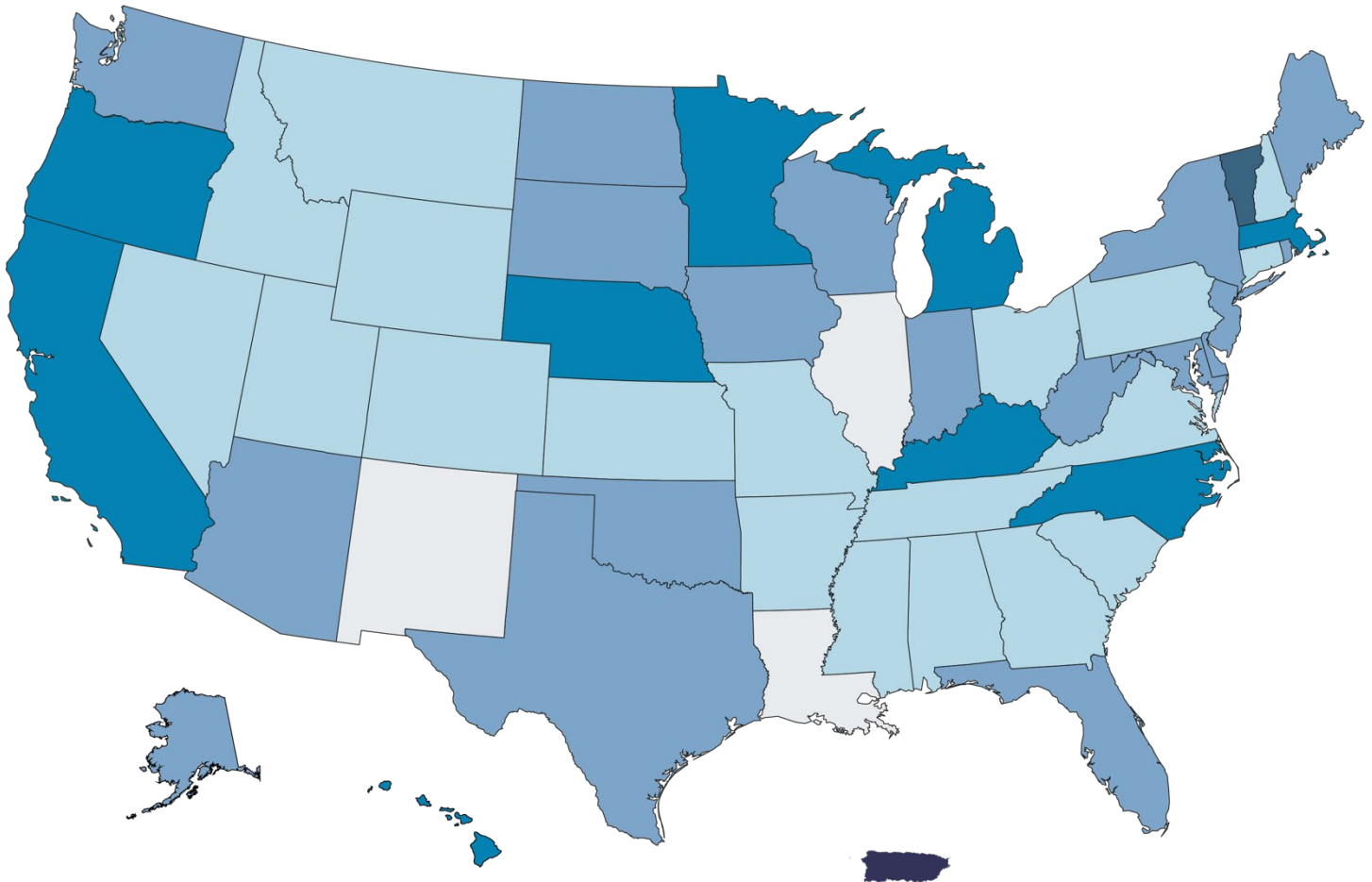




U.S. DEPARTMENT OF AGRICULTURE

National- and State-Level Estimates of WIC Eligibility and WIC Program Reach in 2022

Final Report, Volume I



National- and State-Level Estimates of WIC Eligibility and WIC Program Reach in 2022 Final Report, Volume I

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Authors

Courtenay Kessler, Andrew Bryant, Kate Munkacsy, and Kelsey Farson Gray

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USDA Food and Nutrition Service
Contracts Management Division
1320 Braddock Place
Alexandria, VA 22314

Project Officer

Grant Lovellette

Submitted by

Westat Insight
1310 North Courthouse Road
Suite 880
Arlington, VA 22201

Project Director

Courtenay Kessler

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Executive Summary

The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) provides nutritious foods, nutrition education that includes breastfeeding promotion and support, and referrals to health and social services. WIC serves pregnant, breastfeeding and non-breastfeeding postpartum women, infants, and children up to age 5 who have low incomes and are nutritionally at risk. Eligible participants receive electronic benefit transfer (EBT) cards for prescribed foods and redeem them at authorized retail vendors at no charge.¹

To be eligible for WIC, an applicant must be categorically eligible as a pregnant, postpartum breastfeeding,² or postpartum non-breastfeeding³ woman; an infant up to age 1; or a child up to age 5. Applicants must be at nutritional risk and have household incomes less than or equal to 185 percent of the Federal Poverty Guidelines issued annually by the U.S. Department of Health and Human Services.⁴ Applicants may also be adjunctively income-eligible for WIC if they participate in Medicaid, the Supplemental Nutrition Assistance Program, or Temporary Assistance for Needy Families.⁵ Applicants must live in the State or territory in which they apply or meet the residency requirements established by an Indian Tribal Organization (Tribal Organization).

This report presents estimates of the number of individuals eligible to participate in WIC and the percentage of the eligible population participating in calendar year (CY) 2022.⁶ Some tables and figures also include estimates for CY 2016 through CY 2021.⁷

54 percent
of eligible women, infants,
and children participated
in WIC in CY 2022

For the purposes of this report, WIC participants are defined as those individuals who were enrolled in WIC and received their WIC benefits in an average month in CY 2022.⁸ In CY 2022, WIC provided services in 89 State agencies: the 50 States; the District of Columbia; 5 U.S. territories (American Samoa, Guam, the Northern Mariana Islands, Puerto Rico, and the U.S. Virgin Islands); and 33 Tribal Organizations.⁹ Estimates are provided at the national, regional, and State levels; national and regional estimates include the U.S. territories unless otherwise noted. State-level estimates incorporate individuals eligible for WIC and WIC participants in Tribal Organizations within the geographic States where the Tribal Organizations are headquartered. While estimates cannot be

¹ Through CY 2022, a small number of participants continued to receive paper checks because their State agencies had not yet transitioned to EBT. EBT status for all State agencies can be found in the WIC EBT Detail Status Report (<https://fns-prod.azureedge.us/sites/default/files/resource-files/december22-wic-ebt-detailstatusreport.pdf>).

² Breastfeeding women are categorically eligible up to 1 year postpartum.

³ Non-breastfeeding women are categorically eligible up to 6 months postpartum.

⁴ These guidelines are based on family or household size. The 48 contiguous States, the District of Columbia, and the U.S. territories served by WIC have the same guidelines; Alaska and Hawaii have different guidelines.

⁵ WIC regulations also allow State agencies to extend automatic WIC income eligibility to applicants participating in other qualifying means-tested benefit programs with income eligibility thresholds below those for WIC (see Special Supplemental Nutrition Program for Women, Infants, and Children, 2014). As in previous reports, this report does not consider automatic income eligibility.

⁶ The eligibility estimates are intended to represent average monthly figures—the numbers of women, infants, and children eligible for WIC in an average month of a calendar year—to be consistent with average monthly data on program participation.

⁷ Results for CY 2016 through CY 2020 are consistent with the results published in the CY 2021 report (Kessler et al., 2023) but differ from initial results published for those years because of updates to the methodology.

⁸ WIC participants also include (1) infants younger than 6 months who are exclusively breastfed and whose breastfeeding mother received foods or food instruments (e.g., EBT cards, vouchers, coupons) during the reporting period and (2) partially breastfeeding women more than 6 months postpartum who did not receive supplemental foods but whose infants received supplemental foods or food instruments (Special Supplemental Nutrition Program for Women, Infants, and Children, 2014).

⁹ On March 1, 2024, the number of Tribal Organizations participating in WIC changed from 33 to 32 when Indian Township Passamaquoddy Reservation stopped operations. This change decreased the total number of State agencies to 88. For the period covered by this report, WIC provided services in 89 State agencies, including Indian Township Passamaquoddy Reservation.

produced for Tribal Organizations because of data limitations of the underlying surveys, this report includes participant counts for each of the 33 Tribal Organizations.

Estimates are also provided by participant category—infants, children, pregnant women, and postpartum women¹⁰—and by race and Hispanic ethnicity and urbanicity. For the first time, national estimates are provided in this report for individuals who identify as American Indian/Alaska Native. See appendix A for more details about the data limitations and additional work to more meaningfully document WIC program reach for both Tribal Organizations and individuals who identify as American Indian/Alaska Native.

A. Results

1. WIC Eligibility Estimates

In an average month in CY 2022, 11.8 million individuals were eligible for WIC (see table ES.1). Of those eligible to participate in WIC, almost two-thirds (64 percent) were children aged 1–4, 21 percent were women, and 16 percent were infants. Children eligible for WIC were evenly distributed by year of age, with each age group representing about 16 percent of total eligible individuals. Pregnant and postpartum women represented about 10 percent and 11 percent of the eligible population.

Table ES.1. Estimated Average Monthly Number of Individuals Eligible for WIC by Participant Category: CY 2022

Participant Category	Number Eligible	Percent of Total Eligible	Total Population	Eligibility Rate
Infants	1,830,448	15.5	3,672,318	49.8
Children	7,523,916	63.8	14,837,992	50.7
1-year-old children	1,852,300	15.7	3,667,605	50.5
2-year-old children	1,909,244	16.2	3,619,676	52.7
3-year-old children	1,864,052	15.8	3,753,387	49.7
4-year-old children	1,898,321	16.1	3,797,324	50.0
Women	2,438,659	20.7	6,758,981	36.1
Pregnant women	1,124,940	9.5	2,851,339	39.5
Postpartum women	1,313,719	11.1	3,907,642	33.6
Breastfeeding women	822,967	7.0	1,977,449	41.6
Non-breastfeeding women	490,752	4.2	1,930,192	25.4
Total	11,793,023	100.0	25,269,292	46.7

Note: The total population consists of individuals in the 50 States, the District of Columbia, and the U.S. territories served by WIC in each participant category. The eligibility rate is the ratio of the total number of individuals eligible for WIC to the total population in each participant category. The average monthly population of postpartum women includes all women who gave birth less than 1 year earlier, even if they are not categorically eligible for WIC because they are more than 6 months postpartum and are not breastfeeding.

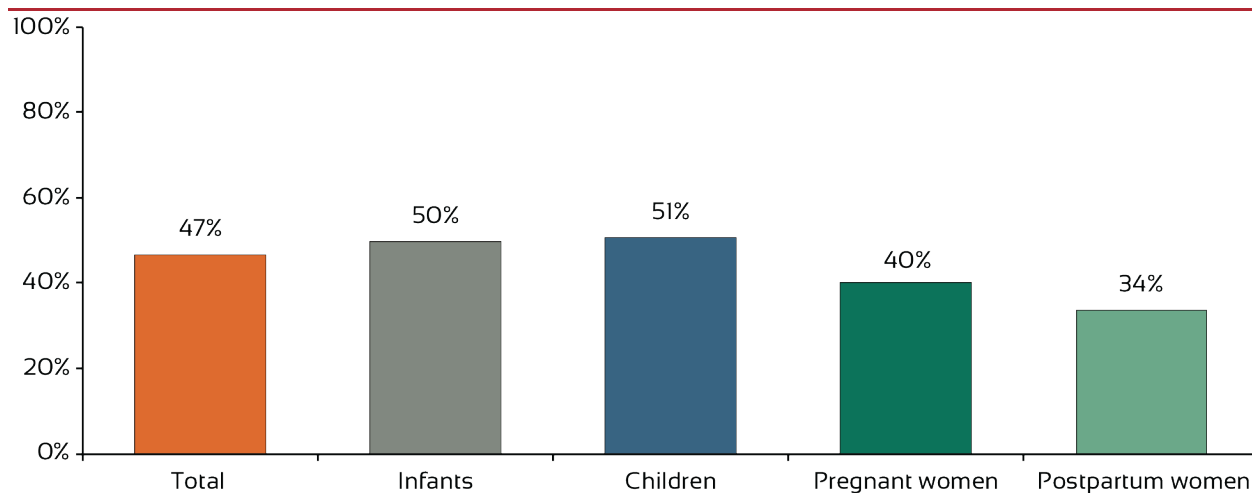
CY = calendar year

Sources: IPUMS-USA, n.d.; U.S. Census Bureau, n.d.-a, n.d.-b

¹⁰ The postpartum women category includes breastfeeding and non-breastfeeding women. This report contains tables and figures that combine breastfeeding and non-breastfeeding women under postpartum women.

The eligibility rate is the percentage of the total population in each participant category estimated to be eligible for WIC. In an average month in CY 2022, 50 percent of all infants and 51 percent of all children were eligible for WIC (see table ES.1 and figure ES.1). Forty percent of all pregnant women and 34 percent of all postpartum women were eligible.

Figure ES.1. WIC Eligibility Rate by Participant Category: CY 2022



Note: [Data for figure ES.1 are available in table ES.1.](#)

CY = calendar year

Sources: IPUMS-USA, n.d.; U.S. Census Bureau, n.d.-a, n.d.-b

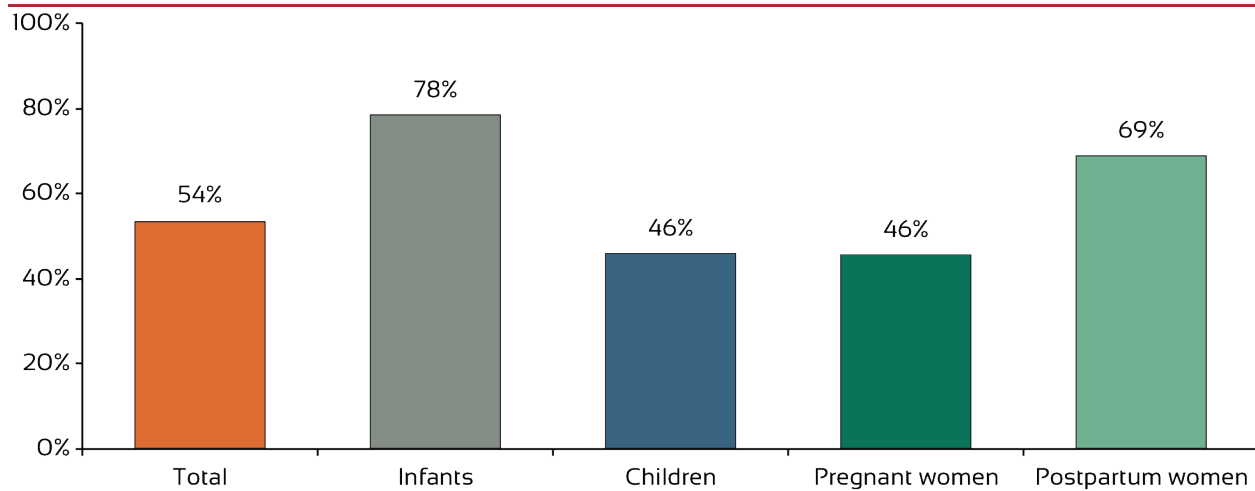
2. WIC Coverage Rates

The coverage rate is the percentage of the total eligible population in each participant category that receives WIC benefits. Coverage rates are useful for understanding how well WIC reaches individuals who are eligible for the program.

WIC coverage rates varied by participant category and participant characteristics

Of the 11.8 million women, infants, and children eligible for WIC in an average month in CY 2022, a little more than half (6.3 million) received benefits, resulting in a national coverage rate of 54 percent. Across all participant categories, coverage rates were highest for infants (79 percent) and lowest for children and pregnant women (each 46 percent; see figure ES.2). Moreover, coverage rates for children decreased with age, from a high of 65 percent for 1-year-old children to a low of 25 percent for 4-year-old children (see figure ES.3). Coverage rates were higher for postpartum non-breastfeeding women (73 percent) than postpartum breastfeeding women (66 percent). Coverage rates were higher for individuals living in metropolitan areas (60 percent) than for those living in nonmetropolitan areas (19 percent).

Figure ES.2. WIC Coverage Rate by Participant Category: CY 2022

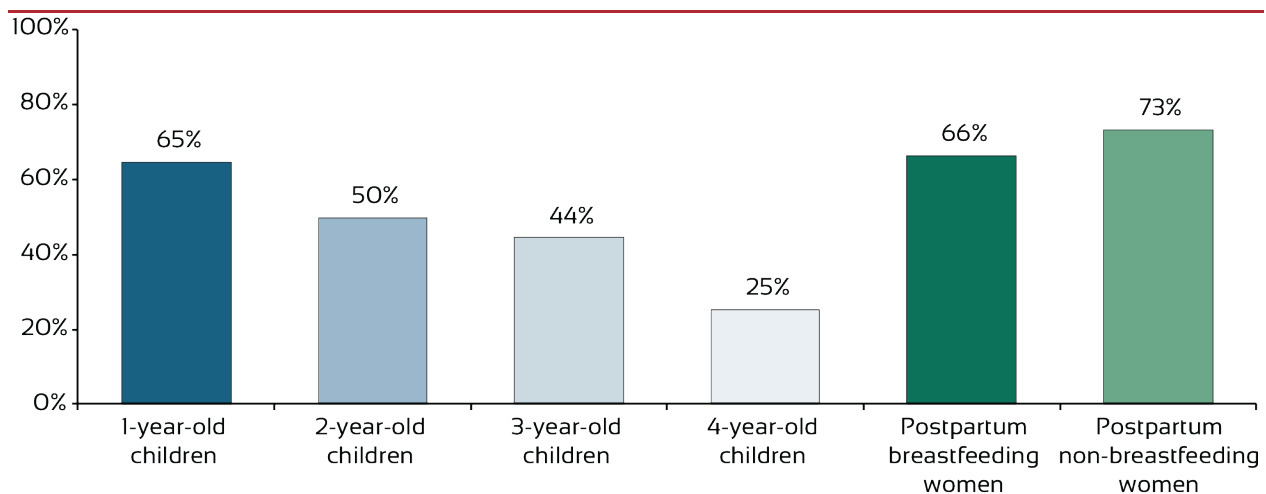


Note: [Data for figure ES.2 are available in table 3.1.](#)

CY = calendar year

Sources: IPUMS-USA, n.d.; U.S. Census Bureau, n.d.-a, n.d.-b; FNS, 2023

Figure ES.3. WIC Coverage Rates for Children by Year of Age and Postpartum Women by Breastfeeding Status: CY 2022



Note: [Data for figure ES.3 are available in table 3.1.](#)

CY = calendar year

Sources: FNS, 2023; IPUMS-USA, n.d.; U.S. Census Bureau, n.d.-a, n.d.-b; Zvavitch et al., 2024

WIC coverage rates varied by race and Hispanic ethnicity

The overall coverage rate was highest for Hispanic/Latino individuals (63 percent) compared with other race and ethnicity groups. Coverage rates were 49 percent for Black-only, non-Hispanic individuals; 46 percent for White-only, non-Hispanic individuals; and 53 percent for non-Hispanic individuals who self-identified as two or more races or as Asian, American Indian/Alaska Native, or Hawaiian/Pacific Islander (hereafter, two or more races or other race) (see table ES.2). For the first time, this report estimates the WIC coverage rate for non-Hispanic individuals who identify as American Indian/Alaska Native race (only or with one or more other races). The coverage rate for non-Hispanic, American Indian/Alaska Native individuals was 59 percent. Hispanic individuals had the highest coverage rates compared with the other

race and ethnicity categories for each participant category except postpartum non-breastfeeding women where the highest coverage rate was observed for non-Hispanic, Black-only women. Among infants, coverage rates were lowest for White-only, non-Hispanic infants; Black-only, non-Hispanic children had the overall lowest coverage rate (38 percent).

Table ES.2. WIC Coverage Rates by Participant Category and by Race and Hispanic Ethnicity: CY 2022

Participant Category	Hispanic/ Latino	Black-Only, Not Hispanic	White-Only, Not Hispanic	Two or More Races or Other Race, Not Hispanic ^a	Total
Infants	84.4	84.3	68.1*	75.4	78.5
Children	56.3*	38.4*	38.8*	48.7	45.9
Pregnant women	55.4*	43.6*	39.0*	38.5*	45.6
Postpartum women	74.8	72.9	64.1	52.7*	69.0
Breastfeeding women	76.0*	66.4	57.0*	53.7	66.3
Non-breastfeeding women	72.5	82.0	75.6	51.1*	73.4
Total	63.0*	49.1*	45.9*	52.6	53.5

Note: Estimates for U.S. territories other than Puerto Rico are not included in the calculation of the coverage rates in this table because information on race and ethnicity for the other U.S. territories was not available in the data.

CY = calendar year

^a Non-Hispanic individuals who self-identified as two or more races or Asian, American Indian/Alaska Native, or Hawaiian/Pacific Islander are included in the “Two or more races or other race, not Hispanic” category.

