakfast Program	Federal	In-kind	Federal general revenue	Entitled	Many avenues: children receiving certain benefits (such as SNAP) are automatically eligible, children who live in households whose income falls below a certain threshold may apply individually; schools serving a high share of school lunch eligible children	Person-month; adults excluded from participation
Housing subsidy (rent subsidy or housing voucher)	Federal	Voucher/In-kind	Federal general revenue	Not entitled	Multi-part: individuals must have incomes below a certain threshold and be in need of housing	Person-month; adult participation not assigned to children
Low-income Housing Energy Assistance	State	Voucher/In-kind	Federal general revenue allocated to states via	Not entitled	Two-part: individuals must have incomes below a certain threshold and need assistance with home energy costs	Household-reference year; adult participation not

Program (LIHEAP)			formula grant			assigned to children
Childcare Assistance	State	Voucher	Federal general revenue allocated to states via block grant	Not entitled	Multi-part: individuals must be a parent of a child under 13, need assistance paying for childcare, have low-income, and work or be engaged in a work-like activity or training	Person-month; adult participation assigned to children under 5
Medicaid	Joint state-federal	In-kind	Federal and state general revenue	Entitled	Two-part: an individual must have modified adjusted gross income (MAGI) below a certain level and belong to a covered group; states vary in definition of covered group from those federally required (e.g., low-income families, pregnant women, SSI beneficiaries) to those states choose to cover (e.g., adults), and MAGI thresholds for those groups	Person-month; child participation measured separate from adult
Medicare	Federal	In-kind	Federal payroll tax	Entitled	Two-part: workers must have contributed sufficient payroll taxes; must meet insured situation of turning 65 years old	Person-month
Earned Income Tax Credit (EITC)	Federal, with state versions available in 29 states	Tax refund	Federal general revenue	Entitled	One part: Individuals must have earned income in the calendar year that is below a certain threshold; thresholds vary by family type. Individual younger than 25 without dependents, and individuals older than 64, are not eligible.	Person-year; adult participation assigned to children

Source: See Appendix "Program Background." *Note: Entitlement here refers to whether program benefits are guaranteed to all eligible persons who apply ("Entitled') compared to programs with a fixed amount of funding regardless of caseload ("Not entitled").

Both energy assistance and school lunch measurements raise the question of whether we think of a benefit as going to an individual or as benefitting the entire household or family. Any resource flowing to a household member, even if it is individual health insurance and strictly not transferable, could arguably benefit the entire household by increasing total household resources. However, our research question concerns program participation, rather than broader program impact, so we limit our findings to the person listed as the beneficiary in the survey. For children, this raises some confusion as they do not receive benefits per se, but all of the benefits intended for children are filtered through a parent or guardian. We define both children and parents as recipients of the benefits, including in the case of school lunch in which the parent does not directly receive the benefit.

Income

Although seemingly straightforward — income is money coming into the household — a study of participation and poverty must be clear on how income is defined and what sources are included. The official poverty measure (OPM), for example, is based on cash income: It includes in its measure of income cash from public programs, but not noncash or in-kind resources from public programs, nor tax credits. The OPM thus partially reflects social welfare spending in its counting of income. At the same time, that counting of income, including income from certain social welfare programs, is then a component of eligibility for other social welfare programs.

Our study of the reach of social welfare spending and how it varies by poverty status risks a circular analysis if income includes the cash from programs that we are estimating the reach of. For instance, how well does Social Security reach poor

populations if beneficiaries receive enough income from the program to not be counted as poor? To avoid measurement confusion, we define household income on a pretax, pretransfer basis. It includes earned income only from wage, investment, or property — what we call "private income."

However, that definition introduces confusion. Living in poverty has both a specific definition relative to the official poverty measure (OPM) as well as a general notion of describing people who don't have much money. In our analysis, we examine the program participation of individuals living in households with income relative to the OPM poverty thresholds[3] of 0% to 50%, 50% to 100%, 100% to 150%, 150% to 200%, and 200% to 300%, but do not measure income the way OPM does. The OPM thresholds are a familiar and consistent measure of hardship; they are useful for our analysis, even if the OPM definition of income is too circular to be applied.

Aside from the definitional issues in our study, our methodologies are quite simple and straightforward. In the density analysis, we count the number of programs an individual reports receiving benefits from. We report participation by age and age-by-income. In the pattern analysis, we regress densities of participation and nonparticipation on nonage, nonincome features of the individual, such as race and disability status. In the income analysis, we total the income from participation and compare it to the income from market sources.

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[3] Note that the OPM is also known as the federal poverty line (FPL). We use OPM throughout to distinguish from the supplemental poverty measure (SPM) often used in poverty research.

Results: Density of participation

To start our assessment of multiprogram participation, we begin with nonparticipation. The nonparticipation rate is the share of a population that does not report receiving benefits from any of the enumerated sixteen programs. This is arguably the simplest and truest litmus test of our social welfare system's reach, while multiprogram participation is more about density or efficiency of reach.

Figure 1 presents nonparticipation rates overall, by income band, and by age group within income band. The unit of analysis here is person-month. Our overall estimate of the nonparticipation rate is 45.8%. Just under half of the person-months in our sample are characterized by no reported program participation. The next two sets of bars present the nonparticipation rates among those groups whose household market income is less than 50% of the poverty threshold and 50% to 100% of the poverty threshold. Although not a perfect estimate, as noted that transfer income does lift many out of poverty by its official definition, these first two groups together indicate how well the social welfare system reaches people with incomes below the poverty line. Third are households whose private income is 100% to 150% of the poverty threshold, fourth are those whose private income is 150% to 200%, and finally are those whose private income is 200% to 300%, where 300% of the poverty threshold is our cutoff for inclusion of a household.

Predictably, the 45.8% overall nonparticipation rate is not evenly spread across income bands. The poorest group of households based on private income have a nonparticipation rate of 11.5% while the richest group of households considered have a nonparticipation rate of 46.4%. Although nonparticipation rises with household income,

many people with incomes below the poverty threshold report months with no benefits from any program despite potentially being eligible for multiple means-tested programs. Among nonelderly adults (i.e., aged 18 to 64) with private income between 50% to 100% of the poverty threshold, the nonparticipation rate is 32.4%, meaning almost one-third of the person-months in this group are characterized by no reported program participation. Conversely, elderly (aged 65+) nonparticipation is extremely low across all income bands, ranging from just 0.6% in the lowest income households to 3.3% in households in the 200% to 300% poverty range. In the lowest income households, the nonparticipation rate for children (aged 0 to 17) is 6.2%, 24.1% for nonelderly adults, and 0.6% for elderly adults. In the highest income households, the nonparticipation rate for children is 32.4%, 63.2% for nonelderly adults, and 3.3% for elderly adults. The reach of the social safety net is difficult to characterize in terms of income or age with one clear exception, the elderly are being reached.

Figure 1: Nonparticipation rates by pretax, pretransfer income
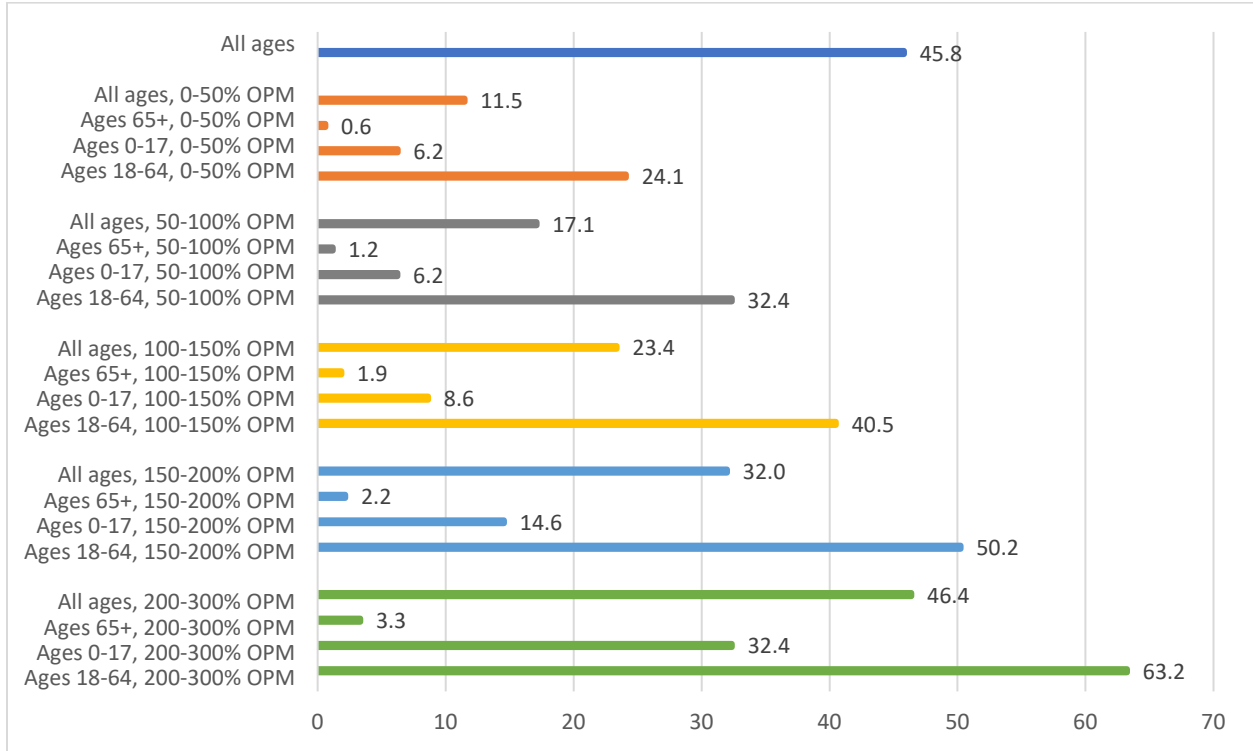
Source: Authors' analysis of 2014, 2018, 2019, 2020, and 2021 panels of the Survey of Income and Program Participation.

Multiprogram participation

If the nonparticipation rate in the U.S. is 46%, then in 54% of the sample of person-months at least one American reports receiving at least one public benefit. In this section, we examine program participation with a focus on multiprogram participation (defined as receiving benefits from two or more programs). In Table 3, we present the estimates of participation by age. We delineate participation by number of programs for up to four programs, and then group five or more programs together. In the bottom two rows, we show both the overall rate of participation in three or more programs, and that same rate conditional on program participation (i.e., receiving at least one program). The first row represents nonparticipation rates overall (as in the first bar of Figure 1) and by age group. Finally, we show three age groups: children (0 to 17), nonelderly adults (18 to 64), and elderly adults (65+), and it is these groups that we discuss in text. However, we add three columns for reference, dividing adults by the phased eligibility for Social Security that is available from age 62 to 70, and hence group adults as non Social Security old-age eligible (18 to 61), the claiming window (62 to 70), and claimed (71+). Just as nonparticipation is not constant across income bands (Figure 1), it is nonconstant across age groups. The overall nonparticipation rate for nonelderly adults is 63.9% whereas for elderly adults it is 2.7%.

Turning to program participation, from the first column, the participation rate of 54.2% (100 − 45.8) is bunched at one or two programs then steeply declines as program counts increase. The pattern of multiprogram participation varies by age group. For nonelderly adults, multiprogram participation is the exception rather than the rule. Most nonelderly adults (83.1%) are on a single program or none at all, and population

shares decrease as program count increases. For children, the pattern is similar, but children have higher rates of participation in each category. Elderly adults, on the other hand, exhibit a different pattern of participation. Nonparticipation is rare and multiprogram participation is the most common state (88%). Furthermore, participation is clumped at exactly two programs with over two-thirds (68.2% to be precise) of the person-months characterized by receipt of exactly two programs.

Table 3: Program participation by age

	All Individuals	Age 0-17	Age 18-64	Age 65+	Age 18-61	Age 62-70	Age 71+
0 programs	45.8%	35.5%	63.9%	2.7%	65.3%	19.7%	1.0%
1 program	17.4%	19.4%	19.2%	9.4%	18.6%	18.5%	6.5%
2 programs	21.4%	15.5%	8.5%	68.2%	7.9%	45.1%	72.4%
3 programs	8.1%	14.0%	4.5%	12.1%	4.4%	9.7%	12.4%
4 programs	4.3%	9.5%	2.4%	4.2%	2.3%	3.9%	4.2%
5 or more programs	2.9%	6.1%	1.5%	3.5%	1.4%	3.2%	3.4%
3 or more (unconditional)	15.4%	29.6%	8.4%	19.8%	8.1%	16.8%	20.0%
3 or more (conditional on program receipt)	28.4%	45.9%	23.3%	20.3%	23.4%	20.9%	20.3%

Source: Authors' analysis of 2014, 2018, 2019, 2020, and 2021 panels of the Survey of Income and Program Participation.

In Figure 2, we show the unconditional multiprogram participation distribution for different age (panel A) and age-by-income (panels B to D) groups. Panel A of Figure 2 is the exact data for Table 3, presented as a visual reference. In Panels B to D, we look within age groups by household annual private income relative to the poverty level: 0% to 50%, 50% to 100%, 100% to 150%, 150% to 200%, and 200% to 300%.[4] We refer to these, respectively, as the 0% to 50% OPM, 50% to 100% OPM, 100% to 150% OPM, 150% to 200% OPM, and 200% to 300% OPM groups. These shorthands are intended

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[4] Data for these figures can be found in the Appendix: Tables and Figures, Table A1.

solely to reduce clunky technical language as the construction of these groups using

private income compared to the usual poverty thresholds has already been detailed.

Figure 2: Histogram of program participation by age and age-by-income groups
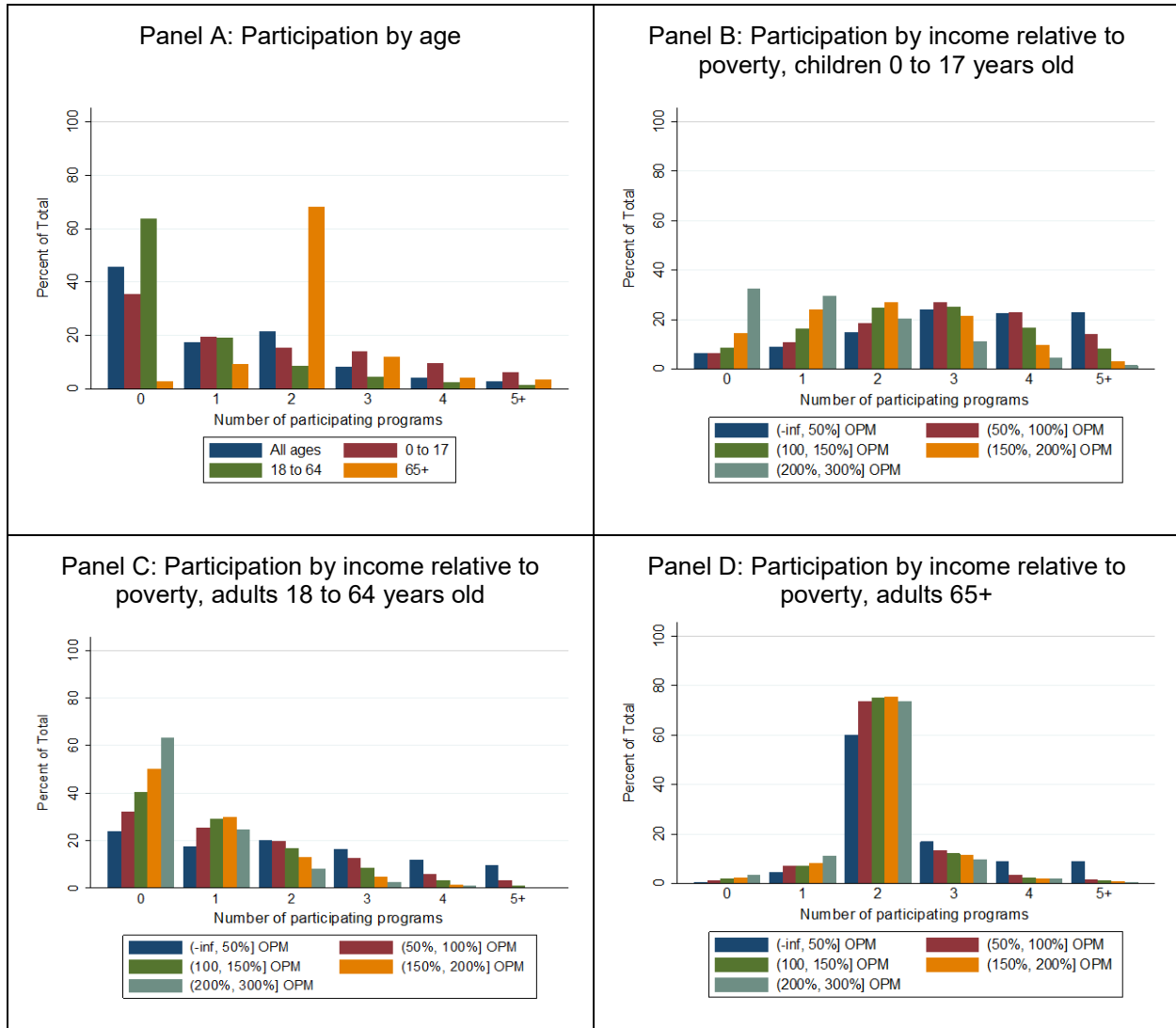
Source: Authors' analysis of 2014, 2018, 2019, 2020, and 2021 panels of the Survey of Income and Program Participation. Bars within group of participating program from left to right are: (-inf, 50%] OPM, 50%, 100%] OPM, (100%, 150%] OPM, (150%, 200%] OPM, and (200%, 300%] OPM.

Among every age group, nonparticipation rises with income, so that the 0% to

50% poverty group has the lowest nonparticipation and 200% to 300% group has the

highest nonparticipation rate. Children in the 0% to 50% OPM group have the highest

multiprogram participation rates for any age or income group; 24.2% are on three

programs, 23.3% are on four programs, and 23.3% are on five or more, totaling 70.8%

on three or more programs. For very high density participation (five or more programs),

23.3% is the highest observed among all the age, income, and age-by-income groups.

Also notable among children is high program participation, inclusive of those in near

poverty and twice poverty. However, the overall picture of the histogram of participation

among children is hard to parse. It appears that, within each income group, there is

something like a normal distribution of participation that peaks at either two or three

programs and is less likely on either side. The 0% to 50% and 50% to 100% OPM

groups have fatter tails on the high end (four or five or more programs) while the higher

income groups have fatter tails on the low end (zero or one program). Taking them

together, it can be difficult to picture, from a research perspective, whether this figure

meets participation expectations or, from a normative perspective, if this is an ideal

distribution of social welfare to children.

  Nonelderly adults provide an interesting and clear contrast to children. For every

income group, no program participation is the most likely state, five or more programs

the least likely. The share in each falls (mostly) monotonically with the exception of

those in deep poverty who have near even participation in one, two, and three

programs). Participation patterns are more predictable, but that is not to say they are

preferable. In further contrast are elderly adults whose participation is uniform across

income groups with participation in two programs, Social Security and Medicare. The

0% to 50% OPM elderly adults have much higher participation in three or more

programs. The contrasts between these three groups — and by extension, the income patterns within each group — offer a map of social welfare programs' reach in the U.S. The fact that the groups look so different speaks to differing program eligibility rules and, by extension, program goals.

