Capping Nutritional Assistance in the Supplemental Poverty Measure

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Abstract

This paper develops a methodology and investigates the potential impact of capping nutritional assistance benefits in the estimation of Supplemental Poverty Measure (SPM) resources. This paper finds that capping nutritional assistance programs in resources at their corresponding share in thresholds would increase the overall SPM poverty rate by less than 0.1 percentage points in 2018. However, the impact of capping would disproportionately impact certain demographic groups, including families with children, renters, and individuals who live in the South. Furthermore, we find that capping nutritional assistance benefits in SPM resources could fail to capture the efforts of states to address the current economic recession by expanding access to nutritional assistance programs.

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[1] This paper is released to inform interested parties of ongoing research and to encourage discussion of work in progress. Any views expressed are those of the authors and not necessarily of the U.S. Census Bureau. For more information on confidentiality protection, sampling error, nonsampling error, and definitions, see <www2.census.gov/programs-surveys/cps/techdocs/cpsmar19.pdf>. The Census Bureau reviewed this data product for unauthorized disclosure of confidential information and has approved the disclosure avoidance practices applied to this release. CDDRB-FY20-POP001-0224.

Introduction

First implemented by the Census Bureau in 2011, the Supplemental Poverty Measure (SPM), was designed as a research measure, which would improve with changes in data quality, availability, and methods. The SPM differs from the official poverty measure, which has remained mostly constant since the 1960s, in several ways.[2] One of those major differences is the estimation of resources available to the SPM unit. Unlike the official poverty measure which only takes into account cash income received, the SPM incorporates non-cash benefits, such as nutritional assistance programs including Supplemental Nutritional Assistance Program (SNAP) benefits, Special Supplemental Nutrition Program for Women, Infants and Children (WIC) benefits, and National School Lunch Program values in resources. In 2018, 22 percent of SPM units received at least one type of nutritional assistance benefit. On average, nutritional assistance benefits (SNAP, WIC, school lunch) comprised 7 percent of total resources for SPM units that received at least one type of nutritional assistance program.

In 2016, a new Interagency Technical Working Group (ITWG) on improving the SPM was formed to review potential methodological improvements in the measure. In 2018, the Census Bureau and Bureau of Labor Statistics (BLS) announced a process and timeline for considering changes to be made to the SPM. These changes will be implemented in the September 2021 SPM report.[3] This process for examining changes includes holding two SPM expert meetings with non-governmental researchers, presenting research underway at Census and BLS at many academic conferences, and holding quarterly ITWG meetings with representatives from various government agencies. During public presentations of research on improvements to the SPM that Census Bureau and BLS should consider, it was suggested that nutritional assistance programs in resources should be capped so that their value cannot exceed the food portion of the threshold, consistent with how housing subsidy values are capped at the housing portion of the thresholds.[4] This paper develops a methodology for capping nutritional assistance programs in resources, examines the impacts of this change on SPM rates, and discusses the implications for the future.

Capping Nutritional Assistance Resources

Capping nutritional assistance for SPM units is a multi-step process. Total nutritional assistance in the SPM resource measure is the sum of SNAP subsidies, school lunches, and WIC.

$$SPM_{total\ nutrition} = SNAP + School\ Lunch + WIC$$

Based on thresholds produced by the Bureau of Labor Statistics (BLS), for each housing tenure type (homeowners with mortgages, homeowners without mortgages, and renters), consumer units spend a fixed share of their thresholds on food expenditures. In 2018, this share was

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[2] The SPM does not replace the OPM and is not meant to be used for eligibility to any government program. See Fox (2019) for full details of current SPM methodology. For more information on the history of the OPM, please see <www.census.gov/topics/income-poverty/poverty/about/history-of-the-poverty-measure.html>.

[3] See <www.census.gov/topics/income-poverty/supplemental-poverty-measure/library/working-papers/topics/potential-changes.html> for the timeline of the process as well as working papers and presentations.

[4] See Renwick and Mitchell (2015) for details on current housing subsidy valuation and capping.

