



Estimates of Nonparticipation Rates of Medicaid and SNAP Beneficiaries in the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)

U.S. Department of Agriculture

A Report to Congress

February 2023

Background

This report responds to House Report 117-82 (accompanying the Fiscal Year [FY] 2022 Consolidated Appropriations Act, PL 117-103), which directs the U.S. Department of Agriculture (USDA) to “publish state level estimates of the percentage of pregnant women, infants, and children under age five participating in the Supplemental Nutrition Assistance Program under the Food and Nutrition Act of 2008 (7 U.S.C. 2011 et seq.) but not in this [the WIC] program and the percentage of pregnant women, infants, and children up to age five participating in the Medicaid program (42 U.S.C. 1396 et seq.) with income less than the limit in section 17(d)(2)(A)(i) of the Child Nutrition Act of 1966 but not in this [the WIC] program.”¹

The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) provides supplemental foods to address the nutritional needs of low-income pregnant, breastfeeding, and non-breastfeeding postpartum individuals, infants, and children up to 5 years of age at nutritional risk. Supplemental foods and nutrition education are the primary means by which WIC affects the dietary quality and behavior of participants. WIC also is intended to serve as an adjunct to health care during critical times of growth and development to prevent health problems and to improve the health status of Program participants.

According to a recent comprehensive review of the scientific literature published by the Agency for Healthcare Research and Quality, participation in WIC is associated with a wide variety of positive maternal, infant, and child dietary and health outcomes.² In spite of these benefits, USDA estimated that

¹ See p. 83, <https://www.govinfo.gov/content/pkg/CRPT-117hrpt82/html/CRPT-117hrpt82.htm>

² Caulfield LE, Bennett WL, Gross SM, Hurley KM, Ogunwole SM, Venkataramani M, Lerman JL, Zhang A, Sharma R, Bass EB. Maternal and Child Outcomes Associated With the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). Comparative Effectiveness Review No. 253. (Prepared by the Johns Hopkins University Evidence-based Practice Center under Contract No. 75Q80120D00003.) AHRQ Publication No. 22-EHC019. Rockville, MD: Agency for Healthcare Research and Quality; April 2022. DOI:

the coverage rates for WIC³ varied considerably among eligible population subgroups in 2019; coverage rates were somewhat higher for infants (98 percent) and postpartum women (85 percent), but substantially lower for pregnant women (52 percent) and children (45 percent, with even lower coverage rates for children aged 3 and 4).⁴ Increasing WIC participation, particularly among populations with relatively low participation in WIC, is likely to improve health outcomes for these populations.

Additionally, several studies suggest a specific added benefit of participating in WIC for Medicaid and SNAP participants. In one sample of Medicaid deliveries, Bitler and Currie found that mothers who participated in WIC were more likely to have received prenatal care in the first trimester, and the infants born to these mothers were less likely to be classified as low birth weight despite higher rates of multiple maternal risk factors (e.g., obesity, smoking status, use of public assistance in the past year).⁵

SNAP participants who also enroll in WIC are more likely to be food secure;⁶ another study shows WIC increases iron, potassium, and fiber intake among children, whereas SNAP has no effect on increasing these nutrients,⁷ suggesting a unique nutritional benefit of WIC.

Therefore, there is substantial public health interest in ensuring that eligible women, infants, and children have access to and are participating in WIC. Participation in either SNAP or Medicaid confers adjunctive income eligibility for participation in WIC, in lieu of providing separate proof of income eligibility. Medicaid and SNAP participants form a logical pool of likely WIC participants, and the peer-reviewed literature suggests that increasing the participation of categorically eligible SNAP and/or Medicaid participants in WIC will likely improve health outcomes for these individuals. An estimate of the percentage of eligible individuals participating in SNAP and/or Medicaid but not participating in WIC is of substantial interest to program administrators in order to target outreach efforts so all who are eligible can experience the positive impacts of WIC participation.

Key Findings

USDA attempted to fulfill the Congressional directive by conducting two different analyses, using two different methodologies with different data sources. One approach used USDA and Department of Health and Human Services (HHS) administrative data to generate counts of nonparticipants, and a second approach used Census survey data to generate estimates.

<https://doi.org/10.23970/AHRQEPCCER253>. Available online at <https://effectivehealthcare.ahrq.gov/products/outcomes-nutrition/research>

³ The WIC coverage rate is the percentage of the population eligible for WIC that is actually participating in the WIC program.

⁴ Gray K., Balch-Crystal E., Giannarelli, L., and Johnson, P. (2022). National- and State-Level Estimates of the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) Eligibility and WIC Program Reach in 2019. Prepared by Insight Policy Research, Contract No AG-3198-D-16-0095. Alexandria, VA: U.S. Department of Agriculture, Food and Nutrition Service, Office of Policy Support, Project Officer: COR Grant Lovellette. Available online at: <https://www.fns.usda.gov/research-analysis>

⁵ Bitler, M., & Currie, J. (2004). *Medicaid at birth, WIC take-up, and children's outcomes*. University of Wisconsin–Madison, Institute for Research on Poverty.

⁶ Jensen, H. H., Kreider, B., & Zhylyevskyy, O. (2019). Investigating treatment effects of participating jointly in SNAP and WIC when the treatment is validated only for SNAP. *Southern Economic Journal*, 86(1), 124–155.

⁷ Yen, S. T. (2010). The effects of SNAP and WIC programs on nutrient intakes of children. *Food Policy*, 35(6), 576–583.

The national-level results suggest relatively large WIC-Medicaid and WIC-SNAP gaps, but the State-level results are not reliable enough for USDA to be able to quantify the size of the WIC-Medicaid and WIC-SNAP gaps in individual States. Results from the State-level analyses are presented in the appendices, but both methods have substantial limitations that limit USDA's confidence in the State-level results and/or make the results difficult to interpret.

USDA does not recommend that the State-level results be used for policymaking decisions. In order to generate more reliable, actionable State-level estimates of SNAP and Medicaid enrollees not participating in WIC, individual participants should be matched across programs (i.e., WIC, SNAP, and Medicaid) at the State level by State governments.

Methods

USDA attempted to produce the State-level analyses requested by Congress using two methods, each with some advantages, but also with substantial limitations.

Method 1: Counts of Participants Using Administrative Data

The first method USDA used to produce the State-level estimates was to compare administrative counts using administrative data on the numbers of pregnant women, infants, and children up to age 5 by State between WIC and Medicaid and between WIC and SNAP.

WIC-Medicaid Gap Using the Administrative Data Method

The Department of Health and Human Services (HHS) provided USDA with administrative counts of the number of pregnant women, infants, and children up to age 5 participating in Medicaid by State for the time period from May 1, 2017, to April 30, 2018. FNS then compared those counts with administrative counts of the same subgroups from WIC administrative data from May 1, 2017, to April 30, 2018, to calculate the WIC-Medicaid participation gap by subgroup by State. Those results are presented in the appendices in Table A.

Advantages of this approach include:

1. Because this approach pulls from administrative data, the analysis is not subject to statistical uncertainty.
2. This approach can be updated every two years, as new biennial WIC administrative data are released.⁸

Limitations of this approach include:

1. This methodology only examines total counts of participants; it cannot examine individuals to see whether an individual is participating in a program or not. This particular shortcoming could cause the estimates to understate the WIC-Medicaid gap, because some parts of the U.S. population may be eligible for and participate in WIC but may not be eligible for Medicaid,

⁸ These data come from the WIC Participant and Program Characteristics report. See Kline, N., Thorn, B., Bellows, D., Wroblewska, K., & Wilcox-Cook, E. (2020). WIC Participant and Program Characteristics 2018. Alexandria, VA: U.S. Department of Agriculture, Food and Nutrition Service. Project Officers: Anna Potter Clifford and Carolyn Luk. Available online at: <https://www.fns.usda.gov/research-analysis>

though as detailed below, other shortcomings could cause the estimates to overstate the WIC-Medicaid gap.