* Indicates a statistically significant difference at the 95 percent confidence level between the coverage rate for a participant category’s race and ethnicity and the national coverage rate for that category

Sources: FNS, 2023; IPUMS-USA, n.d.; U.S. Census Bureau, n.d.-a, n.d.-b; Zvavitch et al., 2024

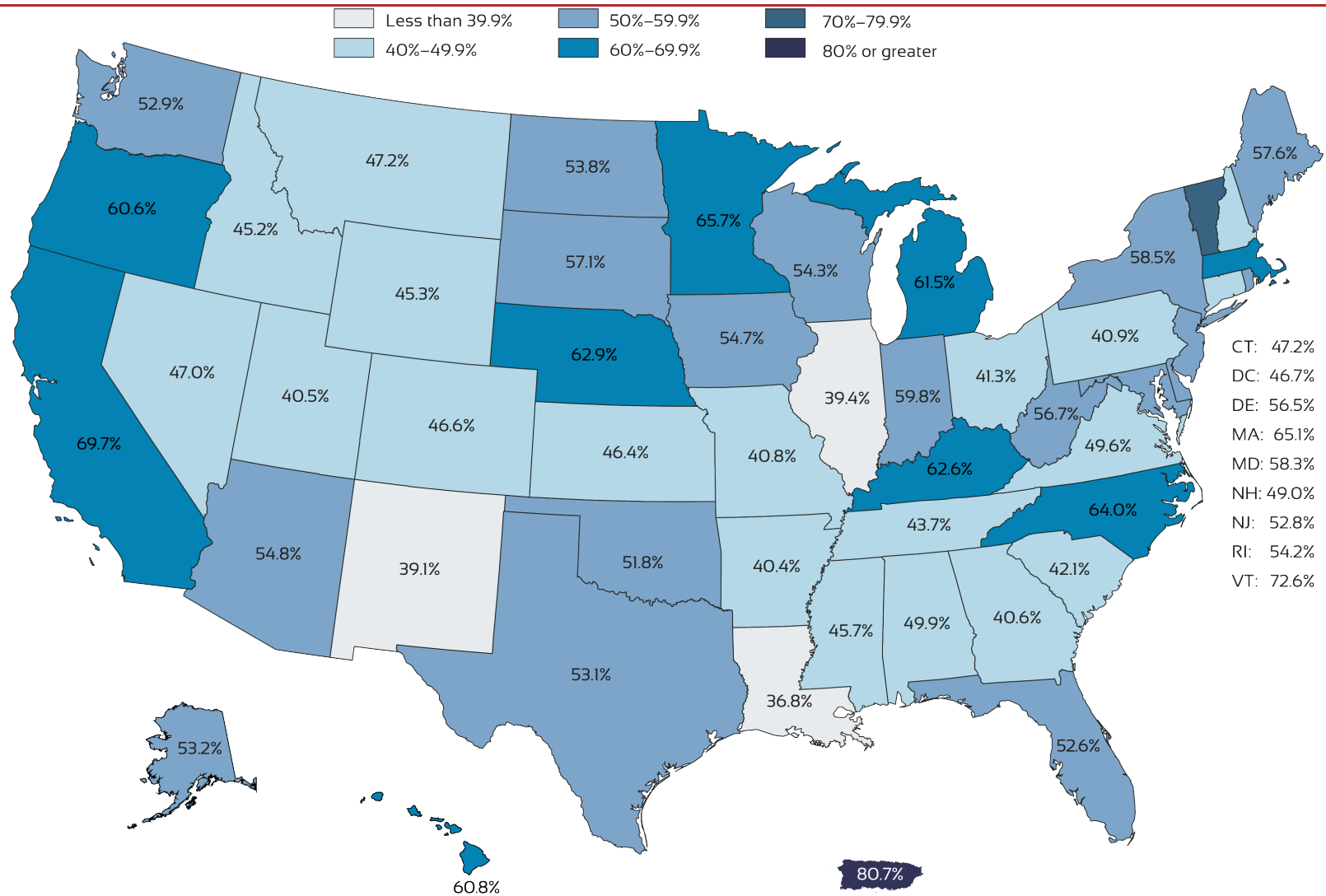
WIC coverage rates varied by State

WIC coverage rates varied substantially by State, ranging from 37 percent (Louisiana) to 73 percent (Vermont), compared with the national average coverage rate of 54 percent. Puerto Rico had a higher coverage rate (81 percent) than any State. Figure ES.4 provides a national map that illustrates the variations in coverage rates. States with the darkest shading had the highest rates of coverage in CY 2022, whereas States with the lightest shading had the lowest rates. See tables 3.5 and 3.6 in chapter 3 for more details on State coverage rates.

Coverage rates by race and ethnicity varied across States. In 33 States, Puerto Rico, and the District of Columbia, the coverage rate for Hispanic/Latino individuals was higher than the rate for White-only, non-Hispanic individuals and all other non-Hispanic individuals (see table 3.7 in chapter 3). Only two States had coverage rates for Hispanic/Latino individuals lower than the rates for White-only, non-Hispanic individuals and all other non-Hispanic individuals.

Figure ES.4. WIC Coverage Rate for Total Eligible Individuals by State: CY 2022

National Coverage Rate: 53.5 Percent



Note: [Data for figure ES.4 are available in table 3.5.](#)

CY = calendar year

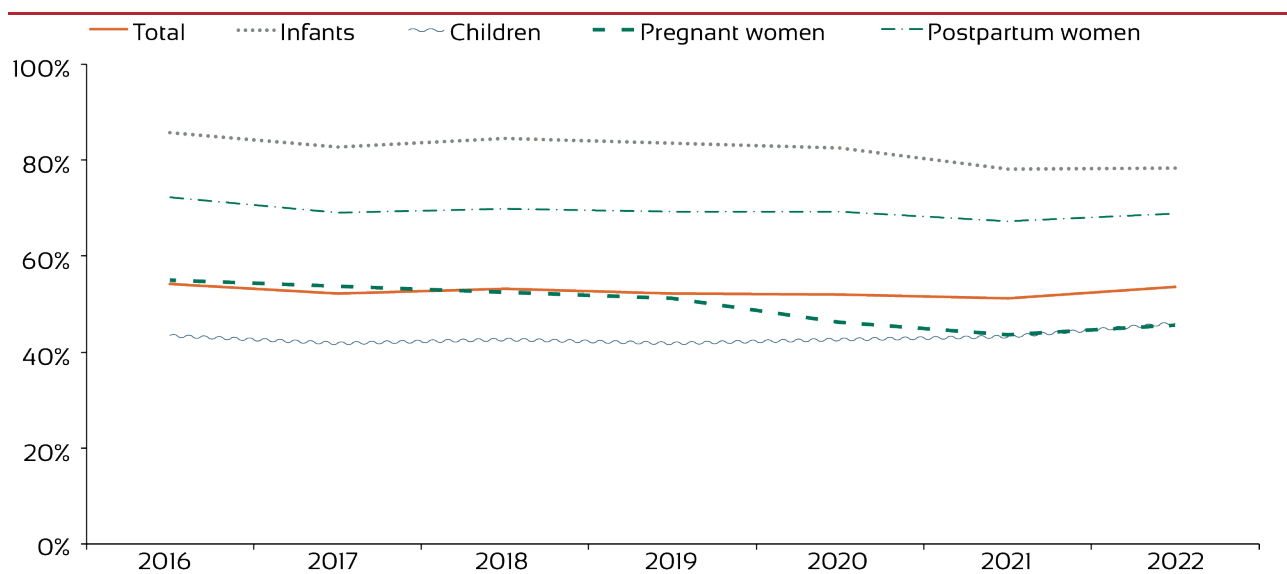
Sources: FNS, 2023; IPUMS-USA, n.d.; U.S. Census Bureau, n.d.-a, n.d.-b

WIC coverage rates varied over time

In CY 2022, the WIC coverage rate increased to 54 percent in CY 2022 from 51 percent in CY 2021 (an estimated difference of 2.4 percentage points),¹¹ returning to the highest coverage rate observed since CY 2016. CY 2021 represented the lowest coverage rate observed from CY 2016 through CY 2022 (see figure ES.5). Recent changes in WIC coverage rates may be influenced by policies related to the COVID-19 public health emergency and other external events. For example, physical presence waivers allowed State agencies to issue benefits remotely, which could have inflated participation counts for State agencies whose EBT system allowed them to issue benefits remotely. Medicaid continuous enrollment may have simultaneously increased the population eligible for WIC via adjunctive income eligibility. The February 2022 national infant formula recall and subsequent formula shortage also affected decisions about how infants were fed and may have influenced decisions to participate in WIC.

The relative order of coverage rates by participant category has remained relatively consistent from CY 2016 to CY 2022. Across these years, infants' rates were consistently the highest among the participant categories, followed by postpartum women. In CY 2022, pregnant women had a slightly lower coverage rate than children, while in prior years, children had the lowest coverage rate. Coverage rates for pregnant women steadily decreased from CY 2016 to CY 2019 before declining more rapidly in CY 2020 and CY 2021. These declines resulted from both an increase in the number of pregnant women eligible for WIC via adjunctive income eligibility and a decrease in pregnant women participating in WIC. The coverage rate for pregnant women increased in CY 2022 but was the lowest coverage rate out of all participant categories. This increase for CY 2022 reflected an increase in participation and a smaller decline in the number of pregnant women eligible for WIC. Children experienced the largest increase in coverage rate between CY 2021 and CY 2022 (3 percentage points).

Figure ES.5. Trends in WIC Coverage Rates by Participant Category: CY 2016–CY 2022



Note: [Data for figure ES.5 are available in table 3.12](#). The estimates for CY 2016 through CY 2020 are consistent with the results published in the CY 2021 report (Kessler et al., 2023) but differ from initial results published for those years because of updates to the methodology.

CY = calendar year

Sources: FNS, 2023; IPUMS-USA, n.d.; U.S. Census Bureau, n.d.-a, n.d.-b

¹¹ The unrounded coverage rate in CY 2022 is 53.51 percent and in CY 2021 is 51.15 percent.

B. Methodology

The CY 2022 national estimates presented in this report are based on a methodology initially developed by the Committee on National Statistics of the National Research Council (Ver Ploeg & Betson, 2003) and were enhanced during the development of the CY 2020 and CY 2021 WIC eligibility estimates (Gray et al., 2022; Kessler et al., 2023). The estimates for CY 2016 through CY 2020 presented in this report were updated using the methodology employed in CY 2021 and repeated this year to facilitate comparisons across these years. The estimates in this report should not be compared with reports prior to the CY 2021 report because of the methodological differences.

The primary data source used to develop the national estimates of the eligible populations is the 2023 Current Population Survey Annual Social and Economic Supplement (CPS ASEC) (U.S. Census Bureau, n.d.-a).¹² Methods varied by participant category, with somewhat different approaches for (1) infants and children, (2) pregnant women, and (3) postpartum breastfeeding and non-breastfeeding women. The numbers of income-eligible and adjunctively income-eligible infants and children were first estimated using the CPS ASEC data; the adjunctively income-eligible population was increased based on program participation data from the 2022 American Community Survey (ACS) (see Kessler et al., 2023, and appendix A of volume II, for more information). These estimates were then adjusted to account for differences between annual and monthly income. Because the CPS ASEC data do not identify pregnancy or breastfeeding status, the number of pregnant women was determined using the total population of women of reproductive age and adjusted following a recommendation from the Centers for Disease Control and Prevention (CDC, n.d.) for estimating the pregnant population. The number of infants eligible for WIC was then used as the starting point to estimate the number of postpartum women eligible for WIC and adjusted to estimate breastfeeding status (see table 6.1 for more details about the effects of these adjustments for all participant categories).

The State-level estimates are based on a methodology that apportions the national figures using data from the ACS. The CY 2022 State-level estimates are based on pooled data from the 2021 and 2022 ACS data (Integrated Public Use Microdata Series-USA, n.d.). Estimates for the five U.S. territories WIC serves (American Samoa, Guam, the Northern Mariana Islands, Puerto Rico, and the U.S. Virgin Islands) are based on procedures similar to those used to generate the national estimates. However, estimates for Puerto Rico are based on data from the Puerto Rico Community Survey. Estimates for the four other U.S. territories are based on the U.S. Census Bureau International Database.

¹² The 2023 CPS ASEC survey asks about income and program participation during CY 2022.

Chapter 1. Introduction

The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) provides nutritious foods, nutrition education that includes breastfeeding promotion and support, and referrals to health and social services. WIC serves pregnant, breastfeeding, and non-breastfeeding postpartum women; infants; and children up to age 5 who have low incomes and are nutritionally at risk. Administered by the U.S. Department of Agriculture's (USDA) Food and Nutrition Service (FNS), WIC provides services through State and local agencies in all 50 States; the District of Columbia;¹³ five U.S. territories including American Samoa, Guam, the Northern Mariana Islands, Puerto Rico, and the U.S. Virgin Islands; and 33 Indian Tribal Organizations (Tribal Organizations).¹⁴ Eligible participants receive electronic benefit transfer (EBT) cards for prescribed foods and redeem them at authorized retail vendors at no charge.¹⁵

WIC served 6.3 million women, infants, and children in an average month in calendar year (CY) 2022.¹⁶ To be eligible for WIC, an applicant must be categorically eligible as a pregnant, postpartum breastfeeding¹⁷ or postpartum non-breastfeeding¹⁸ woman; an infant up to age 1;¹⁹ or a child aged 1–4. Each applicant must also be income-eligible, at nutritional risk, and live in the geographic location (i.e., State, territory, or Tribal land) where the application is submitted.

6.3 million
women, infants, and
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WIC in an average
month in 2022

WIC is a federally funded program, but the funding is discretionary. The number of eligible women, infants, and children the program can serve depends on the amount of funding Congress provides for the program and how FNS allocates the funds to individual State agencies. Since approximately 1997, Congress has funded WIC at a level sufficient for the program to serve all eligible applicants. Annual WIC funding allocations are based on the number of individuals eligible for WIC and the percentage of the eligible population likely to participate. FNS allocates funds based on a formula that considers the previous year's funding and the estimated eligible population in each State and U.S. territory. Accurately estimating the number of individuals eligible for WIC and the number likely to participate enables FNS to better predict future funding needs, measure WIC performance, and identify potentially unmet nutrition assistance needs.

This report presents estimates of the numbers of women, infants, and children eligible for WIC during an average month in 2022 and historical estimates for 2016–2021.²⁰ It is the latest report in a series that provides eligibility estimates at the national, regional, and State levels. Estimates are also provided by participant category—infants, children, pregnant women, and postpartum women²¹—and by race and

¹³ Hereafter, this report includes the District of Columbia in references to States.

¹⁴ On March 1, 2024, the number of Tribal Organizations participating in WIC changed from 33 to 32 when Indian Township Passamaquoddy Reservation stopped operations. This change decreased the total number of State agencies to 88. For the period covered by this report, WIC provided services in 89 State agencies, including Indian Township Passamaquoddy Reservation.

¹⁵ As of July 2023, a small number of participants continue to receive paper checks until they transition to EBT. EBT status for all State agencies can be found in the WIC EBT Detail Status Report (<https://fns-prod.azureedge.us/sites/default/files/resource-files/december22-wic-ebt-detailstatusreport.pdf>).

¹⁶ The eligibility estimates are intended to represent average monthly figures—the numbers of women, infants, and children eligible for WIC in an average month of a calendar year—to be consistent with average monthly data on program participation. All yearly estimates presented in this report are for the calendar year.

¹⁷ Breastfeeding women are categorically eligible up to 1 year postpartum.

¹⁸ Non-breastfeeding women are categorically eligible up to 6 months postpartum.

¹⁹ An infant must be recertified as a child after the infant's first birthday.

²⁰ The estimates for 2016 through 2020 are consistent with the results published in the 2021 report (see Kessler et al., 2023) but differ from the initial results published for those years because of updates to the methodology.

²¹ The postpartum women category includes breastfeeding and non-breastfeeding women. This report contains some tables and figures that combine breastfeeding and non-breastfeeding women under postpartum women.

ethnicity, urbanicity, and reported household income. This report also provides the percentages of eligible individuals who participated in WIC overall and by participant category (i.e., coverage rates); the percentages of the total population of individuals who participated in WIC overall and by participant category (i.e., participation rates); and national-level estimates of WIC nonparticipation rates among Medicaid and Supplemental Nutrition Assistance Program (SNAP) participants.²² For the purposes of this report, WIC participants are defined as those individuals who were enrolled in WIC and received or picked up their WIC benefits in an average month in 2022.²³

Historically, this report has not estimated the number of individuals eligible to be served by Tribal Organizations that administer WIC (the following text box includes more information about the Tribal Organizations and their relationship to WIC). State-level estimates incorporate individuals eligible for WIC and WIC participants in Tribal Organizations within the geographic States where the Tribal Organizations are headquartered. This approach has been adopted primarily because of limitations of the data sources but has resulted in important gaps in information available to the Tribal Organizations.

The report also has not included estimates of the number of eligible individuals who identify as American Indian/Alaska Native at even the national level. As first steps to remedying these gaps, this report incorporates two new measures: (1) national estimates of coverage rates for individuals who identify as American Indian/Alaska Native and (2) a summary of the number of individuals participating in WIC through the 33 Tribal Organizations. Chapter 6 and appendix A include more information about these new metrics and key considerations for producing program reach metrics for the Tribal Organizations.

Native Americans, Tribes, Tribal Organizations, and WIC

There are 574 federally recognized Tribal Nations located in the United States (National Congress of American Indians, 2020). These Tribal Nations are self-governed, sovereign nations with distinct laws and governance processes. Tribal members are citizens of both their Tribal Nation and the United States. Not all individuals who identify as Indigenous, Native American, American Indian, or Alaska Native live on Tribal land or identify as members of a Tribal Nation. According to the 2020 U.S. Census, there were 9.7 million American Indian/Alaska Native individuals in the United States in 2020, representing 3 percent of the total U.S. population (U.S. Census, 2020).

Tribal Nations can administer WIC as State agencies or local agencies within a geographic WIC State agency. In 2022, 33 Tribal Organizations (including individual Tribal Nations and larger groups of Tribal Nations) administered the WIC program as State agencies. Because the Tribal Organizations administering WIC represent sovereign Tribal Nations, some WIC eligibility criteria may vary. For example, some WIC Tribal Organizations serve only enrolled Tribal members, while others serve all individuals living on Tribal land or in nearby communities. Tribal Organizations may collaborate with other WIC State agencies (both other Tribal Organizations and the State agencies representing geographic States in their area) to set service priorities or caseload limits. As with all State agencies, WIC Tribal Organizations determine their approved products and vendors within limits set by FNS regulations and guidance.

²² Individuals who are categorically eligible for WIC and participate in Medicaid and SNAP are adjunctively income-eligible but may not participate in the program for several reasons.

²³ WIC participants also include (1) infants younger than 6 months who are exclusively breastfed and whose breastfeeding mother received foods or food instruments (e.g., EBT cards, vouchers, coupons) during the reporting period and (2) partially breastfeeding women more than 6 months postpartum who did not receive supplemental foods but whose infants received supplemental foods or food instruments (Special Supplemental Nutrition Program for Women, Infants, and Children, 2014).

WIC Eligibility Requirements

To be eligible for WIC, an individual must be categorically eligible and meet requirements for income or adjunctive income eligibility, nutritional risk, and residency:

- ▶ **Categorical eligibility.** A participant must be a pregnant, postpartum breastfeeding, or postpartum non-breastfeeding woman; an infant up to age 1 (the first birthday); or a child up to age 5 (the fifth birthday).
- ▶ **Income eligibility.** A participant can establish income eligibility in two ways:
 - A participant's income may not exceed 185 percent of the Federal Poverty Guidelines issued annually by the U.S. Department of Health and Human Services (HHS); these income guidelines are based on household size.²⁴ Applicants must present proof of income such as recent paystubs or income tax returns.
 - A participant may be adjunctively income-eligible for WIC if they or certain household members can document participation in Medicaid, SNAP, or Temporary Assistance for Needy Families (TANF).²⁵
- ▶ **Nutritional risk.** A participant must be determined to be at nutritional risk based on a comprehensive assessment by a competent professional authority, such as a nutritionist, nurse, or physician. The applicant must display at least one medical, dietary, socioeconomic, or environmental risk factor (e.g., anemia, inadequate diet, underweight, homelessness) that may lead to a poor health outcome.
- ▶ **Residency.** An applicant must apply for and receive benefits in the geographic region (i.e., State, Tribal land, Tribal Organization, or U.S. territory) in which they reside.²⁶

A. Overview of Estimation Methodology

The estimation procedures used to develop the estimates for WIC eligibility presented in this report are based primarily on the methodology recommended by the Committee on National Statistics (CNSTAT) panel members (Ver Ploeg & Betson, 2003). During the development of the 2020 WIC eligibility estimates, the estimation methodologies were updated to incorporate additional data sources and more closely reflect WIC eligibility criteria; these updates and additional enhancements are described in the 2021 WIC eligibility estimates report (Kessler et al., 2023). Chapter 6 provides a detailed description of the estimation methodology, including methodological updates to the estimates presented in this report.

This report uses the following estimation procedures:

- ▶ **Estimating eligible infants and children.** Current Population Survey Annual Social and Economic Supplement (CPS ASEC) data provide the initial counts of eligible infants and children aged 1–4 in all States. The counts are then refined through a series of adjustment factors designed to

²⁴ See HHS (n.d.) for the Federal Poverty Guidelines used to calculate the 2022 WIC eligibility estimates presented in this report. These guidelines are based on family or household size. The 48 contiguous States, the District of Columbia, and the U.S. territories served by WIC have the same guidelines; Alaska and Hawaii have different guidelines.

²⁵ WIC regulations also allow State agencies to extend automatic WIC income eligibility to applicants participating in other qualifying means-tested benefit programs with income eligibility thresholds below those for WIC (see Special Supplemental Nutrition Program for Women, Infants, and Children, 2014). As in previous reports, the estimates presented do not account for automatic income eligibility.

²⁶ Applicants applying for benefits through a Tribal Organization must meet the residency requirements established by that Tribal Organization.

reflect WIC eligibility requirements more closely. The numbers of infants and children who are income-eligible or adjunctively income-eligible are estimated in the CPS ASEC; information from the American Community Survey (ACS) is used to impute participation in programs that confer adjunctive income eligibility.²⁷ The estimates are then adjusted to account for differences between annual and monthly income and for nutritional risk.

- ▶ **Estimating eligible pregnant women.** The CPS ASEC data do not include information on pregnancy. The methodology proposed by the Centers for Disease Control and Prevention (CDC, n.d.) was used to estimate the total number of pregnant women in the United States. The estimation procedures for pregnant women start with the total number of women of reproductive age (15–44 years) in the CPS ASEC. This count is then adjusted based on other pregnancy-related data (e.g., multiple births, pregnancy losses) to estimate the total number of pregnant women. From this number, the estimated number of women who are income-eligible or adjunctively income-eligible is determined and then adjusted to reflect WIC eligibility criteria.
- ▶ **Estimating eligible postpartum women.** Because the CPS ASEC data do not include information on postpartum or breastfeeding status, the estimates of postpartum women eligible for WIC are based on adjusted counts of infants eligible for WIC. Separate estimates are produced for breastfeeding and non-breastfeeding women because certification periods and benefits vary for these two groups. Breastfeeding information is drawn from the most recent National Immunization Survey conducted by the CDC to estimate breastfeeding status among postpartum women.