To further explore the difference across groups, we select one income band — private income 100% to 150% of the poverty level — and show multiprogram participation *by program* for children and the elderly. The results are in Tables 4 and 5. For example, in the first row of Table 4: 3.1% of the 100% to 150% OPM elderly adults are on SSI. Of those SSI recipients, 1.4% are only on SSI, 9.5% are on SSI and one additional program, and 38.8% are on SSI and two additional programs. In the final column, we show the sum of the prior three — 50.2% of SSI recipients are on at least three other programs. While a full set of these tables by age and income band are available in the Appendix, we present these two tables to illustrate the contrast in the participation landscape for elderly adults compared, in this case, to children.

Table 4: Program participation by program, elderly adults with private income 100% to 150% of OPM

	% People receiving	Only program	+1 program	+2 programs	+3 programs	+4 programs	+5 or more programs	Sum of +3, +4, +5
Supplemental Security Income (SSI)	3.1%	1.4%	9.5%	38.8%	24.9%	19.7%	5.5%	50.2%
Temporary Assistance to Needy Families (TANF)	0.0%	0.0%	0.0%	50.0%	0.0%	50.0%	0.0%	50.0%
General Assistance (GA)	0.2%	0.0%	0.0%	16.5%	21.2%	41.2%	21.2%	83.5%
Social Security (SSA)	89.4%	1.7%	82.4%	12.6%	2.2%	0.9%	0.2%	3.3%
Unemployment Insurance (UI)	0.2%	7.4%	12.9%	54.0%	17.8%	7.4%	0.5%	25.7%
Workers' Compensation (WC)	0.4%	0.7%	17.0%	66.7%	6.2%	8.2%	1.3%	15.7%
Veterans benefits	3.9%	2.6%	7.1%	85.1%	4.8%	0.4%	0.0%	5.2%
Supplemental Nutrition Assistance (SNAP)	3.4%	1.0%	6.4%	30.0%	33.7%	22.9%	5.9%	62.5%
Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Free and Reduced School Lunch	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Housing subsidy (rent subsidy or housing voucher)	2.2%	2.4%	12.3%	42.1%	21.9%	16.1%	5.2%	43.1%
Low-income Housing Energy Assistance Program (LIHEAP)	2.3%	1.5%	7.7%	46.4%	22.8%	14.6%	7.0%	44.4%
Childcare Assistance	0.0%	0.0%	0.0%	85.7%	7.1%	7.1%		14.3%
Medicare	94.7%	5.0%	78.7%	12.5%	2.5%	1.1%	0.2%	3.8%
Medicaid	6.7%	6.8%	12.7%	39.9%	25.3%	12.5%	2.8%	40.6%
Earned Income Tax Credit (EITC)	3.6%	2.3%	8.6%	72.0%	12.0%	3.8%	1.3%	17.1%

Source: Authors' analysis of 2014, 2018, 2019, 2020, and 2021 panels of the Survey of Income and Program Participation.

Table 5: Program participation by program, children with private income 100% to 150% of OPM

	% People receiving	Only program	+1 program	+2 programs	+3 programs	+4 programs	+5 or more programs	Sum of +3, +4, +5
Supplemental Security Income (SSI)	2.2%	1.3%	5.3%	17.3%	30.2%	25.9%	20.1%	76.2%
Temporary Assistance to Needy Families (TANF)	2.5%	0.9%	5.1%	19.3%	26.3%	30.5%	17.9%	74.7%
General Assistance (GA)	0.4%	0.0%	4.9%	14.2%	37.8%	21.0%	22.1%	80.9%
Social Security (SSA)	6.7%	7.9%	17.4%	22.3%	22.3%	20.1%	9.9%	52.4%
Unemployment Insurance (UI)	0.0%	16.7%	0.0%	83.3%	0.0%	0.0%	0.0%	0.0%
Workers' Compensation (WC)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Veterans benefits	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Supplemental Nutrition Assistance (SNAP)	38.0%	1.1%	10.3%	32.5%	36.3%	15.0%	4.9%	56.1%
Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)	11.1%	3.4%	21.1%	32.5%	27.7%	11.3%	3.9%	42.9%
Free and Reduced School Lunch	54.2%	8.0%	25.8%	31.2%	23.1%	9.1%	2.8%	35.0%
Housing subsidy (rent subsidy or housing voucher)	6.0%	1.8%	5.6%	16.3%	25.8%	31.9%	18.6%	76.3%
Low-income Housing Energy Assistance Program (LIHEAP)	8.8%	1.9%	5.3%	15.0%	30.3%	33.0%	14.6%	77.8%
Childcare Assistance	1.1%	1.7%	4.3%	18.5%	30.3%	25.2%	20.0%	75.5%
Medicare	2.2%	5.5%	21.4%	28.5%	22.8%	12.5%	9.2%	44.6%
Medicaid	68.3%	8.0%	24.2%	32.4%	23.6%	9.0%	2.8%	35.4%
Earned Income Tax Credit (EITC)	50.3%	9.4%	20.6%	28.8%	27.0%	10.6%	3.5%	41.1%

Source: Authors' analysis of 2014, 2018, 2019, 2020, and 2021 panels of the Survey of Income and Program Participation.

For 100% to 150% OPM elderly adults, the two programs with the highest overall participation rates are Medicare at 94.7% and Social Security (SSA) at 89.4%. The next most common programs are Medicaid (6.7%) and veterans benefits (3.9%). For elderly adults, looking at the participation rates within each of the two most common programs presents a clear picture. Over two-thirds of Medicare recipients (78.7%) participate in exactly one other program and over 80% (82.4%) of SSA recipients participate in exactly one other program. The modal participation of exactly two programs is dominated by participation in Medicare and Social Security.

For children, the two most common programs are Medicaid at 68.3% and Free and Reduced School Lunch at 54.2%. The next most common benefit receipt is the Earned Income Tax Credit at 50.3%, and the fourth most common program is the Supplemental Nutrition Assistance Program at 38%. Only after four programs is there a steep drop in overall participation rates for this group, with the fifth most common program (WIC) having an 11% participation rate. Among those children who receive Medicaid, almost a quarter receive exactly one additional benefit (24.2%), just under a third receive two additional benefits (32.4%), and almost a quarter receive three additional benefits (23.6%). While there are some patterns in program participation — no children receive veterans benefits, very few child SNAP recipients receive only SNAP — there is no easily predicted pattern of multiprogram participation.

Again, we do not comment on the program participation distributions as a performance measure for the social welfare system: It is not clear if this looks "good" or "bad." Many programs confer eligibility for another program; some states have common applications for multiple programs. It does raise a question, however, of how much of an

administrative burden this puts on participants, or how much efficiency in benefit

delivery is lost or gained through so many programs. Few programs for children evince

a "dedicated" population of only being on that program and not needing or qualifying for

others.[5]

Results: Demographic patterns of participation

Both age and income level predict nonparticipation and multiprogram

participation. Nonparticipation increases with income band (Figure 1) and multiprogram

participation is more likely for elderly adults (Table 3). In this section, we quantify the

predictive power of different demographic characteristics and further delve into both

nonparticipation and multiprogram participation rates by disability status and race. For

this analysis, as our predictors change little over time, we aggregate program

participation to the annual level and consider person-years for the eight years from 2013

through 2020. As in the previous section, we limit the sample to those households with

private income at or below 300% of the poverty threshold. Summary statistics for our

person-year analysis sample are presented in Table 6.

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[5] Results for each age and income group can be found in the Appendix: Table and Figures. The overall participation rates are in Table A2; children, Tables A3a to e; nonelderly adults, Tables A4a to e; and elderly adults, Tables A5a to e.

Table 6: Summary statistics for person-years sample

	N	%
Observations	238,941	100.0
Households	59,558	100.0
Households by income as percent of poverty threshold		
[0, 50%] OPM	24,558	31.4
(50%-100%) OPM	11,603	14.8
(100%-150%) OPM	11,762	15.0
(150%-200%) OPM	11,575	14.8
(200%-300%) OPM	18,825	24.0
Respondents	125,141	100.0
Respondents by age		
Children (0-17)	32,646	25.4
Nonelderly adults (18-64)	66,745	51.8
Elderly adults (65+)	29,350	22.8
Respondents by race/ethnicity		
White, non-Hispanic	69,952	55.5
Black, non-Hispanic	18,926	15.0
Hispanic	27,183	21.6
All other, non-Hispanic	9,880	7.8
Respondents by disability status		
Has disability	44,837	32.2
No reported disability	94,512	67.8

Note: Total of households by income and respondents by demographic category is greater than number of households and number of respondents, respectively, because households and respondents observed for multiple years may show up in multiple levels, for example different age bands. Percentages are normalized to sum to 100 across partitions.

Nonparticipation is now defined at the person-year level instead of the person-month level. Figure 3 lists the overall nonparticipation rate, as well as the predictive power of some key demographics. The demographics we consider are household income bands, as in the previous section; age bands, defined as children (0 to 17), nonelderly adults (18 to 64), and elderly adults (65+); an indicator for the respondent's disability status; and race/ethnicity, defined as either Hispanic, non-Hispanic white, non-Hispanic Black, or all other, non-Hispanic. The demographics are each considered separately and the adjusted R-squared is presented in Figure 3. The adjusted R-

squared quantifies the percent of the variation in nonparticipation rates across respondents that is explained by each of the demographics, where the adjustment is so that the predictive power of demographics with different numbers of categories can be compared. The overall nonparticipation rate of 43.9% is nearly identical to the overall nonparticipation rate using person-months (45.8%), indicating that the difference in time units (annual participation versus monthly participation) is not greatly distorting the nonparticipation picture. Income and age have similar predictive power, each explaining roughly 22% of the variation in nonparticipation status across respondent-years. Disability status explains 8.5% of the variation in nonparticipation and race/ethnicity explains only 1.6%. In terms of overall nonparticipation rates, race/ethnicity identity has very little predictive power.

Figure 3: Overall nonparticipation rate and predictive power of key demographics
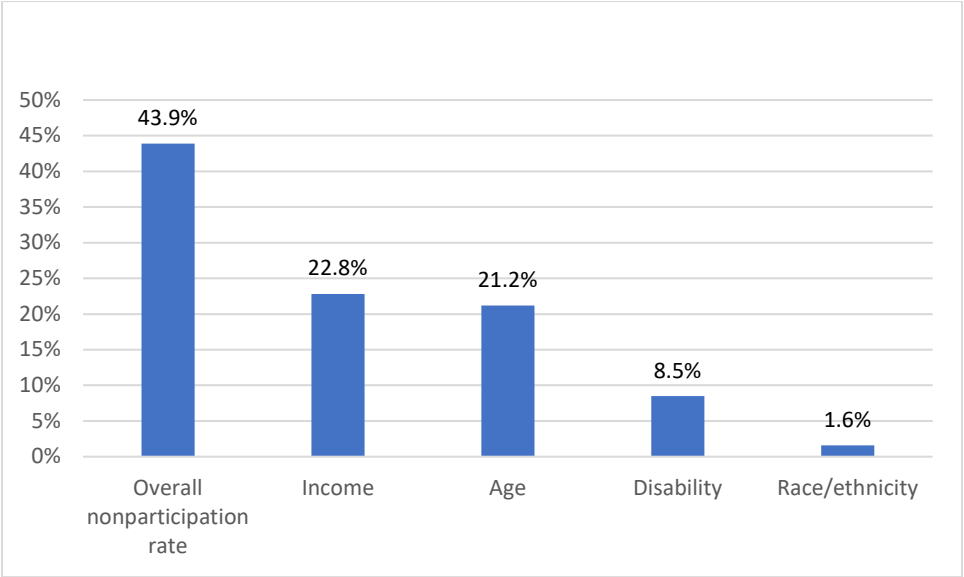
Unlike income level, age, and disability status, race/ethnicity is not a criterion for any program. Some programs, such as SNAP, target individuals living in poverty while some programs, such as SSDI, target individuals with disabilities. Moreover, some programs, such as Medicare, target specific age groups, but no program targets a subpopulation based on either race or ethnicity. The overall low predictive power of race/ethnicity in predicting nonparticipation is thus reassuring, but an overall average may mask important heterogeneities. In the rest of this section, we explore the role of race/ethnicity in predicting both nonparticipation and multiprogram participation separately by age group, where multiprogram participation is defined as participation in two or more programs over the course of a year. For each age group, we predict both nonparticipation and multiprogram participation based on race/ethnicity while controlling for factors that explicitly determine eligibility for some programs; namely, income level and disability status. Additionally, we include receipt of Social Security by a different household member. Net of an income effect, receipt of Social Security by another household member may proxy for an information effect in that these households are already engaged in the social welfare system and other household members may thus be more inclined or able to navigate the system.

Nonparticipation and multiprogram participation results are presented as regression tables. The coefficients are understood as percentage point differences. For each table a baseline for white individuals is given for comparison.

Children

Nonparticipation and multiprogram participation results for children by race/ethnicity and other predictors are given in Table 7. The first column for each set of

participation results is from a regression including only race/ethnicity (model 1 and model 5). This column reproduces average differences based on race. Each successive column includes additional predictors culminating with a model that includes controls for income bands, an indicator for the child reporting a disability, and an indicator for a different household member receiving Social Security benefits.

The overall picture is consistent — nonwhite children are less likely to be nonparticipants and more likely to be multiprogram participants than non-Hispanic white children. The nonparticipation rate for non-Hispanic white children is 23.32%. The overall nonparticipation rate for Hispanic children is over 15 percentage points higher (15.25 from model 1) and the overall nonparticipation rate for non-Hispanic Black children is over 16.5 percentage points higher (16.55 from model 1). The multiprogram participation rate for non-Hispanic white children is just over 55%. This rate jumps to 75% for Hispanic children (55.2 + 19.75 from model 4) and over 81% for non-Hispanic Black children (from model 4). These large raw differences by race/ethnicity confound differences based on income or disability status, neither of which are equally distributed across racial/ethnic subpopulations. Hispanic children and non-Hispanic Black children are more likely than their non-Hispanic white counterparts to be in poverty and the inclusion of income controls thus reduces the difference in participation rates — both nonparticipation and multiprogram participation — based on race/ethnicity.

The additional controls of disability status and receipt of Social Security by another household member predict nonparticipation and multiprogram participation in expected directions. Disability status decreases the likelihood of nonparticipation by 6 to 7 percentage points (models 3 and 4) and increases the likelihood of multiprogram

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participation by 12 percentage points (models 7 and 8). Having another household member on Social Security is predictive of both nonparticipation and multiprogram participation, decreases the likelihood of nonparticipation by 7 percentage points (model 4) and increasing the likelihood of multiprogram participation by 8 percentage points (model 8). As disability status is an explicit prerequisite for some programs, one would expect disability status to predict participation.

What is less clear is why race/ethnicity remains a strong predictor of participation once income and disability status, in particular, are accounted for. Once income is accounted for, the additional inclusion of disability status and other household member receipt of Social Security has little impact on the differences predicted by race/ethnicity (model 6 compared to models 7 and 8). Both Hispanic children and non-Hispanic Black children are roughly 13 percentage points less likely to be nonparticipants and over 16 percentage points (16.45 and 19.25, respectively, from model 8) more likely to be multiprogram participants, controlling for income, disability status, and Social Security receipt by another household member. These estimated differences by race/ethnicity are large, and larger than the predicted difference in participation based on disability status.

Table 7: Nonparticipation and multiprogram participation regression results for children, 0 to 17

VARIABLES	Nonparticipation				Multiprogram participation			
	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)	Model (7)	Model (8)
Average rate for white, non-Hispanic	23.32%				55.24%			
Black, non-Hispanic	-16.55***	-12.53***	-12.89***	-12.89***	26.43***	18.69***	19.25***	19.25***
	(0.366)	(0.357)	(0.358)	(0.358)	(0.496)	(0.474)	(0.473)	(0.473)
Hispanic	-15.25***	-12.64***	-13.08***	-13.53***	19.75***	15.29***	15.93***	16.45***
	(0.334)	(0.323)	(0.326)	(0.328)	(0.445)	(0.425)	(0.425)	(0.426)
All Other, non-Hispanic	-8.503***	-6.879***	-7.172***	-7.104***	13.22***	10.36***	10.77***	10.70***
	(0.551)	(0.530)	(0.530)	(0.527)	(0.704)	(0.654)	(0.654)	(0.651)
Has a disability			-6.796***	-6.121***			12.54***	11.77***
			(0.353)	(0.353)			(0.482)	(0.482)
At least one other SSA recipient in household				-7.201***				8.234***
				(0.302)				(0.441)
Income controls	No	Yes	Yes	Yes	No	Yes	Yes	Yes
Observations	59,666	59,666	59,494	59,494	59,603	59,603	59,433	59,433
Adjusted R-squared	0.044	0.114	0.118	0.124	0.052	0.180	0.187	0.192

Note: robust standard errors in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$. The different models correspond to the inclusion of different control variables.

Nonelderly adults

       The nonparticipation and multiprogram participation results for nonelderly adults are presented in Table 8. As noted in the overall participation patterns in the previous section, nonparticipation is relatively more common and multiprogram participation less common for nonelderly adults than for children. The nonparticipation rate for white nonelderly adults is 43.6% and the multiprogram participation rate for white nonelderly adults is just under 33%. Differences in both nonparticipation and multiprogram participation by race/ethnicity are much less pronounced for nonelderly adults than for children. Non-Hispanic Black nonelderly adults are 13 percentage points less likely to be nonparticipants (13.02 from model 1) and just over 13.5 percentage points more likely to be multiprogram participants (13.74 from model 5). Hispanic nonelderly adults are only 1.33 percentage points less likely to be nonparticipants and are actually less likely to be multiprogram participants than non-Hispanic white, nonelderly adults based solely on race/ethnicity — 4.38 percentage points less likely to be precise (model 5). The inclusion of additional controls slightly decreases the predicted difference in both nonparticipation (models 2 through 4) and multiprogram participation (models 6 through 8) for non-Hispanic Black nonelderly adults compared to non-Hispanic white nonelderly adults. With the inclusion of income controls, disability status, and receipt of Social Security by another household member, non-Hispanic Black nonelderly adults are 11.02 percentage points less likely to be nonparticipants and 11.37 percentage points more likely to be multiprogram participants compared to their non-Hispanic white counterparts (models 4 and 8, respectively). Over 11 percentage point differences based on race off a baseline nonparticipation rate of around 43% and multiprogram participation rate of

around 33% are large and, given that race is not an eligibility criterion for any program, the origin of such differences is unclear.

The difference in participation patterns for Hispanic nonelderly adults compared to their non-Hispanic white counterparts is much less pronounced for nonelderly adults than for children. With the inclusion of all controls, Hispanic elderly adults are just over 5 percentage points (5.22 from model 4) less likely to be nonparticipants and around 1 percentage point (1.01 from model 8) more likely to be multiprogram participants.

Disability status has a much larger predicted push on both the nonparticipation rate and the multiprogram participation rate for nonelderly adults than for children and, unlike for children, a larger predicted shift in either nonparticipation or multiprogram participation for nonelderly adults than that based on race/ethnicity. Having a disability is predicted to decrease nonparticipation by almost 24 percentage points (models 3 and 4) and increase multiprogram participation by over 30 percentage points (models 7 and 8). Receipt of Social Security by another household member has a small effect on the nonparticipation rate (a decrease of less than 3 percentage points from model 4) and a negligible effect on the multiprogram participation rate (less than 1 percentage point from model 8) for nonelderly adults, again in contrast to the results for children.

