Does SNAP Cover the Cost of a Meal in Your County?

Technical Appendix

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This technical appendix details the data sources, methodology, and assumptions used to calculate the variables used in the feature "Does SNAP Cover the Cost of a Meal in Your County?"

How We Estimate the SNAP Benefit per Meal

In fiscal year 2023, nearly 37 percent of households receiving assistance through the Supplemental Nutrition Assistance Program (SNAP) received the maximum monthly allotment because they had zero net income deemed available for purchasing food.[1] Although food prices vary across the country, the maximum SNAP benefit is the same for all counties in the 48 contiguous states and Washington, DC. The Food and Nutrition Service (FNS) adjusts the maximum SNAP benefit values separately for Alaska and Hawaii.[2]

We are interested in how well the maximum SNAP benefit[3] can help people meet the actual cost of a modestly priced meal in their community. First, we take an average of the maximum SNAP benefit each household size can receive and adjust it for the share of each household size among those enrolled in SNAP in 2023, which comes from the 2023 Current Population Survey (CPS) data. We then divide the monthly benefit by the typical number of meals we assume people consume each month (3 meals a day × 31 days, or 93 meals) to arrive at a per meal amount for the maximum SNAP benefit.[4]

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1 In fiscal year 2023, the share of households receiving the maximum SNAP benefit was 36.4 percent. See Mia Monkovic and Ben Ward, *Characteristics of Supplemental Nutrition Assistance Program Households: Fiscal Year 2023* (US Department of Agriculture, Food and Nutrition Services, 2025), https://www.fns.usda.gov/research/snap/characteristics-fy23.

2 We exclude the US Virgin Islands and Guam because of data limitations for food prices and because SNAP benefits in these areas are adjusted to reflect local costs.

3 For other SNAP participants, the actual amount per meal is less than the maximum benefit, assuming participants are expected to spend one-third of their net income on food. Consequently, those who do not receive the maximum benefit are assumed to have the resources to purchase the maximum benefit. The amount of SNAP benefits each person or family receives depends on factors such as household size, income level, and expense deductions that may lower the income used to determine the benefit amount.

4 The majority (7) of months in the calendar year have 31 days. We use 31 days as an average in all of our analyses for consistency. This assumption slightly overstates the number of meals eaten and, consequently, understates the gap.

We examine how well the maximum benefit can cover the cost of a meal in 2024. To do this accurately, we must look at two periods, as the maximum SNAP benefit changed in October 2024 due to the US Department of Agriculture's (USDA) annual cost-of-living adjustment (COLA). For the period of January through September 2024, we use the maximum SNAP values from USDA's Fiscal Year 2024 COLA.[5] For October through December 2024, we use the maximum SNAP values from USDA's Fiscal Year 2025 COLA.[6]

For the period of January through September 2024, we arrive at a per meal maximum SNAP benefit of $2.83 for the 48 contiguous states. We perform the same calculation for Alaska and Hawaii and find a maximum benefit per meal of $3.64 in Alaska and $5.12 in Hawaii. The average national maximum SNAP benefit, weighted by county-level population estimates from the 2019–23 American Community Survey (ACS), is $2.84. Although this period represents the same COLA as the October through December 2023 period represented in an earlier iteration of this feature, the costs calculated are slightly different to account for updated CPS data on the proportion of SNAP households within each household size.

For the period of October through December 2024, we arrive at the same per meal maximum SNAP benefit of $2.83 for the 48 contiguous states, though slightly different for Alaska ($3.65), and Hawaii ($5.01). We also get the same average national maximum SNAP benefit weighted by county-level population estimates from the 2019–23ACS ($2.84).

How We Calculate a Modestly Priced Meal

To calculate the national average cost of a modestly priced meal, we use the 2023 CPS, which asks people to report the amount they usually spend on food each week. We have restricted the responses we use to those from households with incomes at or below 130 percent of the federal poverty level, which is roughly equivalent to the SNAP eligibility threshold for gross income before deductions.

We also only use responses from people who are food secure. Food-insecure families are likely underspending on food because of limited resources. We divide weekly food expenditures for respondents by the typical number of meals we assume people consume in a week. On average, the national cost of a meal for households meeting our criteria was $3.31 in 2023. Because our analysis is

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5 "SNAP FY 2024 Cost-of-Living Adjustments," US Department of Agriculture Food and Nutrition Service, last updated August 17, 2023, https://www.fns.usda.gov/snap/fy-2024-cola.