2. There is a lag in the availability of the data needed to produce the analysis, due to the delay in the release of the WIC administrative data, as explained below.
3. The Congressional directive requested an analysis specifically of the population below 185 percent of the Federal Poverty Guidelines, but the Medicaid data available did not contain income data to support an analysis at this level of detail, so this analysis presents all Medicaid and WIC participants without further consideration of income.⁹
4. Pregnancy status is generally not recorded directly in HHS's Medicaid administrative records, but rather is imputed by procedure codes and dates of service. Therefore, results vary depending on how one defines pregnancy according to the data stored in HHS. This analysis chose to use the most restrictive definition of pregnancy and temporal eligibility (resulting in the smallest estimated WIC-Medicaid gap, given the available data), but if a more expansive definition of pregnancy or temporal eligibility were used, the WIC-Medicaid gap for pregnant women would be even larger.
5. The WIC administrative data examined included all individuals enrolled in WIC from May 1, 2017, to April 30, 2018 (these data are from the WIC Participant and Program Characteristics (WIC PC) 2018 report, which provides detailed demographic data on all WIC enrollees¹⁰). However, not all individuals enrolled in WIC participate in WIC (defined as picking up their WIC benefits in a given month). If USDA adjusted the number of WIC participants downward to account for this enrollment-participation gap, the WIC-Medicaid gap would be larger.¹¹

WIC-SNAP Gap: Administrative Data Method

USDA compared the same WIC administrative counts over the same timeframe (May 1, 2017, to April 30, 2018) with SNAP Quality Control data for FY 2019. The SNAP Quality Control (QC) database contains detailed information on the economic and demographic circumstances of a sample of households selected for review as part of the SNAP QC System.¹² Detailed demographic data for SNAP participants are not available in SNAP administrative records at USDA; demographic data for SNAP participants are only available in the QC sample.

State-level estimates from this analysis are also available in the appendices in Table B. This method also comes with substantial limitations:

1. SNAP QC data do not contain information on pregnancy status, so the SNAP analysis can only examine infants and children and does not examine pregnant women.

⁹ According to the Kaiser Family Foundation (<https://www.kff.org/>), State Medicaid income limits in 2018 for infants ranged from 144% of the Federal Poverty Level in Utah to 380% in Iowa; limits ranged from 138% in Oregon to 324% in the District of Columbia for children aged one to five; and limits ranged from 138% in Idaho and South Dakota to 380% in Iowa for pregnant women.

¹⁰ WIC Participant and Program Characteristics 2018 report.

¹¹ USDA believes that using the WIC PC enrollment counts is the more appropriate approach, but if we used the WIC participation counts instead, the nonparticipation rate for infants would increase by 5 percentage points; the nonparticipation rate of children would increase by 5 percentage points; and the nonparticipation rate of pregnant women would increase by half a percentage point.

¹² Additional information about SNAP QC is available online at <https://www.fns.usda.gov/resource/snap-quality-control-data>

2. The timeframes of the WIC administrative data (May 1, 2017, through April 30, 2018) and the SNAP QC data (FY 2019, i.e. October 1, 2018, through September 30, 2019) do not align.
3. The SNAP QC data are not administrative counts but rather based on survey data. The estimates are based on a relatively small number of responses when looking at participant subgroups (fewer than 50 responses for most States for infants; fewer than 250 responses for most States for children).
4. This methodology only examines total counts of participants; it cannot examine individuals to see whether an individual is participating in a program or not. Therefore, it is likely that the estimates understate the WIC-SNAP gap, since some parts of the US population may be eligible for and participate in WIC but may not be eligible for SNAP, though the other data limitations listed below likely cause the estimates to overstate the WIC-SNAP gap.
5. The Congressional directive requested an analysis specifically of the population below 185 percent of the Federal Poverty Guidelines, but the data available did not contain income data to support an analysis at this level of detail, so this analysis presents all SNAP and WIC participants without further consideration of income.
6. The existence or nonexistence of a WIC-SNAP gap in a given State is generally more difficult to interpret than a WIC-Medicaid gap. Eligibility requirements differ across the three programs, but requirements are more similar between WIC and Medicaid than WIC and SNAP (in most States): the income limits of SNAP are substantially lower (130 percent of the Federal Poverty Guidelines vs. 185 percent for WIC); SNAP has citizenship requirements that WIC does not have; and SNAP has asset tests that WIC does not have. Therefore, it is possible that a State may have more WIC enrollees than SNAP enrollees in a given subpopulation (and therefore may show no WIC-SNAP gap through this methodology), but that, at the same time, many of those SNAP enrollees are eligible for WIC but not participating in WIC.

Method 2: Analysis of Census Data

With the support of a contractor, USDA developed a second, separate analysis using Census datasets (specifically, the Annual Social and Economic Supplement (ASEC) of the Current Population Survey (CPS) and American Community Survey (ACS)) as the primary data sources of the analysis, supplemented by WIC administrative data and other data sources. This analysis is based on the WIC eligibility reports published annually by USDA (the most recent report covers the 2019 calendar year¹³), which also use Census datasets as the primary data sources.

Advantages of this approach include:

1. Because this approach is based on Census datasets, it can be updated annually as new Census datasets are released.
2. The Census data contain the level of detail required to produce estimates by income level per the Congressional directive, while the administrative data lack this level of detail.

¹³ Gray K., Balch-Crystal E., Giannarelli, L., and Johnson, P. (2022). National- and State-Level Estimates of the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) Eligibility and WIC Program Reach in 2019. Prepared by Insight Policy Research, Contract No AG-3198-D-16-0095. Alexandria, VA: U.S. Department of Agriculture, Food and Nutrition Service, Office of Policy Support, Project Officer: COR Grant Lovellette. Available online at: <https://www.fns.usda.gov/research-analysis>

Limitations of this approach include:

1. Because of nonresponse bias resulting from Census data collection issues during the COVID-19 pandemic,¹⁴ the primary analyses focus on the 2018 eligibility estimates and nonparticipation rates. Estimates produced for 2019 and 2020 are likely to be substantially less reliable.
2. Data measurement concerns also include a documented undercount of low-income individuals in the CPS ASEC,^{15,16} no measurement of pregnancy in the CPS ASEC, and known underreporting of program participation in the CPS ASEC.¹⁷
3. Additional data measurement limitations include the lack of WIC eligibility assessment in the ACS, missing program participation data in the WIC PC, lack of measurement of pregnancy in any nationally representative survey, and different measurement techniques used to assess income in the WIC PC and ACS.
4. Many of the survey estimates are based on very small sample sizes for the State-level subgroup analyses, leading to substantial margins of error around these estimates, particularly for smaller States and for the estimates by income level.
5. In WIC PC 2018, six States (Alaska, Colorado, North Dakota, Nevada, Utah, and Wyoming) had missing or invalid program participation data for over 20 percent of WIC participants. Because the number of WIC nonparticipants within each Medicaid/SNAP group could not be reliably calculated for these States, USDA excluded them from the analysis.
6. Within some Medicaid/SNAP groups, the estimated number of WIC participants was higher than the estimated number of eligible participants. These results are suppressed.
7. SNAP participation is likely underestimated in several States because of constraints of their WIC management information systems. Based on CPS ASEC data used to produce the national WIC nonparticipation rates, the study team estimates that 47 percent of WIC participants also participate in SNAP. This rate is higher than the 33 percent of WIC participants that report SNAP participation in the WIC PC 2018,¹⁸ which is used to calculate State nonparticipation rates. Some States have implausibly low SNAP participation recorded in the WIC PC data (less than 10 percent of WIC participants), which results in nonparticipation rates that are implausibly high (close to 100 percent). States with these low SNAP participation rates are suppressed because of questions about data quality.