Table 8: Nonparticipation and multiprogram participation regression results

for nonelderly adults, 18 to 64

VARIABLES	Nonparticipation				Multiprogram participation			
	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)	Model (7)	Model (8)
Average rate for white, non-Hispanic	43.61				32.89			
Black, non-Hispanic	-13.02***	-9.739***	-10.95***	-11.02***	13.74***	9.838***	11.37***	11.37***
	(0.384)	(0.365)	(0.359)	(0.359)	(0.403)	(0.369)	(0.355)	(0.355)
Hispanic	-1.333***	-1.952***	-5.009***	-5.220***	-4.379***	-2.795***	1.019***	1.012***
	(0.358)	(0.348)	(0.346)	(0.347)	(0.331)	(0.315)	(0.306)	(0.307)
All Other, non-Hispanic	-1.618***	-1.103**	-3.177***	-3.248***	0.112	-0.190	2.369***	2.366***
	(0.543)	(0.524)	(0.513)	(0.513)	(0.519)	(0.490)	(0.469)	(0.469)
Has a disability			-23.82***	-23.62***			30.16***	30.17***
			(0.294)	(0.294)			(0.309)	(0.310)
At least one other SSA recipient in household				-2.687***				-0.0951
				(0.318)				(0.304)
Income controls	No	Yes	Yes	Yes	No	Yes	Yes	Yes
Observations	119,500	119,500	119,037	118,998	118,971	118,971	118,513	118,513
Adjusted R-squared	0.009	0.095	0.139	0.140	0.015	0.154	0.229	0.229

Note: robust standard errors in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$. The different models correspond to the inclusion of different control variables.

Elderly adults

      Finally, we turn to demographic patterns in participation for elderly adults. The regression results for both nonparticipation and multiprogram participation for elderly adults are presented in Table 9. As the participation patterns revealed, nonparticipation among elderly adults is rare and multiprogram participation is the dominant outcome. From Table 9, the nonparticipation rate for white elderly adults is less than 1% (0.86%). Over 99% of white elderly adults participate in at least one program, and just over 94% participate in at least two programs. While differences in participation rates based on race/ethnicity, disability status, and other household receipt of Social Security are all statistically significant at the 1% level, the magnitudes are generally small. It is notable that the difference in participation rates, both nonparticipation and multiprogram participation, for Hispanic elderly adults compared to white elderly adults is larger than the predicted difference in participation rates based on disability status. In the model with all variables, the difference in nonparticipation for Hispanic elderly adults compared to white elderly adults, controlling for income band, disability status, and other household member receipt of Social Security, is 3.18 percentage points (model 4). The difference in nonparticipation rate based on disability status is just under 1 percentage point (0.93 from model 4). For multiprogram participation, the difference for Hispanic elderly adults compared to white elderly adults, again controlling for income band, disability status, and other household member receipt of Social Security, is just over 5 percentage points (-5.2 from model 8) whereas the difference based on disability status is just over 3 percentage points (3.13 from model 8).

Table 9: Nonparticipation and multiprogram participation regression results

for elderly adults, 65+

VARIABLES	Nonparticipation				Multiprogram participation			
	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)	Model (7)	Model (8)
Average rate for white, non-Hispanic	0.86%				94.02%			
Black, non-Hispanic	0.890***	1.077***	1.088***	0.919***	-1.711***	-2.386***	-2.481***	-2.062***
	(0.163)	(0.164)	(0.164)	(0.164)	(0.338)	(0.336)	(0.336)	(0.337)
Hispanic	3.161***	3.224***	3.254***	3.183***	-5.009***	-5.239***	-5.373***	-5.196***
	(0.279)	(0.278)	(0.278)	(0.276)	(0.453)	(0.446)	(0.446)	(0.443)
All Other, non-Hispanic	1.374***	1.424***	1.364***	1.284***	-2.977***	-3.160***	-3.134***	-2.935***
	(0.272)	(0.270)	(0.267)	(0.266)	(0.530)	(0.525)	(0.525)	(0.524)
Has a disability			-0.845***	-0.931***			2.916***	3.130***
			(0.0985)	(0.0996)			(0.214)	(0.216)
At least one other SSA recipient in household				-1.119***				2.783***
				(0.0944)				(0.209)
Income controls	No	Yes	Yes	Yes	No	Yes	Yes	Yes
Observations	59,775	59,775	59,562	59,562	59,710	59,710	59,499	59,499
Adjusted R-squared	0.006	0.013	0.015	0.017	0.004	0.021	0.025	0.028

Note: robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1. The different models correspond to the inclusion of different control variables.

The participation patterns revealed that elderly adult participation is dominated by Social Security and Medicare. To further explore differences in participation based on demographics for elderly adults, in particular race/ethnicity, we consider participation in Social Security, participation in Medicare, and joint participation in both Social Security and Medicare. The regression results for these three participation outcomes for elderly adults are presented in Table 10. Table 10 reveals that while overall participation in either Social Security, Medicare, or both programs is large, there are substantial differences in participation rates based on race/ethnicity. Non-Hispanic Black elderly adults are over 6 percentage points less likely to participate in Social Security (models 1 through 3), around 4 percentage points less likely to participate in Medicare (models 4 through 6) and approximately 8 percentage points less likely to jointly participate in both programs (models 7 thorugh 9) than white elderly adults. The differences in participation for Hispanic elderly adults compared to white elderly adults are more drastic. Hispanic elderly adults are over 8 percentage points less likely to participate in Medicare, with an overall Medicare participation rate of 88% (from model 4, 96.8 – 8.714 = 88.09) compared to 96.8% for white elderly adults. Hispanic elderly adults are over 14 percentage points less likely to participate in Social Security than white elderly adults (models 1 through 3), with an overall Social Security participation rate of below 80% (from model 1, 93.4 – 14.57 = 78.83) compared to over 93% for white elderly adults. Hispanic elderly adults are over 16 percentage points less likely to jointly participate in both Social Security and Medicare (models 7 through 9), with a joint participation rate of 75% (from model 7, 91.4 – 16.37 = 75.03) compared to over 91% for white elderly adults. Controlling for income band and disability status have negligible impacts on the

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differences in participation across different racial/ethnic subpopulations. While the reach

of Social Security and Medicare are large among elderly adults, there are substantial

differences in reach based on race/ethnicity.

Table 10: Social Security and Medicare participation regression results for elderly adults, 65+

VARIABLES	Social Security			Medicare			Social Security + Medicare		
	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)	Model (6)	Model (7)	Model (8)	Model (9)
Average rate for white, non-Hispanic		93.4%			96.8%			91.4%	
Black, non-Hispanic	-6.234***	-6.591***	-6.548***	-3.884***	-4.151***	-4.193***	-7.849***	-8.262***	-8.258***
	(0.369)	(0.369)	(0.369)	(0.270)	(0.270)	(0.270)	(0.406)	(0.406)	(0.407)
Hispanic	-14.57***	-14.70***	-14.71***	-8.714***	-8.803***	-8.894***	-16.37***	-16.53***	-16.58***
	(0.425)	(0.424)	(0.425)	(0.311)	(0.310)	(0.310)	(0.468)	(0.467)	(0.467)
All Other, non-Hispanic	-15.49***	-15.56***	-15.54***	-6.307***	-6.378***	-6.330***	-16.97***	-17.05***	-17.06***
	(0.539)	(0.537)	(0.538)	(0.394)	(0.393)	(0.393)	(0.593)	(0.592)	(0.592)
Has a disability			-0.307			1.100***			0.100
			(0.240)			(0.175)			(0.264)
Income controls	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Observations	59,775	59,775	59,562	59,775	59,775	59,562	59,775	59,775	59,562
Adjusted R-squared	0.032	0.037	0.037	0.018	0.022	0.023	0.033	0.039	0.039

Note: robust standard errors in parentheses. *** $p<0.01$, ** $p<0.05$, * $p<0.1$. The different models correspond to the inclusion of different control variables.

Results: Income patterns of participation

In our final assessment of the reach of the social welfare system, we examine what share of household income comes from social welfare programs for the same age and age-by-income groups we have used throughout. Because it is so large relative to other programs we separate out income from Social Security from all other programs, giving us three sources of income: private income, income from Social Security, income from all other programs.

Many programs do not offer cash to individuals but an in-kind benefit that has value, though it cannot be spent freely by the individual receiving it or "spent" at all in the traditional sense. In considering income shares, which programs to include as income has a consistent definition if we restrict our analysis to cash. A resource is not the same thing as an income source, even if it eases the pressure on income. However, many researchers would argue that SNAP and WIC benefits, which can be spent in accepting stores on preapproved food items, are near enough to cash to count as income. And further, our central question of the reach of the social welfare system is inadequately answered by erring on the side of exclusion, rather than inclusion, in apportioning income. Hence, we include in non-Social Security public income (and total income overall) the value of reported SNAP and WIC benefits in addition to the other cash programs (SSI, TANF, workers' comp, UI, veterans benefits (VA), and GA).[6] In this section, we discuss each age group in turn.

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[6] Not counted in this exercise are: Medicare, Medicaid, LIHEAP, National School Lunch and Breakfast, rent subsidies, childcare assistance, and the EITC. The SIPP does not include a measure of how much a family received from the EITC, only a flag if they received it.

Children

       Figure 4 groups children based on their household private income relative to the

official poverty measure as before. The upshot is that the amount of public income from

either source does not move children from one group to another. However, for this

analysis, we split off from the 0% to 50%OPM group those with no private income

(exactly 0%) from those with private income less than 50% of OPM. We do this, as the

figure makes clear, because of the very different income shares for no-private-income

versus low-private-income households. Within each group, the figure shows the share

of income from three sources: private, Social Security, and other public income. The

income shares are reconstructed, so that total income is not what is reported in the

SIPP total income variable, rather it is all private income plus Social Security plus other

income including SNAP and WIC.

Figure 4: Shares of household income from private income, Social Security and non-Social Security public income for children
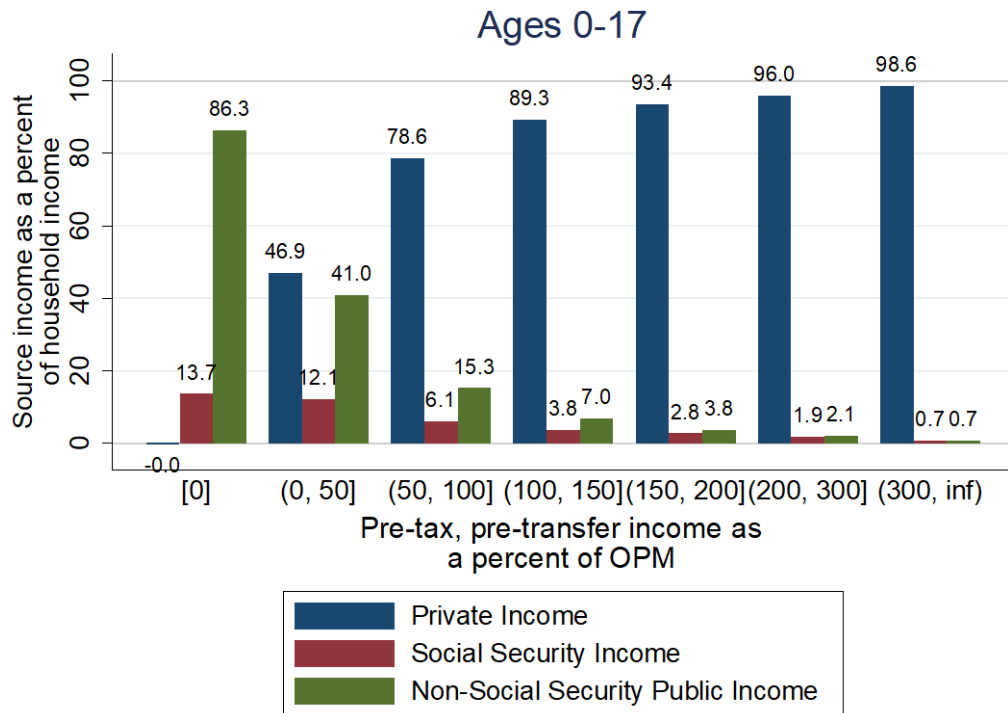
Ages 0-17

Source: Authors' analysis of 2014, 2018, 2019, 2020, and 2021 panels of the Survey of Income and Program Participation. Bar for Private Income is left-most bar within OPM group. Bar for Social Security Income is center bar within OPM group. Bar for Non-Social Security Public Income is right-most bar within OPM group.

Children in households with no market income receive 13.7% of their income from Social Security and 86.3% of their income from other public income. Moving up to the 0% to 50%OPM group, private income is 46.9% of income, Social Security 12.1%, and non-Social Security transfer 41%. For those in the 50% to 100%OPM group, private income is 78.6% of income, Social Security 6.1% and non-Social Security transfers 15.3%. Once private income is sufficient to be larger than the OPM, 90% of household income comes from private income.

As we have noted throughout, it can be difficult to discuss patterns without a clear frame of what this figure "ought" to look like. That said, we were struck by two

aspects in particular. First, unlike program participation, the share of household income that comes from non-Social Security public income drops steeply when there is any private income and continues to decline so that households with private income above the OPM get very little income from non-Social Security public sources. Second, Social Security is 12% to almost 14% of household income for children in 0% to 50% OPM households, despite not being a means-tested program.

To explore the role of Social Security further, we show in Table 7 the unconditional and conditional mean and median of Social Security's income shares for households with children. For example, in the first row: for children in households with private income 0% to 50% of the OPM, on average, 17.5% of household income comes from Social Security. However, conditional on having any income from Social Security, just over half of all household income — 54.9% — comes from Social Security. As household income increases, Social Security's share falls, though conditional on receipt, it is a sizeable portion of household income even through 200% OPM.

To be clear, children can be eligible for Social Security benefits if they are the dependent of a retired, deceased, or disabled worker. The children in households with Social Security income can either be receiving benefits by their own eligibility or be in a household with someone receiving benefits (such as living with a grandparent), but not be a program beneficiary themselves. Either could be problematic, from the perspective that, were they beneficiaries, the benefit amounts may be insufficient, or, if they are living with a beneficiary, benefits are supporting more than just the person receiving it. In addition, our view of household income is based *solely* on their private income. The people we describe as "poor" (private income below 100% OPM) could have income from public sources that lift them above the poverty threshold, and would not be considered poor by statistical measurement or program eligibility.

Table 11: Social Security's share of household Income, conditional and

***unconditional means and medians, ages 0 to 17, by income relative to OPM***

Household Income Relative to OPM	Unconditional Mean [Median] (Person-months)	Conditional Mean [Median] (Person-months)
[0, 50]	17.5 [0] (11707)	54.86 [52.17] (3734)
(50, 100]	6.14 [0] (10578)	31.66 [30.26] (2051)
(100, 150]	3.78 [0] (11103)	23.34 [21.82] (1798)
(150, 200]	2.81 [0] (9911)	18.84 [17.38] (1478)
(200, 300]	1.92 [0] (15256)	15.94 [14.7] (1841)
(300, inf)	.72 [0] (37004)	9.74 [8.15] (2719)

Source: Authors' analysis of 2014, 2018, 2019, 2020, and 2021 panels of the Survey of Income and Program Participation.

Figure 5 shows a histogram of Social Security's share of household income for children, conditional on any income, for these five income groups.[7] For at least some households in the 0% to 50% OPM group, it is evident that Social Security is their entire income. Otherwise, the distribution of Social Security's income share is similar for the remaining income groups — a peak at around 15% to 20% of household income with a longer right tail.

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[7] Unconditional histograms of Social Security receipt in children's households can be found in Figure A1 of the Appendix: Tables and Figures.

Figure 5: Distribution of Social Security as a share of household income, conditional on positive share, ages 0 to 17 by private income relative to OPM
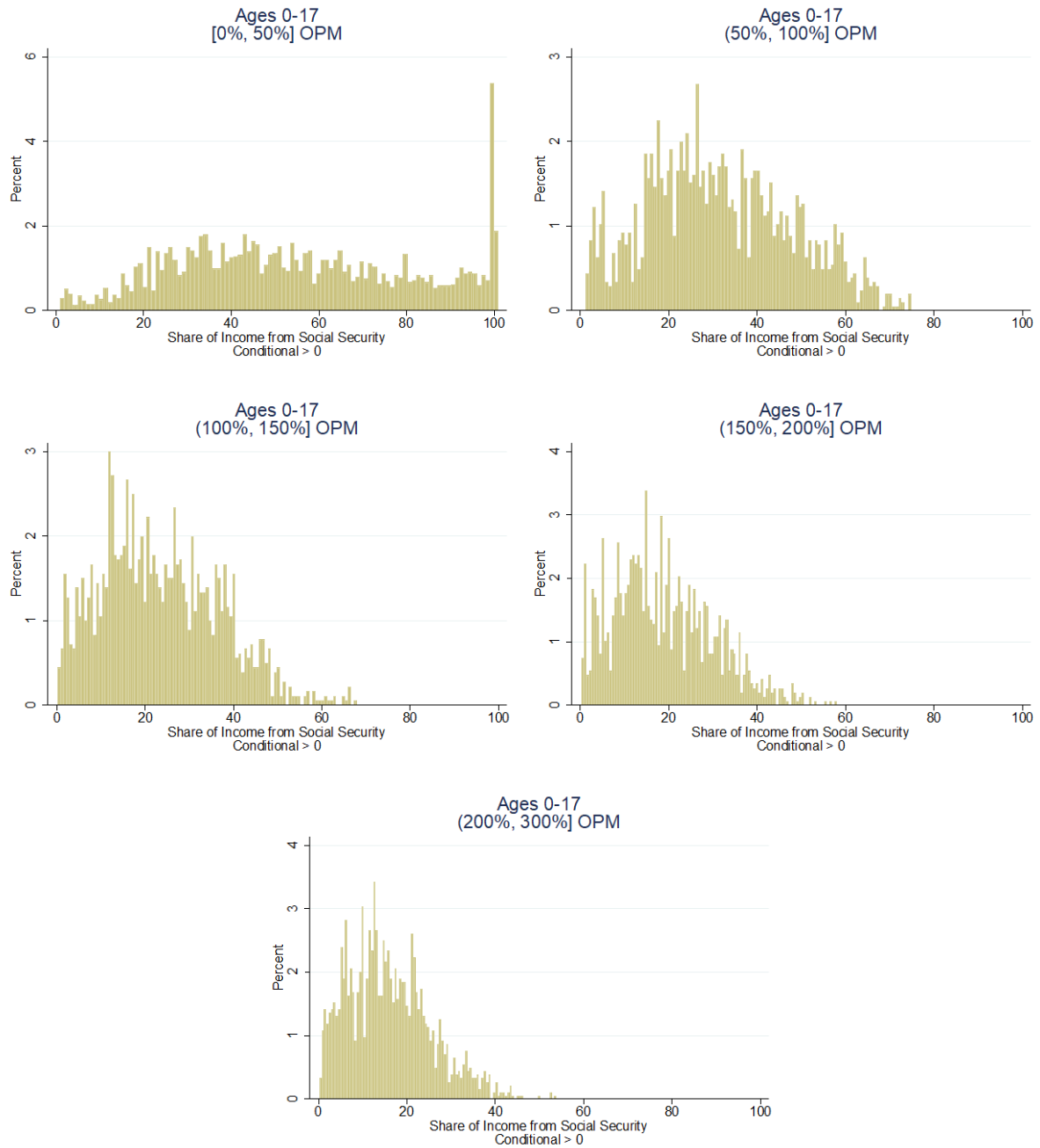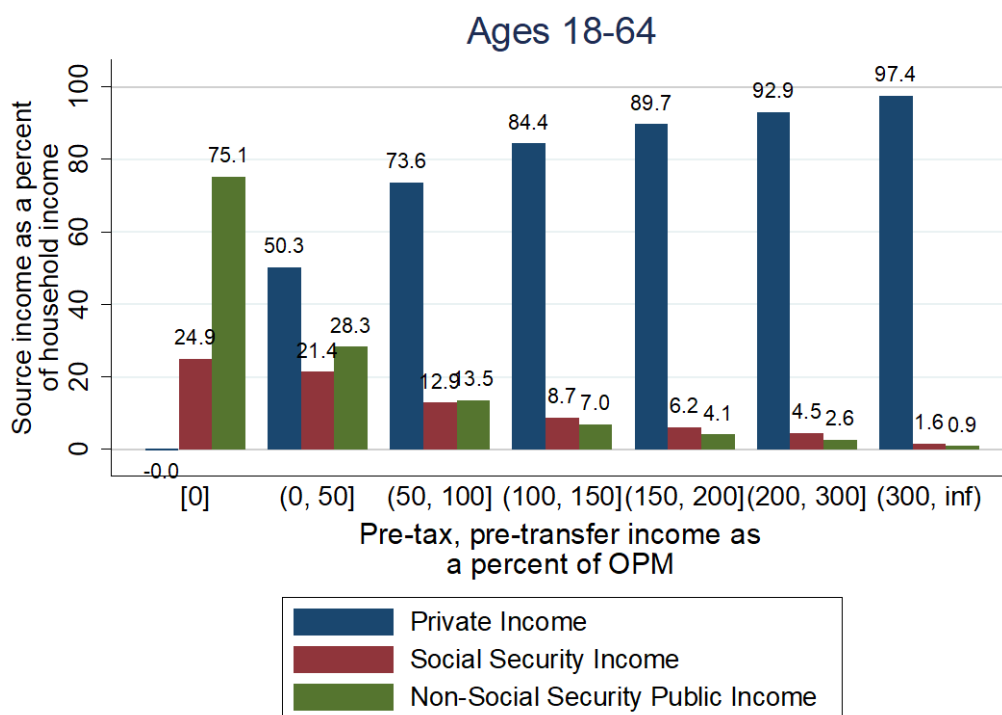
Source: Authors' analysis of 2014, 2018, 2019, 2020, and 2021 panels of the Survey of Income and Program Participation.