6 "SNAP FY 2025 Cost-of-Living Adjustments," US Department of Agriculture Food and Nutrition Service.

concerned with the adequacy of SNAP in 2024, we then adjust this value using the Bureau of Labor Statistics (BLS) inflation calculator and find that $3.31 in December 2023 has the same buying power as $3.41 in December 2024.[7] Thus, the national average modestly priced meal in 2023 that was used in this analysis is $3.41. Using the BLS inflation calculator to artificially inflate our estimate is in line with how the analysis was conducted in 2022 and 2023.

How We Adjust the Cost of a Modestly Priced Meal by County

Because food prices differ by location, we create county-level adjustments for the cost of a modestly priced meal. We adjust the national cost per meal using a relative price index that reflects the actual cost of a market basket of food and beverages, according to the Thrifty Food Plan (TFP), in each county in the US. The TFP is a "minimal cost" nutritionally adequate food plan developed by the USDA to determine monthly SNAP benefit allotments. The TFP was updated in 2021, and we use the 2021 market basket categories and quantities in these analyses.[8]

Our source for this county-level food price index is Feeding America's annual Map the Meal Gap study, which incorporates TFP market basket prices provided by NielsenIQ, as well as county and state sales taxes imposed on groceries, to localize a related but different national measure of the cost of a meal.[9] For this analysis, Feeding America provided an index that reflects 2024 TFP market basket prices and 2024 grocery tax rates.

Rural-Urban Continuum Codes

According to the USDA, Rural-Urban Continuum Codes, or RUCCs, distinguish metropolitan counties by the population size of their metropolitan area and nonmetropolitan counties by degree of urbanization and adjacency to a metropolitan area. Each county in the US is assigned one of nine codes,

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[7] "CPI Inflation Calculator," US Bureau of Labor Statistics, accessed June 11, 2025, https://data.bls.gov/cgi-bin/cpicalc.pl?cost1=3.31&year1=202312&year2=202412.

[8] "Thrifty Food Plan–2021," US Department of Agriculture Food and Nutrition Service, August 2021, https://www.fns.usda.gov/resource/thrifty-food-plan-2021.

[9] Adam Dewey, Julie Hilvers, Sena Dawes, Virgina Harris, Monica Hake, and Emily Engelhard, *Map the Meal Gap: An Analysis of Local Food Insecurity and Food Costs in the United States in 2023* (Feeding America National Organization, 2025), https://www.feedingamerica.org/research/map-the-meal-gap/overall-executive-summary.

which are described in table 1.[10] We define urban areas as those with codes 1–3, and rural areas as those with codes 4–9, aligning with the RUCC designations of metropolitan counties and nonmetropolitan counties. These codes were updated by USDA in 2023, which we used in this analysis. Prior iterations of this feature used the 2013 version of these codes. We find that both iterations of codes were largely similar; 23 percent of counties (756 counties) changed their RUCC, but only 4 percent (177 counties) changed their designation between urban and rural. When assessing average cost and percentage gaps within urban and rural areas, we weight the averages by county-level population estimates from the 2019–23 ACS.

TABLE 1

USDA Rural-Urban Continuum Codes and Metropolitan or Nonmetropolitan Designations

Rural-Urban Continuum Code	Description
Metropolitan counties	
1	Counties in metropolitan areas of 1 million people or more
2	Counties in metropolitan areas of 250,000 to 1 million people
3	Counties in metropolitan areas of fewer than 250,000 people
Nonmetropolitan counties	
4	Urban population of 20,000 or more, adjacent to a metropolitan area
5	Urban population of 20,000 or more, not adjacent to a metropolitan area
6	Urban population of 5,000 to 20,000, adjacent to a metropolitan area
7	Urban population of 5,000 to 20,000, not adjacent to a metropolitan area
8	Urban population of fewer than 5,000, adjacent to a metro area
9	Urban population of fewer than 5,000, not adjacent to a metro area

Source: US Department of Agriculture Economic Research Service, "2023 Rural-Urban Continuum Codes: Documentation," last updated January 22, 2024, https://www.ers.usda.gov/data-products/rural-urban-continuum-codes/documentation/.

[10] "Rural-Urban Continuum Codes," US Department of Agriculture, last updated September 25, 2023, https://www.ers.usda.gov/data-products/rural-urban-continuum-codes/documentation/.

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For more information on this project, see Elaine Waxman, Poonam Gupta, and Craig Gundersen, "Does SNAP Cover the Cost of a Meal in Your County?" Urban Institute, updated July 16, 2025, https://www.urban.org/data-tools/does-snap-cover-cost-meal-your-county-2022.

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