¹⁴ Rothbaum, J., & Bee, A. (2021). Coronavirus infects surveys, too: Survey nonresponse bias and the coronavirus pandemic (SEHSD Working Paper 2020-10). U.S. Census Bureau, Social, Economic and Housing Statistics Division. <https://www.census.gov/content/dam/Census/library/working-papers/2020/demo/sehsd-wp2020-10.pdf>

¹⁵ U.S. Census Bureau. (2016). 2020 Census research and testing: Investigating the 2010 undercount of young children—Examining the coverage of young mothers. <https://www2.census.gov/programs-surveys/decennial/2020/program-management/final-analysis-reports/2020-report-2010-undercount-children-mothers.pdf>

¹⁶ U.S. Census Bureau. (2019). Big push to count every newborn and young child in 2020 Census. <https://www.census.gov/library/stories/2019/11/big-push-to-count-every-newborn-young-child-2020-census.html>

¹⁷ Meyer, B., Mittag, N., & George, R. (2020). Errors in survey reporting and imputation and their effects on estimates of Food Stamp Program participation. <http://jhr.uwpress.org/content/early/2020/08/06/jhr.58.1.0818-9704R2.full.pdf+html>

¹⁸ Kline, N., Thorn, B., Bellows, D., Wroblewska, K., & Wilcox-Cook, E. (2020). WIC Participant and Program Characteristics 2018. Alexandria, VA: U.S. Department of Agriculture, Food and Nutrition Service. Project Officers: Anna Potter Clifford and Carolyn Luk. Available online at: <https://www.fns.usda.gov/research-analysis>

8. This method is complex and would necessitate additional support and resources if USDA was to update these analyses for subsequent years.

Findings

National-Level Results: Administrative Data Method (Method 1)

Table 1 presents the national-level results of the WIC-Medicaid and WIC-SNAP administrative analyses. State-level results are included in the appendices in Tables A and B.

This analysis suggests that there may be a relatively substantial WIC-Medicaid gap for pregnant women and children, and that there is a smaller WIC-Medicaid gap for infants.

The ratios of WIC-SNAP participation suggest that there is not a substantial WIC-SNAP gap, but as detailed above, **this result is difficult to interpret and should not be understood to mean that there are only a few individuals who participate in SNAP but do not participate in WIC**; rather, it is more likely that the WIC and SNAP populations do not align well enough to be confident in this methodology.

Table 1: National WIC Nonparticipation Among WIC-Eligible Medicaid and SNAP Participants, 2018

WIC Participant Category	Medicaid			SNAP		
	Number of Individuals on Medicaid	Number of Individuals on WIC	Ratio of WIC Individuals to Medicaid Individuals	Number of Individuals on SNAP	Number of Individuals on WIC	Ratio of WIC Individuals to SNAP Individuals
Infants	2,287,889	1,852,732	0.81	873,798	1,833,811	2.10
Children, 1–4	9,114,295	4,107,779	0.45	3,948,397	4,035,294	1.02
Pregnant women	1,935,102	669,129	0.35	N/A	N/A	N/A

Source: U.S Department of Agriculture, 2018; U.S. Department of Health and Human Services, 2018

Notes: Numbers may not match exactly due to slightly different inclusions/exclusions for a particular analysis. SNAP QC data do not contain information on pregnancy status (N/A).

National-Level Results: Analysis of Census Data Method (Method 2)

Table 2 presents the national-level estimates for the method analyzing Census data. State-level results are included in the appendices in the C Tables. State-level results by income level are not available, as the Census dataset sample sizes are too small to support analyses at that level of detail. Although the margins of error around some of the State-level estimates are relatively small, USDA still does not find these estimates reliable; some State-level estimates may appear to be relatively precise, but they are likely biased, due to the limitations outlined in the Methods section.

Similar to the WIC-Medicaid administrative analysis, this analysis finds a higher nonparticipation rate for pregnant women participating in Medicaid and a slightly lower (but still substantial) nonparticipation rate for other groups.

Unlike the WIC-SNAP administrative analysis, this analysis also finds a substantial nonparticipation rate across all participant categories, with the highest nonparticipation rates once again found among pregnant women and children participating in SNAP.

Table 2: National WIC Nonparticipation Among WIC-Eligible Medicaid and SNAP Participants, 2018

WIC Participant Category	Medicaid			SNAP		
	Number of Individuals on Medicaid	Number Not on WIC	WIC Nonparticipation Rate (Percent)	Number of Individuals on SNAP	Number Not on WIC	WIC Nonparticipation Rate (Percent)
Total	8,210,853	4,878,219	59.4	4,634,879	2,323,393	50.1
Infants	1,146,401	488,403	42.6	708,269	241,444	34.1
Children, 1–4	5,661,337	3,551,791	62.7	3,044,912	1,616,014	53.1
Pregnant women	587,571	489,849	83.4	378,569	294,683	77.8
Postpartum women ¹⁹	815,543	348,175	42.7	503,129	171,252	34.0

Source: U.S. Census Bureau, n.d. (2019 CPS ASEC)

The Census data analysis method allows for an attempt to analyze only those individuals with annualized incomes below 185 percent of the Federal Poverty Guidelines, as the necessary income data are generally available in Census datasets. The results are presented below in Table 3; the nonparticipation gaps for individuals with annualized incomes below 185 percent of the Federal Poverty Guidelines are not drastically different from the nonparticipation rate among all Medicaid participants. Due to smaller sample sizes, these estimates are less reliable than the estimates presented in Table 2.

Table 3: National WIC Nonparticipation Among WIC-Eligible Medicaid Participants by Poverty Status, 2018

WIC Participant Category	Medicaid ≤ 185 Percent FPG			Medicaid > 185 Percent FPG		
	Number of Individuals	Number Not on WIC	WIC Nonparticipation Rate (Percent)	Number of Individuals	Number Not on WIC	WIC Nonparticipation Rate (Percent)
Total	5,429,893	2,967,367	54.6	2,780,960	1,910,851	68.7
Infants	733,361	275,064	37.5	413,040	213,339	51.7
Children, 1–4	3,822,867	2,214,122	57.9	1,838,470	1,337,669	72.8
Pregnant women	352,571	281,957	80.0	235,000	207,892	88.5
Postpartum women ²⁰	521,094	196,224	37.7	294,450	151,951	51.6

Note: FPG = Federal Poverty Guidelines

Source: U.S. Census Bureau, n.d. (2019 CPS ASEC); U.S. Department of Health and Human Services, 2018

Suggested Future Work

USDA has likely exhausted the opportunities for relatively low-cost, readily available data sources for this analysis. As noted above, **USDA does not recommend that the State-level results be used for policymaking decisions**, due to the numerous caveats listed above.

¹⁹ Postpartum women were not required as part of the Congressional directive, but this method allowed calculation of an estimate for postpartum women, so USDA is including this estimate here.

²⁰ Postpartum women were not required as part of the Congressional directive, but this method allowed calculation of an estimate for postpartum women, so USDA is including this estimate here.

A more accurate count of Medicaid and/or SNAP participants who are eligible for but not participating in WIC could be achieved by using individual data-matching between Medicaid, SNAP, and WIC programs at the State level. In addition to producing accurate counts, this approach would also enable the States to generate lists of Medicaid and/or SNAP participants eligible for but not participating in WIC, allowing for targeted outreach to specific individuals in their States.

To date, USDA's efforts have demonstrated that existing data sources from USDA, HHS, and Census are not sufficient to produce reliable estimates of the State level cross enrollment gaps as required by the House Committee. **USDA recommends continuing efforts to establish regular data matching between the programs at the State level to ensure an accurate accounting of the WIC-Medicaid and WIC-SNAP cross enrollment gaps and to better inform future outreach programs to improve participation in WIC.**

USDA plans to award a cooperative agreement in FY 2023 to provide funding and technical support to WIC State agencies to pilot State-level data-matching efforts between WIC, SNAP, and Medicaid. In addition to providing an accurate measure of the cross-enrollment gaps between WIC and Medicaid and WIC and SNAP, the projects supported under this cooperative agreement will also use the information gathered during data-matching to inform outreach efforts and evaluate the effectiveness of using data matching and resulting referrals to enroll more eligible women, infants, and children in WIC.