State-level estimates of individuals eligible for WIC are prepared using the same general procedures used to develop the national-level estimates, but State-level estimates are based on ACS data instead of CPS ASEC data. CPS ASEC data are considered a better source for national-level estimates because they include more complete income data, but ACS data are preferred for State-level estimates because of the relatively large sample sizes for all States. To create a consistent set of national- and State-level estimates, each State's share of the total ACS-based estimates is calculated. Two years of ACS data are used to address small sample sizes and related fluctuations in small States; the national-level estimates are then allocated across States according to each State's share. As a result, the sum of the State-level estimates of the number of individuals eligible for WIC is the same as the national total. State-level estimates are also summed to produce regional-level estimates. Estimates for the five U.S. territories WIC serves (American Samoa, Guam, the Northern Mariana Islands, Puerto Rico, and the U.S. Virgin Islands) are prepared using similar procedures to those used to generate the national estimates. Estimates for Puerto Rico are based on data from the Puerto Rico Community Survey (PRCS), and estimates for the four other U.S. territories are based on data from the U.S. Census Bureau International Database (IDB).²⁸

This report provides the first published estimates of the population of individuals who identify as American Indian/Alaska Native who are eligible for WIC (see chapter 3). Chapter 6 and appendix A provide additional details on methodology used to produce these estimates.

The following data sources were used for the 2022 estimates: (1) 2023 CPS ASEC data (U.S. Census Bureau, n.d.-a), which asks about income and program participation during 2022; (2) 2021 and 2022 ACS

²⁷ See appendix A of Kessler et al. (2023) for more information about the imputation procedure.

²⁸ Puerto Rico estimates are included in State-level tables unless otherwise noted. Other territories are not included in State-level tables because of small sample sizes.

data (Integrated Public Use Microdata Series-USA [IPUMS-USA], n.d.); (3) 2021 and 2022 PRCS data (IPUMS-USA, n.d.); and (4) 2022 IDB data (U.S. Census Bureau, n.d.-b).

Policies and National Events Influencing WIC Operations, Eligibility, and Program Reach

Several external factors and WIC policy changes influenced WIC program operations in 2022. These changes may influence the estimates and trends presented in this report. For example—

- In June 2021, the American Rescue Plan Act temporarily increased the monthly cash value benefit (CVB) issued to WIC participants for the purchase of fruits and vegetables. This increase was later extended, with the benefit amounts further increasing for women and children throughout CY 2022.
- In February 2022, an infant formula recall led to a national formula shortage. Combined with pandemic-related supply chain issues, the formula shortage continued through the summer months, leading to shifts in how infants were fed across the Nation through the remainder of 2022 and continuing into 2023 (Economic Research Service, 2024). Breastfeeding practices directly affect who is eligible for WIC and what benefits postpartum women and infants receive.
- The country continued to deal with challenges related to the COVID-19 public health emergency (PHE). Poverty remained relatively high, although some measures suggest a slight increase in family incomes. Medicaid and SNAP participation also continued at high levels. Some WIC clinics began shifting back to pre-COVID policies while others continued to waive physical presence requirements and issued benefits remotely. The impact of WIC waivers may have varied across State agencies with different policies. For example, State agencies using offline EBT technology may have been disadvantaged in comparison with State agencies with online EBT systems because they could not easily issue benefits remotely.

Chapter 2. Estimates of WIC Eligibility for CY 2022

This chapter presents estimates of WIC eligibility in 2022. Section A presents national-level estimates by participant category and describes the characteristics of infants and children eligible for WIC. Section B presents regional- and State-level estimates. Section C examines the changes in the numbers of individuals eligible for WIC overall and by participant category from 2021 to 2022. Section D discusses general trends in WIC eligibility from 2016 to 2022.

Eligibility Rate

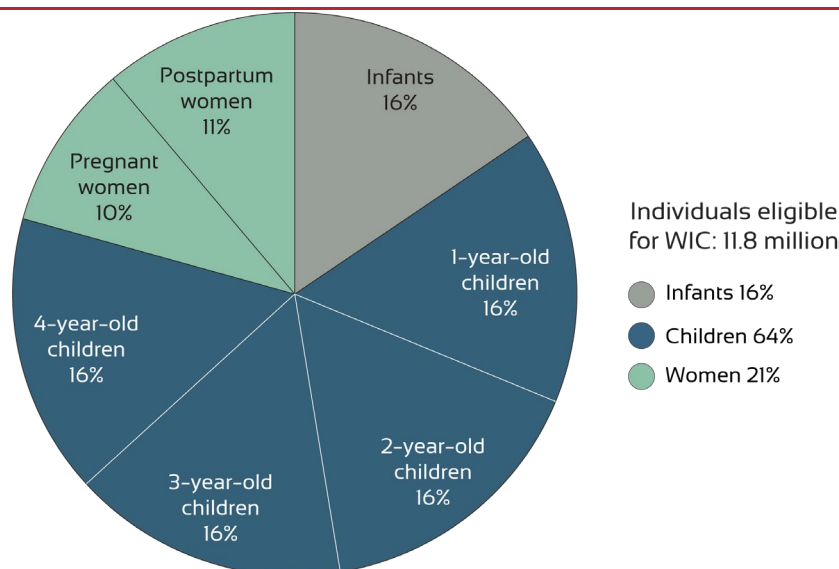
Percentage of women, infants, and children eligible for WIC

Estimates of WIC eligibility in 2022 may have been influenced by demographic shifts related to the COVID-19 pandemic. The infant formula shortage also shifted breastfeeding practices, directly affecting the number of postpartum women eligible for WIC in an average month.

A. National-Level Estimates of Individuals Eligible for WIC

In an average month in 2022, 11.8 million individuals were eligible for WIC in all States and the U.S. territories served by WIC (see figure 2.1). Of those eligible for WIC, almost two-thirds (64 percent) were children, 16 percent were infants, and 21 percent were women.

Figure 2.1. Distribution of Individuals Eligible for WIC: CY 2022



Note: [Data for figure 2.1 are available in table 2.1.](#)

CY = calendar year

Sources: IPUMS-USA, n.d.; U.S. Census Bureau, n.d.-a, n.d.-b

Children eligible for WIC were evenly distributed by year of age, with each age group representing about 16 percent of total eligible individuals (see table 2.1). Pregnant and postpartum women represented 10 percent and 11 percent of the eligible population, respectively. Postpartum breastfeeding women represented a larger proportion than postpartum non-breastfeeding women (7 versus 4 percent).

Table 2.1. Estimated Average Monthly Number of Individuals Eligible for WIC by Participant Category: CY 2022

Participant Category	Number Eligible	Percent of Total Eligible	Total Population	Eligibility Rate
Infants	1,830,448	15.5	3,672,318	49.8
Children	7,523,916	63.8	14,837,992	50.7
1-year-old children	1,852,300	15.7	3,667,605	50.5
2-year-old children	1,909,244	16.2	3,619,676	52.7
3-year-old children	1,864,052	15.8	3,753,387	49.7
4-year-old children	1,898,321	16.1	3,797,324	50.0
Women	2,438,659	20.7	6,758,981	36.1
Pregnant women	1,124,940	9.5	2,851,339	39.5
Postpartum women	1,313,719	11.1	3,907,642	33.6
Breastfeeding women	822,967	7.0	1,977,449	41.6
Non-breastfeeding women	490,752	4.2	1,930,192	25.4
Total	11,793,023	100.0	25,269,292	46.7

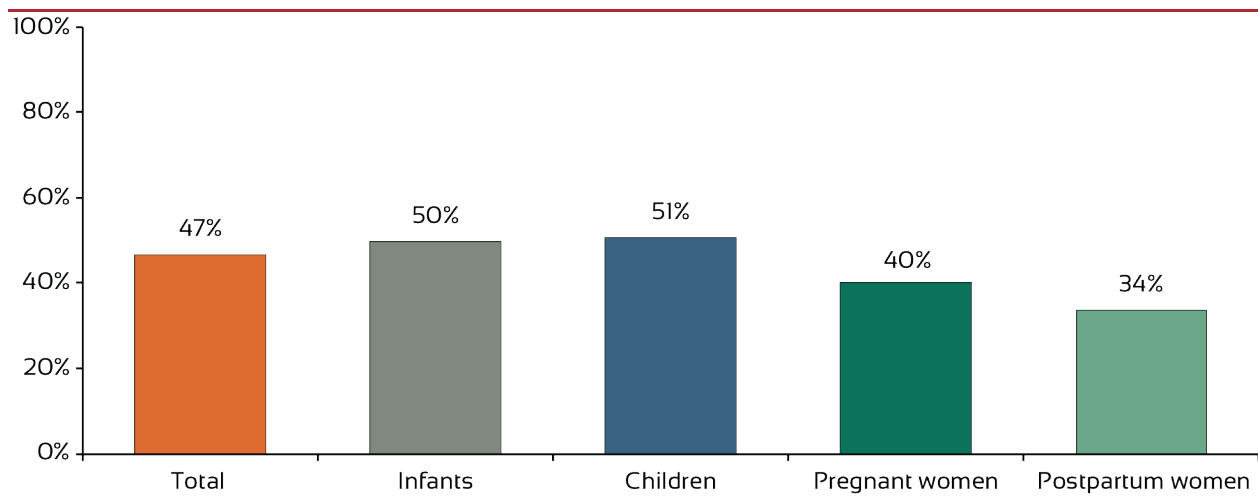
Note: The total population consists of individuals in the 50 States, the District of Columbia, and the U.S. territories served by WIC in each participant category. The eligibility rate is the ratio of the total number of individuals eligible for WIC to the total population in each participant category. The average monthly population of postpartum women includes all women who gave birth less than 1 year earlier, even if they are not categorically eligible for WIC because they are more than 6 months postpartum and are not breastfeeding.

CY = calendar year

Sources: IPUMS-USA, n.d.; U.S. Census Bureau, n.d.-a, n.d.-b

The eligibility rate is the percentage of the total population in each participant category who are estimated to be eligible for WIC. In an average month in 2022, 50 percent of all infants and 51 percent of all children were eligible for WIC (see table 2.1 and figure 2.2). Forty percent of all pregnant women and 34 percent of all postpartum women were eligible. The eligibility rate is lower for non-breastfeeding women (25 percent) than for breastfeeding women (42 percent) in part because non-breastfeeding women are eligible only for the first 6 months postpartum.

Figure 2.2. WIC Eligibility Rate by Participant Category: CY 2022



Note: [Data for figure 2.2 are available in table 2.1.](#)

CY = calendar year

Sources: IPUMS-USA, n.d.; U.S. Census Bureau, n.d.-a, n.d.-b

Characteristics of Infants and Children Eligible for WIC

The CPS ASEC and ACS data were used to examine the characteristics of infants and children identified as eligible for WIC in 2022 (see table 2.2).²⁹ Almost two-thirds of infants and children eligible for WIC were White (63 percent), 24 percent were Black, and 13 percent were another race or multiple races. More than one-third of eligible infants and children were Hispanic/Latino (36 percent), and a majority lived in households with two parents (61 percent; see figure 2.3). About 6 percent of eligible infants and children were living with a household member (aged 17 or older) who had served in the U.S. military, and 1 percent were living with a household member who was serving in the U.S. military in 2022. Seventy-six percent of infants and children eligible for WIC lived in households with working parent(s). Most infants and children eligible for WIC lived with families receiving Medicaid (82 percent, see figure 2.3). The characteristics of infants and children eligible for WIC were generally similar (see table 2.2).

The CPS ASEC and ACS data were also used to examine the characteristics of infants and children who appeared to be solely adjunctively income-eligible (in households with annual income exceeding 185 percent of the Federal Poverty Guidelines but participating in Medicaid, SNAP, or TANF) compared with those income-eligible for WIC (in households with annual income less than or equal to 185 percent of the Federal Poverty Guidelines regardless of whether they participated in Medicaid, SNAP, or TANF).³⁰ For example, 57 percent of infants and children who were solely adjunctively income-eligible received Medicaid but not SNAP or TANF (see table 2.2). In comparison, 29 percent of directly income-eligible infants and children received Medicaid but not SNAP or TANF. Those who were solely adjunctively income-eligible were more likely to live in two-parent families (70 percent versus 54 percent), live with one or more working parents (87 percent versus 68 percent), and have a family member who had ever served in the U.S. military (8 percent versus 4 percent) than those who were directly income-eligible.

²⁹ Table 2.2 presents characteristics of infants and children eligible for WIC based on the CPS ASEC and ACS data using weights adjusted for the undercount and overcount in CPS ASEC estimates, monthly income, certification periods, and nutritional risks of these individuals. See chapter 6 for more information on the estimation procedures.

³⁰ Although 41.7 percent of infants and children eligible for WIC were in households with annual incomes exceeding 185 percent of the Federal Poverty Guidelines, the proportion of WIC participants in households with annual incomes exceeding 185 percent of the Federal Poverty Guidelines was much lower—3.8 percent of total participants in 2022 (Zvavitch et al., 2024). There are various reasons a small percentage of participants had income exceeding the poverty guidelines. One reason is State Medicaid income thresholds for infants and children are equal to or greater than 250 percent of the Federal Poverty Guidelines for many States and equal to or greater than 300 percent of those for other States (Heberlein et al., 2013). Moreover, the programs that confer adjunctive income eligibility use income disregards and do not necessarily count the income of all members of the economic unit as defined by WIC.

Table 2.2. Distribution of Average Monthly Numbers of Infants, Children, and Infants and Children Eligible for WIC (Percentage) by Demographic and Income Characteristics and Adjunctive Income Eligibility: CY 2022

Characteristics		Infants Eligible for WIC			Children Eligible for WIC			Infants and Children Eligible for WIC		
		Family Income ≤ 185 Percent FPG ^a	Adjunctively Income-Eligible > 185 Percent FPG ^b	Total	Family Income ≤ 185 Percent FPG ^a	Adjunctively Income-Eligible > 185 Percent FPG ^b	Total	Family Income ≤ 185 Percent FPG ^a	Adjunctively Income-Eligible > 185 Percent FPG ^b	Total
Total		1,069,257	738,476	1,807,733	4,320,006	3,118,506	7,438,512	5,389,263	3,856,982	9,246,246
Sex	Male	48.9	48.4	48.7	52.7	49.7	51.4	51.9	49.4	50.9
	Female	51.1	51.6	51.3	47.3	50.3	48.6	48.1	50.6	49.1
Race	Black	21.8	22.4	22.0	25.0	23.6	24.4	24.4	23.4	23.9
	White	65.7	61.7	64.1	62.5	63.2	62.8	63.1	62.9	63.0
	Another race ^c	12.5	15.9	13.9	12.5	13.2	12.8	12.5	13.7	13.0
Hispanic ethnicity	Hispanic/Latino	37.0	40.1	38.3	36.1	34.6	35.5	36.3	35.6	36.0
	Not Hispanic/Latino	63.0	59.9	61.7	63.9	65.4	64.5	63.7	64.4	64.0
Living arrangement	Two-parent family	62.1	65.0	63.3	52.0	71.3	60.1	54.0	70.1	60.7
	Single-parent family	30.3	31.6	30.8	41.8	25.5	35.0	39.5	26.7	34.2
	No-parent family	7.7	3.4	5.9	6.2	3.2	4.9	6.5	3.2	5.1
	Related nonparent caretaker	2.1	3.4	2.6	2.6	3.2	2.9	2.5	3.2	2.8
	Unrelated nonparent caretaker	5.6	0.0	3.3	3.6	0.0	2.1	4.0	0.0	2.3
Military status of household members	Ever served in U.S. military	3.5	9.5	6.0	4.0	7.9	5.7	3.9	8.2	5.7
	Serving in U.S. military in 2022 ^d	2.4	2.2	2.3	0.7	1.5	1.0	1.1	1.6	1.3
Number of individuals in household	2	5.5	3.1	4.5	5.9	2.5	4.5	5.8	2.6	4.5
	3	24.0	27.5	25.4	15.8	17.2	16.4	17.4	19.2	18.1
	4	22.1	20.0	21.3	26.4	29.5	27.7	25.6	27.7	26.5
	5	24.0	22.6	23.4	23.9	24.6	24.2	23.9	24.2	24.1
	6 or more	24.5	26.7	25.4	28.0	26.1	27.2	27.3	26.2	26.9

Characteristics		Infants Eligible for WIC			Children Eligible for WIC			Infants and Children Eligible for WIC		
		Family Income ≤ 185 Percent FPG ^a	Adjunctively Income-Eligible > 185 Percent FPG ^b	Total	Family Income ≤ 185 Percent FPG ^a	Adjunctively Income-Eligible > 185 Percent FPG ^b	Total	Family Income ≤ 185 Percent FPG ^a	Adjunctively Income-Eligible > 185 Percent FPG ^b	Total
Percent with working parent(s)		65.6	80.7	71.8	68.0	88.5	76.6	67.5	87.0	75.6
Annual family income relative to FPG ^b	No income	9.4	0.0	5.6	8.7	0.0	5.0	8.8	0.0	5.1
	Up to 50% FPG	15.8	0.0	9.3	12.7	0.0	7.4	13.3	0.0	7.8
	More than 50% up to 100% FPG	23.5	0.0	13.9	24.5	0.0	14.2	24.3	0.0	14.2
	More than 100% up to 130% FPG	17.0	0.0	10.1	19.0	0.0	11.1	18.6	0.0	10.9
	More than 130% up to 150% FPG	11.4	0.0	6.8	12.3	0.0	7.1	12.1	0.0	7.1
	More than 150% up to 185% FPG	22.8	0.0	13.5	22.7	0.0	13.2	22.8	0.0	13.3
	More than 185% up to 200% FPG	0.0	10.2	4.2	0.0	10.4	4.3	0.0	10.3	4.3
	More than 200% FPG ^c	0.0	89.8	36.7	0.0	89.6	37.6	0.0	89.7	37.4
Receipt of other benefits	No benefit receipt	20.6	0.0	12.2	16.3	0.0	9.4	17.1	0.0	10.0
	Medicaid, SNAP, and TANF	1.4	1.8	1.5	4.7	0.8	3.1	4.0	1.0	2.8
	SNAP and TANF only	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
	Medicaid and SNAP only	37.2	26.6	32.8	45.6	30.2	39.1	43.9	29.5	37.9
	Medicaid and TANF only	0.5	0.0	0.3	0.2	0.6	0.4	0.3	0.5	0.4
	SNAP only	11.9	13.0	12.4	4.2	11.6	7.3	5.7	11.8	8.3
	TANF only	0.0	0.5	0.2	0.0	0.0	0.0	0.0	0.1	0.0
	Medicaid only	28.3	58.2	40.5	29.0	56.8	40.6	28.8	57.0	40.6
Urbanicity	Nonmetropolitan	17.5	12.0	15.3	19.7	13.1	16.9	19.3	12.9	16.6
	Metropolitan	82.5	88.0	84.7	80.3	86.9	83.1	80.7	87.1	83.4

Note: This table does not include estimates for the U.S. territories.

CPS ASEC = Current Population Survey Annual Social and Economic Supplement; CY = calendar year; FPG = Federal Poverty Guidelines; SNAP = Supplemental Nutrition Assistance Program; TANF = Temporary Assistance for Needy Families

^a The WIC economic unit is defined as all individuals in the CPS ASEC household who are related by blood, marriage, or adoption, plus the unmarried partner of any family member and that partner's dependents. Infants and children in economic units with annual incomes less than or equal to 185 percent of the FPG for the unit's size are income-eligible for WIC.

^b Adjunctively income-eligible infants and children were in economic units that reported participating in Medicaid, SNAP, or TANF during the prior year and had annual income exceeding 185 percent of the FPG for the unit's size.

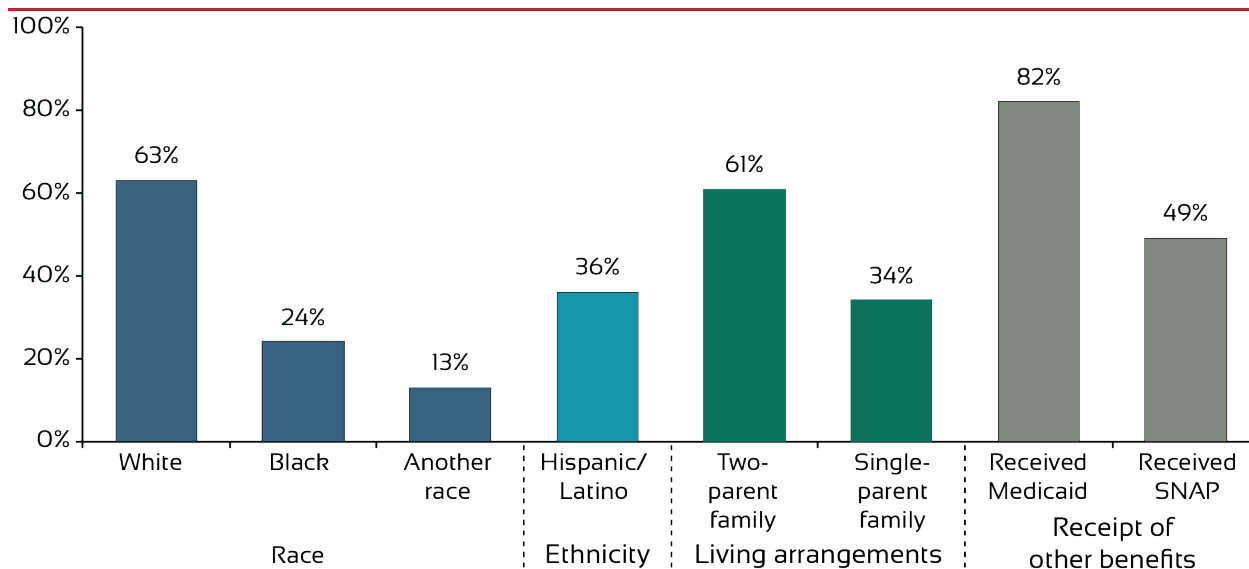
^c Non-Hispanic individuals who self-identified as two or more races or Asian, American Indian/Alaska Native, or Hawaiian/Pacific Islander are included in the "another race" category.

^d The military status of household members who were currently serving in the U.S. military was included in the CPS ASEC only if they resided in civilian housing on or off a military base.

^e Although 41.7 percent of infants and children eligible for WIC were in households with annual incomes exceeding 185 percent of the FPG, the proportion of WIC participants in households with annual income exceeding 185 percent of the FPG was much lower—3.8 percent of total participants in 2022 (Zvavitch et al., 2024). There are various reasons a small percentage of participants had income exceeding the poverty guidelines. One reason is State Medicaid income thresholds for infants and children are equal to or greater than 250 percent of the FPG for many States and equal to or greater than 300 percent of those for other States (Heberlein et al., 2013). Moreover, the programs that confer adjunctive income eligibility use income disregards and do not necessarily count the income of all members of the economic unit as defined by WIC.