Nonelderly adults

Figure 6 groups nonelderly adults based on their household private income relative to the official poverty measure, the same as Figure 4 for children. It looks very similar to the income shares for children, with the same patterns — a large drop in income share from non-Social Security public income with any private income and high shares of Social Security among the lowest income households.

Figure 6: Shares of household income from private income, Social Security and non-Social Security public income for nonelderly adults

Source: Authors' analysis of 2014, 2018, 2019, 2020, and 2021 panels of the Survey of Income and Program Participation. Bar for Private Income is left-most bar within OPM group. Bar for Social Security Income is center bar within OPM group. Bar for non-Social Security Public Income is right-most bar within OPM group.

Looking at unconditional and conditional means in Table 12, the reliance on Social Security among the 0% to 50%OPM group is even more pronounced for adults than it was for children. For all adults in the 0% to 50% OPM group, just over a third (35%) of their income comes from Social Security. Conditional on receipt, it is 72% of income. For those adults with slightly more private income (the 50% to 100% OPM group) the shares drop to 12.9% and 41%, respectively.

Table 12. Social Security's share of household income, conditional and unconditional means and medians, ages 18 to 64 by income relative to OPM

Household Income Relative to OPM	Unconditional Mean [Median] (Person-months)	Conditional Mean [Median] (Person-months)
[0, 50]	34.96 [0] (27421)	72.02 [77.62] (13312)
(50, 100]	12.91 [0] (16531)	41.02 [41.93] (5203)
(100, 150]	8.68 [0] (19013)	32 [31.8] (5157)
(150, 200]	6.19 [0] (20055)	26.03 [25.62] (4770)
(200, 300]	4.53 [0] (37502)	21.54 [20.84] (7895)
(300, inf)	1.62 [0] (132028)	13.24 [11.87] (16196)

Source: Authors' analysis of 2014, 2018, 2019, 2020, and 2021 panels of the Survey of Income and Program Participation.

Much like the overall distribution, the histograms of Social Security's share of household income is a more exaggerated version in adults of what we saw with children. For the 0% to 50%OPM group with no or low private incomes, many households get the majority of their income from Social Security. In this case, 15% get all of their income from Social Security. For households in the 50% to 100% OPM group, the distribution of Social Security's income share peaks around 50%, with a wide distribution. For households with higher levels of private income, Social Security's income shares peak at 20% to 30%, again with a long right tail. It is worth noting, however, that private income of 200% to 300% of OPM could, depending on family size, start to hit median household income in the U.S. Even among that group, conditional

Social Security incomes shares are average 15% to 35% of household income. The point being that even for middle income households, Social Security is a nontrivial boost to income.

Figure 7: Distribution of Social Security as a share of household income, conditional on positive share, ages 18 to 64, by private income relative to OPM
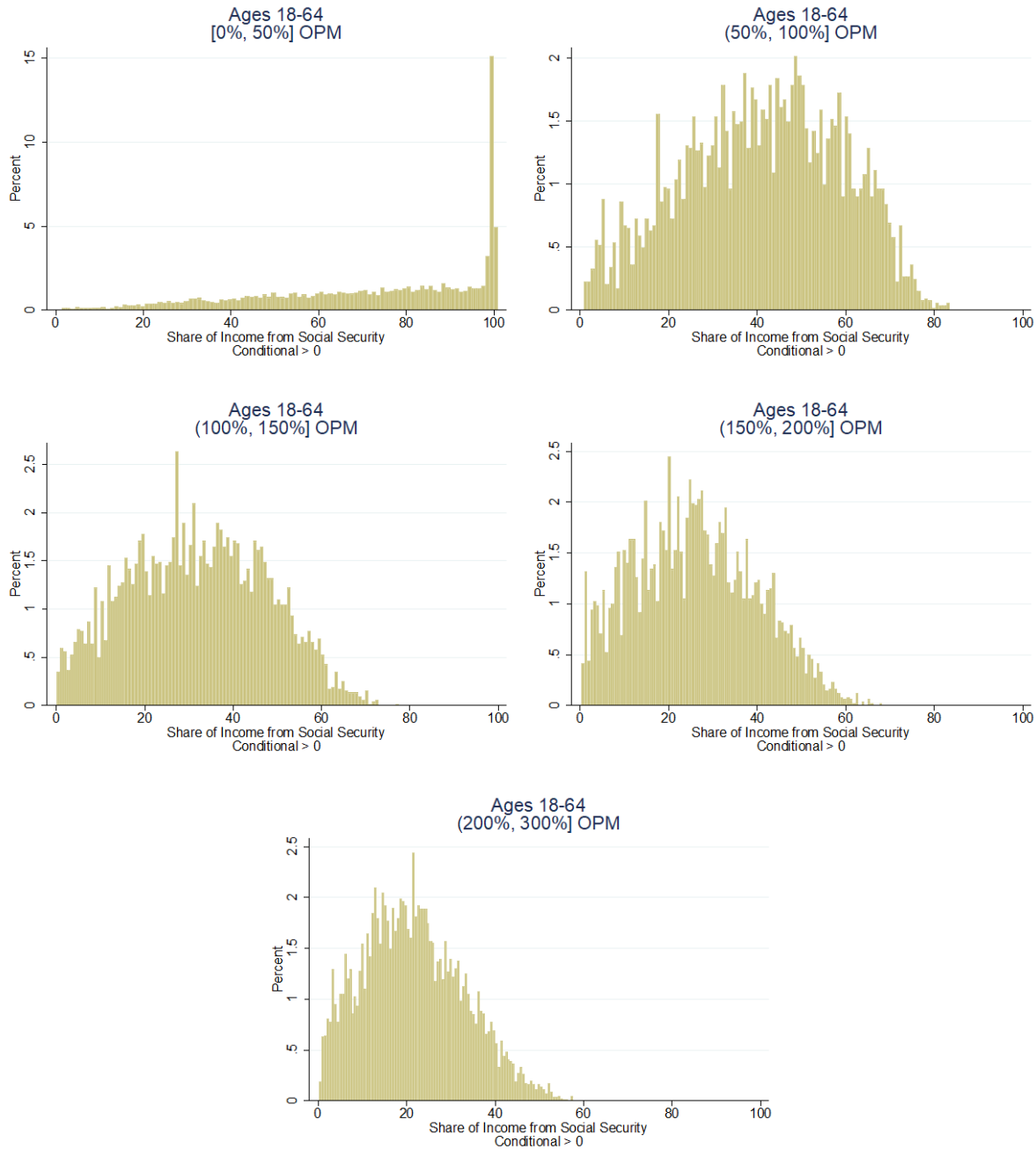
Elderly adults

Much like the density analysis and pattern analysis, in this income analysis, elderly households are different by virtue of their near universal eligibility and take up of Social Security. It's a different pattern, but not necessarily a predictable one. Given that they are not working and that Social Security is highly received, it might be reasonable to predict Social Security is the majority of elderly adults' income. We do not find that to be the case. For households with no private income, Social Security is 58.5% of household income and non-Social Security public income is 41.5%. At 0% to 50% and 50% to 100% of private income relative to OPM, Social Security is 70.8% and 55.4% of income. But for households who have income above OPM poverty levels, Social Security is less than half of income, and drops to just 18.4% for those with private income above 300% OPM. Private income can be from earnings, investment or rental income, or other passive income sources.

Public income from non-Social Security sources is high for elderly individuals with no private income (41.5% of total income for the [0] group), but it drops quickly once there are any earnings to 13.9% for the (0, 50] group, and then steadily drops as private income ratchets up. Note that the number of people in each income bin is not equal. We cannot make sweeping conclusions about the elderly or Social Security's role or effectiveness. But, the patterns of income shares in Figure 8 demonstrates that Social Security is not the only income the elderly receive.[8]

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[8] Figure A4 of the Appendix shows the household income shares for the alternative age divisions of the adult population, 18 to 61, 62 to 70, and 71+.

Figure 8: Shares of household income from private income, Social Security and non-Social Security public income for elderly adults
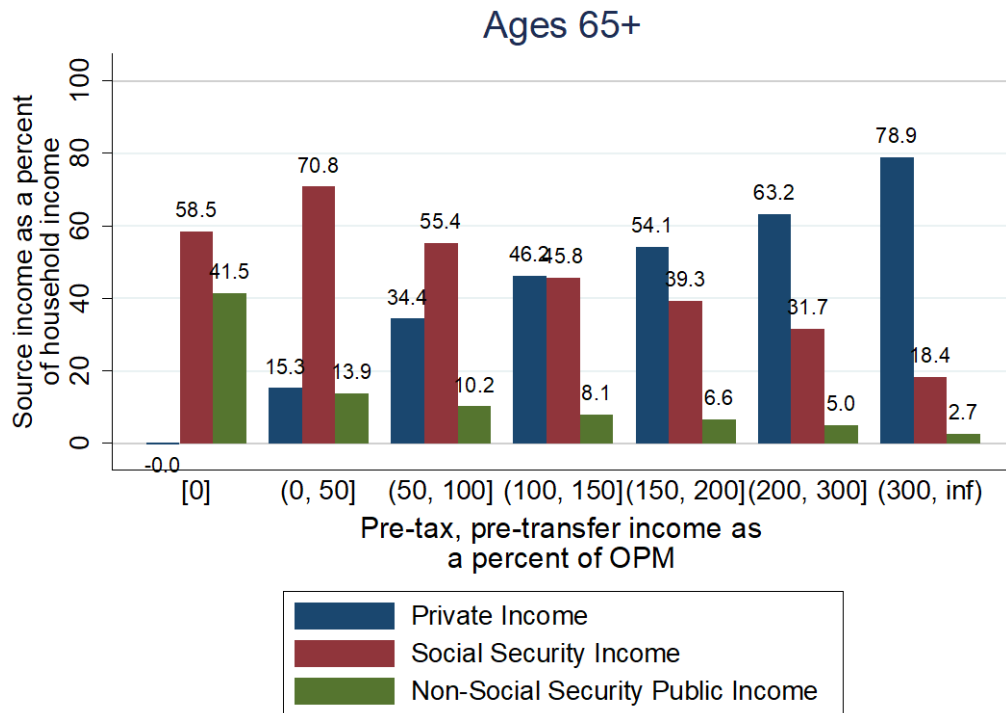
Ages 65+

Source: Authors' analysis of 2014, 2018, 2019, 2020, and 2021 panels of the Survey of Income and Program Participation. Bar for Private Income is left-most bar within OPM group. Bar for Social Security Income is center bar within OPM group. Bar for Non-Social Security Public Income is right-most bar within OPM group.

Table 13 details the unconditional and conditional means of Social Security's share of income for the elderly. It also includes person months of total observations to show conclusively that bin sizes are not equal. The largest bin is the bottom one, households with private income of 0% to 50% of OPM. For those households, Social Security is 80.3% of income on average and 85.1% of income among those who report it.[9]

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[9] Table A6 of the Appendix combines tables 7, 8, and 9 from the main paper and adds the same estimates from the alternative definition of adults. Figures A5 to A10 show the conditional and unconditional histograms for the same alternative adults age definitions.

Table 13: Social Security's share of household income, conditional and unconditional means and medians, ages 65+, by income relative to OPM

Household Income Relative to OPM	Unconditional Mean [Median] (Person-months)	Conditional Mean [Median] (Person-months)
[0, 50]	80.29 [89.35] (27836)	85.14 [90.96] (26249)
(50, 100]	55.37 [60.79] (8316)	58.48 [61.54] (7874)
(100, 150]	45.78 [50.22] (7320)	48.77 [51.39] (6871)
(150, 200]	39.28 [43.17] (6327)	42.08 [44.35] (5906)
(200, 300]	31.7 [34.66] (9663)	34.87 [36.49] (8786)
(300, inf)	18.4 [17.99] (24309)	21.52 [20.8] (20788)

Source: Authors' analysis of 2014, 2018, 2019, 2020, and 2021 panels of the Survey of Income and Program Participation.

Not surprisingly then, the histogram distributions look very different as well, showing high shares of income for receiving households in Figure 9. For those with private income of 0% to 50% of OPM, Social Security is at least 89% of income for over half of households (unconditional median of 89.35% and conditional median of 90.96%). The distribution of income shares from Social Security have high peaks, even as private income increases, from around 70%, to 50%, to 40% among the elderly with private income in the 200% to 300% OPM group.

It is worth asking what new information about Social Security is added from Figures 8 to 9 and Table 13. The high shares of Social Security income for children and nonelderly adults shown in the prior section makes a comment, even if not readily interpretable, about the social welfare system. The patterns of income among the elderly are different than the patterns for other age groups and that is expected. It is a cash benefit intended to stabilize the incomes of older households, and that is essentially what we see. However, the distributions serve as a reminder that Social Security is not the only source of elderly adults' incomes. Especially for those with low

private incomes, non-Social Security public income is a high share of income. And for those with private income, even up to 300% of OPM, Social Security is still nearly 20% of total income. Social Security does not necessarily meet all income needs for elderly individuals, but few would be unaffected by its reduction or elimination.

Figure 9: Distribution of Social Security as a share of household income, conditional on positive share, ages 65+, by private income relative to OPM
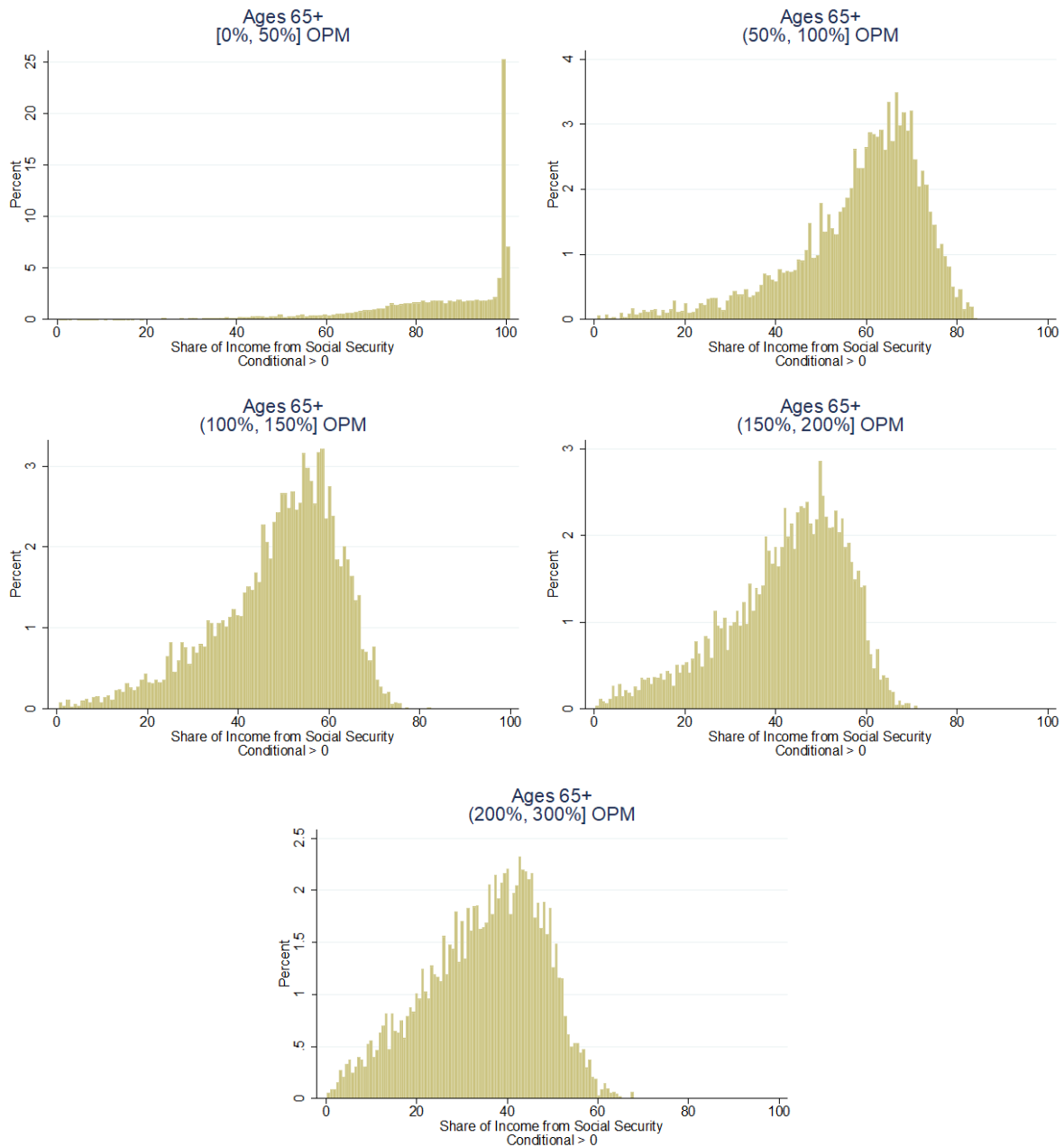
Conclusion

This paper has an ambitious technical goal in documenting the reach of the U.S. social welfare system, which we do through mapping receipt in sixteen different programs. One advantage to our analysis — that we are the first to do so in the newly redesigned SIPP — is also a challenge. We do not have accumulated expertise with the survey, or the measurement issues that are revealed over time through repeated use. Hence, our results must be taken as preliminary and invite a revisit for that reason alone.

A separate issue is that the years of data available are 2013 through 2020, a period of economic expansion that ended with a historically tight labor market and low unemployment rate, followed by a pandemic year with historically high unemployment and historically high public benefits. Higher unemployment without the COVID-19 economic relief would likely change our results significantly as more individuals might have experienced income shocks and become more likely to be eligible for a program, less reluctant to apply for it, or both. Again, our results must be taken as preliminary and invite a revisit for this reason alone.

Those issues aside, our primary contribution is to provide an estimate of comprehensive program participation that shows nonparticipation, density of participation, demographic patterns of participation, and income patterns of participation.