Appendices

Table A, Administrative Data Method, Comparison of WIC Participants and Medicaid Beneficiaries, by Participant Category

State	Infants			Children 1 to 4 Years Old			Pregnant women		
	Number of infants enrolled in WIC	Number of infants enrolled in Medicaid	Ratio of WIC infants to Medicaid infants	Number of children enrolled in WIC	Number of children enrolled in Medicaid	Ratio of WIC children to Medicaid children	Number of pregnant women enrolled in WIC	Number of beneficiaries in Medicaid and CHIP ¹ who were enrolled and pregnant in April 2018	Ratio of pregnant women enrolled in WIC to beneficiaries in Medicaid and CHIP who were enrolled and pregnant in April 2018
United States Total	1,852,732	2,287,889	0.81	4,107,779	9,114,295	0.45	669,129	1,935,102	0.35
Alabama	35,438	44,725	0.79	62,872	154,080	0.41	14,393	16,190	0.89
Alaska	4,037	5,702	0.71	10,534	24,739	0.43	1,591	5,625	0.28
Arizona	30,174	50,663	0.60	89,281	209,810	0.43	12,349	46,013	0.27
Arkansas	22,042	26,458	0.83	37,074	103,102	0.36	8,463	17,681	0.48
California	244,943	286,681	0.85	695,319	1,229,671	0.57	100,047	306,635	0.33
Colorado	23,879	31,881	0.75	47,818	130,988	0.37	8,347	30,533	0.27
Connecticut	12,962	18,053	0.72	30,079	74,342	0.40	5,123	21,269	0.24
Delaware	5,838	6,370	0.92	9,599	24,484	0.39	1,590	6,043	0.26
District of Columbia	4,399	5,479	0.80	7,317	22,719	0.32	1,161	5,823	0.20
Florida	128,481	148,357	0.87	285,752	629,970	0.45	48,246	115,687	0.42
Georgia	64,550	93,244	0.69	116,772	322,165	0.36	24,739	66,089	0.37
Hawaii	7,276	9,019	0.81	17,599	37,548	0.47	2,479	7,912	0.31
Idaho	8,680	11,692	0.74	20,172	50,048	0.40	3,131	8,006	0.39
Illinois	62,601	80,071	0.78	113,114	323,658	0.35	19,362	70,394	0.28
Indiana	41,940	47,810	0.88	88,420	180,019	0.49	12,935	46,624	0.28
Iowa	15,659	21,601	0.72	39,219	74,461	0.53	5,316	18,721	0.28
Kansas	14,674	17,319	0.85	34,022	66,632	0.51	5,241	12,428	0.42
Kentucky	31,358	31,736	0.99	55,479	133,330	0.42	11,169	34,998	0.32
Louisiana	37,779	43,113	0.88	57,407	179,651	0.32	12,160	39,854	0.31
Maine	4,288	6,275	0.68	11,457	25,191	0.45	1,675	6,116	0.27

Maryland	36,712	38,713	0.95	74,219	157,515	0.47	11,484	40,735	0.28
Massachusetts	30,181	38,026	0.79	60,548	139,183	0.44	10,109	35,434	0.29
Michigan	53,413	62,316	0.86	135,445	259,938	0.52	17,939	63,932	0.28
Minnesota	24,983	33,208	0.75	66,161	142,919	0.46	9,277	29,991	0.31
Mississippi	24,267	27,311	0.89	48,409	98,969	0.49	8,519	22,685	0.38
Missouri	31,629	39,448	0.80	60,146	163,934	0.37	11,895	31,725	0.37
Montana	4,013	6,220	0.65	10,344	26,919	0.38	1,528	6,364	0.24
Nebraska	10,129	12,386	0.82	20,262	47,796	0.42	3,117	8,964	0.35
Nevada	18,396	22,109	0.83	37,978	85,493	0.44	5,182	18,458	0.28
New Hampshire	3,384	5,395	0.63	8,394	23,557	0.36	1,103	3,976	0.28
New Jersey	33,787	46,560	0.73	73,751	174,468	0.42	12,558	44,736	0.28
New Mexico	11,978	18,136	0.66	27,705	82,471	0.34	4,655	18,723	0.25
New York	111,724	150,340	0.74	261,403	558,686	0.47	38,972	150,411	0.26
North Carolina	63,818	73,209	0.87	140,914	302,188	0.47	23,545	62,527	0.38
North Dakota	3,190	3,599	0.89	7,116	15,515	0.46	1,038	2,739	0.38
Ohio	66,124	78,703	0.84	100,176	326,074	0.31	19,532	75,116	0.26
Oklahoma	21,606	32,924	0.66	50,858	124,832	0.41	9,642	21,272	0.45
Oregon	18,302	24,430	0.75	51,281	90,264	0.57	7,271	24,996	0.29
Pennsylvania	55,754	71,936	0.78	126,925	293,087	0.43	17,607	66,554	0.26
Puerto Rico	18,921	15,971	1.18	72,485	84,005	0.86	10,325	15,751	0.66
Rhode Island	5,440	5,727	0.95	11,264	30,104	0.37	1,661	6,818	0.24
South Carolina	29,069	38,460	0.76	47,483	169,559	0.28	9,799	36,415	0.27
South Dakota	3,972	5,564	0.71	9,866	22,254	0.44	1,344	3,538	0.38
Tennessee	42,884	51,810	0.83	72,471	209,528	0.35	16,126	DQ	--
Texas	203,532	241,074	0.84	420,934	861,302	0.49	68,534	138,297	0.50
U.S. Virgin Islands	724	491	1.47	1,672	3,145	0.53	220	664	0.33
Utah	13,512	17,361	0.78	28,059	61,205	0.46	4,297	DQ	--
Vermont	2,256	3,259	0.69	7,407	15,468	0.48	965	3,393	0.28
Virginia	36,386	42,360	0.86	72,240	159,726	0.45	12,173	30,961	0.39
Washington	35,153	46,189	0.76	91,066	201,058	0.45	16,875	42,744	0.39
West Virginia	10,481	12,838	0.82	19,900	49,764	0.40	3,721	12,929	0.29

Wisconsin	23,824	32,492	0.73	56,358	124,551	0.45	7,811	29,397	0.27
Wyoming	2,190	3,075	0.71	5,233	12,210	0.43	788	2,216	0.36

--: not applicable; DQ: data are suppressed due to insufficient data quality

¹ Children's Health Insurance Program

Table B, Administrative Data Method, Comparison of WIC Participants and SNAP Beneficiaries, by Participant Category

State	Infants			Children 1 to 4 Years Old		
	Number of infants enrolled in WIC	Number of infants enrolled in SNAP	Ratio of WIC infants to SNAP infants	Number of children enrolled in WIC	Number of children enrolled in SNAP	Ratio of WIC children to SNAP children
United States Total	1,833,811	873,798	2.10	4,035,294	3,948,397	1.02
Alabama	35,438	16,568	2.14	62,872	83,190	0.76
Alaska	4,037	1,790	2.26	10,534	7,585	1.39
Arizona	30,174	18,357	1.64	89,281	77,694	1.15
Arkansas	22,042	7,715	2.86	37,074	42,008	0.88
California	244,943	79,843	3.07	695,319	402,956	1.73
Colorado	23,879	11,587	2.06	47,818	42,180	1.13
Connecticut	12,962	8,654	1.50	30,079	24,935	1.21
Delaware	5,838	3,037	1.92	9,599	11,291	0.85
District of Columbia	4,399	2,838	1.55	7,317	11,602	0.63
Florida	128,481	53,456	2.40	285,752	248,778	1.15
Georgia	64,550	39,048	1.65	116,772	160,801	0.73
Hawaii	7,276	3,283	2.22	17,599	16,478	1.07
Idaho	8,680	3,352	2.59	20,172	19,666	1.03
Illinois	62,601	46,476	1.35	113,114	196,350	0.58
Indiana	41,940	14,295	2.93	88,420	70,069	1.26
Iowa	15,659	8,713	1.80	39,219	36,076	1.09
Kansas	14,674	5,307	2.77	34,022	23,042	1.48
Kentucky	31,358	14,660	2.14	55,479	57,338	0.97
Louisiana	37,779	16,178	2.34	57,407	91,269	0.63
Maine	4,288	2,479	1.73	11,457	12,018	0.95
Maryland	36,712	16,934	2.17	74,219	59,849	1.24
Massachusetts	30,181	8,597	3.51	60,548	54,063	1.12
Michigan	53,413	25,324	2.11	135,445	113,473	1.19
Minnesota	24,983	9,738	2.57	66,161	39,495	1.68
Mississippi	24,267	13,092	1.85	48,409	52,710	0.92