Source: IPUMS-USA, n.d.; U.S. Census Bureau, n.d.-a

Figure 2.3. Characteristics of Infants and Children Eligible for WIC: CY 2022



Note: [Data for figure 2.3 are available in table 2.2](#). The race and ethnicity categories are not mutually exclusive because the race categories include both Hispanic/Latino and non-Hispanic/Latino. This figure does not include estimates for the U.S. territories. Non-Hispanic individuals who self-identified as two or more races or Asian, American Indian/Alaska Native, or Hawaiian/Pacific Islander are included in the “another race” category.

CY = calendar year

Sources: IPUMS-USA, n.d.; U.S. Census Bureau, n.d.-a

B. Regional- and State-Level Estimates of Individuals Eligible for WIC

The number of individuals eligible for WIC varied across FNS Regions and States because of differences in total populations, demographic characteristics, income levels, and State policy choices (see appendix D of volume II for a list of States and U.S. territories by FNS Region). In 2022, the Southeast Region had the greatest percentage of eligible individuals—23 percent (see table 2.3) of the total population was eligible for WIC. In contrast, the Mountain Plains Region represented the smallest share of eligible individuals—5 percent. The distribution of individuals eligible for WIC shows similar regional variations across participant categories.

Table 2.3. Distribution of Individuals Eligible for WIC (Percentage) by FNS Region and Participant Category: CY 2022

FNS Region	Infants	Children	Pregnant Women	Postpartum Women	Total
Northeast	9.1	8.9	9.1	9.4	9.0
Mid-Atlantic	11.2	11.5	11.4	11.5	11.5
Southeast	22.9	22.5	23.2	22.1	22.6
Midwest	14.6	15.4	15.2	14.2	15.1
Southwest	20.2	19.7	19.6	19.7	19.8
Mountain Plains	5.2	5.3	5.3	5.2	5.3
Western	16.9	16.6	16.2	17.8	16.8
Total	100.0	100.0	100.0	100.0	100.0

CY = calendar year; FNS = Food and Nutrition Service
Sources: IPUMS-USA, n.d.; U.S. Census Bureau, n.d.-a, n.d.-b

WIC eligibility rates, which indicate the percentage of the total population in each participant category who are estimated to be eligible for WIC, were highest in the Southeast and Southwest Regions (51 percent each) and lowest in the Mountain Plains Region (40 percent), as table 2.4 shows. Eligibility rates by participant category show similar variations by FNS Region (see figure 2.4).

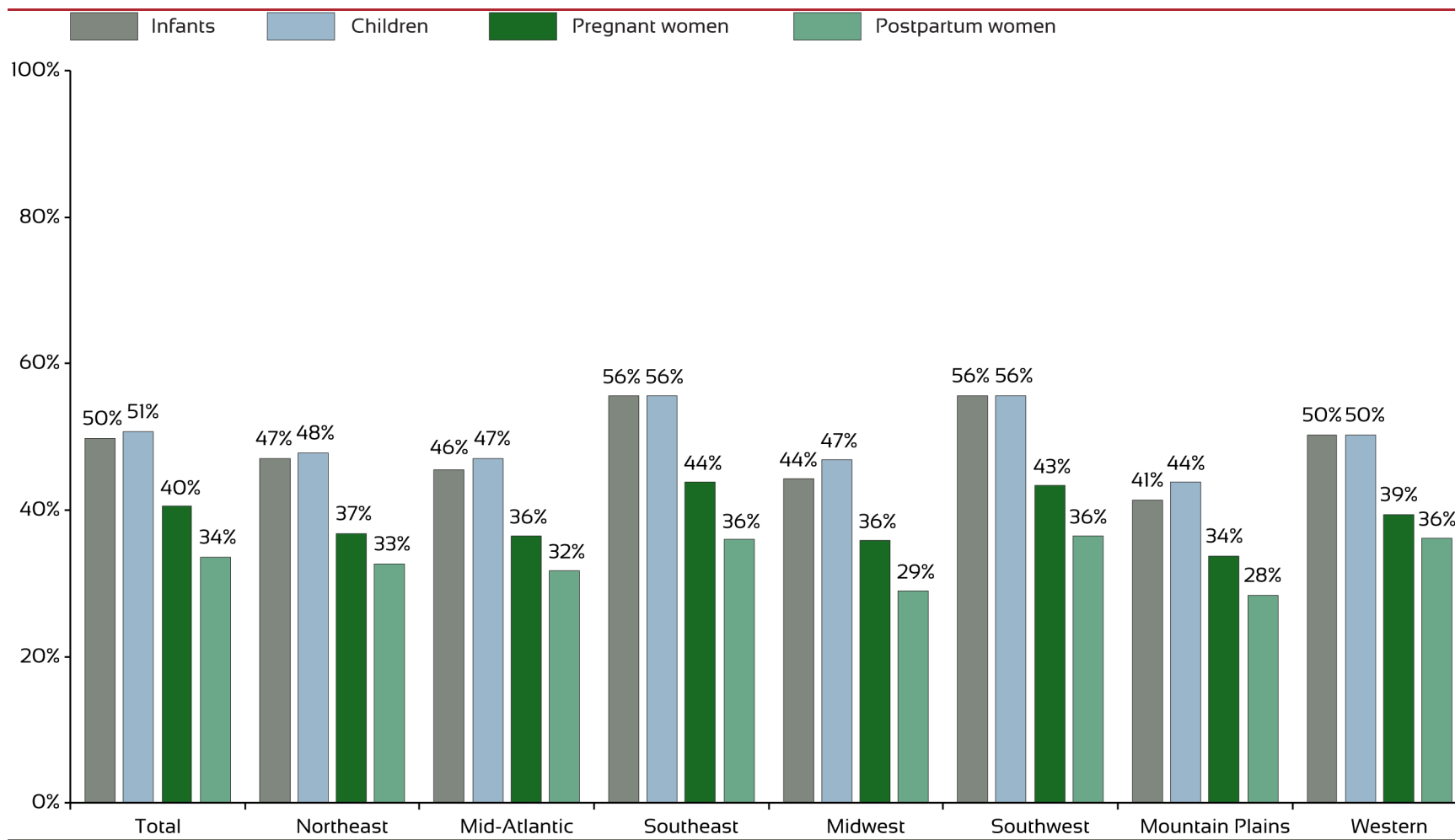
By State, California had the largest share of individuals eligible for WIC (12 percent of the national estimate), reflecting its large population (see table 2.5). The States with the four largest eligible populations (California, Texas, Florida, and New York) had 35 percent of the total U.S. population eligible for WIC in 2022.

Table 2.4. WIC Eligibility Rates by FNS Region and Participant Category: CY 2022

FNS Region	Infants	Children	Pregnant Women	Postpartum Women	Total
Northeast	46.5	47.8	36.8	32.6	44.0
Mid-Atlantic	45.6	47.1	36.4	31.7	43.3
Southeast	55.6	55.6	43.8	36.0	51.2
Midwest	44.2	46.9	35.8	28.9	42.5
Southwest	55.6	55.5	43.3	36.4	51.2
Mountain Plains	41.4	43.8	33.7	28.4	39.9
Western	50.3	50.3	39.4	36.1	46.9
Total	49.8	50.7	39.5	33.6	46.7

CY = calendar year; FNS = Food and Nutrition Service
Sources: IPUMS-USA, n.d.; U.S. Census Bureau, n.d.-a, n.d.-b

Figure 2.4. WIC Eligibility Rates by FNS Region and Participant Category: CY 2022



Note: [Data for figure 2.4 are available in table 2.4.](#)

CY = calendar year; FNS = Food and Nutrition Service

Sources: IPUMS-USA, n.d.; U.S. Census Bureau, n.d.-a, n.d.-b

Table 2.5. Distribution of Individuals Eligible for WIC (Percentage) by State: CY 2022

State	Percent Share of National Estimate of Population Eligible for WIC
Alabama	1.9
Alaska	0.2
Arizona	2.2
Arkansas	1.2
California	11.5
Colorado	1.4
Connecticut	0.9
Delaware	0.3
District of Columbia	0.2
Florida	6.7
Georgia	3.9
Hawaii	0.4
Idaho	0.6
Illinois	3.4
Indiana	2.1
Iowa	0.9
Kansas	0.8
Kentucky	1.5
Louisiana	2.0
Maine	0.3
Maryland	1.8
Massachusetts	1.5
Michigan	2.8
Minnesota	1.3
Mississippi	1.2
Missouri	1.8
Montana	0.2
Nebraska	0.5
Nevada	0.9
New Hampshire	0.2
New Jersey	2.4
New Mexico	0.8
New York	5.7
North Carolina	3.5
North Dakota	0.2
Ohio	3.3
Oklahoma	1.5
Oregon	1.0
Pennsylvania	3.3
Puerto Rico	0.9

State	Percent Share of National Estimate of Population Eligible for WIC
Rhode Island	0.3
South Carolina	1.8
South Dakota	0.2
Tennessee	2.3
Texas	11.4
Utah	0.8
Vermont	0.1
Virginia	2.1
Washington	2.0
West Virginia	0.5
Wisconsin	1.3
Wyoming	0.1
Total	100.0

Note: State eligibility estimates include individuals in ITOs who were eligible for WIC. Estimates for U.S. territories other than Puerto Rico are not shown because of small sample sizes.

CY = calendar year; ITO = Indian Tribal Organization

Sources: IPUMS-USA, n.d.; U.S. Census Bureau, n.d.-a

C. Changes in the Numbers of Individuals Eligible for WIC: CY 2021–CY 2022

Overall, the estimated total number of individuals eligible for WIC decreased by 3 percent between 2021 and 2022 for a total of 11.8 million eligible individuals in 2022 (see table 2.6). The change in the estimated number of eligible individuals was not consistent across all WIC participant categories. The estimated number of eligible infants decreased by 1 percent, and the estimated number of eligible children decreased by 4 percent. The number of eligible pregnant women decreased by less than 1 percent, while the number of eligible postpartum women slightly increased (less than 1 percent).

The percent changes in the population eligible for WIC shown in table 2.6 can also be viewed as the combined percent change in the total population and the percent change in the eligibility rate for each participant category. For example, the total population of infants increased by 0.1 percent, while the total eligible population of infants decreased by 0.9 percent. As a result, the eligibility rate for infants decreased by 1 percent.

Table 2.6. Changes in Total Population, Total WIC Eligibility, and WIC Eligibility Rates by Participant Category: CY 2021–CY 2022

Participant Category		2021	2022	Percent Change 2021–2022
Total population	Infants	3,667,986	3,672,318	0.1
	Children	15,034,195	14,837,992	-1.3*
	1-year-old children	3,619,907	3,667,605	1.3
	2-year-old children	3,753,874	3,619,676	-3.6*
	3-year-old children	3,797,804	3,753,387	-1.2
	4-year-old children	3,862,609	3,797,324	-1.7
	Pregnant women	2,836,373	2,851,339	0.5*
	Postpartum women	3,914,112	3,907,642	-0.2
	Breastfeeding women	1,913,230	1,977,449	3.4*
	Non-breastfeeding women	2,000,882	1,930,192	-3.5*
	Total	25,452,666	25,269,292	-0.7*
Number eligible	Infants	1,846,394	1,830,448	-0.9
	Children	7,851,014	7,523,916	-4.2*
	1-year-old children	1,852,884	1,852,300	0.0
	2-year-old children	2,051,553	1,909,244	-6.9*
	3-year-old children	1,932,072	1,864,052	-3.5
	4-year-old children	2,014,506	1,898,321	-5.8
	Pregnant women	1,128,406	1,124,940	-0.3
	Postpartum women	1,305,482	1,313,719	0.6
	Breastfeeding women	796,911	822,967	3.3
	Non-breastfeeding women	508,571	490,752	-3.5
	Total	12,131,296	11,793,023	-2.8*
Eligibility rate	Infants	50.3	49.8	-1.0
	Children	52.2	50.7	-2.9*
	1-year-old children	51.2	50.5	-1.3
	2-year-old children	54.7	52.7	-3.5
	3-year-old children	50.9	49.7	-2.4
	4-year-old children	52.2	50.0	-4.1
	Pregnant women	39.8	39.5	-0.8
	Postpartum women	33.4	33.6	0.8
	Breastfeeding women	41.7	41.6	-0.1
	Non-breastfeeding women	25.4	25.4	0.0
	Total	47.7	46.7	-2.1

Note: The average monthly population of postpartum women includes all women who gave birth less than 1 year previously, even if they are not categorically eligible for WIC because they are more than 6 months postpartum and are not breastfeeding. CPS ASEC = Current Population Survey Annual Social and Economic Supplement; CY = calendar year; PRCS = Puerto Rico Community Survey

* Indicates a statistically significant difference between the 2021 and 2022 estimates of individuals eligible for WIC or WIC eligibility rate at the 95 percent confidence level. The statistical significance testing was conducted on the 2021–2022 change in WIC eligibility based on the CPS ASEC and PRCS data, which included data only for States and Puerto Rico. It did not include data for the other U.S. territories served by WIC.

Sources: IPUMS-USA, n.d.; U.S. Census Bureau, n.d.-a, n.d.-b

D. Trends in WIC Eligibility Estimates: CY 2016–CY 2022

The relative share of the eligible population by participant category remained the same over time: Children consistently made up the largest proportion, followed by infants (see table 2.7). Between 2016 and 2020, the number of individuals eligible for WIC declined across all participant categories. In 2020, the total number of individuals eligible for WIC increased slightly. In 2021, the total number of eligible individuals increased again, largely driven by an increase in the number of children and pregnant women eligible for WIC. This trend reversed in 2022, with observed decreases in the number of eligible participants across all categories except for postpartum breastfeeding women.

As figure 2.5 shows, trends in WIC eligibility estimates by participant category have remained relatively stable across all years.

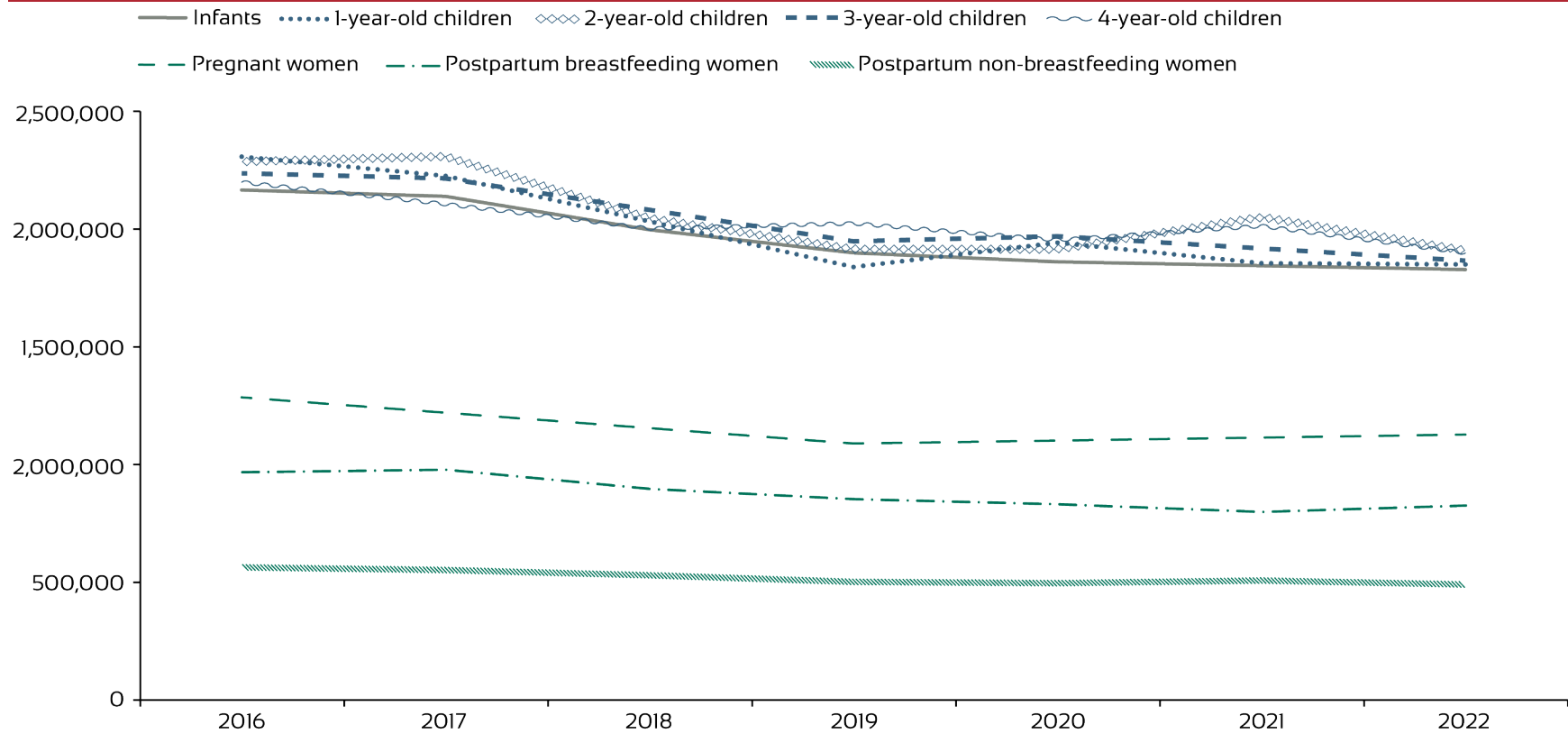
Table 2.7. Estimated Average Monthly Number of Individuals Eligible for WIC by Year and Participant Category: CY 2016–CY 2022

	Year	Infants	Children	Pregnant Women	Postpartum Breastfeeding Women	Postpartum Non-Breastfeeding Women	Total
Total population	2016	3,958,278	15,914,726	3,033,235	2,105,840	2,053,138	27,065,217
	2017	3,864,676	15,896,333	2,971,132	2,070,392	2,021,086	26,823,619
	2018	3,796,919	15,805,148	2,923,104	2,000,839	2,031,436	26,557,445
	2019	3,754,277	15,602,073	2,906,913	1,979,601	2,019,648	26,262,513
	2020	3,619,667	15,365,755	2,790,074	1,912,007	1,956,204	25,643,707
	2021	3,667,986	15,034,195	2,836,373	1,913,230	2,000,882	25,452,666
	2022	3,672,318	14,837,992	2,851,339	1,977,449	1,930,192	25,269,292
Number eligible	2016	2,162,700	9,023,248	1,287,402	969,380	562,982	14,005,712
	2017	2,139,130	8,847,389	1,221,038	978,905	553,199	13,739,662
	2018	1,998,988	8,123,987	1,144,961	896,644	527,117	12,691,698
	2019	1,900,491	7,726,475	1,091,257	851,671	504,816	12,074,709
	2020	1,862,033	7,784,680	1,103,246	833,152	498,605	12,081,717
	2021	1,846,394	7,851,014	1,128,406	796,911	508,571	12,131,296
	2022	1,830,448	7,523,916	1,124,940	822,967	490,752	11,793,023
Eligibility rate	2016	54.6	56.7	42.4	46.0	27.4	51.7
	2017	55.4	55.7	41.1	47.3	27.4	51.2
	2018	52.6	51.4	39.2	44.8	25.9	47.8
	2019	50.6	49.5	37.5	43.0	25.0	46.0
	2020	51.4	50.7	39.5	43.6	25.5	47.1
	2021	50.3	52.2	39.8	41.7	25.4	47.7
	2022	49.8	50.7	39.5	41.6	25.4	46.7

CY = calendar year

Sources: IPUMS-USA, n.d.; U.S. Census Bureau, n.d.-a, n.d.-b

Figure 2.5. Trends in WIC Eligibility by Participant Category: CY 2016–CY 2022



Note: [Data for figure 2.5 are available in table 2.7.](#)

CY = calendar year

Sources: IPUMS-USA, n.d.; U.S. Census Bureau, n.d.-a, n.d.-b

Chapter 3. WIC Coverage Rates for CY 2022

This chapter presents coverage rates for women, infants, and children in 2022. The coverage rates were calculated as the percentages of women, infants, and children eligible for WIC who received or picked up their WIC benefits in an average month in 2022. WIC coverage rates are useful for understanding how well WIC reaches those who are eligible for the benefits provided by the program. The 2022 WIC coverage rates may be influenced by the CVB increase, infant formula shortage, and continued effects of the COVID-19 pandemic and the PHE.

Coverage Rate

Percentage of women, infants, and children eligible for WIC who received or picked up their WIC benefits in an average month

A. National-Level WIC Coverage Rates

Of the 11.8 million individuals eligible for WIC in an average month in 2022, 6.3 million participated, resulting in a national coverage rate of 54 percent (see table 3.1). Coverage rates were highest for infants (78 percent), followed by postpartum women (69 percent; see figure 3.1). Coverage rates were lowest for children and pregnant women (46 percent for both categories).³¹ Moreover, coverage rates for children decreased with age; rates were highest for 1-year-olds (65 percent) and lowest for 4-year-olds (25 percent; see figure 3.2). Coverage rates were higher for postpartum non-breastfeeding women (73 percent) than postpartum breastfeeding women (66 percent).

Coverage rates were highest for Hispanic/Latino individuals (63 percent) and lowest for White-only, non-Hispanic individuals (46 percent; see tables 3.1 and 3.2 and figure 3.3). The coverage rate was 49 percent for Black-only, non-Hispanic individuals and 53 percent for individuals who self-identified as two or more races or as Asian, American Indian/Alaska Native, or Hawaiian/Pacific Islander (hereafter, two or more races or other race). Looking specifically at American Indian/Alaska Native, non-Hispanic individuals (including those who identified as only American Indian/Alaska Native and those who identified as at least one other race in addition to American Indian/Alaska Native), the WIC coverage rate was 59 percent.

Coverage rates were higher for individuals living in metropolitan areas (60 percent) compared with individuals living in nonmetropolitan areas (19 percent).³²

³¹ As noted in the methodology section (chapter 6), pregnant women's eligibility for WIC in this analysis is defined as beginning at conception, which is consistent with Federal WIC eligibility guidelines. However, not all women realized they were pregnant during the first several weeks of pregnancy and, therefore, were not enrolled in WIC at conception. This occurrence would contribute to a lower coverage rate among pregnant women relative to infants or postpartum women.

³² WIC participants' ZIP Codes are not available in administrative data or WIC PC2022 data. For the urbanicity analysis, ZIP Codes for each WIC participant's WIC local agency (recorded in WIC PC2022) serve as a proxy for ZIP Code of residence. Urbanicity is based on the Current Population Survey Annual Social and Economic Supplement measure of metropolitan status (U.S. Census Bureau, n.d.-a), which uses Office of Management and Budget (2021) metropolitan designations and classifies residences as metropolitan or nonmetropolitan.