29.7% for renters, 29.5% for homeowners with a mortgage, and 34.6% for homeowners without a mortgage.[5] However, in dollar values this was equal to $8,365 for a two-adult, two-child SPM unit. We apply this share to individual SPM thresholds adjusted for household composition prior to geographic adjustment. The food assistance cap is generated by the following equation:

$$Food\ Cap_j = FoodShare_j * Threshold_j * EquivScale_k$$

i refers to the SPM unit and j indicates what type of household the SPM unit is (homeowner with a mortgage, homeowner without a mortgage, and renter) and k indicates the composition type of the household. We adjust nutritional assistance resources for households whose nutritional resources exceed their threshold's food expenditures. The criterion is listed below.

$$Capped_{i,j,k} = \begin{cases} 1\ if\ SPM_{total\ nutrition_{i,j,k}} > Food\ Cap_{i,j,k} \\ 0, else \end{cases}$$

In 2018, 0.7% of individuals faced a nutritional assistance cap.

Next, we implement this cap in nutritional assistance by estimating the percent of the difference in actual nutritional assistance from the capped amount, so that each component of nutritional assistance received can be adjusted proportionately. For the share adjustment we use the following formula.

$$Share\ Adjustment_{i,j,k} = SAdj_{i,j,k} = \frac{SPM_{total\ nutrition_{i,j,k}} - Food\ Cap_{i,j,k}}{SPM_{total\ nutrition_{i,j,k}}}$$

For units whose nutritional assistance will be capped, the share adjustment is between 0.1% and 80.3%. In 2018, for individuals that faced the nutritional cap, the average share capped was 16.5% of total nutritional assistance benefits.

Each component of the nutritional assistance portion of SPM resources is then adjusted by this measure as detailed below:

$$SPM_{nutrition\ asst.capped_{i,j,k}}$$
$$= \left(1 - SAdj_{i,j,k}\right) * SNAP_{i,j,k} + \left(1 - SAdj_{i,j,k}\right) * SchoolLunch_{i,j,k}$$
$$+ \left(1 - SAdj_{i,j,k}\right) * WIC_{i,j,k}\ if\ Capped_{i,j,k} = 1$$

$$SPM_{(nutrition\ asst.capped)_{i,j,k}} = SPM_{(total_{nutrition})_{i,j,k}}\ if\ Capped_{i,j,k} = 0$$

This value then becomes the value of the nutritional assistance resource component in calculating SPM rates.

Characteristics of Individuals Impacted by Proposed Capping Procedure

In 2018, the share of individuals who had their nutritional assistance capped was approximately 0.7% of the sample. While only a small share of overall CPS ASEC respondents would face this

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[5] See BLS Division of Price and Index Number Research website for methodology for estimating SPM thresholds and shares at: https://www.bls.gov/pir/spmhome.htm

potential cap, the demographics of those affected are highly skewed towards SPM units with children (93% of those capped). Given that two of the three nutritional assistance programs captured by the SPM are specifically targeted at children, this is not surprising. Table 1 shows the demographics of those individuals who would have faced a cap in resources in 2018. In particular, the majority of those affected receive both SNAP and school lunch benefits (86%), are renters (76%), and live inside MSAs (71%). Additionally, a disproportionate share of those affected by the cap live in the South. Specifically five states in the South (Mississippi, Alabama, Louisiana, Arkansas and Kentucky) constitute 6.1% of the population, 6.9% of nutritional assistance recipients, and yet are 18.2% of those capped.

Table 1. Demographics of Individuals Impacted by Nutritional Assistance Capping, 2018

Characteristics	Share of Capped Individuals	Share of Total Population
Program Receipt		
SNAP Recipients	100%	11%
Received both SNAP and WIC	36%	2%
Received both SNAP and School Lunch	86%	6%
Received one form of nutritional assistance	9%	27%
Received two forms of nutritional assistance	60%	6%
Received three forms of nutritional assistance	31%	1%
SPM Unit Composition		
Lived in an SPM unit with children	93%	48%
Lived in an SPM unit with children under age 6	57%	22%
Lived in an SPM unit with children age 6-17	87%	39%
Lived in an SPM unit with 2 or more kids	89%	32%
Lived in an SPM unit with 3 or more kids	69%	14%
Type of Unit		
Married couple unit	26%	60%
Cohabiting partner unit	11%	8%
Female reference person unit	55%	13%
Male reference person unit	4%	4%
Unrelated individuals	4%	14%
Race[1] and Hispanic Origin		
White	53%	76%
White, not Hispanic	31%	60%
Black	33%	13%
Asian	1%	6%
Hispanic (any race)	27%	19%

(Table continued on next page)

Table 1. Demographics of Ind. Impacted by Nutritional Asst. Capping, 2018 (cont.)