Missouri	31,629	22,928	1.38	60,146	81,514	0.74
Montana	4,013	2,209	1.82	10,344	10,785	0.96
Nebraska	10,129	4,277	2.37	20,262	18,499	1.10
Nevada	18,396	10,852	1.70	37,978	46,014	0.83
New Hampshire	3,384	2,070	1.63	8,394	7,106	1.18
New Jersey	33,787	13,471	2.51	73,751	76,125	0.97
New Mexico	11,978	10,669	1.12	27,705	42,647	0.65
New York	111,724	23,054	4.85	261,403	217,893	1.20
North Carolina	63,818	40,602	1.57	140,914	143,656	0.98
North Dakota	3,190	1,453	2.19	7,116	5,995	1.19
Ohio	66,124	34,311	1.93	100,176	132,235	0.76
Oklahoma	21,606	16,308	1.32	50,858	53,224	0.96
Oregon	18,302	9,952	1.84	51,281	52,664	0.97
Pennsylvania	55,754	43,678	1.28	126,925	152,669	0.83
Rhode Island	5,440	2,987	1.82	11,264	10,320	1.09
South Carolina	29,069	14,700	1.98	47,483	69,883	0.68
South Dakota	3,972	1,745	2.28	9,866	9,400	1.05
Tennessee	42,884	20,130	2.13	72,471	96,536	0.75
Texas	203,532	92,339	2.20	420,934	501,366	0.84
Utah	13,512	5,503	2.46	28,059	20,112	1.40
Vermont	2,256	1,352	1.67	7,407	4,650	1.59
Virginia	36,386	15,238	2.39	72,240	72,195	1.00
Washington	35,153	26,118	1.35	91,066	71,791	1.27
West Virginia	10,481	5,686	1.84	19,900	28,040	0.71
Wisconsin	23,824	19,159	1.24	56,358	56,446	1.00
Wyoming	2,190	607	3.61	5,233	3,104	1.69
Guam	0	352	0.00	0	6,731	0.00
U.S. Virgin Islands	724	727	1.00	1,672	1,878	0.89

Table C.1.a. WIC Nonparticipation Rates of Medicaid Participants by State: ACS, FNS Administrative Data, and WIC PC Data, 2018

State	Total: Medicaid			Women: Medicaid			Infants: Medicaid			Children: Medicaid		
	Number of Individuals on Medicaid	Number Not on WIC	WIC Nonparticipation Rate (Percent)	Number of Individuals on Medicaid	Number Not on WIC	WIC Nonparticipation Rate (Percent)	Number of Individuals on Medicaid	Number Not on WIC	WIC Nonparticipation Rate (Percent)	Number of Individuals on Medicaid	Number Not on WIC	WIC Nonparticipation Rate (Percent)
United States Total	9,230,407	4,159,688	45.1	1,853,274	698,051	37.7	1,415,041	243,518	17.2	5,962,092	3,218,119	54.0
Alabama	176,956	92,296	52.2	34,990	15,091	43.1	27,907	4,924	17.6	114,059	72,281	63.4
Alaska	-	-	-	-	-	-	-	-	-	-	-	-
Arizona	211,553	85,424	40.4	42,704	15,597	36.5	32,203	2,073	6.4	136,647	67,754	49.6
Arkansas	126,034	74,790	59.3	25,760	13,366	51.9	20,453	7,990	39.1	79,821	53,434	66.9
California	1,170,107	308,501	26.4	235,935	47,032	19.9	175,453	14,058	8.0	758,719	247,410	32.6
Colorado	-	-	-	-	-	-	-	-	-	-	-	-
Connecticut	75,426	35,120	46.6	14,110	5,860	41.5	10,797	397	3.7	50,518	28,863	57.1
Delaware	29,144	22,004	75.5	6,147	4,379	71.2	4,762	4,160	87.4	18,236	13,465	73.8
District of Columbia	25,749	18,383	71.4	5,414	3,406	62.9	4,431	2,191	49.4	15,905	12,786	80.4
Florida	643,035	258,590	40.2	128,579	40,344	31.4	101,283	10,249	10.1	413,174	207,998	50.3
Georgia	351,045	204,138	58.2	71,459	33,765	47.3	56,126	22,903	40.8	223,460	147,471	66.0
Hawaii	28,621	10,868	38.0	6,045	2,569	42.5	-	-	-	18,803	8,658	46.0
Idaho	56,184	31,545	56.1	11,331	6,251	55.2	8,200	3,321	40.5	36,653	21,973	59.9
Illinois	348,034	181,317	52.1	67,491	27,988	41.5	52,648	9,554	18.1	227,895	143,775	63.1
Indiana	199,759	102,628	51.4	41,059	17,553	42.7	31,321	6,926	22.1	127,379	78,150	61.4
Iowa	84,015	39,125	46.6	15,140	5,007	33.1	11,402	626	5.5	57,472	33,492	58.3
Kansas	77,312	45,011	58.2	15,833	10,348	65.4	11,920	5,259	44.1	49,559	29,404	59.3
Kentucky	155,128	67,039	43.2	31,863	11,757	36.9	24,067	529	2.2	99,198	54,753	55.2
Louisiana	203,976	106,431	52.2	41,594	15,610	37.5	33,745	7,750	23.0	128,637	83,071	64.6
Maine	26,123	12,498	47.8	5,369	2,240	41.7	3,835	1,072	28.0	16,918	9,187	54.3
Maryland	153,444	51,775	33.7	31,443	10,996	35.0	24,282	414	1.7	97,720	40,365	41.3

State	Total: Medicaid			Women: Medicaid			Infants: Medicaid			Children: Medicaid		
	Number of Individuals on Medicaid	Number Not on WIC	WIC Nonparticipation Rate (Percent)	Number of Individuals on Medicaid	Number Not on WIC	WIC Nonparticipation Rate (Percent)	Number of Individuals on Medicaid	Number Not on WIC	WIC Nonparticipation Rate (Percent)	Number of Individuals on Medicaid	Number Not on WIC	WIC Nonparticipation Rate (Percent)
Vermont	15,378	5,303	34.5	2,628	651	24.8	1,843	32	1.7	10,907	4,621	42.4
Virginia	184,571	105,937	57.4	39,608	22,689	57.3	29,162	10,648	36.5	115,801	72,599	62.7
Washington	211,634	91,261	43.1	43,580	18,585	42.6	32,332	10,965	33.9	135,722	61,711	45.5
West Virginia	58,284	27,358	46.9	12,283	5,126	41.7	8,609	462	5.4	37,391	21,770	58.2
Wisconsin	129,254	87,786	67.9	24,641	15,009	60.9	19,416	10,148	52.3	85,198	62,629	73.5
Wyoming	-	-	-	-	-	-	-	-	-	-	-	-

Notes: ACS = American Community Survey; WIC PC = WIC Participant and Program Characteristics. Some State-level results are suppressed while those States are included in the national-level totals; therefore, the State-level results may not sum to the reported national-level totals.