Table 3.1. WIC Coverage Rate by Participant Characteristic: CY 2022

Characteristic		Number Eligible	Number Participating	Coverage Rate
Total		11,793,023	6,310,423	53.5
Participant category	Infants	1,830,448	1,434,992	78.4
	Children	7,523,916	3,457,293	46.0
	1-year-old children	1,852,300	1,197,298	64.6
	2-year-old children	1,909,244	950,552	49.8
	3-year-old children	1,864,052	828,005	44.4
	4-year-old children	1,898,321	481,438	25.4
	Pregnant women	1,124,940	512,637	45.6
	Postpartum women	1,313,719	905,501	68.9
	Breastfeeding women	822,967	545,466	66.3
	Non-breastfeeding women	490,752	360,035	73.4
Race and Hispanic ethnicity ^a	Hispanic/Latino	4,328,088	2,727,628	63.0
	Black-only, not Hispanic	2,533,422	1,244,446	49.1
	White-only, not Hispanic	3,808,499	1,749,003	45.9
	Two or more races or other race, not Hispanic ^b	1,092,563	574,768	52.6
	American Indian/Alaska Native, not Hispanic ^c	195,243	115,391	59.1
Urbanicity	Nonmetropolitan	1,905,894	368,693	19.3
	Metropolitan	9,887,129	5,941,730	60.1

Note: WIC administrative data on participating children by year of age were not available. The numbers of participating children by year of age in this table are based on the distribution among children enrolled in WIC according to WIC PC2022 data. In addition, data on coverage rates by urbanicity are based on WIC PC2022 data. ZIP Codes for each WIC participant's WIC local agency serve as a proxy for ZIP Code of residence. Urbanicity is based on the Current Population Survey Annual Social and Economic Supplement measure of metropolitan status (U.S. Census Bureau, n.d.-a), which uses Office of Management and Budget (2021) metropolitan designations and classifies residences as metropolitan or nonmetropolitan.

CY = calendar year; WIC PC = WIC Program and Participant Characteristics

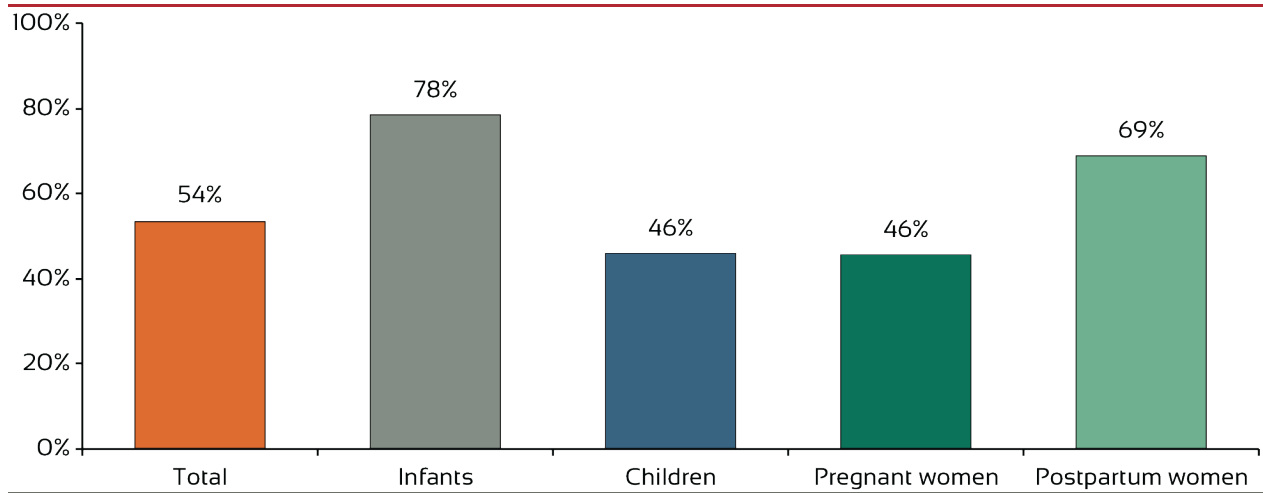
^a Estimates for U.S. territories other than Puerto Rico are not included in the estimates of eligible individuals and program participants by race and ethnicity because information on race and ethnicity was not available for the other U.S. territories in the WIC PC2022 data.

^b Non-Hispanic individuals who self-identified as two or more races or Asian, American Indian/Alaska Native, or Hawaiian/Pacific Islander are included in the "Two or more races or other race, not Hispanic" category.

^c The American Indian/Alaska Native, not Hispanic category includes non-Hispanic individuals who identified as American Indian/Alaska Native, including multiracial individuals. These individuals are also included in the "Two or more or other race, not Hispanic" category.

Sources: FNS, 2023; IPUMS-USA, n.d.; U.S. Census Bureau, n.d.-a, n.d.-b; Zvavitch et al., 2024.

Figure 3.1. WIC Coverage Rate by Participant Category: CY 2022

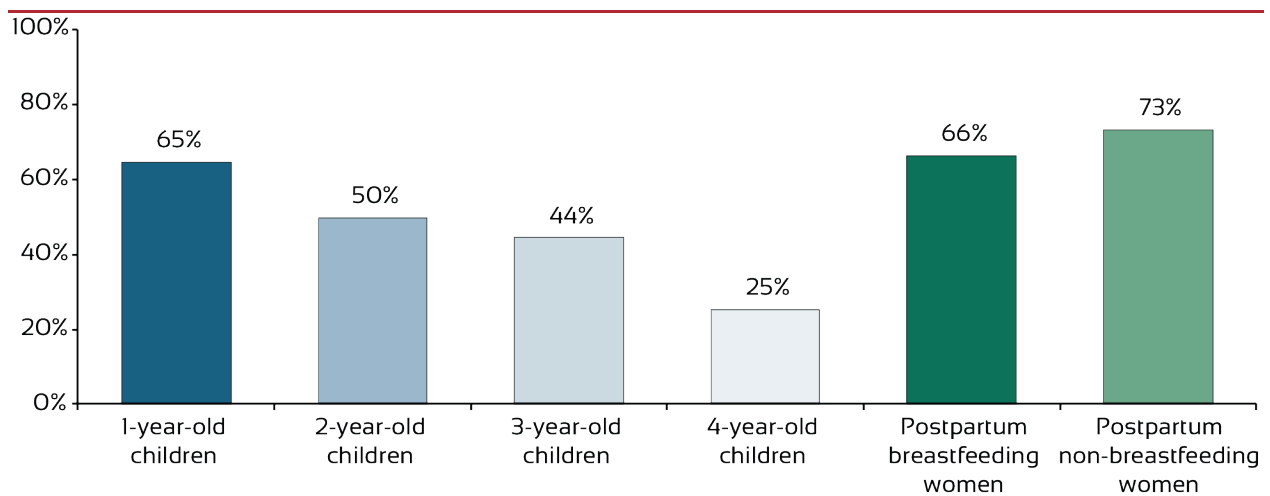


Note: [Data for figure 3.1 are available in table 3.1.](#)

CY = calendar year

Sources: FNS, 2023; IPUMS-USA, n.d.; U.S. Census Bureau, n.d.-a, n.d.-b

Figure 3.2. WIC Coverage Rates for Children by Year of Age and Postpartum Women by Breastfeeding Status: CY 2022



Note: [Data for figure 3.2 are available in table 3.1.](#)

CY = calendar year

Sources: FNS, 2023; IPUMS-USA, n.d.; U.S. Census Bureau, n.d.-a, n.d.-b; Zvavitch et al., 2024

Table 3.2. WIC Eligibility, Participants, and Coverage Rates by Participant Category and by Race and Hispanic Ethnicity: CY 2022

Participant Category		Hispanic/ Latino	Black-Only, Not Hispanic	White-Only, Not Hispanic	Two or More Races or Other Race, Not Hispanic ^a	Total
Number eligible	Infants	709,799	370,993	568,430	176,216	1,825,438
	Children	2,705,577	1,682,783	2,418,184	698,768	7,505,312
	Pregnant women	394,951	221,609	413,509	91,468	1,121,537
	Postpartum women	517,761	258,037	408,376	126,111	1,310,285
	Total	4,328,088	2,533,422	3,808,499	1,092,563	11,762,572
Number participating	Infants	599,173	312,762	387,309	132,878	1,432,122
	Children	1,522,615	647,018	938,677	340,190	3,448,500
	Pregnant women	218,704	96,644	161,108	35,231	511,687
	Postpartum women	387,137	188,021	261,910	66,469	903,537
	Total	2,727,628	1,244,446	1,749,003	574,768	6,295,845
Coverage rate	Infants	84.4	84.3	68.1*	75.4	78.5
	Children	56.3*	38.4*	38.8*	48.7	45.9
	Pregnant women	55.4*	43.6*	39.0*	38.5*	45.6
	Postpartum women	74.8	72.9	64.1	52.7*	69.0
	Total	63.0*	49.1*	45.9*	52.6	53.5

Note: Estimates for U.S. territories other than Puerto Rico are not included in the calculation of the coverage rates in this table because information on race and ethnicity was not available for the other U.S. territories in the data.

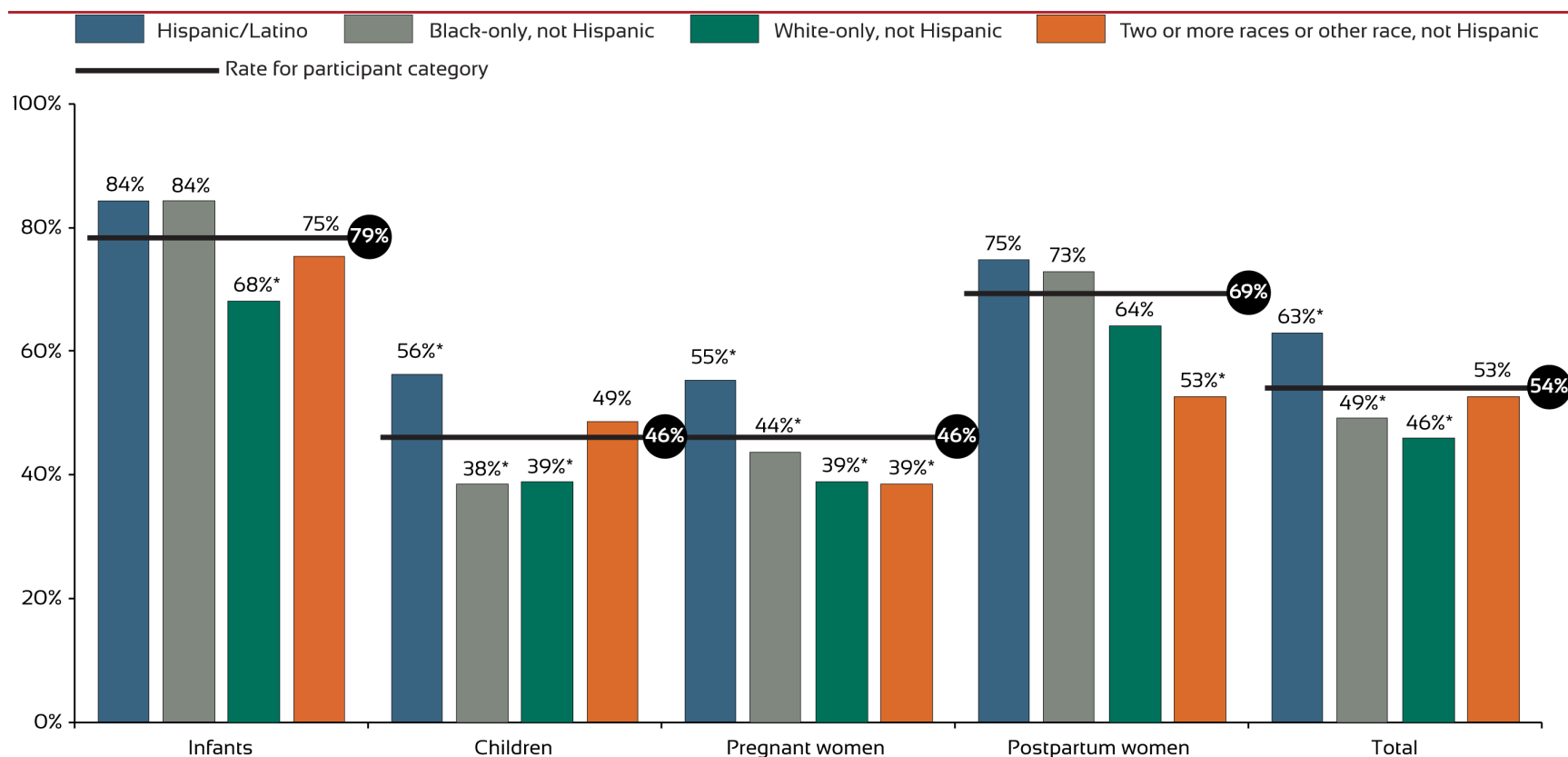
CY = calendar year

^a Non-Hispanic individuals who self-identified as two or more races or Asian, American Indian/Alaska Native, or Hawaiian/Pacific Islander are included in the “Two or more races or other race, not Hispanic” category.

* Indicates a statistically significant difference at the 95 percent confidence level between the coverage rate for a participant category’s race and ethnicity and the national coverage rate for that category

Sources: FNS, 2023; IPUMS-USA, n.d.; U.S. Census Bureau, n.d.-a; Zvavitch et al., 2024

Figure 3.3. WIC Coverage Rates by Race and Hispanic Ethnicity and by Participant Category: CY 2022



Note: [Data for figure 3.3 are available in table 3.2](#). Estimates for U.S. territories other than Puerto Rico are not included in the calculation of the coverage rates in this figure because information on race and ethnicity was not available for the other U.S. territories in the data. Non-Hispanic individuals who self-identified as two or more races or Asian, American Indian/Alaska Native, or Hawaiian/Pacific Islander are included in the “Two or more races or other race, not Hispanic” category.

CY = calendar year

* Indicates a statistically significant difference at the 95 percent confidence level between the coverage rate for a participant category’s race and ethnicity and the national coverage rate for that category

Sources: FNS, 2023; IPUMS-USA, n.d.; Zvavitch et al., 2024; U.S. Census Bureau, n.d.-a

B. Regional- and State-Level WIC Coverage Rates

WIC coverage rates varied somewhat by FNS Region and more substantially by State (see appendix D of volume II for a list of States and U.S. territories by FNS Region). Comparisons of total coverage rates across FNS Regions indicate the Western Region had the highest rate (64 percent), and the Mountain Plains Region had the lowest rate (47 percent), while the national rate was 54 percent (see table 3.3).

In general, when comparing coverage rates by participant category, regional rates mirrored national rates (see table 3.3). For example, coverage rates were highest for infants and postpartum women across all FNS Regions. As with national rates, coverage rates were lowest for children and pregnant women across all FNS Regions.

Regional coverage rates varied by race and ethnicity (see table 3.4). In the Northeast, Midwest, Mountain Plains, and Western Regions, coverage rates were lowest for White-only, non-Hispanic participants. In contrast, the lowest coverage rates were observed for individuals who self-identified as two or more races or a race other than Black or White in the Mid-Atlantic and Southeast Regions and for Black-only, non-Hispanic individuals in the Southwest Region. The coverage rates in the Northeast, Mid-Atlantic, Southeast, Southwest, and Western Regions were highest for Hispanic/Latino individuals, whereas the Midwest and Mountain Plains Regions had the highest rate for non-Hispanic individuals who self-identified as two or more races or other race.

States showed substantial variation in coverage rates in 2022. Rates ranged from a high of 73 percent in Vermont to a low of 37 percent in Louisiana (see table 3.5 and figures 3.4 and 3.5). Puerto Rico had a higher coverage rate (81 percent) than any State. Twenty-two States and Puerto Rico had coverage rates greater than the national average (54 percent). Three States had coverage rates below 40 percent (Illinois, Louisiana, and New Mexico).

State coverage rates ranged from a low of **37 percent** to a high of **73 percent**. The national coverage rate was **54 percent**.

Figure 3.5 displays the Wald 95 percent confidence interval (horizontal bar) surrounding the estimated coverage rate (vertical white line) for each State. The horizontal bars indicate the range of likely true values of the coverage rate. Wider bars signal lower precision than narrow bars; precision is strongly correlated with sample size.

State coverage rates by participant category were generally consistent with national coverage rates overall but differed in some cases. Coverage rates were consistently higher than national rates across all participant categories and age groups in five States (California, Kentucky, Minnesota, North Carolina, and Vermont) and Puerto Rico (see table 3.6 and figures 3.6 through 3.9). Seventeen States (Arkansas, Colorado, Connecticut, Georgia, Idaho, Illinois, Kansas, Louisiana, Mississippi, Missouri, Nevada, New Mexico, Ohio, Pennsylvania, South Carolina, Tennessee, and Utah) had coverage rates consistently lower than national rates across all categories and age groups. Many States had a mix of higher or lower coverage rates compared with average coverage rates across participant categories. For example, compared with the national average, coverage rates in Alabama were higher for infants and pregnant women by 5 percentage points but lower for children and postpartum women by 6 and 13 percentage points, respectively. Compared with the national average, coverage rates in Washington were 10 percentage points lower for infants and 7 percentage points lower for postpartum women and slightly higher for children (by 3 percentage points) and pregnant women (by 1 percentage point).

State coverage rates by race and Hispanic ethnicity were generally consistent with national coverage rates by race and Hispanic ethnicity. For example, similar to national coverage rates, State-level coverage rates were lowest for White-only, non-Hispanic individuals in 34 States and the District of Columbia (see table 3.7 and figures 3.10 through 3.12).³³ Similarly, in 33 States and the District of Columbia, coverage rates were highest for Hispanic/Latino individuals.

Some variations in State coverage rates by participant category and race and ethnicity may be because of sampling variability or limitations in data resulting from small sample sizes; caution should be used when examining State-level estimates, especially for smaller States. See appendix B of volume II for more information on measures of statistical uncertainty for the estimates.

Table 3.3. WIC Eligibility, Participants, and Coverage Rates by FNS Region and Participant Category: CY 2022

FNS Region		Infants	Children	Pregnant Women	Postpartum Women	Total
Number eligible	Northeast	165,925	672,796	102,076	123,550	1,064,348
	Mid-Atlantic	205,520	867,162	128,389	150,873	1,351,944
	Southeast	418,253	1,692,988	260,723	290,704	2,662,668
	Midwest	267,008	1,160,676	170,955	186,266	1,784,904
	Southwest	370,226	1,483,533	220,491	259,369	2,333,619
	Mountain Plains	94,274	397,016	59,957	68,713	619,960
	Western	309,242	1,249,745	182,348	234,245	1,975,580
	Total	1,830,448	7,523,916	1,124,940	1,313,719	11,793,023
Number participating	Northeast	131,620	357,731	45,454	85,519	620,324
	Mid-Atlantic	158,272	390,551	55,599	98,745	703,167
	Southeast	328,779	718,315	115,666	186,200	1,348,959
	Midwest	214,179	502,190	71,643	125,646	913,659
	Southwest	288,518	572,351	101,832	198,858	1,161,559
	Mountain Plains	68,217	156,254	23,983	41,589	290,043
	Western	245,407	759,901	98,460	168,945	1,272,712
	Total	1,434,992	3,457,293	512,637	905,501	6,310,423
Coverage rate	Northeast	79.3	53.2*	44.5	69.2	58.3*
	Mid-Atlantic	77.0	45.0	43.3*	65.4	52.0
	Southeast	78.6	42.4*	44.4	64.1	50.7*
	Midwest	80.2	43.3*	41.9*	67.5	51.2*
	Southwest	77.9	38.6*	46.2	76.7*	49.8*
	Mountain Plains	72.4	39.4*	40.0*	60.5*	46.8*
	Western	79.4	60.8*	54.0*	72.1	64.4*
	Total	78.4	46.0	45.6	68.9	53.5

Note: Regional eligibility estimates and participant data include individuals in ITOs who were eligible for WIC or receiving WIC. CY = calendar year; FNS = Food and Nutrition Service; ITO = Indian Tribal Organization

* Indicates a statistically significant difference between the regional coverage rate and the national coverage rate at the 95 percent confidence level

Sources: FNS, 2023; IPUMS-USA, n.d.; U.S. Census Bureau, n.d.-a, n.d.-b

³³ Because of small sample sizes, State-level estimates for Black-only, not Hispanic and Two or more races or other race, not Hispanic subgroups were combined. This category includes Black-only, non-Hispanic individuals and non-Hispanic individuals who self-identify as two or more races or as Asian, American Indian/Alaska Native, or Hawaiian/Pacific Islander.

Table 3.4. WIC Eligibility, Participants, and Coverage Rates by FNS Region and by Race and Hispanic Ethnicity Category: CY 2022

FNS Region		Hispanic/ Latino	Black-Only, Not Hispanic	White-Only, Not Hispanic	Two or More Races or Other Race, Not Hispanic ^a	Total
Number eligible	Northeast	378,399	197,485	362,012	119,898	1,057,794
	Mid-Atlantic	467,434	341,707	429,827	112,977	1,351,944
	Southeast	626,688	909,842	915,943	210,194	2,662,668
	Midwest	327,532	455,479	834,258	167,635	1,784,904
	Southwest	1,204,740	419,102	537,075	172,701	2,333,619
	Mountain Plains	172,565	78,433	304,560	64,401	619,960
	Western	1,150,730	131,374	424,823	244,756	1,951,683
	Total	4,328,088	2,533,422	3,808,499	1,092,563	11,762,572
Number participating	Northeast	243,873	116,557	183,488	73,829	617,746
	Mid-Atlantic	305,827	162,598	187,464	47,277	703,167
	Southeast	372,946	457,549	436,479	81,985	1,348,959
	Midwest	191,785	222,775	397,929	101,170	913,659
	Southwest	679,169	171,782	227,362	83,245	1,161,559
	Mountain Plains	89,147	36,343	129,698	34,856	290,043
	Western	844,882	76,841	186,584	152,405	1,260,711
	Total	2,727,628	1,244,446	1,749,003	574,768	6,295,845
Coverage rate	Northeast	64.4	59.0	50.7	61.6	58.4
	Mid-Atlantic	65.4	47.6	43.6	41.8	52.0
	Southeast	59.5	50.3	47.7	39.0	50.7
	Midwest	58.6	48.9	47.7	60.4	51.2
	Southwest	56.4	41.0	42.3	48.2	49.8
	Mountain Plains	51.7	46.3	42.6	54.1	46.8
	Western	73.4	58.5	43.9	62.3	64.6
	Total	63.0	49.1	45.9	52.6	53.5

Note: Estimates for U.S. territories other than Puerto Rico are not included in the calculation of the coverage rates in this table because information on race and ethnicity was not available for the other U.S. territories in the data. Estimates for Puerto Rico are included in regional totals.