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Appendix: Table and figures

Table A1: Data for Figure 2, Panels B to D

Panel B, Children 0-17	0-50% OPM	50-100% OPM	100-150% OPM	150-200% OPM	200-300% OPM
0	6.2%	6.2%	8.6%	14.6%	32.4%
1	9.0%	10.8%	16.4%	23.9%	29.7%
2	15.0%	18.6%	24.9%	27.1%	20.4%
3	24.0%	27.1%	25.0%	21.4%	11.2%
4	22.7%	23.0%	16.8%	9.9%	4.6%
5+	23.0%	14.2%	8.3%	3.2%	1.6%
Panel C, Adults 18-64	0-50% OPM	50-100% OPM	100-150% OPM	150-200% OPM	200-300% OPM
0	24.1%	32.4%	40.5%	50.2%	63.2%
1	17.7%	25.5%	29.3%	29.8%	24.7%
2	20.2%	20.0%	17.0%	12.9%	8.2%
3	16.6%	12.8%	8.5%	4.9%	2.7%
4	11.9%	6.0%	3.4%	1.7%	0.9%
5+	9.5%	3.3%	1.3%	0.5%	0.3%
Panel D, Elderly 64+	0-50% OPM	50-100% OPM	100-150% OPM	150-200% OPM	200-300% OPM
0	0.6%	1.9%	2.2%	3.3%	0.6%
1	4.6%	7.1%	8.1%	11.1%	4.6%
2	60.1%	75.3%	75.4%	73.6%	60.1%
3	16.9%	12.1%	11.5%	9.6%	16.9%
4	8.9%	2.4%	2.1%	1.8%	8.9%
5+	8.9%	1.2%	0.8%	0.6%	8.9%

Table A2: Program participation by program, overall

	% People receiving	Only program	+1 program	+2 programs	+3 programs	+4 programs	+5 or more programs	Sum of +3, +4, +5
Supplemental Security Income (SSI)	10.0%	1.7%	11.7%	25.8%	26.7%	20.1%	14.0%	60.8%
Temporary Assistance to Needy Families (TANF)	3.1%	0.7%	1.7%	9.6%	26.2%	30.4%	31.4%	87.9%
General Assistance (GA)	1.2%	1.7%	5.4%	14.3%	25.6%	25.7%	27.4%	78.6%
Social Security (SSA)	18.1%	9.5%	26.1%	20.9%	18.9%	14.4%	10.2%	43.5%
Unemployment Insurance (UI)	0.8%	30.2%	26.8%	20.0%	13.9%	6.5%	2.5%	22.9%
Workers' Compensation (WC)	0.4%	25.2%	21.8%	31.8%	12.9%	3.9%	4.4%	21.1%
Veteran's benefits	1.1%	32.5%	25.6%	29.2%	8.0%	3.4%	1.3%	12.7%
Supplemental Nutrition Assistance (SNAP)	44.4%	5.5%	14.9%	27.9%	27.7%	15.8%	8.2%	51.7%
Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)	5.3%	3.6%	11.5%	28.5%	27.8%	18.1%	10.6%	56.4%
Free and Reduced School Lunch	20.0%	4.3%	13.4%	28.2%	29.0%	16.2%	8.9%	54.1%
Housing subsidy (rent subsidy or housing voucher)	13.7%	4.0%	7.4%	15.7%	27.3%	26.3%	19.3%	72.9%
Low-income Housing Energy Assistance Program (LIHEAP)	14.1%	4.3%	9.6%	16.6%	26.3%	24.4%	18.9%	69.6%
Childcare Assistance	0.8%	2.1%	4.8%	12.6%	21.6%	30.8%	28.1%	80.4%
Medicare	14.9%	3.8%	27.9%	23.6%	19.9%	15.3%	9.5%	44.7%
Medicaid	54.5%	9.3%	19.2%	27.9%	23.8%	13.2%	6.7%	43.7%
Earned Income Tax Credit (EITC)	26.1%	15.3%	17.0%	22.1%	23.8%	13.7%	8.0%	45.5%

Source: Authors' analysis of 2014, 2018, 2019, 2020, and 2021 panels of the Survey of Income and Program Participation.

Table A3a: Children, 0% to 50% poverty, program participation by program

	% People receiving	Only program	+1 program	+2 programs	+3 programs	+4 programs	+5 or more programs	Sum of +3, +4, +5
Supplemental Security Income (SSI)	5.3%	0.3%	2.8%	12.1%	22.6%	29.5%	32.7%	84.8%
Temporary Assistance to Needy Families (TANF)	10.5%	0.5%	0.9%	5.8%	23.6%	32.5%	36.8%	92.8%
General Assistance (GA)	2.0%	0.1%	0.9%	7.3%	24.2%	31.4%	36.2%	91.7%
Social Security (SSA)	12.8%	3.5%	9.1%	17.3%	24.0%	25.2%	20.9%	70.1%
Unemployment Insurance (UI)	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Workers' Compensation (WC)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Veteran's benefits	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Supplemental Nutrition Assistance (SNAP)	67.7%	1.2%	8.0%	26.7%	31.0%	21.0%	12.1%	64.2%
Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)	11.7%	1.9%	7.6%	25.4%	27.9%	22.8%	14.4%	65.1%
Free and Reduced School Lunch	59.1%	3.3%	11.2%	26.4%	28.7%	19.0%	11.4%	59.1%
Housing subsidy (rent subsidy or housing voucher)	20.3%	0.5%	1.5%	7.4%	25.9%	35.4%	29.4%	90.7%
Low-income Housing Energy Assistance Program (LIHEAP)	19.0%	0.4%	2.6%	8.7%	24.6%	32.5%	31.2%	88.3%
Childcare Assistance	1.2%	0.0%	3.1%	8.5%	14.7%	34.6%	39.1%	88.4%
Medicare	2.9%	3.6%	13.2%	17.3%	23.5%	21.9%	20.4%	65.8%
Medicaid	81.5%	4.6%	13.7%	27.1%	26.8%	17.6%	10.1%	54.6%
Earned Income Tax Credit (EITC)	33.4%	4.3%	9.9%	18.1%	29.6%	22.7%	15.5%	67.7%

Table A3b: Children, 50% to 100% poverty, program participation by program

	% People receiving	Only program	+1 program	+2 programs	+3 programs	+4 programs	+5 or more programs	Sum of +3, +4, +5
Supplemental Security Income (SSI)	2.8%	0.8%	4.7%	15.1%	18.6%	32.2%	28.6%	79.4%
Temporary Assistance to Needy Families (TANF)	3.9%	0.0%	1.9%	10.5%	29.6%	32.5%	25.5%	87.6%
General Assistance (GA)	0.7%	0.9%	4.0%	15.4%	13.3%	24.5%	41.9%	79.8%
Social Security (SSA)	7.6%	3.9%	11.6%	19.2%	29.4%	19.1%	16.8%	65.2%
Unemployment Insurance (UI)	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Workers' Compensation (WC)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Veteran's benefits	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Supplemental Nutrition Assistance (SNAP)	57.2%	0.9%	8.3%	31.1%	35.9%	16.2%	7.5%	59.6%
Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)	12.3%	2.8%	11.9%	33.2%	29.9%	14.3%	8.0%	52.2%
Free and Reduced School Lunch	59.4%	5.4%	15.9%	30.3%	29.3%	13.0%	6.0%	48.3%
Housing subsidy (rent subsidy or housing voucher)	11.7%	1.7%	3.0%	11.0%	27.0%	32.3%	25.0%	84.3%
Low-income Housing Energy Assistance Program (LIHEAP)	12.4%	0.3%	4.0%	10.0%	27.8%	33.1%	24.7%	85.7%
Childcare Assistance	1.5%	0.0%	3.1%	9.6%	23.5%	31.9%	31.9%	87.3%
Medicare	2.3%	4.4%	15.9%	19.1%	23.8%	20.1%	16.7%	60.6%
Medicaid	77.9%	5.2%	17.4%	31.3%	28.3%	12.3%	5.6%	46.2%
Earned Income Tax Credit (EITC)	48.0%	4.3%	11.6%	23.9%	34.8%	16.7%	8.7%	60.2%

Table A3c: Children, 100% to 150% poverty, program participation by program

	% People receiving	Only program	+1 program	+2 programs	+3 programs	+4 programs	+5 or more programs	Sum of +3, +4, +5
Supplemental Security Income (SSI)	2.2%	1.3%	5.3%	17.3%	30.2%	25.9%	20.1%	76.2%
Temporary Assistance to Needy Families (TANF)	2.5%	0.9%	5.1%	19.3%	26.3%	30.5%	17.9%	74.7%
General Assistance (GA)	0.4%	0.0%	4.9%	14.2%	37.8%	21.0%	22.1%	80.9%
Social Security (SSA)	6.7%	7.9%	17.4%	22.3%	22.3%	20.1%	9.9%	52.4%
Unemployment Insurance (UI)	0.0%	16.7%	0.0%	83.3%	0.0%	0.0%	0.0%	0.0%
Workers' Compensation (WC)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Veteran's benefits	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Supplemental Nutrition Assistance (SNAP)	38.0%	1.1%	10.3%	32.5%	36.3%	15.0%	4.9%	56.1%
Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)	11.1%	3.4%	21.1%	32.5%	27.7%	11.3%	3.9%	42.9%
Free and Reduced School Lunch	54.2%	8.0%	25.8%	31.2%	23.1%	9.1%	2.8%	35.0%
Housing subsidy (rent subsidy or housing voucher)	6.0%	1.8%	5.6%	16.3%	25.8%	31.9%	18.6%	76.3%
Low-income Housing Energy Assistance Program (LIHEAP)	8.8%	1.9%	5.3%	15.0%	30.3%	33.0%	14.6%	77.8%
Childcare Assistance	1.1%	1.7%	4.3%	18.5%	30.3%	25.2%	20.0%	75.5%
Medicare	2.2%	5.5%	21.4%	28.5%	22.8%	12.5%	9.2%	44.6%
Medicaid	68.3%	8.0%	24.2%	32.4%	23.6%	9.0%	2.8%	35.4%
Earned Income Tax Credit (EITC)	50.3%	9.4%	20.6%	28.8%	27.0%	10.6%	3.5%	41.1%

Table A3d: Children, 150% to 200% poverty, program participation by program

	% People receiving	Only program	+1 program	+2 programs	+3 programs	+4 programs	+5 or more programs	Sum of +3, +4, +5
Supplemental Security Income (SSI)	1.6%	3.9%	14.8%	22.6%	26.6%	25.3%	6.8%	58.7%
Temporary Assistance to Needy Families (TANF)	1.5%	4.1%	5.7%	26.4%	35.5%	16.9%	11.3%	63.8%
General Assistance (GA)	0.4%	0.0%	6.1%	7.2%	38.4%	31.9%	16.4%	86.7%
Social Security (SSA)	5.6%	9.6%	25.0%	24.9%	26.1%	10.3%	4.2%	40.6%
Unemployment Insurance (UI)	0.0%	73.1%	19.2%	3.8%	3.8%	0.0%	0.0%	3.8%
Workers' Compensation (WC)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Veteran's benefits	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Supplemental Nutrition Assistance (SNAP)	22.0%	3.1%	14.6%	38.7%	32.2%	8.8%	2.6%	43.6%
Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)	8.8%	9.3%	31.6%	35.1%	17.0%	5.4%	1.6%	23.9%
Free and Reduced School Lunch	48.0%	13.6%	32.6%	31.8%	16.6%	4.3%	1.1%	22.0%
Housing subsidy (rent subsidy or housing voucher)	3.8%	5.5%	14.7%	20.1%	31.1%	17.8%	10.9%	59.7%
Low-income Housing Energy Assistance Program (LIHEAP)	5.4%	4.0%	9.5%	25.1%	31.4%	20.8%	9.2%	61.4%
Childcare Assistance	0.7%	1.6%	16.9%	20.6%	25.2%	24.8%	10.9%	60.9%
Medicare	1.6%	4.8%	18.5%	34.5%	24.2%	9.6%	8.2%	42.1%
Medicaid	54.1%	11.5%	31.5%	34.3%	16.9%	4.6%	1.3%	22.7%
Earned Income Tax Credit (EITC)	45.1%	18.8%	27.2%	30.3%	17.3%	4.9%	1.4%	23.7%

Table A3e: Children, 200% to 300% poverty, program participation by program

	% People receiving	Only program	+1 program	+2 programs	+3 programs	+4 programs	+5 or more programs	Sum of +3, +4, +5
Supplemental Security Income (SSI)	0.9%	2.9%	15.8%	11.9%	32.7%	21.0%	15.7%	69.4%
Temporary Assistance to Needy Families (TANF)	1.1%	4.3%	11.2%	25.6%	36.3%	18.1%	4.5%	58.9%
General Assistance (GA)	0.2%	1.7%	8.6%	13.1%	33.1%	24.2%	19.4%	76.7%
Social Security (SSA)	4.6%	27.5%	23.1%	18.8%	18.6%	8.6%	3.4%	30.6%
Unemployment Insurance (UI)	0.0%	23.1%	53.8%	7.7%	7.7%	0.0%	7.7%	15.4%
Workers' Compensation (WC)	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Veteran's benefits	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Supplemental Nutrition Assistance (SNAP)	11.4%	4.3%	19.5%	35.7%	28.7%	9.3%	2.5%	40.5%
Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)	5.0%	16.3%	32.6%	32.4%	13.9%	3.9%	0.9%	18.7%
Free and Reduced School Lunch	34.6%	27.5%	35.1%	23.2%	10.3%	3.0%	0.8%	14.2%
Housing subsidy (rent subsidy or housing voucher)	2.4%	9.0%	21.6%	30.2%	20.0%	13.1%	6.2%	39.3%
Low-income Housing Energy Assistance Program (LIHEAP)	2.7%	8.7%	14.5%	31.6%	26.3%	15.3%	3.6%	45.2%
Childcare Assistance	0.4%	9.1%	17.8%	19.2%	31.6%	14.9%	7.5%	53.9%
Medicare	1.4%	12.7%	28.5%	22.6%	21.4%	11.7%	3.2%	36.3%
Medicaid	35.4%	20.0%	35.5%	27.7%	12.5%	3.5%	0.9%	16.9%
Earned Income Tax Credit (EITC)	31.0%	31.7%	30.8%	22.3%	10.9%	3.4%	0.9%	15.2%

Table A4a: Nonelderly adults, 0% to 50% poverty, program participation by program

	% People receiving	Only program	+1 program	+2 programs	+3 programs	+4 programs	+5 or more programs	Sum of +3, +4, +5
Supplemental Security Income (SSI)	16.8%	1.4%	11.6%	27.2%	28.3%	19.3%	12.2%	59.7%
Temporary Assistance to Needy Families (TANF)	1.0%	1.8%	2.6%	17.8%	32.4%	24.5%	21.0%	77.9%
General Assistance (GA)	1.4%	1.8%	6.5%	17.8%	28.6%	24.3%	21.1%	73.9%
Social Security (SSA)	27.6%	9.0%	28.4%	21.5%	18.4%	13.6%	9.0%	41.0%
Unemployment Insurance (UI)	1.1%	30.1%	25.5%	20.2%	14.1%	7.3%	2.8%	24.2%
Workers' Compensation (WC)	0.8%	23.6%	21.4%	32.8%	12.7%	4.1%	5.3%	22.2%
Veteran's benefits	1.9%	29.1%	24.5%	32.5%	8.2%	4.2%	1.4%	13.8%
Supplemental Nutrition Assistance (SNAP)	38.4%	8.0%	18.2%	25.9%	25.2%	14.8%	7.9%	47.9%
Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)	1.5%	6.3%	13.1%	24.5%	27.4%	19.3%	9.5%	56.2%
Free and Reduced School Lunch	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Housing subsidy (rent subsidy or housing voucher)	14.6%	4.4%	8.8%	19.1%	29.3%	22.6%	15.8%	67.7%
Low-income Housing Energy Assistance Program (LIHEAP)	14.9%	5.6%	11.2%	19.3%	27.9%	20.7%	15.2%	63.9%
Childcare Assistance	0.3%	3.7%	7.6%	17.1%	22.7%	23.2%	25.7%	71.5%
Medicare	26.9%	3.2%	26.9%	23.5%	20.4%	16.1%	9.9%	46.4%
Medicaid	44.5%	10.7%	20.2%	26.4%	22.5%	13.2%	6.9%	42.7%
Earned Income Tax Credit (EITC)	15.3%	23.5%	21.0%	23.2%	16.8%	9.6%	5.9%	32.3%

Table A4b: Nonelderly adults, 50% to 100% poverty, program participation by program

	% People receiving	Only program	+1 program	+2 programs	+3 programs	+4 programs	+5 or more programs	Sum of +3, +4, +5
Supplemental Security Income (SSI)	6.4%	4.1%	19.9%	30.7%	24.5%	14.2%	6.6%	45.3%
Temporary Assistance to Needy Families (TANF)	0.6%	3.2%	9.7%	31.3%	27.2%	12.1%	16.5%	55.8%
General Assistance (GA)	0.6%	6.1%	13.4%	17.2%	26.1%	17.8%	19.3%	63.2%
Social Security (SSA)	12.1%	18.7%	36.5%	21.7%	12.8%	7.0%	3.3%	23.1%
Unemployment Insurance (UI)	1.4%	30.3%	28.5%	19.9%	13.6%	5.4%	2.3%	21.3%
Workers' Compensation (WC)	0.5%	29.8%	23.0%	29.1%	13.3%	3.2%	1.5%	18.1%
Veteran's benefits	1.1%	43.2%	29.0%	18.6%	7.5%	0.6%	1.1%	9.2%
Supplemental Nutrition Assistance (SNAP)	28.5%	13.2%	28.3%	30.7%	17.1%	8.0%	2.7%	27.8%
Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)	2.5%	9.8%	22.8%	29.0%	20.7%	11.7%	6.1%	38.5%
Free and Reduced School Lunch	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Housing subsidy (rent subsidy or housing voucher)	8.5%	11.5%	17.8%	24.6%	24.3%	15.4%	6.3%	46.1%
Low-income Housing Energy Assistance Program (LIHEAP)	10.0%	9.6%	19.7%	26.3%	23.0%	15.5%	5.9%	44.4%
Childcare Assistance	0.8%	6.1%	6.7%	17.8%	26.2%	30.7%	12.5%	69.4%
Medicare	10.9%	6.3%	37.1%	25.6%	16.8%	9.6%	4.5%	30.9%
Medicaid	36.1%	20.0%	28.8%	27.8%	14.7%	6.5%	2.1%	23.4%
Earned Income Tax Credit (EITC)	25.6%	31.2%	26.5%	22.9%	12.0%	5.5%	1.9%	19.3%

Table A4c: Nonelderly adults, 100% to 150% poverty, program participation by program