Source: ACS, WIC administrative data, WIC PC

Table C.1.b. WIC Nonparticipation Rates and Margins of Error of Medicaid Participants by State: ACS, FNS Administrative Data, and WIC PC Data, 2018

State	Total: Medicaid		Women: Medicaid		Infants: Medicaid		Children: Medicaid	
	WIC Nonparticipation Rate (Percent)	Margin of Error	WIC Nonparticipation Rate (Percent)	Margin of Error	WIC Nonparticipation Rate (Percent)	Margin of Error	WIC Nonparticipation Rate (Percent)	Margin of Error
United States Total	45.1	0.1	37.7	0.2	17.2	0.2	54.0	0.1
Alabama	52.2	1.7	43.1	5.4	17.6	8.0	63.4	1.1
Alaska	-	-	-	-	-	-	-	-
Arizona	40.4	1.6	36.5	4.5	6.4	6.8	49.6	1.5
Arkansas	59.3	1.6	51.9	5.0	39.1	6.6	66.9	1.5
California	26.4	1.0	19.9	2.8	8.0	3.2	32.6	1.0
Colorado	-	-	-	-	-	-	-	-
Connecticut	46.6	3.2	41.5	8.3	3.7	13.7	57.1	2.5
Delaware	75.5	2.8	71.2	7.6	87.4	3.4	73.8	2.8
District of Columbia	71.4	3.4	62.9	13.3	49.4	18.2	80.4	2.2

State	Total: Medicaid		Women: Medicaid		Infants: Medicaid		Children: Medicaid	
	WIC Nonparticipation Rate (Percent)	Margin of Error	WIC Nonparticipation Rate (Percent)	Margin of Error	WIC Nonparticipation Rate (Percent)	Margin of Error	WIC Nonparticipation Rate (Percent)	Margin of Error
Florida	40.2	1.1	31.4	3.3	10.1	4.3	50.3	1.0
Georgia	58.2	1.1	47.3	3.6	40.8	4.1	66.0	1.0
Hawaii	38.0	4.9	42.5	11.0	-	22.3	46.0	4.4
Idaho	56.1	3.4	55.2	7.7	40.5	10.4	59.9	2.7
Illinois	52.1	1.4	41.5	3.7	18.1	5.3	63.1	1.0
Indiana	51.4	1.9	42.7	6.0	22.1	8.2	61.4	1.2
Iowa	46.6	3.2	33.1	7.7	5.5	10.9	58.3	2.8
Kansas	58.2	2.0	65.4	4.3	44.1	7.2	59.3	2.2
Kentucky	43.2	2.2	36.9	6.9	2.2	10.9	55.2	1.6
Louisiana	52.2	1.9	37.5	6.2	23.0	7.7	64.6	1.3
Maine	47.8	5.1	41.7	14.2	28.0	17.6	54.3	4.9
Maryland	33.7	3.2	35.0	6.9	1.7	10.6	41.3	2.9
Massachusetts	33.8	3.0	25.2	8.5	-	11.7	44.5	2.3
Michigan	39.6	1.9	28.1	5.6	13.2	6.9	48.5	1.7
Minnesota	32.5	3.9	23.7	10.5	-	15.7	44.4	3.6
Mississippi	54.8	1.8	39.7	6.8	35.8	7.3	63.8	1.3
Missouri	53.3	1.6	45.3	4.7	22.2	6.8	64.2	1.4
Montana	70.0	2.9	56.6	9.3	52.1	10.5	76.6	2.2
Nebraska	50.7	3.6	55.4	6.5	39.2	8.9	52.0	3.8
Nevada	-	-	-	-	-	-	-	-
New Hampshire	62.1	4.8	69.2	8.5	56.3	12.2	61.1	5.0
New Jersey	76.4	0.8	78.4	2.0	65.7	3.2	78.4	0.8
New Mexico	59.3	2.0	54.0	6.6	42.0	8.5	65.1	1.9
New York	34.9	1.5	26.0	4.1	-	5.8	46.2	1.0
North Carolina	45.3	1.3	38.7	3.7	18.0	5.0	54.0	1.4
North Dakota	-	-	-	-	-	-	-	-
Ohio	45.6	1.3	41.4	3.4	-	6.9	61.5	0.9
Oklahoma	43.1	2.4	33.2	6.2	2.1	9.4	55.0	1.9
Oregon	32.4	3.3	20.3	9.7	-	13.2	43.3	2.4

State	Total: Medicaid		Women: Medicaid		Infants: Medicaid		Children: Medicaid	
	WIC Nonparticipation Rate (Percent)	Margin of Error	WIC Nonparticipation Rate (Percent)	Margin of Error	WIC Nonparticipation Rate (Percent)	Margin of Error	WIC Nonparticipation Rate (Percent)	Margin of Error
Pennsylvania	47.3	1.8	40.4	5.0	10.2	7.7	57.0	1.5
Rhode Island	44.8	4.5	47.4	11.9	20.1	18.2	50.7	5.5
South Carolina	57.7	1.2	38.8	5.4	39.2	5.5	67.7	1.1
South Dakota	38.4	7.9	45.1	18.3	13.6	31.1	42.6	7.4
Tennessee	63.8	1.0	56.0	3.5	26.8	5.9	74.6	0.9
Texas	45.8	0.8	36.1	2.3	19.9	2.9	55.3	0.7
Utah	-	-	-	-	-	-	-	-
Vermont	34.5	8.2	24.8	31.0	1.7	40.5	42.4	6.4
Virginia	57.4	1.5	57.3	4.2	36.5	6.4	62.7	1.3
Washington	43.1	2.0	42.6	5.0	33.9	5.8	45.5	1.9
West Virginia	46.9	3.0	41.7	8.2	5.4	13.4	58.2	2.6
Wisconsin	67.9	1.4	60.9	4.6	52.3	5.8	73.5	1.3
Wyoming	-	-	-	-	-	-	-	-

Note: ACS = American Community Survey; WIC PC = WIC Participant and Program Characteristics

Source: ACS, WIC administrative data, WIC PC

Table C.2.a. WIC Nonparticipation Rates of SNAP Participants by State: ACS, FNS Administrative Data, and WIC PC Data, 2018

State	Total: SNAP			Women: SNAP			Infants: SNAP			Children: SNAP		
	Number of Individuals on SNAP	Number Not on WIC	WIC Nonparticipation Rate (Percent)	Number of Individuals on SNAP	Number Not on WIC	WIC Nonparticipation Rate (Percent)	Number of Individuals on SNAP	Number Not on WIC	WIC Nonparticipation Rate (Percent)	Number of Individuals on SNAP	Number Not on WIC	WIC Nonparticipation Rate (Percent)
United States Total	5,301,748	3,120,545	58.9	1,040,243	578,708	55.6	800,494	398,044	49.7	3,461,011	2,143,793	61.9
Alabama	112,509	96,424	85.7	22,231	17,719	79.7	17,896	14,120	78.9	72,381	64,585	89.2
Alaska	-	-	-	-	-	-	-	-	-	-	-	-
Arizona	126,775	42,062	33.2	24,464	4,599	18.8	18,408	4,561	24.8	83,903	32,902	39.2

State	Total: SNAP			Women: SNAP			Infants: SNAP			Children: SNAP		
	Number of Individuals on SNAP	Number Not on WIC	WIC Nonparticipation Rate (Percent)	Number of Individuals on SNAP	Number Not on WIC	WIC Nonparticipation Rate (Percent)	Number of Individuals on SNAP	Number Not on WIC	WIC Nonparticipation Rate (Percent)	Number of Individuals on SNAP	Number Not on WIC	WIC Nonparticipation Rate (Percent)
Arkansas	58,814	49,013	83.3	12,260	9,922	80.9	9,935	6,789	68.3	36,620	32,303	88.2
California	582,759	236,616	40.6	117,060	53,324	45.6	87,521	47,526	54.3	378,178	135,766	35.9
Colorado	-	-	-	-	-	-	-	-	-	-	-	-
Connecticut	37,765	18,208	48.2	6,365	2,388	37.5	4,939	110	2.2	26,460	15,710	59.4
Delaware	19,122	14,167	74.1	4,264	3,102	72.7	3,333	2,929	87.9	11,525	8,136	70.6
District of Columbia	19,235	16,908	87.9	4,092	3,570	87.2	3,384	2,517	74.4	11,759	10,821	92.0
Florida	413,734	248,451	60.1	82,442	41,863	50.8	65,224	60,329	92.5	266,068	146,258	55.0
Georgia	215,290	142,624	66.2	42,188	25,437	60.3	33,510	14,454	43.1	139,591	102,732	73.6
Hawaii	18,012	7,592	42.2	3,653	1,749	47.9	-	-	-	12,071	5,997	49.7
Idaho	28,327	16,714	59.0	6,146	3,583	58.3	4,446	2,476	55.7	17,735	10,655	60.1
Illinois	216,366	95,838	44.3	41,484	14,749	35.6	32,712	1,381	4.2	142,170	79,707	56.1
Indiana	101,369	60,332	59.5	19,625	10,364	52.8	15,010	5,355	35.7	66,733	44,614	66.9
Iowa	41,846	31,101	74.3	7,744	5,461	70.5	5,857	3,553	60.7	28,245	22,088	78.2
Kansas	37,694	22,834	60.6	7,254	4,488	61.9	5,552	1,767	31.8	24,887	16,579	66.6
Kentucky	82,853	57,923	69.9	16,841	10,102	60.0	12,837	9,148	71.3	53,175	38,673	72.7
Louisiana	123,164	108,820	88.4	23,590	20,348	86.3	19,317	15,445	80.0	80,258	73,027	91.0
Maine	-	-	-	-	-	-	-	-	-	-	-	-
Maryland	82,224	35,951	43.7	13,993	5,055	36.1	10,884	1,107	10.2	57,346	29,789	51.9
Massachusetts	78,291	28,383	36.3	15,479	6,043	39.0	11,895	1,636	13.8	50,917	20,704	40.7
Michigan	173,116	77,768	44.9	32,254	12,888	40.0	24,917	4,520	18.1	115,944	60,361	52.1
Minnesota	-	-	-	-	-	-	-	-	-	-	-	-
Mississippi	-	-	-	-	-	-	-	-	-	-	-	-
Missouri	102,215	69,955	68.4	19,668	11,916	60.6	14,910	7,223	48.4	67,637	50,816	75.1
Montana	14,168	11,254	79.4	2,635	2,062	78.2	1,833	1,173	64.0	9,700	8,019	82.7