CY = calendar year; FNS = Food and Nutrition Service

^a Non-Hispanic individuals who self-identified as two or more races or Asian, American Indian/Alaska Native, or Hawaiian/Pacific Islander are included in the “Two or more races or other race, not Hispanic” category.

Sources: FNS, 2023; IPUMS-USA, n.d.; U.S. Census Bureau, n.d.-a; Zvavitch et al., 2024

Table 3.5. WIC Eligibility, Participants, and Coverage Rates by State and FNS Region: CY 2022

State/FNS Region		Number Eligible	Number Participating	Coverage Rate	Lower Bound	Upper Bound
State	Alabama	218,880	109,119	49.9*	47.4	52.3
	Alaska	25,519	13,582	53.2	46.4	60.0
	Arizona	260,408	142,677	54.8	52.2	57.4
	Arkansas	142,499	57,585	40.4*	38.1	42.7
	California	1,352,155	942,039	69.7*	67.4	71.9
	Colorado	169,952	79,228	46.6*	44.0	49.2
	Connecticut	100,093	47,268	47.2*	44.6	49.8
	Delaware	31,893	18,023	56.5	50.0	63.0
	District of Columbia	23,290	10,879	46.7*	40.6	52.8
	Florida	787,925	414,550	52.6	50.8	54.5
	Georgia	453,902	184,213	40.6*	39.0	42.2
	Hawaii	43,167	26,241	60.8*	55.1	66.4
	Idaho	64,878	29,339	45.2*	41.6	48.8
	Illinois	400,911	157,999	39.4*	37.7	41.1
	Indiana	248,300	148,457	59.8*	57.2	62.4
	Iowa	103,440	56,629	54.7	50.9	58.6
	Kansas	95,463	44,257	46.4*	43.3	49.4
	Kentucky	176,512	110,486	62.6*	59.6	65.6
	Louisiana	229,856	84,553	36.8*	35.1	38.5
	Maine	29,613	17,071	57.6	51.0	64.3
	Maryland	205,876	120,031	58.3*	55.3	61.3
	Massachusetts	180,486	117,552	65.1*	61.6	68.6
	Michigan	328,082	201,879	61.5*	59.1	63.9
	Minnesota	154,351	101,359	65.7*	60.9	70.4
	Mississippi	145,142	66,328	45.7*	43.1	48.3
	Missouri	207,520	84,733	40.8*	38.9	42.8
	Montana	29,332	13,840	47.2*	41.0	53.3
	Nebraska	56,718	35,647	62.9*	56.6	69.1
	Nevada	110,673	52,017	47.0*	44.0	50.0
	New Hampshire	27,573	13,516	49.0	42.1	56.0
	New Jersey	284,356	150,077	52.8	50.2	55.3
	New Mexico	90,436	35,390	39.1*	36.6	41.7
	New York	674,655	394,909	58.5*	56.4	60.7
	North Carolina	407,418	260,882	64.0*	61.5	66.5
	North Dakota	18,970	10,198	53.8	44.0	63.5
	Ohio	393,069	162,278	41.3*	39.7	42.9
	Oklahoma	175,034	90,622	51.8	49.0	54.5
	Oregon	123,031	74,613	60.6*	57.0	64.3
	Pennsylvania	391,278	160,026	40.9*	39.1	42.7
	Puerto Rico	108,783	87,783	80.7*	76.7	84.7

State/FNS Region		Number Eligible	Number Participating	Coverage Rate	Lower Bound	Upper Bound
State (continued)	Rhode Island	29,976	16,258	54.2	48.1	60.3
	South Carolina	206,465	86,832	42.1*	40.0	44.1
	South Dakota	26,354	15,048	57.1	49.4	64.8
	Tennessee	266,425	116,549	43.7*	41.9	45.6
	Texas	1,341,056	712,515	53.1	51.4	54.8
	Utah	94,331	38,217	40.5*	37.4	43.7
	Vermont	15,397	11,172	72.6*	60.2	84.9
	Virginia	244,538	121,207	49.6*	47.2	51.9
	Washington	232,260	122,881	52.9	50.7	55.1
	West Virginia	61,929	35,141	56.7	52.4	61.1
	Wisconsin	156,751	85,059	54.3	50.9	57.6
	Wyoming	15,651	7,092	45.3*	38.8	51.8
FNS Region	Northeast	1,064,348	620,324	58.3*	56.4	60.4
	Mid-Atlantic	1,351,944	703,167	52.0	50.4	53.7
	Southeast	2,662,668	1,348,959	50.7*	49.2	52.1
	Midwest	1,784,904	913,659	51.2*	49.6	52.7
	Southwest	2,333,619	1,161,559	49.8*	48.3	51.3
	Mountain Plains	619,960	290,043	46.8*	45.0	48.5
	Western	1,975,580	1,272,712	64.4*	62.6	66.6
	Total	11,793,023	6,310,423	53.5	51.6	55.0

Note: State and regional eligibility estimates and participant data include individuals in ITOs who were eligible for WIC or receiving WIC. Estimates for U.S. territories other than Puerto Rico are included in regional totals but not shown separately because of constraints related to small sample sizes. Confidence intervals for the total and Northeast and Western regional coverage rates are based on coverage rate estimates that exclude the U.S. territories other than Puerto Rico, which may cause the confidence interval to appear asymmetrical.

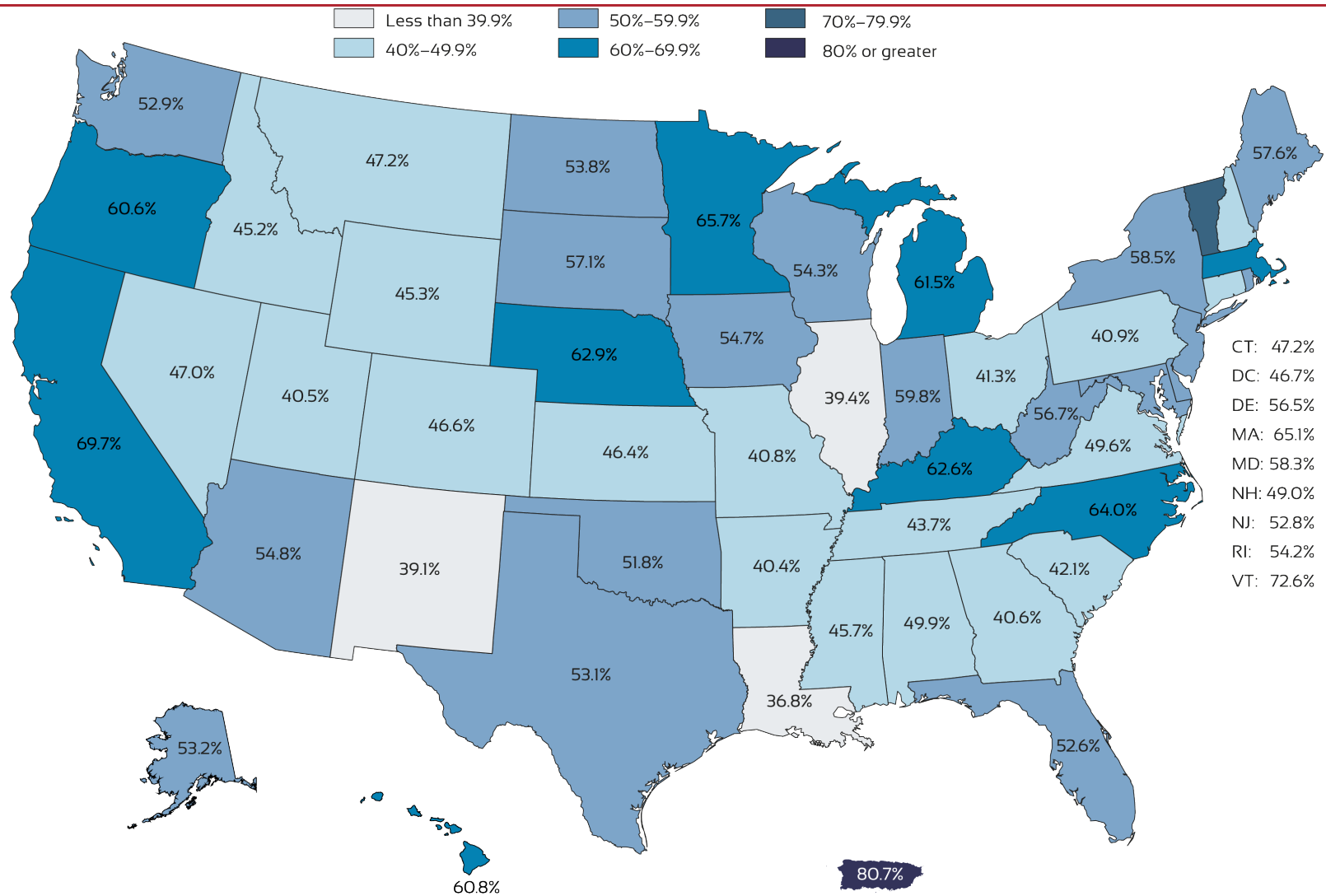
CY = calendar year; FNS = Food and Nutrition Service; ITO = Indian Tribal Organization

* Indicates a statistically significant difference between the State or regional coverage rate and the national coverage rate at the 95 percent confidence level

Sources: FNS, 2023; IPUMS-USA, n.d.; U.S. Census Bureau, n.d.-a, n.d.-b

Figure 3.4. WIC Coverage Rate for Total Eligible Individuals by State: CY 2022

National Coverage Rate: 53.5 Percent

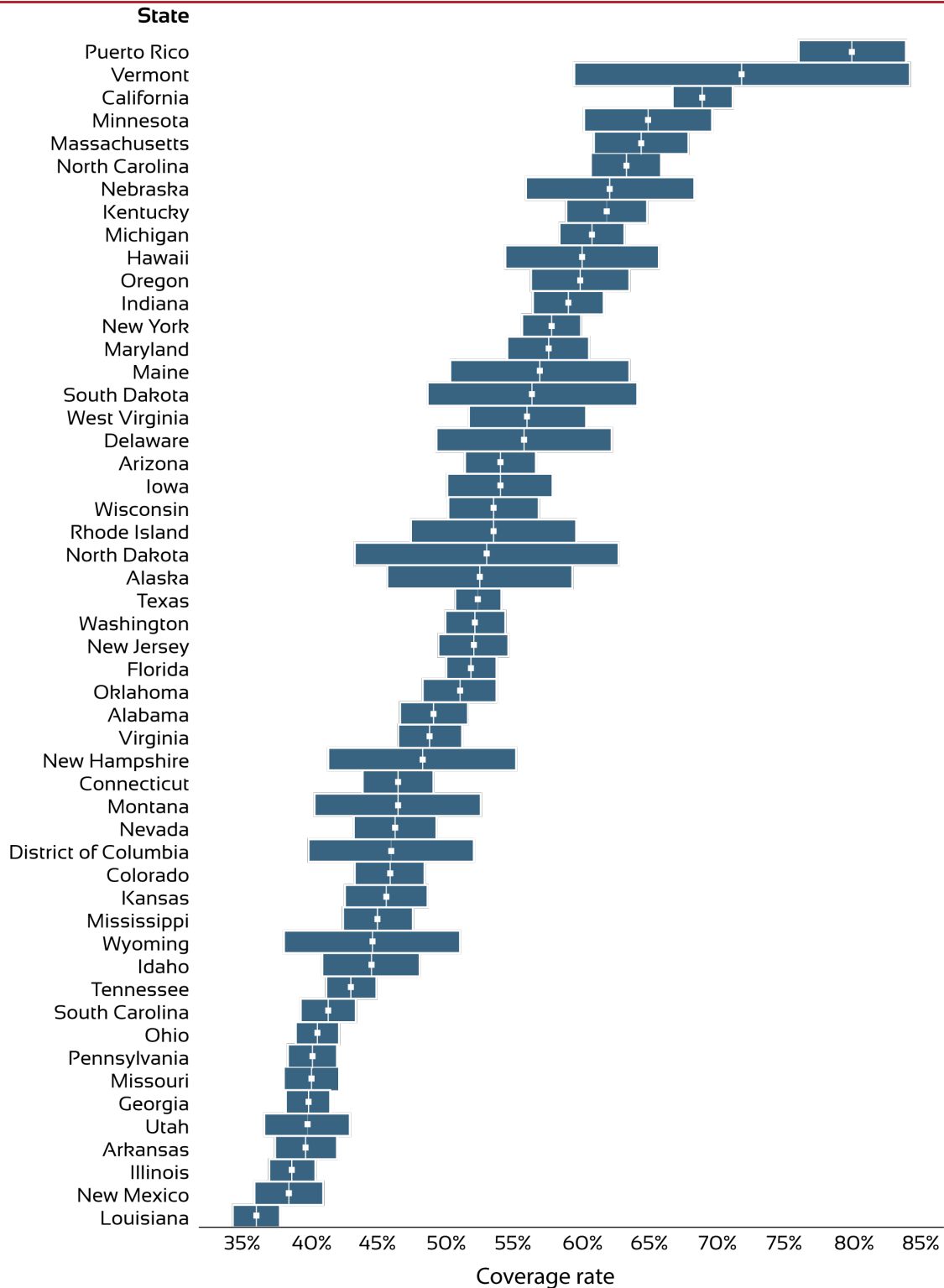


Note: [Data for figure 3.4 are available in table 3.5.](#)

CY = calendar year

Sources: FNS, 2023; IPUMS-USA, n.d.; U.S. Census Bureau, n.d.-a, n.d.-b

Figure 3.5. WIC Coverage Rate and 95 Percent Wald Confidence Intervals for Total Eligible Individuals by State: CY 2022



Note: [Data for figure 3.5 are available in table 3.5](#). Vertical white lines indicate the coverage rate point estimate. Horizontal bars indicate the Wald 95 percent confidence interval.

CY = calendar year

Sources: FNS, 2023; IPUMS-USA, n.d.; U.S. Census Bureau, n.d.-a, n.d.-b

Table 3.6. WIC Coverage Rates by State and FNS Region and Participant Category: CY 2022

State/FNS Region		Infants	All Children	1-Year-Old Children	2-Year-Old Children	3-Year-Old Children	4-Year-Old Children	Pregnant Women	Postpartum Women	Total
State	Alabama	83.2	40.4	58.4	48.9	34.0	21.3	50.7	56.2	49.9
	Alaska	73.7	48.1	70.4	53.2	43.1	26.7	44.2	60.9	53.2
	Arizona	77.3	49.6	72.4	52.8	47.7	27.1	40.2	64.0	54.8
	Arkansas	74.9	29.1	43.7	29.3	25.0	18.1	41.3	55.3	40.4
	California	83.3	66.6	96.5	67.8	68.5	36.1	59.7	75.6	69.7
	Colorado	66.4	40.5	58.6	43.0	40.3	21.6	38.4	60.4	46.6
	Connecticut	72.2	40.7	58.8	40.6	39.2	24.7	45.4	51.0	47.2
	Delaware	91.8	47.6	58.4	56.9	42.9	28.6	48.1	70.5	56.5
	District of Columbia	66.5	39.9	47.7	53.0	31.9	28.5	33.1	62.5	46.7
	Florida	79.2	43.7	61.0	48.8	40.9	23.8	45.9	72.7	52.6
	Georgia	66.9	33.0	41.4	39.4	33.4	16.7	35.8	52.4	40.6
	Hawaii	76.6	56.8	86.9	63.4	52.7	30.9	51.6	66.6	60.8
	Idaho	69.2	39.0	60.7	39.8	34.8	21.9	33.7	62.0	45.2
	Illinois	72.0	30.1	41.6	29.6	26.1	23.5	37.6	52.9	39.4
	Indiana	88.4	52.3	67.4	56.3	53.6	31.2	42.9	79.3	59.8
	Iowa	81.0	47.2	66.2	54.1	45.4	24.2	41.5	75.6	54.7
	Kansas	69.6	40.0	57.6	46.2	37.3	20.5	41.3	56.0	46.4
	Kentucky	95.3	55.4	82.8	64.0	50.1	26.8	51.4	69.5	62.6
	Louisiana	70.8	24.0	37.1	24.8	21.5	11.1	34.9	62.9	36.8
	Maine	89.9	50.9	69.6	60.9	46.3	31.8	44.8	69.9	57.6
	Maryland	85.9	49.5	62.8	61.2	45.6	28.2	55.2	72.0	58.3
	Massachusetts	75.8	64.9	†	64.4	61.8	35.9	47.5	66.7	65.1
	Michigan	90.8	54.9	72.7	62.9	56.4	28.3	53.7	68.1	61.5
	Minnesota	94.9	58.0	68.8	63.3	60.4	38.6	55.8	82.6	65.7
	Mississippi	76.7	37.8	49.0	42.6	38.5	20.0	31.6	57.2	45.7
	Missouri	75.3	30.0	45.0	29.9	28.9	16.2	40.4	59.3	40.8
	Montana	70.7	42.1	78.0	45.2	35.2	20.9	38.8	53.9	47.2

State/FNS Region		Infants	All Children	1-Year-Old Children	2-Year-Old Children	3-Year-Old Children	4-Year-Old Children	Pregnant Women	Postpartum Women	Total
State (continued)	Nebraska	86.3	57.3	81.6	68.8	56.1	28.7	45.4	77.9	62.9
	Nevada	73.1	39.5	53.6	42.3	38.0	23.9	35.7	65.9	47.0
	New Hampshire	62.4	47.6	61.7	62.5	42.7	28.1	33.2	54.3	49.0
	New Jersey	74.4	46.4	67.9	51.8	44.2	23.6	40.8	70.0	52.8
	New Mexico	62.6	30.9	55.0	28.2	23.2	19.6	38.5	53.7	39.1
	New York	81.8	52.4	72.1	58.0	50.3	30.1	44.2	73.1	58.5
	North Carolina	88.5	57.4	77.8	70.5	52.8	28.6	54.4	74.1	64.0
	North Dakota	71.7	50.5	80.2	58.2	43.9	25.9	35.6	63.2	53.8
	Ohio	68.4	32.7	53.2	31.7	29.7	15.9	31.1	64.0	41.3
	Oklahoma	83.1	42.0	51.7	47.5	43.4	26.1	55.7	62.2	51.8
	Oregon	73.9	58.4	98.8	58.2	55.3	28.4	43.4	69.3	60.6
	Pennsylvania	63.2	34.2	51.7	38.5	32.8	15.0	31.3	57.2	40.9
	Puerto Rico	†	76.2	†	79.7	72.8	49.4	68.0	88.4	80.7
	Rhode Island	75.1	49.0	68.0	65.7	43.0	23.0	41.9	60.9	54.2
	South Carolina	67.9	35.2	51.3	41.9	31.3	15.3	35.0	50.6	42.1
	South Dakota	75.5	54.9	84.5	47.0	49.1	47.7	40.1	57.6	57.1
	Tennessee	75.5	33.4	50.5	36.6	29.4	17.0	43.0	59.5	43.7
	Texas	81.6	40.2	60.0	40.7	39.2	20.5	50.5	89.0	53.1
	Utah	56.1	35.8	54.6	34.3	33.8	21.1	30.2	53.0	40.5
	Vermont	92.8	68.8	92.3	80.6	60.8	44.7	52.2	88.8	72.6
	Virginia	80.5	42.3	41.6	53.5	44.7	29.0	44.0	58.8	49.6
	Washington	67.9	48.6	62.1	51.4	50.0	31.5	46.5	61.8	52.9
	West Virginia	86.8	52.1	82.6	50.8	44.6	33.0	42.0	56.7	56.7
	Wisconsin	81.4	47.6	66.8	51.4	46.4	26.9	41.3	72.2	54.3
	Wyoming	64.4	40.1	62.5	39.7	32.0	26.0	33.8	56.6	45.3

State/FNS Region		Infants	All Children	1-Year-Old Children	2-Year-Old Children	3-Year-Old Children	4-Year-Old Children	Pregnant Women	Postpartum Women	Total
FNS Region	Northeast	79.3	53.2	75.2	57.9	50.6	30.5	44.5	69.2	58.3
	Mid-Atlantic	77.0	45.0	60.4	51.7	43.4	25.4	43.3	65.4	52.0
	Southeast	78.6	42.4	58.6	49.4	39.4	21.8	44.4	64.1	50.7
	Midwest	80.2	43.3	59.5	46.2	42.2	25.4	41.9	67.5	51.2
	Southwest	77.9	38.6	56.9	39.7	37.1	20.6	46.2	76.7	49.8
	Mountain Plains	72.4	39.4	58.1	41.8	37.3	21.7	40.0	60.5	46.8
	Western	79.4	60.8	87.6	62.3	61.7	33.7	54.0	72.1	64.4
	Total	78.4	46.0	64.6	49.8	44.4	25.4	45.6	68.9	53.5

Note: Estimates for the U.S. territories are included in the total but are not shown separately because of small sample sizes. Estimates of State-level coverage rates by year of age for children and other participant categories should be viewed with caution because of the small sample sizes for many States. See appendix B of volume II for more details on statistical uncertainty for these estimates. State and regional eligibility estimates and participant data include individuals in ITOs who were eligible for WIC.