	% People receiving	Only program	+1 program	+2 programs	+3 programs	+4 programs	+5 or more programs	Sum of +3, +4, +5
Supplemental Security Income (SSI)	3.7%	6.3%	27.2%	33.1%	20.5%	8.6%	4.4%	33.5%
Temporary Assistance to Needy Families (TANF)	0.4%	10.1%	11.7%	27.7%	22.6%	20.2%	7.7%	50.6%
General Assistance (GA)	0.3%	5.9%	17.2%	27.7%	23.0%	18.6%	7.7%	49.3%
Social Security (SSA)	9.0%	25.1%	38.4%	18.4%	12.0%	4.2%	1.8%	18.0%
Unemployment Insurance (UI)	1.2%	38.6%	27.4%	19.6%	8.9%	4.4%	1.1%	14.4%
Workers' Compensation (WC)	0.4%	38.0%	23.7%	21.8%	12.3%	3.8%	0.3%	16.5%
Veteran's benefits	1.1%	42.1%	31.8%	18.8%	5.7%	1.5%	0.0%	7.2%
Supplemental Nutrition Assistance (SNAP)	17.7%	16.2%	32.3%	30.2%	14.7%	4.9%	1.6%	21.2%
Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)	2.4%	15.5%	29.6%	29.9%	17.0%	6.9%	1.1%	25.0%
Free and Reduced School Lunch	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Housing subsidy (rent subsidy or housing voucher)	4.8%	20.7%	27.0%	21.4%	18.7%	8.8%	3.3%	30.9%
Low-income Housing Energy Assistance Program (LIHEAP)	6.5%	17.6%	27.1%	25.7%	18.5%	7.9%	3.3%	29.7%
Childcare Assistance	0.7%	7.3%	20.0%	26.0%	24.7%	15.6%	6.4%	46.7%
Medicare	7.9%	10.3%	41.2%	24.2%	16.0%	5.6%	2.6%	24.3%
Medicaid	27.0%	27.7%	32.9%	24.0%	11.1%	3.3%	1.1%	15.4%
Earned Income Tax Credit (EITC)	26.2%	45.7%	26.7%	17.7%	7.2%	1.9%	0.7%	9.8%

Table A4d: Nonelderly adults, 150% to 200% poverty, program participation by program

	% People receiving	Only program	+1 program	+2 programs	+3 programs	+4 programs	+5 or more programs	Sum of +3, +4, +5
Supplemental Security Income (SSI)	2.5%	8.2%	32.4%	30.0%	21.5%	5.6%	2.3%	29.4%
Temporary Assistance to Needy Families (TANF)	0.2%	11.4%	16.2%	34.4%	21.5%	13.1%	3.4%	38.0%
General Assistance (GA)	0.3%	10.7%	11.9%	32.8%	20.1%	17.0%	7.5%	44.6%
Social Security (SSA)	6.7%	30.2%	39.9%	17.3%	8.7%	3.0%	1.0%	12.6%
Unemployment Insurance (UI)	1.1%	46.9%	33.6%	11.8%	6.4%	0.8%	0.6%	7.7%
Workers' Compensation (WC)	0.4%	36.1%	32.7%	20.8%	7.1%	2.2%	1.1%	10.4%
Veteran's benefits	0.9%	60.1%	22.8%	10.9%	5.3%	0.8%	0.0%	6.1%
Supplemental Nutrition Assistance (SNAP)	9.6%	20.9%	34.5%	27.9%	11.7%	3.9%	1.1%	16.7%
Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)	1.5%	22.0%	37.1%	27.1%	9.8%	3.5%	0.5%	13.8%
Free and Reduced School Lunch	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Housing subsidy (rent subsidy or housing voucher)	3.5%	31.6%	33.1%	17.8%	10.4%	5.6%	1.6%	17.6%
Low-income Housing Energy Assistance Program (LIHEAP)	4.3%	27.8%	31.1%	22.4%	12.1%	4.9%	1.8%	18.7%
Childcare Assistance	0.4%	12.3%	30.5%	27.9%	17.2%	9.1%	3.1%	29.4%
Medicare	5.5%	10.7%	47.3%	23.8%	12.7%	4.2%	1.4%	18.2%
Medicaid	19.5%	35.8%	35.3%	18.7%	7.6%	2.1%	0.5%	10.2%
Earned Income Tax Credit (EITC)	23.0%	60.8%	24.1%	10.4%	3.6%	0.9%	0.3%	4.8%

Table A4e: Nonelderly adults, 200% to 300% poverty, program participation by program

	% People Receiving	Only program	+1 program	+2 programs	+3 programs	+4 programs	+5 or more programs	Sum of +3, +4, +5
Supplemental Security Income (SSI)	1.6%	12.4%	32.3%	27.7%	18.9%	6.8%	1.9%	27.6%
Temporary Assistance to Needy Families (TANF)	0.1%	14.3%	20.6%	28.1%	22.8%	12.1%	2.2%	37.0%
General Assistance (GA)	0.2%	16.2%	17.6%	33.2%	20.4%	4.6%	8.1%	33.0%
Social Security (SSA)	5.5%	33.5%	42.0%	14.2%	7.2%	2.6%	0.6%	10.3%
Unemployment Insurance (UI)	1.0%	59.4%	26.0%	11.0%	2.8%	0.7%	0.2%	3.7%
Workers' Compensation (WC)	0.4%	52.5%	27.1%	13.1%	5.3%	1.9%	0.1%	7.3%
Veteran's benefits	1.2%	65.8%	23.5%	8.6%	1.7%	0.2%	0.1%	2.1%
Supplemental Nutrition Assistance (SNAP)	5.1%	22.7%	33.6%	26.0%	13.2%	3.7%	0.8%	17.6%
Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)	0.9%	27.4%	34.0%	25.0%	10.7%	2.6%	0.4%	13.6%
Free and Reduced School Lunch	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Housing subsidy (rent subsidy or housing voucher)	2.2%	43.5%	30.1%	14.9%	7.1%	3.4%	0.9%	11.5%
Low-income Housing Energy Assistance Program (LIHEAP)	2.3%	37.1%	28.8%	20.4%	9.1%	3.8%	0.8%	13.7%
Childcare Assistance	0.2%	25.0%	23.1%	22.3%	22.1%	6.5%	1.1%	29.7%
Medicare	4.4%	13.5%	51.9%	19.8%	10.5%	3.5%	0.8%	14.7%
Medicaid	12.1%	42.7%	32.5%	15.8%	6.9%	1.7%	0.4%	9.0%
Earned Income Tax Credit (EITC)	17.1%	70.6%	19.0%	7.3%	2.3%	0.6%	0.1%	3.0%

Table A5a: Elderly, 0% to 50% poverty, program participation by program

	% People receiving	Only program	+1 program	+2 programs	+3 programs	+4 programs	+5 or more programs	Sum of +3, +4, +5
Supplemental Security Income (SSI)	9.4%	0.3%	4.1%	16.8%	26.2%	28.1%	24.5%	78.8%
Temporary Assistance to Needy Families (TANF)	0.0%	0.0%	0.0%	14.3%	0.0%	14.3%	71.4%	85.7%
General Assistance (GA)	0.6%	0.6%	2.8%	9.9%	21.8%	22.6%	42.4%	86.8%
Social Security (SSA)	90.4%	1.4%	65.2%	17.2%	8.0%	5.2%	3.0%	16.2%
Unemployment Insurance (UI)	0.2%	2.7%	8.2%	54.9%	22.2%	6.8%	5.1%	34.2%
Workers' Compensation (WC)	0.4%	2.4%	6.6%	54.9%	18.5%	10.1%	7.5%	36.1%
Veteran's benefits	3.9%	2.0%	6.9%	75.7%	11.7%	3.0%	0.7%	15.4%
Supplemental Nutrition Assistance (SNAP)	15.9%	0.3%	1.1%	16.7%	33.4%	29.8%	18.8%	82.0%
Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Free and Reduced School Lunch	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Housing subsidy (rent subsidy or housing voucher)	10.1%	0.2%	1.5%	20.8%	24.3%	28.5%	24.7%	77.5%
Low-income Housing Energy Assistance Program (LIHEAP)	9.2%	0.2%	1.3%	24.2%	25.6%	25.4%	23.3%	74.3%
Childcare Assistance	0.0%	0.0%	0.0%	0.0%	34.2%	34.2%	31.6%	100.0%
Medicare	96.2%	3.1%	61.7%	17.1%	9.0%	5.9%	3.2%	18.1%
Medicaid	20.0%	0.7%	3.4%	25.0%	30.1%	25.5%	15.3%	71.0%
Earned Income Tax Credit (EITC)	3.1%	0.3%	5.3%	59.5%	15.9%	10.5%	8.4%	34.8%

Table A5b: Elderly, 50% to 100% poverty, program participation by program

|	% People receiving	Only program	+1 program	+2 programs	+3 programs	+4 programs	+5 or more programs	Sum of +3, +4, +5
Supplemental Security Income (SSI)	3.4%	0.5%	10.3%	31.9%	31.1%	14.8%	11.3%	57.3%
Temporary Assistance to Needy Families (TANF)	0.0%	0.0%	50.0%	0.0%	0.0%	50.0%	0.0%	50.0%
General Assistance (GA)	0.3%	4.8%	9.5%	14.3%	13.1%	32.9%	25.4%	71.4%
Social Security (SSA)	90.4%	1.8%	80.2%	13.7%	2.9%	1.0%	0.5%	4.3%
Unemployment Insurance (UI)	0.4%	3.8%	5.5%	74.1%	12.3%	2.5%	1.8%	16.6%
Workers' Compensation (WC)	0.4%	0.0%	15.1%	44.9%	26.0%	10.6%	3.4%	40.0%
Veteran's benefits	3.6%	2.3%	7.2%	83.5%	5.8%	1.2%	0.0%	7.0%
Supplemental Nutrition Assistance (SNAP)	4.3%	0.5%	5.0%	27.0%	36.6%	18.8%	12.1%	67.5%
Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Free and Reduced School Lunch	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Housing subsidy (rent subsidy or housing voucher)	2.3%	1.3%	4.4%	41.6%	22.3%	16.7%	13.7%	52.7%
Low-income Housing Energy Assistance Program (LIHEAP)	3.3%	0.8%	4.6%	39.0%	27.0%	16.6%	11.9%	55.5%
Childcare Assistance	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	100.0%
Medicare	95.4%	5.1%	76.2%	13.6%	3.3%	1.1%	0.6%	5.0%
Medicaid	8.2%	3.2%	8.2%	42.3%	28.6%	11.5%	6.1%	46.2%
Earned Income Tax Credit (EITC)	3.9%	2.0%	4.2%	72.3%	16.7%	2.6%	2.3%	21.6%

Table A5c: Elderly, 100% to 150% poverty, program participation by program

	% People receiving	Only program	+1 program	+2 programs	+3 programs	+4 programs	+5 or more programs	Sum of +3, +4, +5
Supplemental Security Income (SSI)	3.1%	1.4%	9.5%	38.8%	24.9%	19.7%	5.5%	50.2%
Temporary Assistance to Needy Families (TANF)	0.0%	0.0%	0.0%	50.0%	0.0%	50.0%	0.0%	50.0%
General Assistance (GA)	0.2%	0.0%	0.0%	16.5%	21.2%	41.2%	21.2%	83.5%
Social Security (SSA)	89.4%	1.7%	82.4%	12.6%	2.2%	0.9%	0.2%	3.3%
Unemployment Insurance (UI)	0.2%	7.4%	12.9%	54.0%	17.8%	7.4%	0.5%	25.7%
Workers' Compensation (WC)	0.4%	0.7%	17.0%	66.7%	6.2%	8.2%	1.3%	15.7%
Veteran's benefits	3.9%	2.6%	7.1%	85.1%	4.8%	0.4%	0.0%	5.2%
Supplemental Nutrition Assistance (SNAP)	3.4%	1.0%	6.4%	30.0%	33.7%	22.9%	5.9%	62.5%
Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Free and Reduced School Lunch	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Housing subsidy (rent subsidy or housing voucher)	2.2%	2.4%	12.3%	42.1%	21.9%	16.1%	5.2%	43.1%
Low-income Housing Energy Assistance Program (LIHEAP)	2.3%	1.5%	7.7%	46.4%	22.8%	14.6%	7.0%	44.4%
Childcare Assistance	0.0%	0.0%	0.0%	85.7%	7.1%	7.1%		14.3%
Medicare	94.7%	5.0%	78.7%	12.5%	2.5%	1.1%	0.2%	3.8%
Medicaid	6.7%	6.8%	12.7%	39.9%	25.3%	12.5%	2.8%	40.6%
Earned Income Tax Credit (EITC)	3.6%	2.3%	8.6%	72.0%	12.0%	3.8%	1.3%	17.1%

Table A5d: Elderly, 150% to 200% poverty, program participation by program

	% People receiving	Only program	+1 program	+2 programs	+3 programs	+4 programs	+5 or more programs	Sum of +3, +4, +5
Supplemental Security Income (SSI)	2.7%	0.9%	13.1%	36.0%	31.0%	14.7%	4.3%	50.0%
Temporary Assistance to Needy Families (TANF)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
General Assistance (GA)	0.1%	0.0%	14.3%	67.5%	2.6%	15.6%	0.0%	18.2%
Social Security (SSA)	88.7%	2.1%	83.2%	12.0%	1.9%	0.7%	0.1%	2.6%
Unemployment Insurance (UI)	0.3%	0.4%	25.0%	64.1%	10.5%	0.0%	0.0%	10.5%
Workers' Compensation (WC)	0.3%	1.4%	20.5%	38.8%	33.8%	0.0%	5.5%	39.3%
Veteran's benefits	4.2%	0.4%	6.3%	87.1%	5.3%	0.5%	0.4%	6.2%
Supplemental Nutrition Assistance (SNAP)	3.0%	1.7%	9.7%	34.9%	32.3%	18.7%	2.7%	53.7%
Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Free and Reduced School Lunch	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Housing subsidy (rent subsidy or housing voucher)	1.4%	3.1%	10.9%	41.4%	19.1%	19.7%	5.9%	44.6%
Low-income Housing Energy Assistance Program (LIHEAP)	1.6%	0.9%	11.5%	51.4%	20.1%	12.1%	4.0%	36.1%
Childcare Assistance	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Medicare	94.1%	5.9%	79.2%	12.0%	2.1%	0.7%	0.1%	3.0%
Medicaid	6.3%	6.4%	13.3%	45.5%	22.6%	10.4%	1.8%	34.8%
Earned Income Tax Credit (EITC)	3.2%	3.6%	8.5%	72.3%	12.6%	3.0%	0.0%	15.6%

## Table A5e: Elderly, 200% to 300% poverty, program participation by program

	% People receiving	Only program	+1 program	+2 programs	+3 programs	+4 programs	+5 or more programs	Sum of +3, +4, +5
Supplemental Security Income (SSI)	2.5%	3.2%	14.0%	43.2%	22.0%	12.4%	5.4%	39.7%
Temporary Assistance to Needy Families (TANF)	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	100.0%
General Assistance (GA)	0.2%	0.0%	1.0%	35.0%	22.0%	24.0%	18.0%	64.0%
Social Security (SSA)	85.1%	2.7%	84.7%	10.2%	1.8%	0.3%	0.2%	2.3%
Unemployment Insurance (UI)	0.3%	6.9%	16.9%	64.1%	11.9%	0.3%	0.0%	12.1%
Workers' Compensation (WC)	0.3%		11.7%	62.2%	21.2%	4.9%	0.0%	26.1%
Veteran's benefits	3.5%	1.2%	10.8%	80.0%	8.0%	0.0%	0.0%	8.0%
Supplemental Nutrition Assistance (SNAP)	2.6%	2.6%	8.5%	36.7%	32.7%	12.9%	6.5%	52.2%
Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)	0.0%	100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Free and Reduced School Lunch	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Housing subsidy (rent subsidy or housing voucher)	1.0%	4.2%	15.2%	38.9%	17.8%	15.2%	8.7%	41.7%
Low-income Housing Energy Assistance Program (LIHEAP)	1.1%	3.3%	8.6%	47.6%	25.1%	9.1%	6.4%	40.5%
Childcare Assistance	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Medicare	92.6%	8.6%	78.7%	10.2%	1.9%	0.5%	0.2%	2.5%
Medicaid	5.4%	6.9%	11.3%	46.8%	24.2%	7.7%	3.1%	34.9%
Earned Income Tax Credit (EITC)	2.8%	6.4%	10.7%	67.1%	10.6%	2.8%	2.5%	15.9%