Notes: ACS = American Community Survey; WIC PC = WIC Participant and Program Characteristics. Some State-level results are suppressed while those States are included in the national-level totals; therefore, the State-level results may not sum to the reported national-level totals.

Source: ACS, WIC administrative data, WIC PC

Table C.2.b. WIC Nonparticipation Rates and Margins of Error of SNAP Participants by State: ACS, FNS Administrative Data, and WIC PC Data, 2018

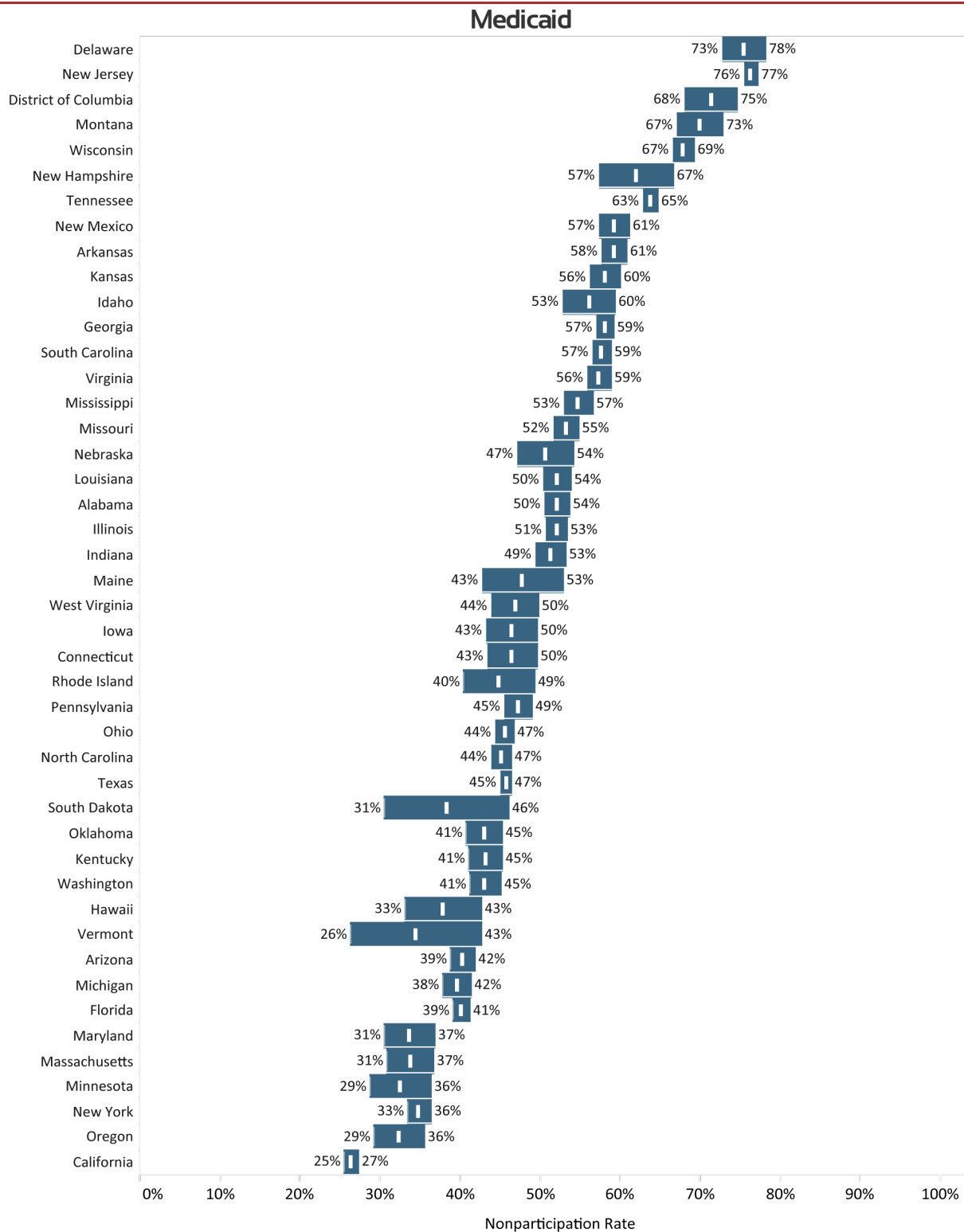
State	Total: SNAP		Women: SNAP		Infants: SNAP		Children: SNAP	
	WIC Nonparticipation Rate (Percent)	Margin of Error	WIC Nonparticipation Rate (Percent)	Margin of Error	WIC Nonparticipation Rate (Percent)	Margin of Error	WIC Nonparticipation Rate (Percent)	Margin of Error
United States Total	58.9	0.1	55.6	0.2	49.7	0.2	61.9	0.0
Alabama	85.7	0.5	79.7	2.0	78.9	2.2	89.2	0.4
Alaska	-	-	-	-	-	-	-	-
Arizona	33.2	1.8	18.8	5.8	24.8	5.5	39.2	1.8
Arkansas	83.3	0.8	80.9	2.6	68.3	4.6	88.2	0.6
California	40.6	0.8	45.6	1.9	54.3	1.6	35.9	1.0
Colorado	-	-	-	-	-	-	-	-
Connecticut	48.2	3.1	37.5	8.9	2.2	13.9	59.4	2.4
Delaware	74.1	3.1	72.7	7.2	87.9	3.3	70.6	3.3
District of Columbia	87.9	1.5	87.2	4.8	74.4	9.7	92.0	1.0
Florida	60.1	0.8	50.8	2.4	92.5	0.4	55.0	0.9
Georgia	66.2	0.8	60.3	2.8	43.1	4.1	73.6	0.8
Hawaii	42.2	4.9	47.9	11.4	-	25.9	49.7	4.2
Idaho	59.0	3.4	58.3	7.2	55.7	7.8	60.1	2.7
Illinois	44.3	1.7	35.6	4.7	4.2	7.3	56.1	1.2
Indiana	59.5	1.6	52.8	5.2	35.7	7.1	66.9	1.1
Iowa	74.3	1.6	70.5	3.5	60.7	4.8	78.2	1.4
Kansas	60.6	2.2	61.9	6.1	31.8	11.4	66.6	2.0
Kentucky	69.9	1.2	60.0	4.6	71.3	3.4	72.7	1.0
Louisiana	88.4	0.4	86.3	1.4	80.0	2.0	91.0	0.3
Maine	-	-	-	-	-	-	-	-
Maryland	43.7	2.6	36.1	7.2	10.2	10.4	51.9	2.5