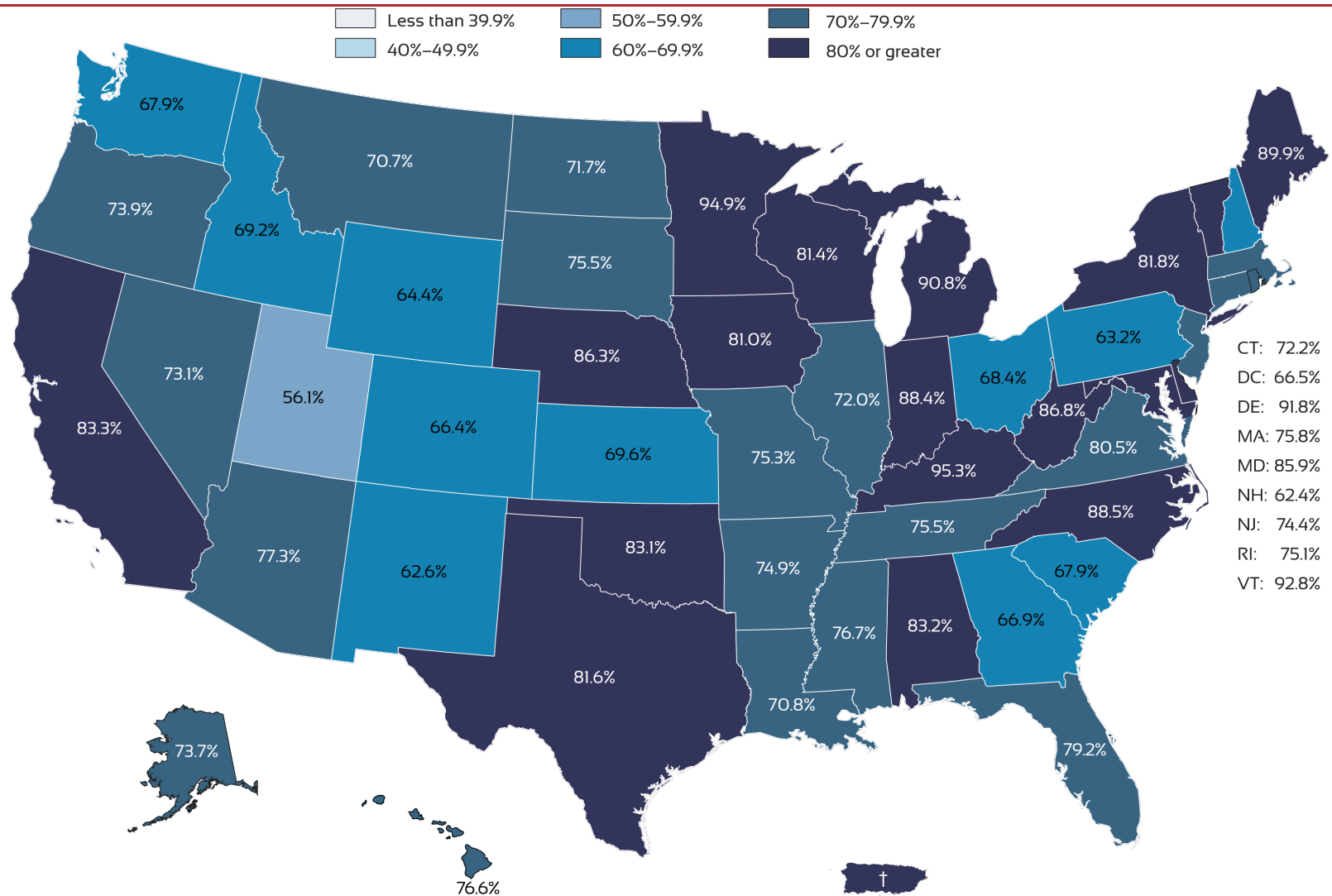
CY = calendar year; FNS = Food and Nutrition Service; ITO = Indian Tribal Organization

† Indicates an unreliable coverage rate over 100 percent

Sources: FNS, 2023; IPUMS-USA, n.d.; U.S. Census Bureau, n.d.-a, n.d.-b; Zvavitch et al., 2024

Figure 3.6. WIC Coverage Rate for Infants by State: CY 2022

National Coverage Rate for Infants: 78.4 Percent



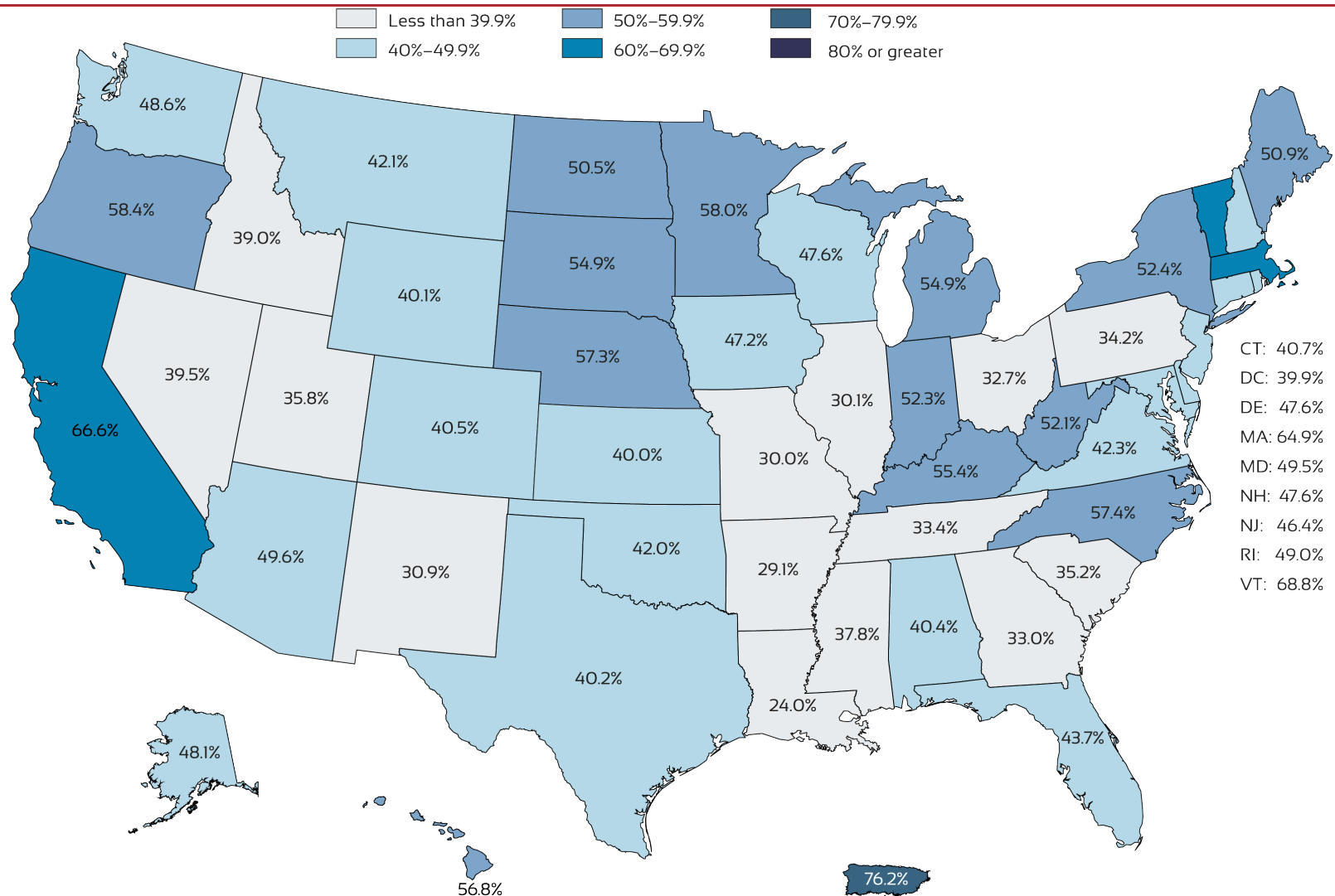
Note: [Data for figure 3.6 are available in table 3.6](#). Estimates for the U.S. territories are included in the national coverage rate but are not shown separately because of small sample sizes.

CY = calendar year

Sources: FNS, 2023; IPUMS-USA, n.d.; U.S. Census Bureau, n.d.-a, n.d.-b

Figure 3.7. WIC Coverage Rate for Children by State: CY 2022

National Coverage Rate for Children: 46.0 Percent



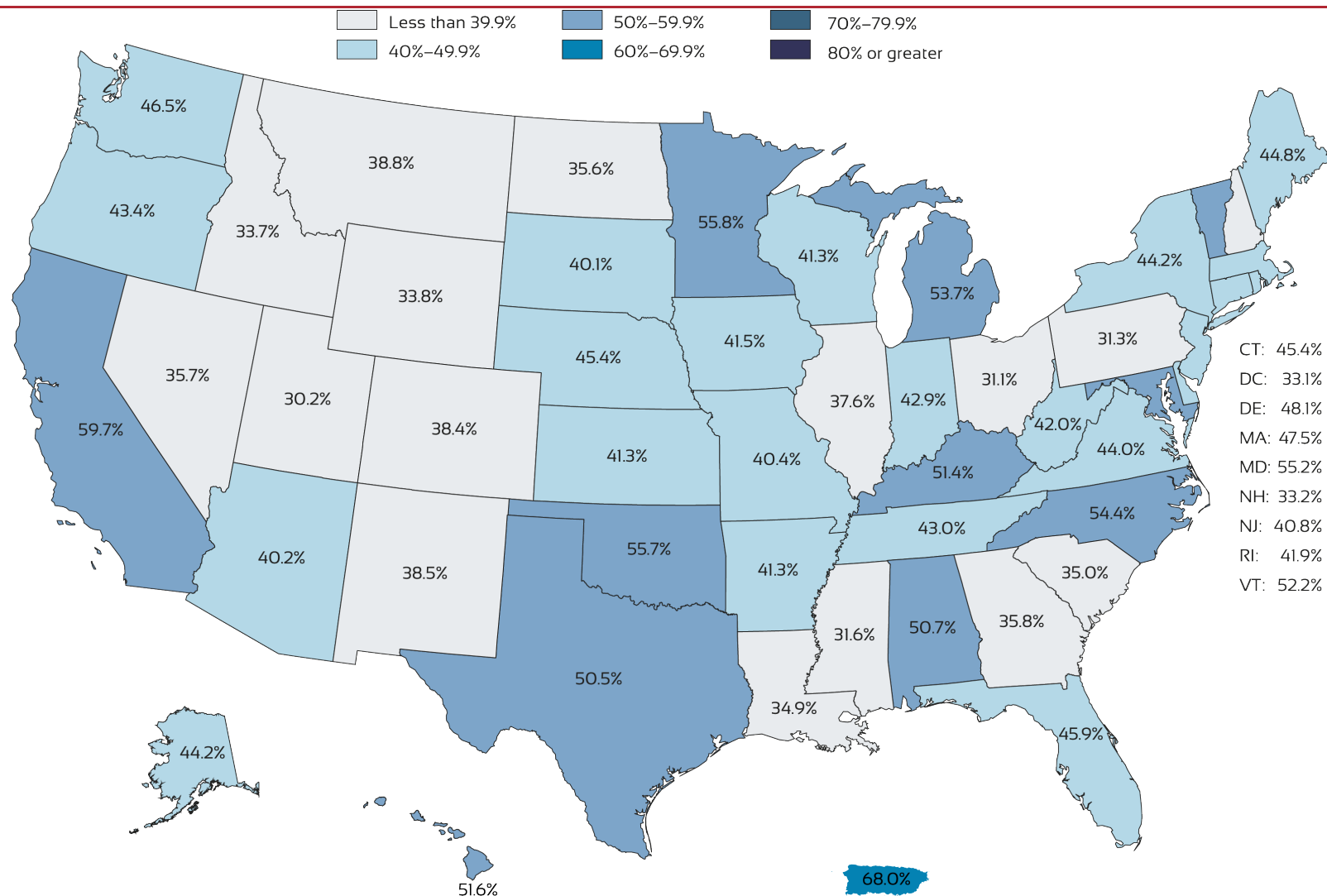
Note: [Data for figure 3.7 are available in table 3.6](#). Estimates for the U.S. territories are included in the national coverage rate but are not shown separately because of small sample sizes.

CY = calendar year

Sources: FNS, 2023; IPUMS-USA, n.d.; U.S. Census Bureau, n.d.-a, n.d.-b

Figure 3.8. WIC Coverage Rate for Pregnant Women by State: CY 2022

National Coverage Rate for Pregnant Women: 45.6 Percent



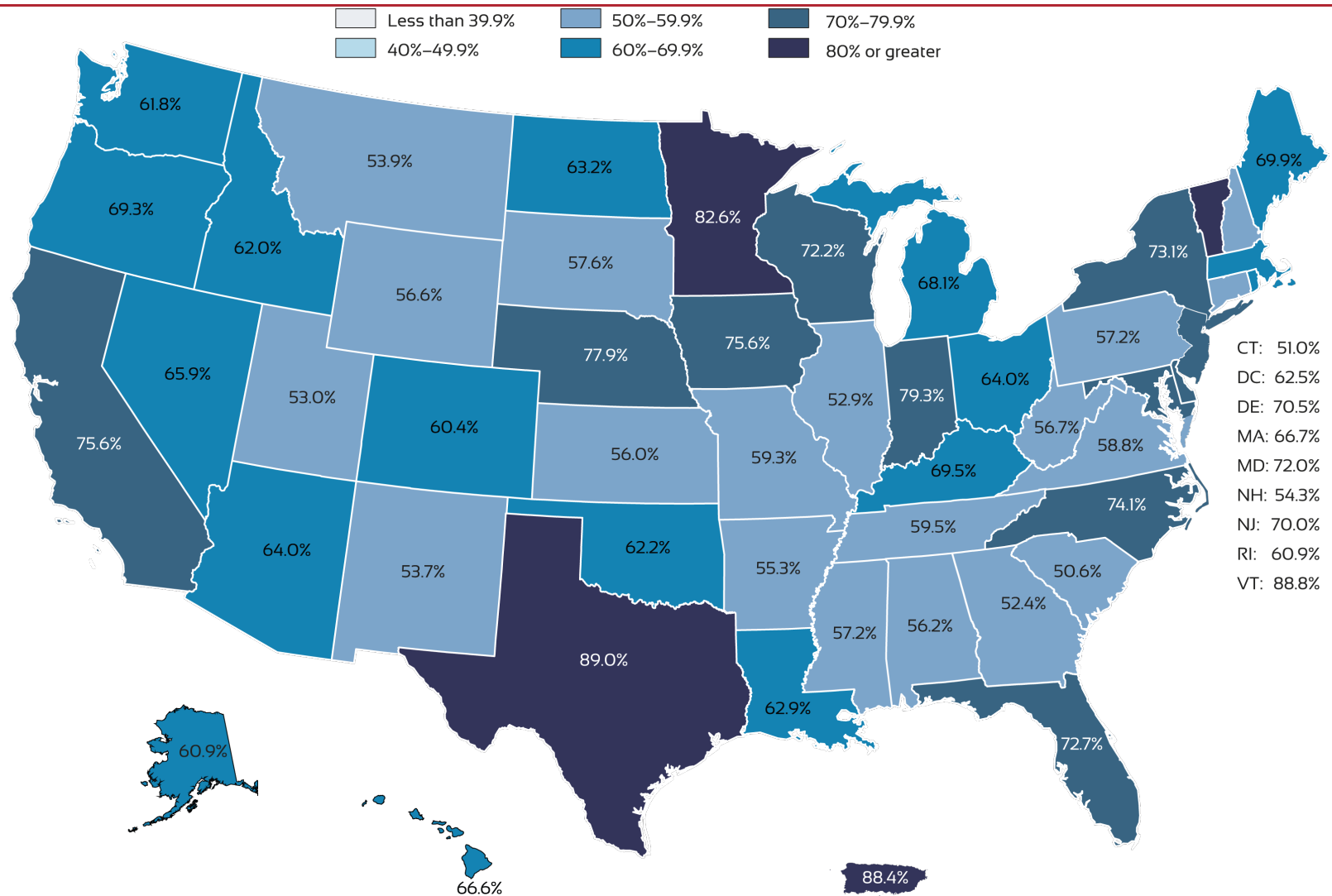
Note: [Data for figure 3.8 are available in table 3.6](#). Estimates for the U.S. territories are included in the national coverage rate but are not shown separately because of small sample sizes.

CY = calendar year

Sources: FNS, 2023; IPUMS-USA, n.d.; U.S. Census Bureau, n.d.-a, n.d.-b

Figure 3.9. WIC Coverage Rate for Postpartum Women by State: CY 2022

National Coverage Rate for Postpartum Women: 68.9 Percent



Note: [Data for figure 3.9 are available in table 3.6](#). Estimates for the U.S. territories are included in the national coverage rate but are not shown separately because of small sample sizes.

CY = calendar year

Sources: FNS, 2023; IPUMS-USA, n.d.; U.S. Census Bureau, n.d.-a, n.d.-b

Table 3.7. State-Level WIC Coverage Rates by Race and Hispanic Ethnicity: CY 2022

State	Hispanic/ Latino			White-Only, Not Hispanic			Other Than White-Only, Not Hispanic ^a			Total		
	Rate	Lower Bound	Upper Bound	Rate	Lower Bound	Upper Bound	Rate	Lower Bound	Upper Bound	Rate	Lower Bound	Upper Bound
Alabama	66.2	55.7	76.7	45.0	41.2	48.8	49.7	45.9	53.5	49.9*	47.4	52.3
Alaska	61.3	22.8	99.8	37.1*	29.0	45.1	64.4*	52.9	75.8	53.2	46.4	60.0
Arizona	55.7*	52.2	59.1	49.4	44.9	54.0	58.6*	52.4	64.9	54.8	52.2	57.4
Arkansas	45.9*	40.7	51.1	44.1	40.0	48.1	33.3*	29.5	37.0	40.4*	38.1	42.7
California	77.8*	74.3	81.3	38.1*	35.0	41.1	63.3*	59.4	67.2	69.7*	67.4	71.9
Colorado	50.6*	46.5	54.7	41.4*	37.1	45.7	45.6	40.5	50.7	46.6*	44.0	49.2
Connecticut	53.6*	49.2	58.0	36.6*	31.4	41.7	45.0	39.0	51.1	47.2*	44.6	49.8
Delaware	71.8	55.9	87.7	53.4	39.7	67.1	51.3	42.5	60.0	56.5	50.0	63.0
District of Columbia	94.8	56.5	133.0	23.6*	9.3	38.0	38.4*	32.9	43.9	46.7*	40.6	52.8
Florida	63.6	60.4	66.8	37.7*	34.7	40.6	52.1	48.9	55.4	52.6	50.8	54.5
Georgia	43.6*	40.1	47.1	41.3*	38.0	44.7	39.2*	36.6	41.7	40.6*	39.0	42.2
Hawaii	50.2*	40.0	60.4	38.8	27.8	49.8	70.2*	62.2	78.2	60.8*	55.1	66.4
Idaho	50.0*	42.7	57.2	41.6*	37.2	45.9	60.9	43.8	78.0	45.2*	41.6	48.8
Illinois	48.1*	45.1	51.1	34.4*	31.4	37.3	36.0*	33.2	38.9	39.4*	37.7	41.1
Indiana	69.2	61.6	76.7	54.9*	50.7	59.0	63.6*	58.6	68.5	59.8*	57.2	62.4
Iowa	71.1	59.2	83.0	47.4	42.9	51.9	62.2*	51.1	73.2	54.7	50.9	58.6
Kansas	51.4*	44.1	58.7	40.6*	36.2	44.9	53.1	45.5	60.8	46.4*	43.3	49.4
Kentucky	77.8*	62.1	93.5	60.4*	56.0	64.8	62.6*	55.9	69.3	62.6*	59.6	65.6
Louisiana	41.9*	36.5	47.4	39.4*	35.6	43.1	34.5*	32.1	36.9	36.8*	35.1	38.5
Maine	92.3	35.8	148.9	54.6*	47.5	61.8	66.1	43.8	88.4	57.6	51.0	64.3
Maryland	79.8*	71.8	87.8	43.6	38.7	48.6	51.8	47.7	55.8	58.3*	55.3	61.3
Massachusetts	75.0*	69.5	80.5	56.1*	50.2	61.9	60.9*	54.6	67.1	65.1*	61.6	68.6
Michigan	76.1*	68.0	84.2	60.3*	55.9	64.6	59.2*	54.9	63.4	61.5*	59.1	63.9
Minnesota	71.1	59.3	83.0	55.6*	49.5	61.6	75.1*	65.6	84.7	65.7*	60.9	70.4
Mississippi	45.4*	35.7	55.0	48.0	43.1	52.9	44.6*	41.1	48.1	45.7*	43.1	48.3
Missouri	43.7*	37.6	49.9	42.2*	38.9	45.6	37.4*	33.7	41.0	40.8*	38.9	42.8
Montana	25.9*	16.0	35.7	46.6	38.7	54.5	64.1*	51.4	76.7	47.2*	41.0	53.3

State	Hispanic/ Latino			White-Only, Not Hispanic			Other Than White-Only, Not Hispanic ^a			Total		
	Rate	Lower Bound	Upper Bound	Rate	Lower Bound	Upper Bound	Rate	Lower Bound	Upper Bound	Rate	Lower Bound	Upper Bound
Nebraska	75.8	61.0	90.6	46.6	40.7	52.4	82.5*	68.9	96.0	62.9*	56.6	69.1
Nevada	46.4*	42.5	50.3	52.7	43.4	62.0	44.4*	39.1	49.6	47.0*	44.0	50.0
New Hampshire	57.3	40.7	73.8	48.3	40.8	55.8	43.1	19.5	66.7	49.0	42.1	56.0
New Jersey	61.1	56.5	65.6	45.0	40.7	49.4	46.5	42.5	50.6	52.8	50.2	55.3
New Mexico	39.0*	35.9	42.2	31.4*	25.7	37.1	50.3	43.5	57.2	39.1*	36.6	41.7
New York	64.1	60.0	68.1	49.7*	46.2	53.2	61.3*	57.2	65.5	58.5*	56.4	60.7
North Carolina	68.6*	64.1	73.2	63.0*	58.0	68.0	62.0*	57.7	66.3	64.0*	61.5	66.5
North Dakota	41.3*	21.8	60.8	44.6	34.2	55.1	77.6*	54.3	101.0	53.8	44.0	63.5
Ohio	46.8*	41.5	52.2	40.6*	37.7	43.5	40.6*	37.8	43.3	41.3*	39.7	42.9
Oklahoma	56.2*	51.5	60.8	45.7	41.6	49.7	55.2*	50.0	60.4	51.8	49.0	54.5
Oregon	62.0	56.4	67.5	60.5*	55.2	65.8	57.5	47.5	67.6	60.6*	57.0	64.3
Pennsylvania	44.3*	40.6	48.1	39.4*	36.5	42.3	40.1*	36.9	43.4	40.9*	39.1	42.7
Rhode Island	54.7*	46.8	62.6	43.5	32.4	54.6	71.6*	50.0	93.1	54.2	48.1	60.3
South Carolina	44.6*	39.1	50.0	38.5*	35.1	41.9	43.8*	40.2	47.5	42.1*	40.0	44.1
South Dakota	47.5*	33.9	61.2	40.4	32.0	48.8	89.2*	71.4	107.0	57.1	49.4	64.8
Tennessee	45.0*	40.3	49.6	48.7	45.1	52.4	36.4*	33.4	39.4	43.7*	41.9	45.6
Texas	58.7*	56.1	61.4	42.6*	39.5	45.7	43.9*	40.9	47.0	53.1	51.4	54.8
Utah	53.1*	45.4	60.8	33.8*	29.9	37.6	39.2*	30.6	47.8	40.5*	37.4	43.7
Vermont	†	†	†	69.2*	55.6	82.8	†	†	†	72.6*	60.2	84.9
Virginia	65.3	58.5	72.2	42.6	38.7	46.6	46.5*	43.0	50.0	49.6*	47.2	51.9

State	Hispanic/ Latino			White-Only, Not Hispanic			Other Than White-Only, Not Hispanic ^a			Total		
	Rate	Lower Bound	Upper Bound	Rate	Lower Bound	Upper Bound	Rate	Lower Bound	Upper Bound	Rate	Lower Bound	Upper Bound
Washington	59.8	55.7	64.0	44.8	41.1	48.5	55.3*	49.9	60.7	52.9	50.7	55.1
West Virginia	59.7	36.9	82.5	55.6*	50.0	61.1	65.1*	52.6	77.6	56.7	52.4	61.1
Wisconsin	65.6	54.7	76.5	43.1	39.0	47.3	64.4*	57.0	71.9	54.3	50.9	57.6
Wyoming	52.0	29.6	74.4	44.8	36.4	53.2	37.7	21.4	53.9	45.3*	38.8	51.8

Note: Estimates for Puerto Rico are included in the totals but not shown separately because of small sample sizes. Estimates for U.S. territories other than Puerto Rico are not included in the calculation of the coverage rates in this table because information on race and ethnicity was not available for the other U.S. territories in the data. See appendix B of volume II for more details on statistical uncertainty for these estimates.