Figure A1: Distribution of Social Security as an unconditional share of household income, ages 0 to 17 by annual income relative to federal poverty level (OPM)
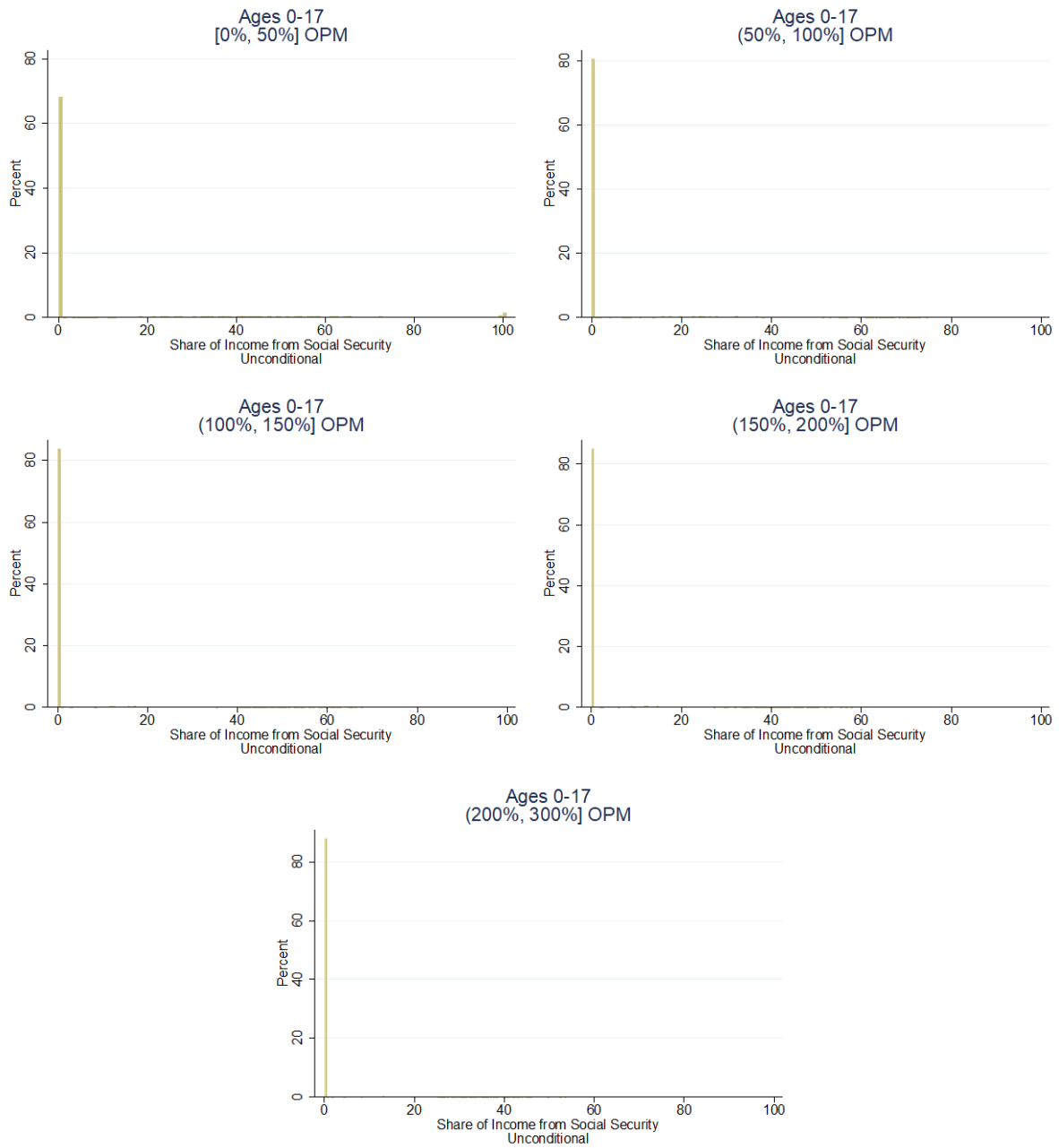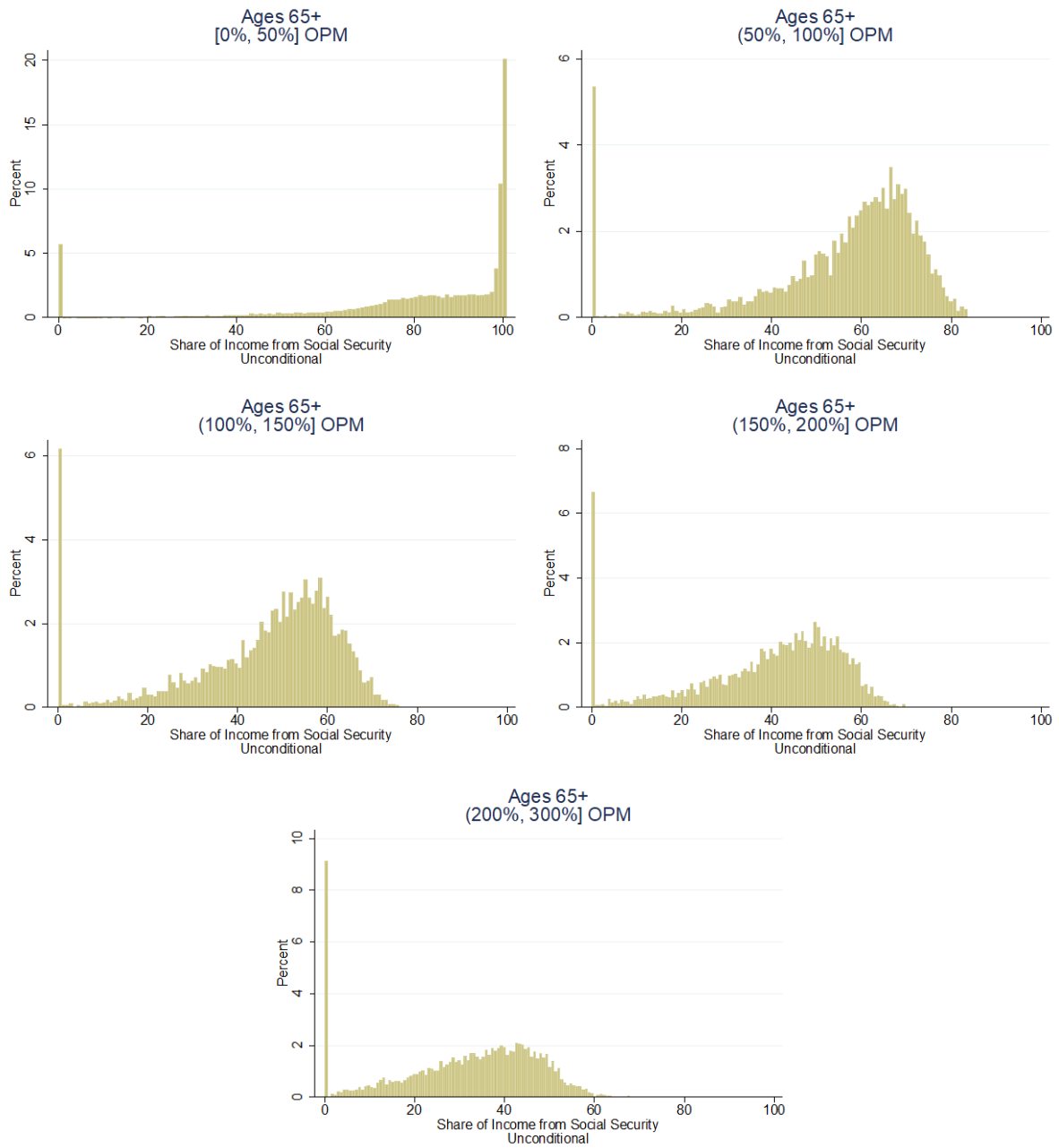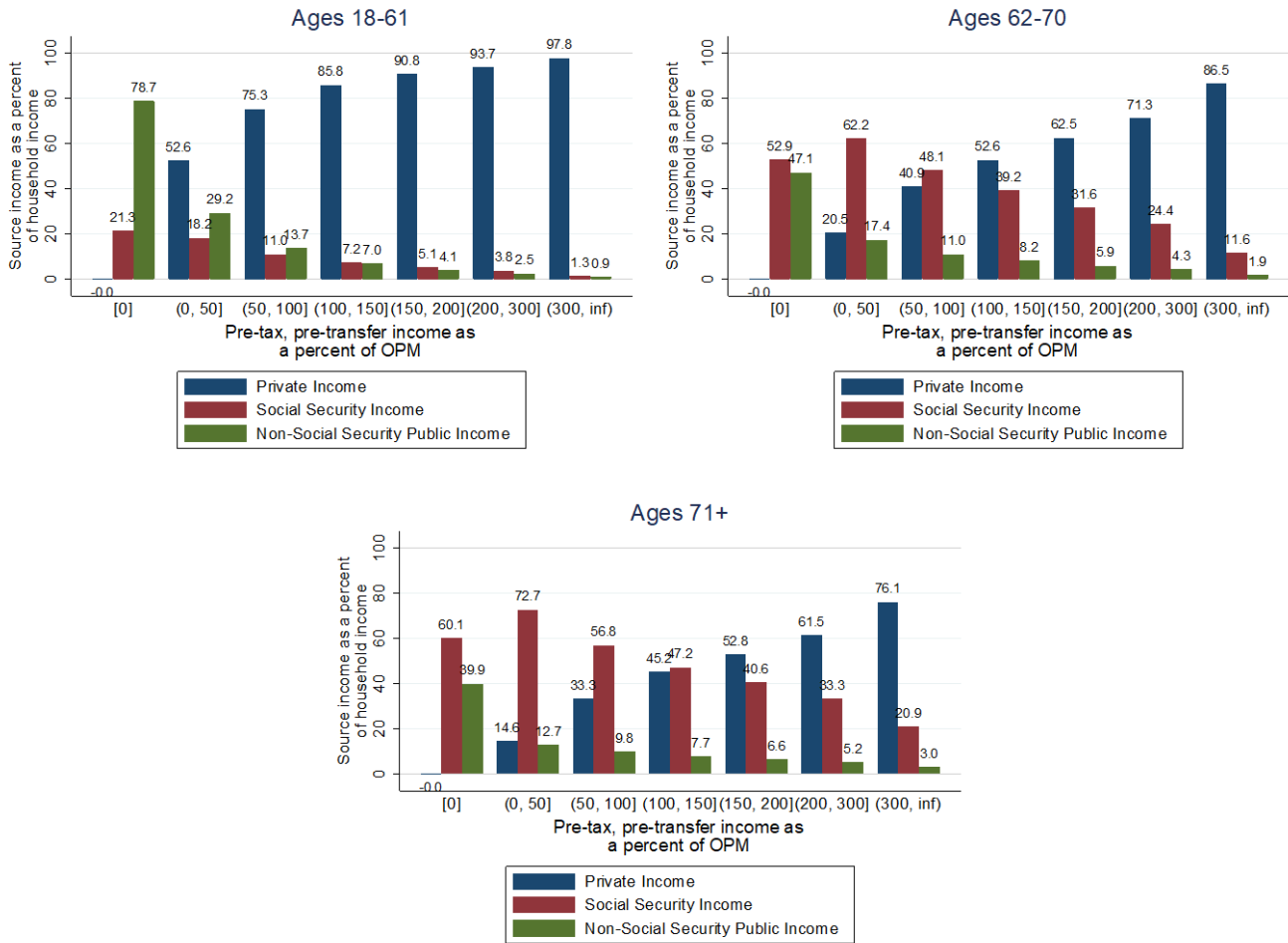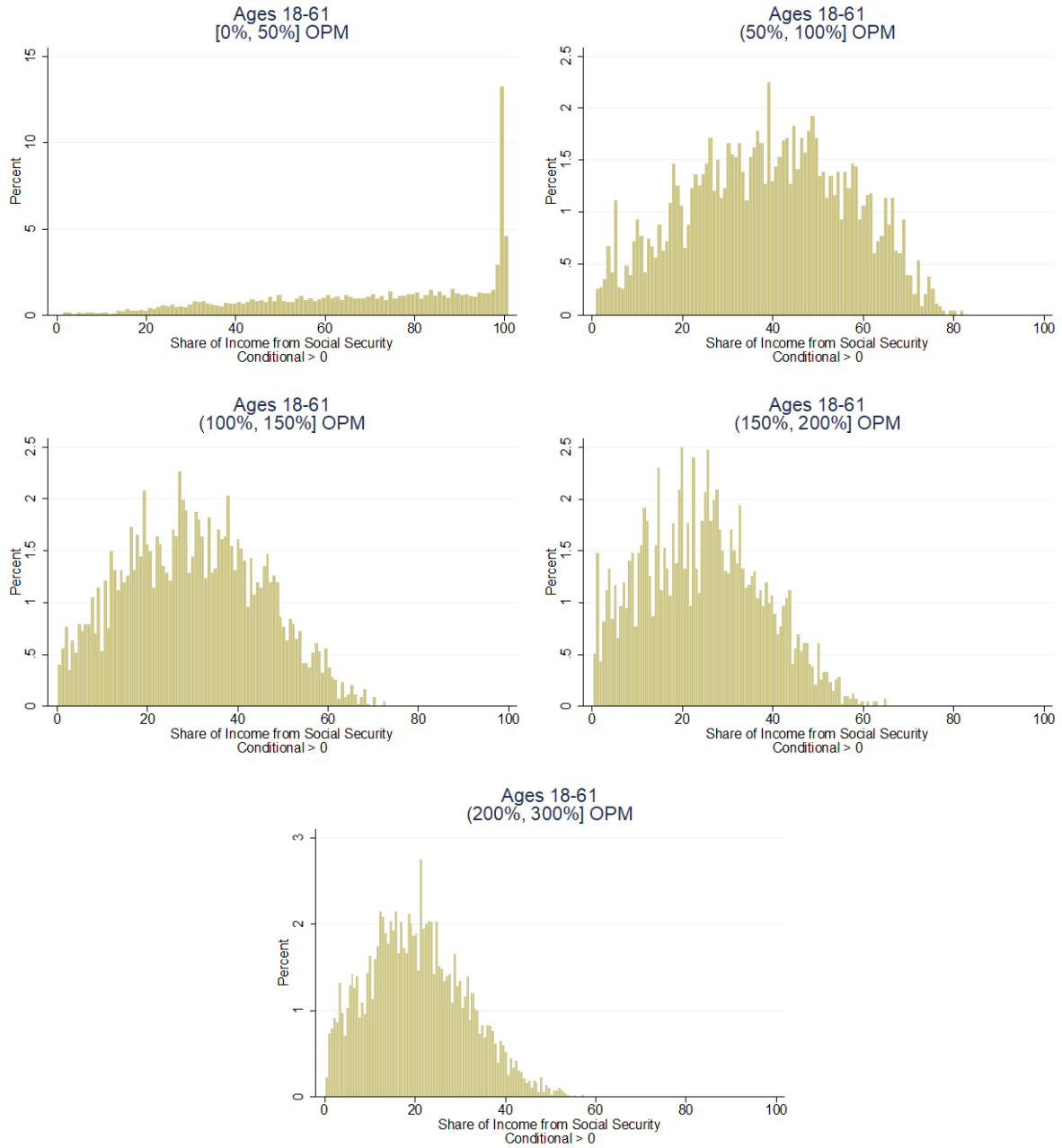
Figure A2: Distribution of Social Security as an unconditional share of household income, ages 18 to 64 by annual income relative to federal poverty level (OPM)
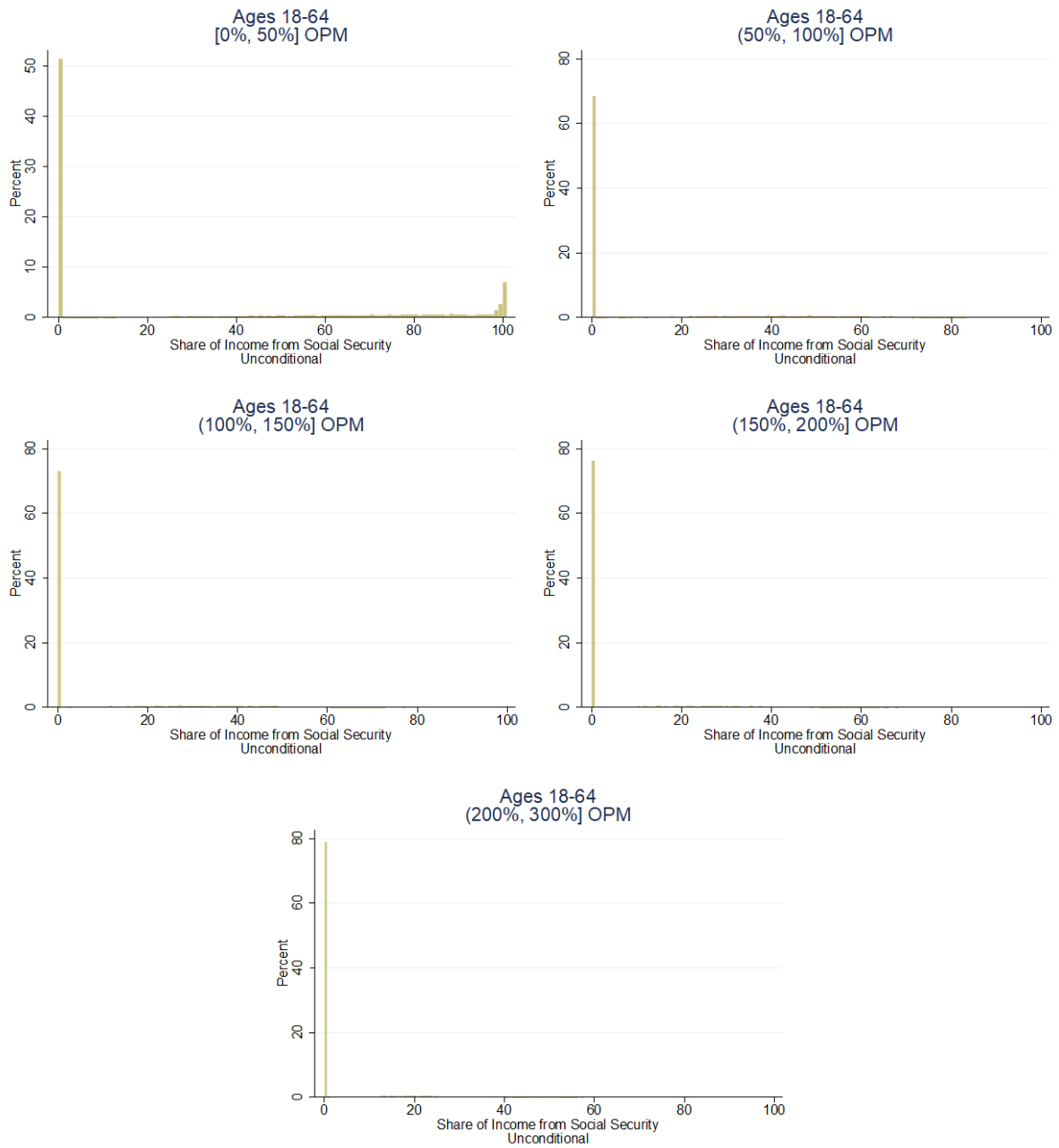
Figure A3: Distribution of Social Security as an unconditional share of household income, ages 65+, by annual Income relative to federal poverty level (OPM)

Figure A4: Shares of household income from private income, Social Security and non-Social Security public income, alternative adult age groups