State	Total: SNAP		Women: SNAP		Infants: SNAP		Children: SNAP	
	WIC Nonparticipation Rate (Percent)	Margin of Error	WIC Nonparticipation Rate (Percent)	Margin of Error	WIC Nonparticipation Rate (Percent)	Margin of Error	WIC Nonparticipation Rate (Percent)	Margin of Error
Massachusetts	36.3	2.9	39.0	7.4	13.8	10.7	40.7	2.5
Michigan	44.9	1.9	40.0	5.1	18.1	7.4	52.1	1.7
Minnesota	-		-	-	-	-	-	-
Mississippi	-		-	-	-	-	-	-
Missouri	68.4	1.1	60.6	3.6	48.4	4.8	75.1	1.0
Montana	79.4	2.1	78.2	4.6	64.0	7.7	82.7	1.7
Nebraska	74.0	1.9	73.1	4.4	69.1	5.1	75.3	2.0
Nevada	-	-	-	-	-	-	-	-
New Hampshire	61.1	5.3	69.3	9.3	51.1	15.0	60.9	5.2
New Jersey	53.0	1.8	61.2	3.7	40.1	5.9	53.5	1.9
New Mexico	74.5	1.2	72.6	3.9	59.9	5.8	78.6	1.2
New York	53.9	1.1	53.4	2.8	45.1	3.4	56.1	0.9
North Carolina	59.0	1.0	59.9	2.6	42.1	3.8	62.7	1.3
North Dakota	-	-	-	-	-	-	-	-
Ohio	46.6	1.2	42.5	3.6	-	-	61.4	0.9
Oklahoma	67.0	1.4	61.3	3.5	46.3	5.1	73.1	1.2
Oregon	29.7	3.3	17.3	10.1	-	-	40.5	2.5
Pennsylvania	45.0	2.0	37.9	5.6	3.0	9.0	55.5	1.7
Rhode Island	50.0	4.3	56.9	10.2	31.9	16.2	52.5	5.5
South Carolina	-		-	-	-	-	-	-
South Dakota	39.2	8.3	44.2	19.0	18.5	30.0	42.9	8.4
Tennessee	68.1	1.0	56.5	3.8	43.9	5.1	76.6	0.8
Texas	61.7	0.6	58.3	1.6	65.9	1.3	61.7	0.6
Utah	-	-	-	-	-	-	-	-
Vermont	-	-	-	-	-	-	-	-
Virginia	87.5	0.4	82.0	1.7	79.0	2.0	91.2	0.3
Washington	49.4	1.9	48.9	4.7	29.9	6.7	54.2	1.8

State	Total: SNAP		Women: SNAP		Infants: SNAP		Children: SNAP	
	WIC Nonparticipation Rate (Percent)	Margin of Error	WIC Nonparticipation Rate (Percent)	Margin of Error	WIC Nonparticipation Rate (Percent)	Margin of Error	WIC Nonparticipation Rate (Percent)	Margin of Error
West Virginia	80.5	1.2	77.6	3.1	73.0	3.8	83.5	1.1
Wisconsin	87.4	0.6	84.6	2.0	77.5	3.1	90.3	0.5
Wyoming	-	-	-	-	-	-	-	-

*Note: ACS = American Community Survey; WIC PC = WIC Participant and Program Characteristics
Source: ACS, WIC administrative data, WIC PC*

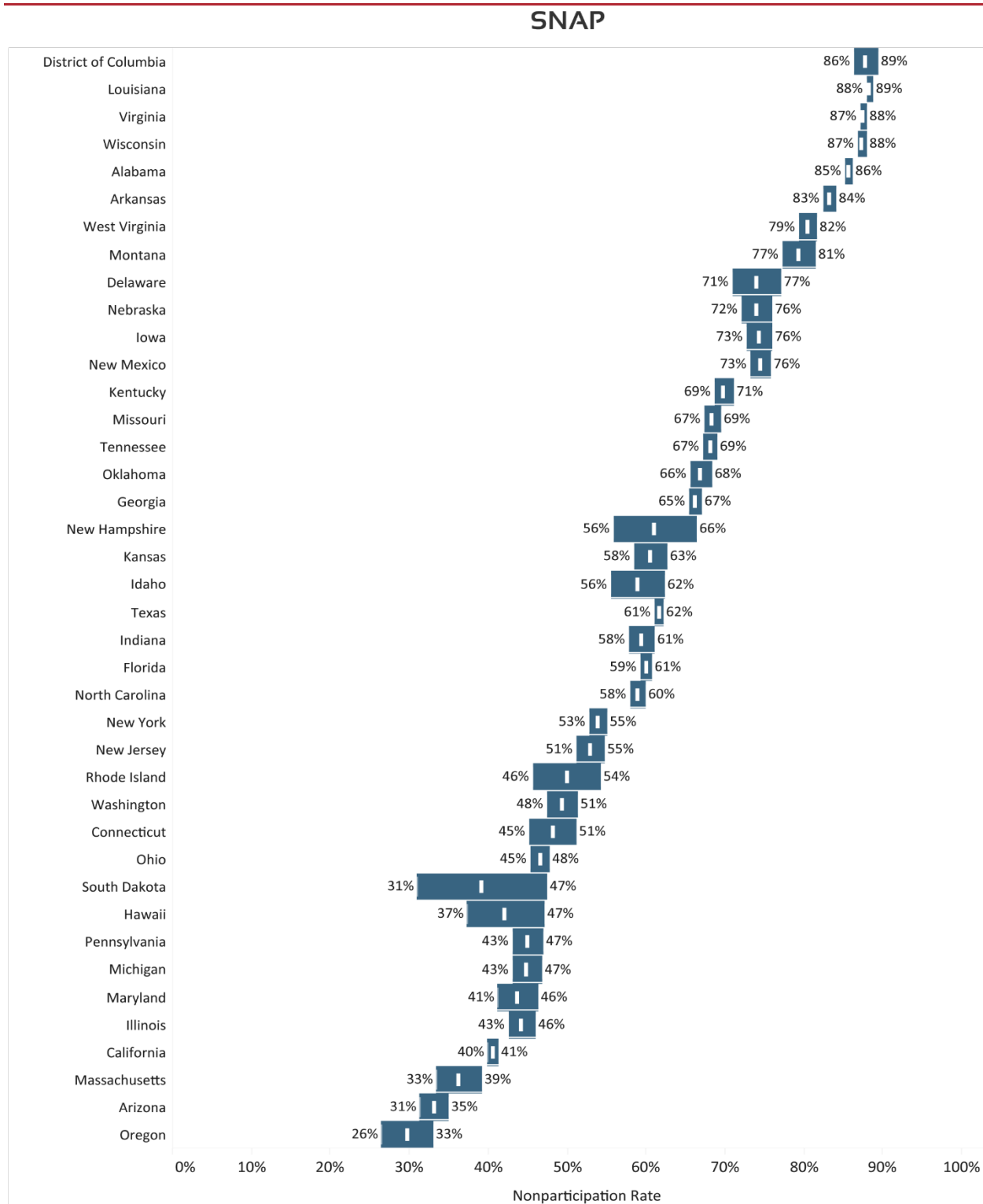
Figure C.1. WIC Nonparticipation Rates and Confidence Intervals of Medicaid Participants by State, 2018²¹



Source: ACS, WIC administrative data, WIC PC

²¹ Although the margins of error around some of the State-level estimates are relatively small, USDA still does not find these estimates reliable; some State-level estimates may appear to be relatively precise, but they are likely biased, due to the limitations outlined in the Methods section.

Figure C.2. WIC Nonparticipation Rates and Confidence Intervals of SNAP Participants by State, 2018²²



Source: ACS, WIC administrative data, WIC PC

²² Although the margins of error around some of the State-level estimates are relatively small, USDA still does not find these estimates reliable; some State-level estimates may appear to be relatively precise, but they are likely biased, due to the limitations outlined in the Methods section.