Characteristics	Share of Capped Individuals	Share of Total Population
Tenure		
Owner/mortgage	10%	41%
Owner/no mortgage/rent-free	15%	27%
Renter	76%	32%
Residence		
Inside MSAs	71%	87%
Inside principal cities	36%	32%
Outside principal cities	34%	55%
Outside MSAs[2]	29%	13%
Region		
Northeast	12%	17%
Midwest	24%	21%
South	47%	38%
West	17%	24%

[1] Federal surveys now give respondents the option of reporting more than one race. Therefore, two basic ways of defining a race group are possible. A group such as Asian may be defined as those who reported Asian and no other race (the race-alone or single-race concept) or as those who reported Asian regardless of whether they also reported another race (the race-alone-or-in-combination concept). This table shows data using the first approach (race alone). The use of the single-race population does not imply that it is the preferred method of presenting or analyzing data. The Census Bureau uses a variety of approaches. Data for American Indians and Alaska Natives, Native Hawaiians and Other Pacific Islanders, and those reporting two or more races are not shown separately.

[2] For the definition of metropolitan statistical areas and principal cities, see <www.census.gov/programs-surveys/metro-micro/about/glossary.html>.

Note: Details may not sum to totals due to rounding. Universe of first column restricted to sample impacted by proposed nutritional assistance cap.

Source: U.S. Census Bureau, Current Population Survey, 2019 Annual Social and Economic Supplement.

The Impact of Capping Nutritional Assistance

Overall, capping nutritional assistance in SPM resources results in higher SPM rates. Table 2 shows the results of capping nutritional assistance on estimates of SPM for 2018. Overall, SPM rates would increase 0.05 percentage points if nutritional assistance programs in resources were capped at their corresponding share of the thresholds. The most affected group is comprised of individuals who have their nutritional assistance resource capped—this group's poverty rate increased 7.6 percentage points, from 38.6% to 46.2%.

Table 2. Impact of Capping Nutritional Assistance Programs on the Percentage of People in Poverty, 2018

| | Number (in thousands) | Current SPM-Uncapped Percent | | Capped SPM Percent | | Difference |
		Estimate	Margin of error[1] (±)	Estimate	Margin of error[1] (±)	Percent
All People	324,000	12.77	0.27	12.82	0.27	0.05 *
Nutritional Asst. Recipients	110,000	18.64	0.61	18.80	0.60	0.16 *
Capped Individuals	2,300	38.63	4.82	46.20	4.91	7.56 *
Age						
Under 18 years	74,000	13.68	0.52	13.83	0.52	0.15 *
18 to 64 years	198,000	12.21	0.28	12.24	0.28	0.03 *
65 years and older	53,000	13.59	0.47	13.61	0.47	0.02 *

* An asterisk following an estimate indicates change is statistically different from zero at the 90 percent confidence level.

[1] A margin of error (MOE) is a measure of an estimate's variability. The larger the MOE in relation to the size of the estimate, the less reliable the estimate. This number, when added to and subtracted from the estimate, forms the 90 percent confidence interval. MOEs shown in this table are based on standard errors calculated using replicate weights.

Note: Details may not sum to totals due to rounding.

Source: U.S. Census Bureau, Current Population Survey, 2019 Annual Social and Economic Supplement.

Conclusion

While the impact of capping nutritional assistance programs in SPM resources was minimal overall in 2018, expansions to nutritional assistance programs could potentially magnify the implications of capping, while omitting very real benefits received by individuals. Specifically during the COVID crisis, states that seek to ameliorate increases in food insecurity could see little impacts on poverty rates due to this capping mechanism.

While this paper's analysis focused on 2018, we also examined the impact of implementing this same procedure in all years of the SPM's history, back to 2009. We find that in previous years the restriction is more binding, likely due to programmatic contractions that have occurred in more recent years. As states seek to offset the impact of the current recession by expanding access to SNAP, it is likely that a greater share of individuals will face this cap in 2020 if implemented.

References

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