Source: Authors' analysis of 2014, 2018, 2019, 2020, and 2021 panels of the Survey of Income and Program Participation. Bar for Private Income is left-most bar within OPM group. Bar for Social Security Income is center bar within OPM group. Bar for Non-Social Security Public Income is right-most bar within OPM group.
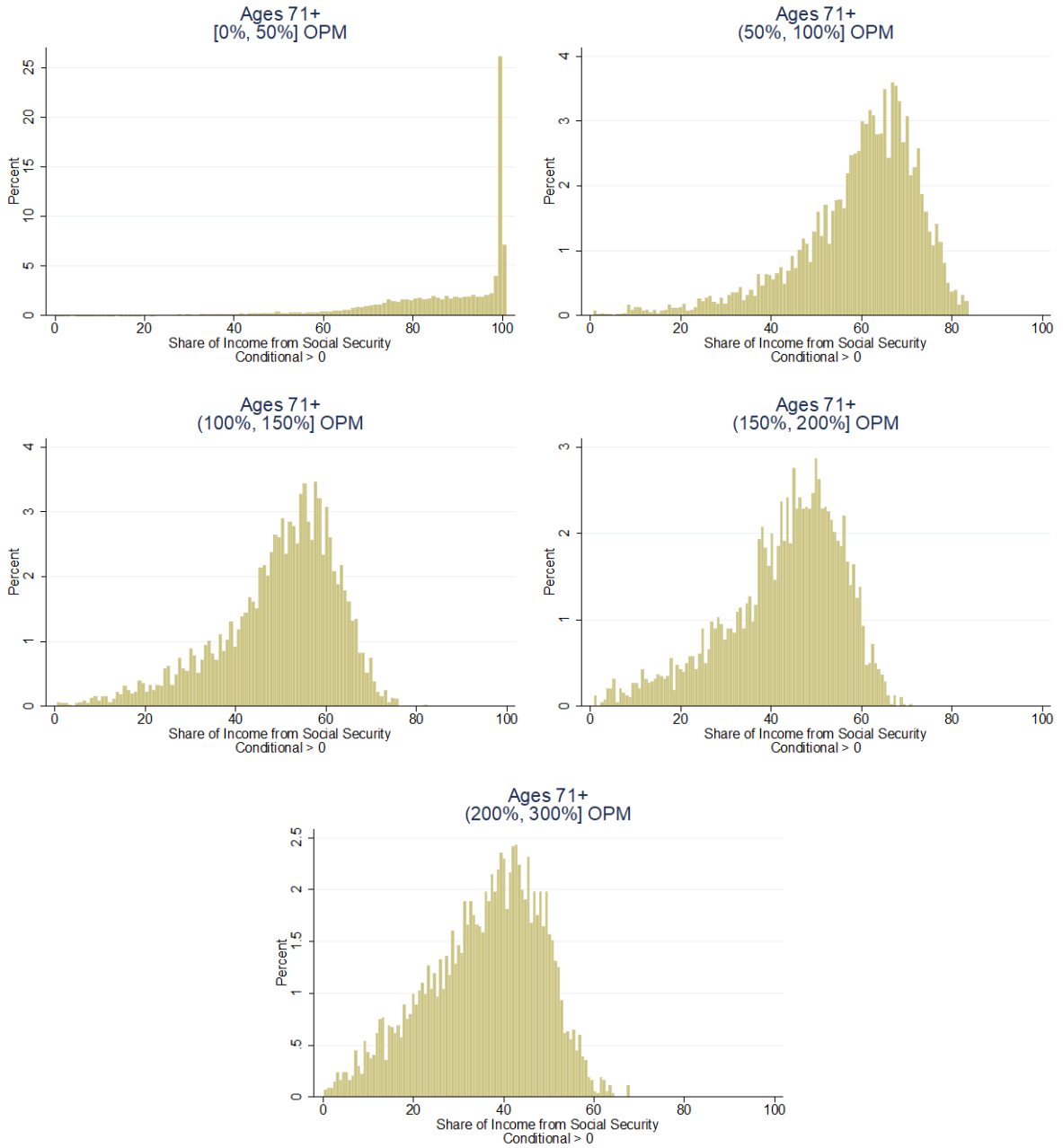
Figure A5: Distribution of Social Security as a conditional share of household income, ages 18 to 61, by annual income relative to federal poverty level (OPM)
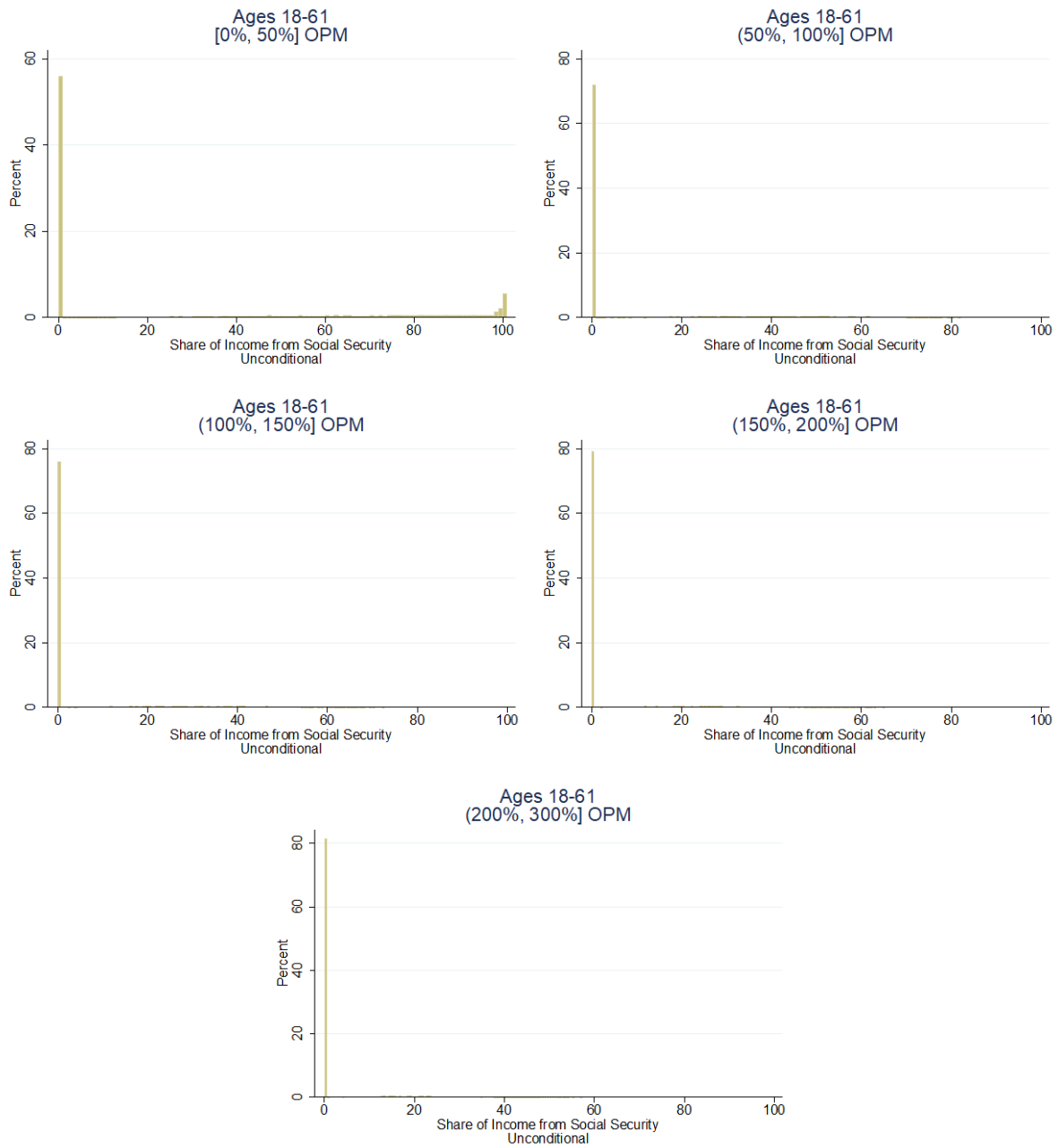
Figure A6: Distribution of Social Security as a conditional share of household income, ages 62 to 70, by annual income relative to federal poverty level (OPM)
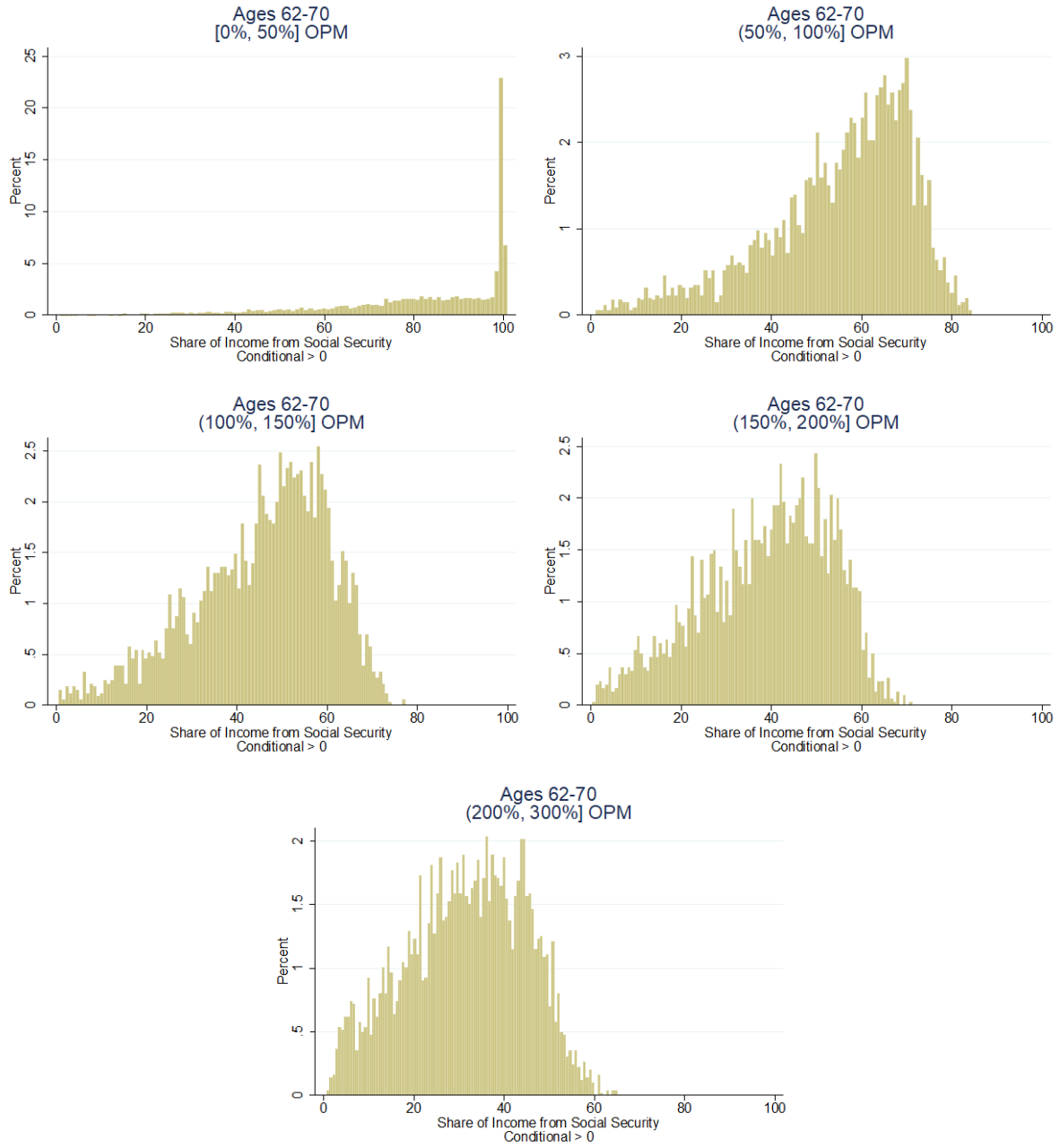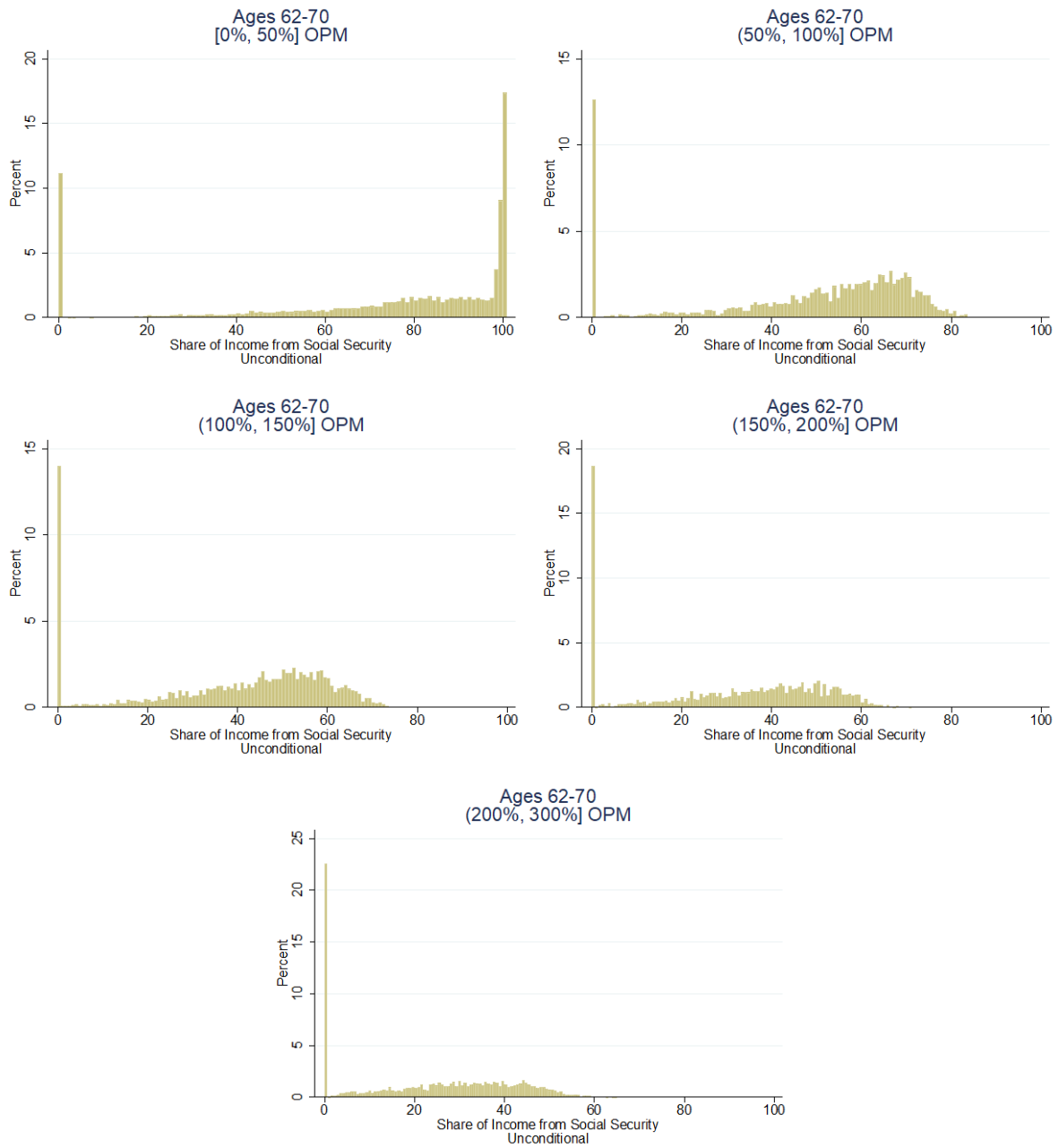
Figure A7: Distribution of Social Security as a conditional share of household income, ages 71+, by annual Income relative to federal poverty level (OPM)

Figure A8: Distribution of Social Security as an unconditional share of household income, ages 18 to 61, by annual Income relative to federal poverty level (OPM)
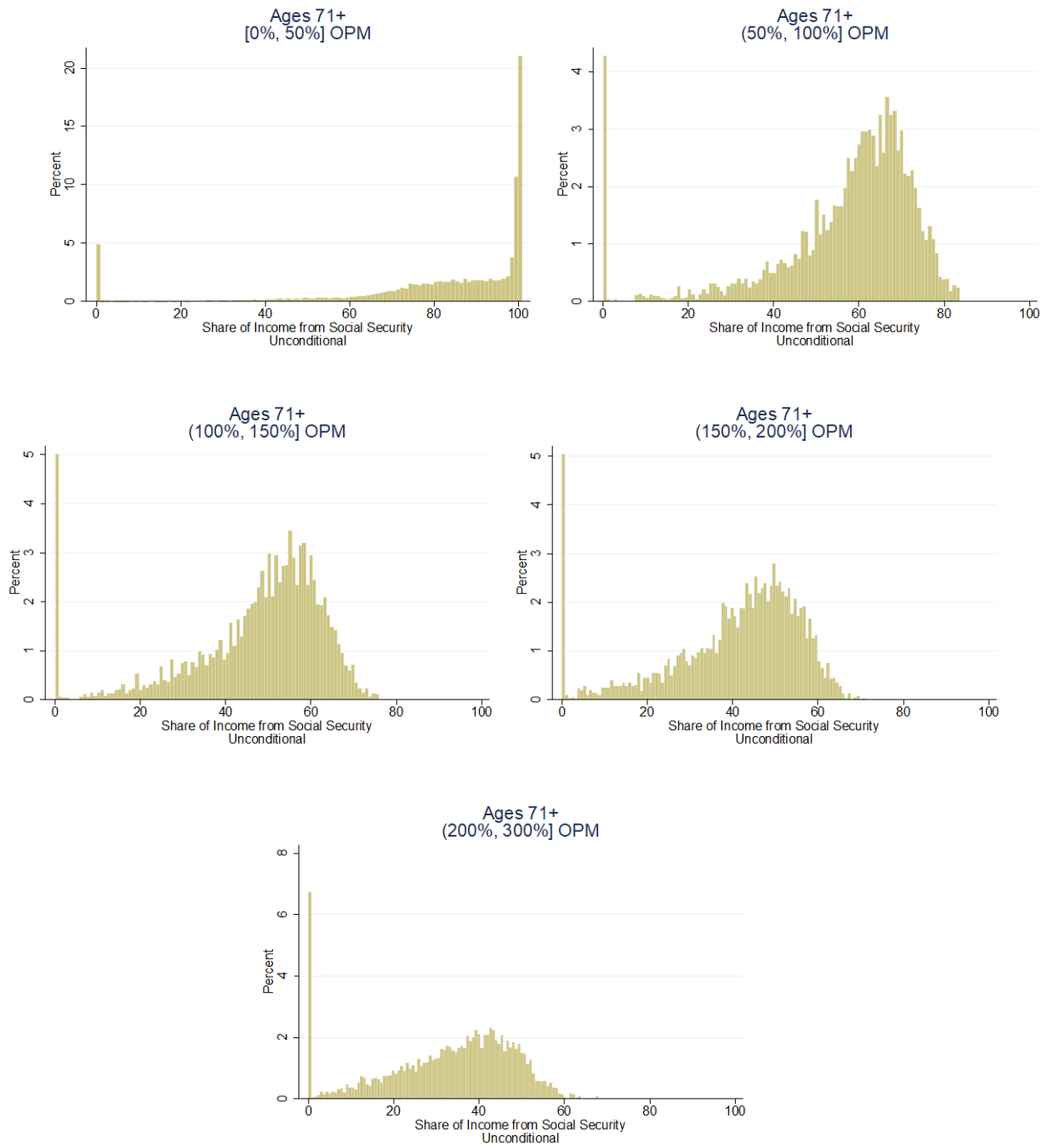
Figure A9: Distribution of Social Security as an unconditional share of household income, ages 62 to 70, by annual Income relative to federal poverty level (OPM)

Figure A10: Distribution of Social Security as an unconditional share of household income, ages 71+, by annual income relative to federal poverty level (OPM)

Table A6: Means, medians, and person-years of shares of household income from Social Security by age and annual OPM

Annual OPM	0-17 Mean [Median] (Person-months) Unconditional	0-17 Mean [Median] (Person-months) Conditional	18-64 Mean [Median] (Person-months) Unconditional	18-64 Mean [Median] (Person-months) Conditional	65+ Mean [Median] (Person-months) Unconditional	65+ Mean [Median] (Person-months) Conditional
[0%, 50%] OPM	12.49 [0] (10318)	48.02 [45] (2683)	22.43 [0] (20435)	63.38 [65.93] (7231)	67.85 [77.35] (12943)	77.05 [79.48] (11398)
(50%, 100%] OPM	6.14 [0] (10578)	31.66 [30.26] (2051)	12.91 [0] (16531)	41.02 [41.93] (5203)	55.37 [60.79] (8316)	58.48 [61.54] (7874)
(100%, 150%] OPM	3.78 [0] (11103)	23.34 [21.82] (1798)	8.68 [0] (19013)	32 [31.8] (5157)	45.78 [50.22] (7320)	48.77 [51.39] (6871)
(150%, 200%] OPM	2.81 [0] (9911)	18.84 [17.38] (1478)	6.19 [0] (20055)	26.03 [25.62] (4770)	39.28 [43.17] (6327)	42.08 [44.35] (5906)
(200%, 300%] OPM	1.92 [0] (15256)	15.94 [14.7] (1841)	4.53 [0] (37502)	21.54 [20.84] (7895)	31.7 [34.66] (9663)	34.87 [36.49] (8786)
(300%, inf) OPM	.72 [0] (37004)	9.74 [8.15] (2719)	1.62 [0] (132028)	13.24 [11.87] (16196)	18.4 [17.99] (24309)	21.52 [20.8] (20788)

Annual OPM	18-61 Mean [Median] (Person-months) Unconditional	18-61 Mean [Median] (Person-months) Conditional	62-70 Mean [Median] (Person-months) Unconditional	62-70 Mean [Median] (Person-months) Conditional	71+ Mean [Median] (Person-months) Unconditional	71+ Mean [Median] (Person-months) Conditional
[0%, 50%] OPM	19.13 [0] (18301)	60.84 [62.47] (5755)	59.35 [72.58] (6319)	74.22 [77.84] (5053)	69.8 [78.18] (8758)	78.17 [80.08] (7821)
(50%, 100%] OPM	11 [0] (15356)	39.1 [39.4] (4320)	48.1 [55.59] (3952)	55.07 [58.5] (3452)	56.84 [61.46] (5539)	59.35 [62.07] (5305)
(100%, 150%] OPM	7.24 [0] (17816)	30.16 [29.75] (4279)	39.19 [45.01] (3832)	45.53 [47.99] (3298)	47.16 [51.3] (4685)	49.64 [51.99] (4451)
(150%, 200%] OPM	5.1 [0] (18729)	24.4 [24.23] (3911)	31.56 [35.74] (3688)	38.79 [40.72] (3000)	40.57 [44.15] (3965)	42.73 [45.08] (3765)
(200%, 300%] OPM	3.77 [0] (35162)	20.48 [19.83] (6477)	24.4 [26.56] (6272)	31.52 [32.42] (4856)	33.27 [36.18] (5731)	35.65 [37.46] (5348)
(300%, inf) OPM	1.32 [0] (123465)	12.67 [11.43] (12848)	11.59 [7.76] (20195)	19.01 [17.84] (12310)	20.9 [20.58] (12677)	22.4 [21.86] (11826)

Note(s): Poverty level calculated net of household transfers and insurance payments. Cells are Mean [Median] (Person-year)