CY = calendar year

^a This category includes non-Hispanic individuals who self-identify as two or more races or self-identify as a race other than White. These categories were combined because of sample size concerns.

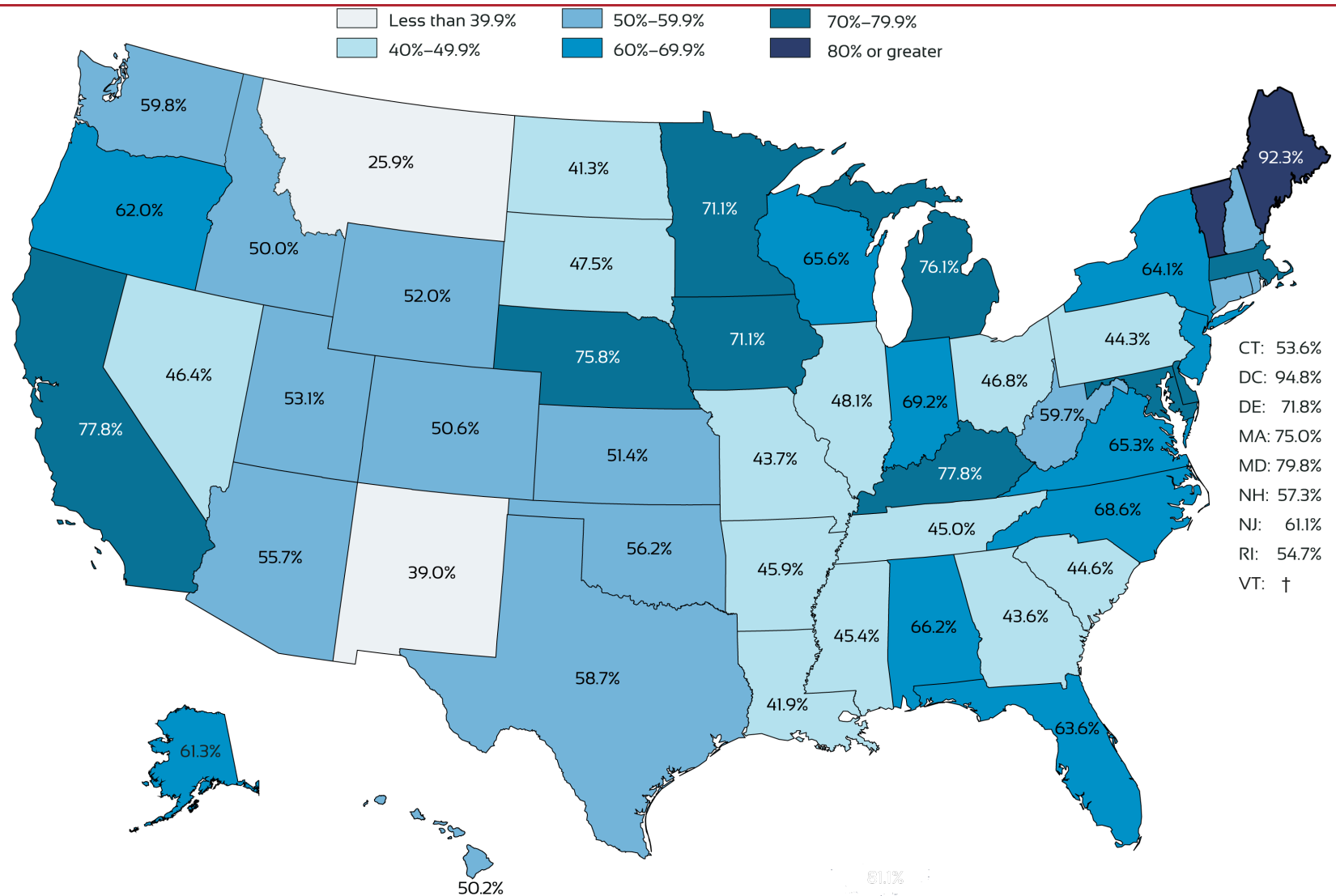
* Indicates a statistically significant difference at the 95 percent confidence level between the State coverage rate for a participant category's race and ethnicity and the national coverage rate for that category

† Indicates an unreliable coverage rate over 100 percent or a coverage rate where the lower bound of the 95 percent confidence interval is below 0 percent and the upper bound is over 100 percent

Sources: FNS, 2023; IPUMS-USA, n.d.; U.S. Census Bureau, n.d.-a; Zvavitch et al., 2024

Figure 3.10. WIC Coverage Rate for Hispanic/Latino Individuals by State: CY 2022

National Coverage Rate for Hispanic/Latino Individuals: 63.0 Percent

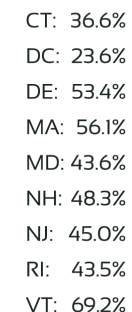


Note: Data for figure 3.10 are available in table 3.7. Estimates for U.S. territories other than Puerto Rico are not included in the calculation of the coverage rates in this figure because information on race and ethnicity was not available for the other U.S. territories in the data. Estimates for Puerto Rico are included in the national coverage rate.

CY = calendar year

Sources: FNS, 2023; IPUMS-USA, n.d.; U.S. Census Bureau, n.d.-a; Zvavitch et al., 2024

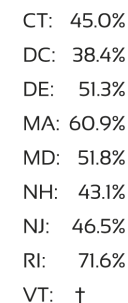
National Coverage Rate for White-Only, Not Hispanic Individuals: 45.9 Percent



CY = calendar year

Sources: FNS, 2023; IPUMS-USA, n.d.; U.S. Census Bureau, n.d.-a; Zvavitch et al., 2024

National Coverage Rate for Other Than White-Only, Not Hispanic Individuals: 50.2 Percent



† Indicates an unreliable coverage rate over 100 percent

Insight ■ National- and State-Level Estimates of WIC Eligibility and WIC Program Reach in 2022, Final Report, Volume I

C. Changes in WIC Coverage Rates: CY 2021–CY 2022

Overall, the national WIC coverage rate increased by 2 percentage points between 2021 and 2022 to 54 percent, returning to the highest coverage rate observed since 2016. The increase in coverage rates during this period occurred because the total number of WIC participants increased by 2 percent while the estimated number of individuals eligible for WIC decreased by 3 percent. Coverage rates increased across all participant categories, except postpartum non-breastfeeding women. Postpartum non-breastfeeding women showed a decline in both the total eligible population and the number of participants. The largest increase was for postpartum breastfeeding women (6 percentage points, see table 3.8 and figure 3.13). The changes for postpartum breastfeeding and non-breastfeeding women is likely related to increased breastfeeding during and after the infant formula shortage that started in February 2022 and lasted through the summer.

Table 3.8. Change in WIC Eligibility, Participants, and Coverage Rate by Participant Category: CY 2021–CY 2022

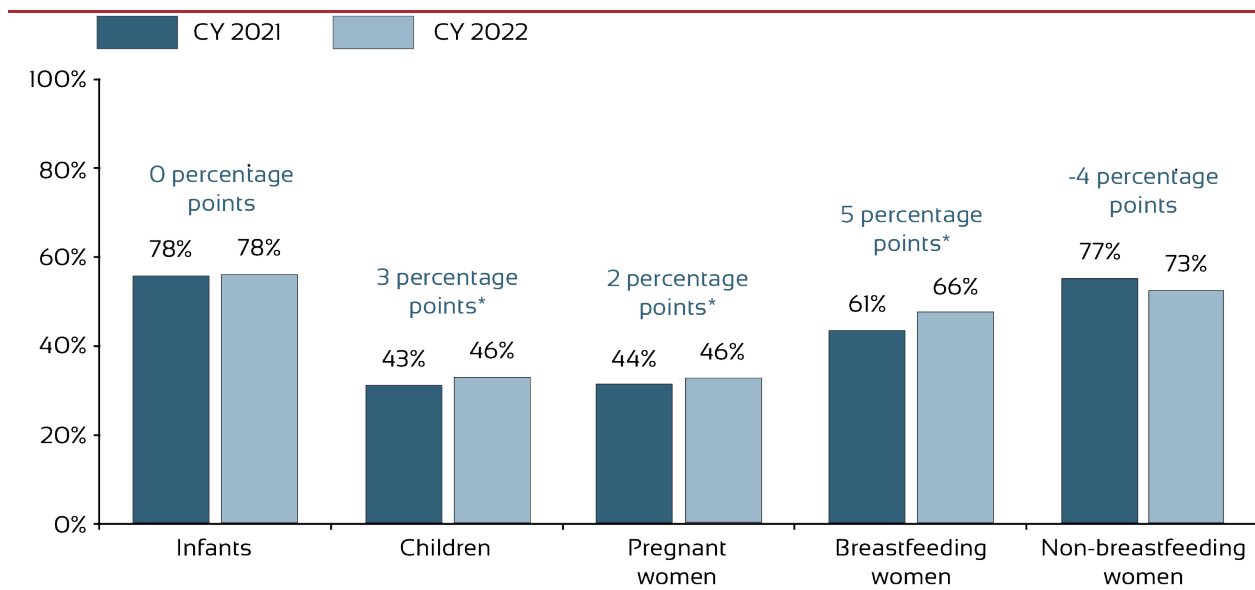
Participant Category		2021	2022	Difference 2021–2022	Percent Change 2021–2022
Number eligible	Infants	1,846,394	1,830,448	-15,946	-0.9
	Children	7,851,014	7,523,916	-327,098	-4.2*
	Pregnant women	1,128,406	1,124,940	-3,467	-0.3
	Postpartum women	1,305,482	1,313,719	8,238	0.6
	Breastfeeding women	796,911	822,967	26,056	3.3
	Non-breastfeeding women	508,571	490,752	-17,819	-3.5
	Total	12,131,296	11,793,023	-338,274	-2.8*
Number participating	Infants	1,440,283	1,434,992	-5,290	-0.4
	Children	3,395,487	3,457,293	61,806	1.8
	Pregnant women	492,562	512,637	20,075	4.1
	Postpartum women	876,811	905,501	28,690	3.3
	Breastfeeding women	484,379	545,466	61,087	12.6
	Non-breastfeeding women	392,433	360,035	-32,397	-8.3
	Total	6,205,143	6,310,423	105,281	1.7
Coverage rate	Infants	78.0	78.4	0.4	0.5
	Children	43.2	46.0	2.7	6.2*
	Pregnant women	43.7	45.6	1.9	4.4*
	Postpartum women	67.2	68.9	1.8	2.6
	Breastfeeding women	60.8	66.3	5.5	9.0*
	Non-breastfeeding women	77.2	73.4	-3.8	-4.9
	Total	51.2	53.5	2.4	4.6*

CPS ASEC = Current Population Survey Annual Social and Economic Supplement; CY = calendar year; PRCS = Puerto Rico Community Survey

* Indicates a statistically significant difference between the 2021 and 2022 estimates of individuals eligible for WIC and the 2021 and 2022 estimates of WIC coverage rates at the 95 percent confidence level. The number of total WIC participants by category is not subject to statistical uncertainty because it is based on WIC administrative data, which is a census of WIC participants receiving benefits; no sampling is involved. The statistical significance testing was conducted on the change in WIC eligibility based on the CPS ASEC data and PRCS, which included data only for States and Puerto Rico. It did not include data for the other U.S. territories served by WIC.

Sources: FNS, 2023; IPUMS-USA, n.d.; U.S. Census Bureau, n.d.-a, n.d.-b

Figure 3.13. Change in WIC Coverage Rate by Participant Category: CY 2021–CY 2022



Note: [Data for figure 3.13 are available in table 3.8](#). Change in percentage points may not match subtraction of coverage rates by year because of rounding.

CPS ASEC = Current Population Survey Annual Social and Economic Supplement; CY = calendar year; PRCS = Puerto Rico Community Survey

* Indicates a statistically significant difference between the 2021 and 2022 estimates of individuals eligible for WIC and the 2021 and 2022 estimates of WIC coverage rates at the 95 percent confidence level. The statistical significance testing was conducted on the change in WIC eligibility based on the CPS ASEC and PRCS data, which included data only for States and Puerto Rico. It did not include data for the other U.S. territories served by WIC.

Sources: FNS, 2023; IPUMS-USA, n.d.; U.S. Census Bureau, n.d.-a

Additional differences emerged after stratifying coverage rates by participant category and race and ethnicity (see table 3.9). Specifically, the coverage rate for non-Hispanic postpartum non-breastfeeding women with two or more or other races experienced a statistically significant 22 percentage point decline; infants identified in this same race and ethnicity category also exhibited a large, statistically significant decline, although the change is suppressed because the 2021 coverage rate was estimated to be over 100 percent.³⁴ In contrast, the coverage rates for Black-only, non-Hispanic; White-only, non-Hispanic; and Hispanic/Latino infants and postpartum non-breastfeeding women did not show a statistically significant change.

Children also showed different patterns by race and ethnicity. While the overall population of children experienced a 3-percentage point increase in coverage, Black-only, non-Hispanic children showed a small, nonsignificant decline. The coverage rate for children had an increase for all other race and ethnicity categories, although only the coverage rate change for Hispanic/Latino children was statistically significant (6 percentage points).

The 2-percentage point increase in coverage observed among pregnant women appears to be driven by statistically significant increases for both Hispanic/Latina women (5 percentage points) and non-Hispanic women who identified as two or more or other races (3 percentage points). The coverage rate for non-

³⁴ While this decline is statistically significant, this result should be interpreted with caution given the statistical uncertainty associated with the 2021 coverage rate.

Hispanic, White-only postpartum breastfeeding women increased statistically significantly by 8 percentage points.

Table 3.9. Change in WIC Coverage Rates by Participant Category and by Race and Hispanic Ethnicity: CY 2021–CY 2022

Participant Category		Hispanic/ Latino	Black-Only, Not Hispanic	White-Only, Not Hispanic	Two or More Races or Other Race, Not Hispanic ^a	Total
Coverage rate 2022	Infants	84.4	84.3	68.1	75.4	78.5
	Children	56.3	38.4	38.8	48.7	45.9
	Pregnant women	55.4	43.6	39.0	38.5	45.6
	Postpartum women	74.8	72.9	64.1	52.7	69.0
	Breastfeeding women	76.0	66.4	57.0	53.7	66.3
	Non-breastfeeding women	72.5	82.0	75.6	51.1	73.4
	Total	63.0	49.1	45.9	52.6	53.5
Coverage rate 2021	Infants	83.7	76.7	67.1	†	78.1
	Children	50.7	38.7	36.7	47.6	43.2
	Pregnant women	50.8	44.2	38.9	35.6	43.7
	Postpartum women	73.2	67.4	60.7	66.2	67.2
	Breastfeeding women	71.3	59.4	49.2	62.0	60.8
	Non-breastfeeding women	76.7	77.0	78.7	73.4	77.2
	Total	58.1	48.5	44.2	55.7	51.2
Change in coverage rate for 2021 versus 2022 (percentage point difference)	Infants	0.7	7.6	1.0	‡	0.4
	Children	5.6*	-0.3	2.1	1.1	2.7*
	Pregnant women	4.5*	-0.6	0.0	3.0*	1.9*
	Postpartum women	1.6	5.5	3.4	-13.5	1.8
	Breastfeeding women	4.7	7.0	7.8*	-8.3	5.5*
	Non-breastfeeding women	-4.3	5.0	-3.1	-22.4*	-3.8
	Total	4.9*	0.6	1.7	-3.0	2.4*

Note: Estimates for U.S. territories other than Puerto Rico are not included in the calculation of the coverage rates in this table because information on race and ethnicity for the other U.S. territories was not available in the data.

CY = calendar year

^a Non-Hispanic individuals who self-identified as two or more races or Asian, American Indian/Alaska Native, or Hawaiian/Pacific Islander are included in the “Two or more races or other race, not Hispanic” category.

† Indicates an unreliable coverage rate over 100 percent

‡ Indicates a difference calculated from a censored coverage rate. All censored differences were over 20 percentage points.

* Indicates a statistically significant difference between the 2021 and 2022 estimates of WIC coverage rates at the 95 percent confidence level

Sources: FNS 2023; IPUMS-USA, n.d.; Zvavitch et al., 2024; U.S. Census Bureau, n.d.-a

The total coverage rate increased from 2021 to 2022 in all FNS Regions, with the largest increase observed in the Northeast Region (4 percentage points) and the smallest increase observed in the Mid-Atlantic Region (less than 1 percentage point; see table 3.10). The direction of change from 2021 to 2022 varied across FNS Regions within participant category. For example, the Southeast, Southwest, and Western Regions showed statistically significant increases in the coverage rates for pregnant women, while the Mid-Atlantic and Midwest Regions showed small declines in coverage of pregnant women.

Table 3.10. Change in WIC Coverage Rates by FNS Region and Participant Category: CY 2021–CY 2022

FNS Region		Infants	Children	Pregnant Women	Postpartum Women	Total
Coverage rate 2021	Northeast	77.5	47.8	43.0	66.5	53.9
	Mid-Atlantic	77.8	44.0	43.6	66.2	51.4
	Southeast	76.4	40.4	42.5	61.7	48.7
	Midwest	81.9	40.4	42.1	63.2	49.0
	Southwest	77.5	35.2	42.0	75.4	46.7
	Mountain Plains	73.2	37.3	38.0	60.1	45.2
	Western	79.3	57.6	50.9	71.5	61.7
	Total	78.0	43.2	43.7	67.2	51.2
Coverage rate 2022	Northeast	79.3	53.2	44.5	69.2	58.3
	Mid-Atlantic	77.0	45.0	43.3	65.4	52.0
	Southeast	78.6	42.4	44.4	64.1	50.7
	Midwest	80.2	43.3	41.9	67.5	51.2
	Southwest	77.9	38.6	46.2	76.7	49.8
	Mountain Plains	72.4	39.4	40.0	60.5	46.8
	Western	79.4	60.8	54.0	72.1	64.4
	Total	78.4	46.0	45.6	68.9	53.5
Change in coverage rate for 2021 versus 2022 (percentage point difference)	Northeast	1.8	5.4*	1.5	2.7	4.4*
	Mid-Atlantic	-0.8	1.0	-0.3	-0.7	0.6
	Southeast	2.3	2.0*	1.8*	2.3	2.0*
	Midwest	-1.7	2.9*	-0.2	4.3	2.2*
	Southwest	0.4	3.4*	4.2*	1.3	3.1*
	Mountain Plains	-0.8	2.1	2.0	0.4	1.6
	Western	0.1	3.2	3.1*	0.6	2.7
	Total	0.4	2.7*	1.9*	1.8	2.4*

CPS ASEC = Current Population Survey Annual Social and Economic Supplement; CY = calendar year; FNS = Food and Nutrition Service; PRCS = Puerto Rico Community Survey

* Indicates a statistically significant difference between the 2021 and 2022 estimates of WIC coverage rates at the 95 percent confidence level. The statistical significance testing was conducted on the change in WIC eligibility based on the CPS ASEC and PRCS data, which included data only for States and Puerto Rico. It did not include data for the other U.S. territories served by WIC.

Sources: FNS, 2023; IPUMS-USA, n.d.; U.S. Census Bureau, n.d.-a, n.d.-b

D. Trends in WIC Coverage Rates: CY 2016–CY 2022

In 2022, the overall WIC coverage rate increased, breaking a trend from the slight decreases observed from 2018 to 2021 (see table 3.11 and figure 3.14). Throughout the 2016 to 2022 period, coverage rates were consistently highest for infants, followed by those for postpartum women, and lowest for children³⁵ (see table 3.12 and figure 3.14). Among children, coverage rates for 1-year-old children were consistently highest across all children by year of age, followed by 2-year-old and 3-year-old children; 4-year-old children consistently had the lowest coverage rates (see table 3.12 and figure 3.15).

Figure 3.16 shows the overall coverage rates by FNS Region from 2016 through 2022. The Western Region consistently had the highest rates of coverage during this period (primarily because of the high rates in California), and the Mountain Plains Region had the lowest. See table F.5 of volume II of this report for trends in coverage rates by FNS Region from 2016 through 2022 for each participant category.

Between 2016 and 2022, coverage rates were consistently highest for Hispanic individuals and lowest for non-Hispanic, White-only individuals (see figure 3.17). Following 2019, the coverage rate for non-Hispanic, Black-only individuals declined more steeply than the coverage rates for all other race and ethnicity categories. Through 2020, non-Hispanic, Black-only individuals had the second highest coverage rate; by 2021, this group's coverage rate was second lowest.

Table 3.11. WIC Eligibility, Participants, and Coverage Rates: CY 2016–CY 2022

Year	Number Eligible	Number Participating	Coverage Rate
2016	14,005,712	7,593,888	54.2
2017	13,739,662	7,183,994	52.3
2018	12,691,698	6,748,797	53.2
2019	12,074,709	6,311,597	52.3
2020	12,081,717	6,283,462	52.0
2021	12,131,296	6,205,143	51.2
2022	11,793,023	6,310,423	53.5

CY = calendar year

Sources: FNS, 2023; IPUMS-USA, n.d.; U.S. Census Bureau, n.d.-a, n.d.-b

³⁵ In 2022, the coverage rates for children and pregnant women were the same (46 percent).

Table 3.12. WIC Eligibility, Participants, and Coverage Rates by Participant Category: CY 2016–CY 2022

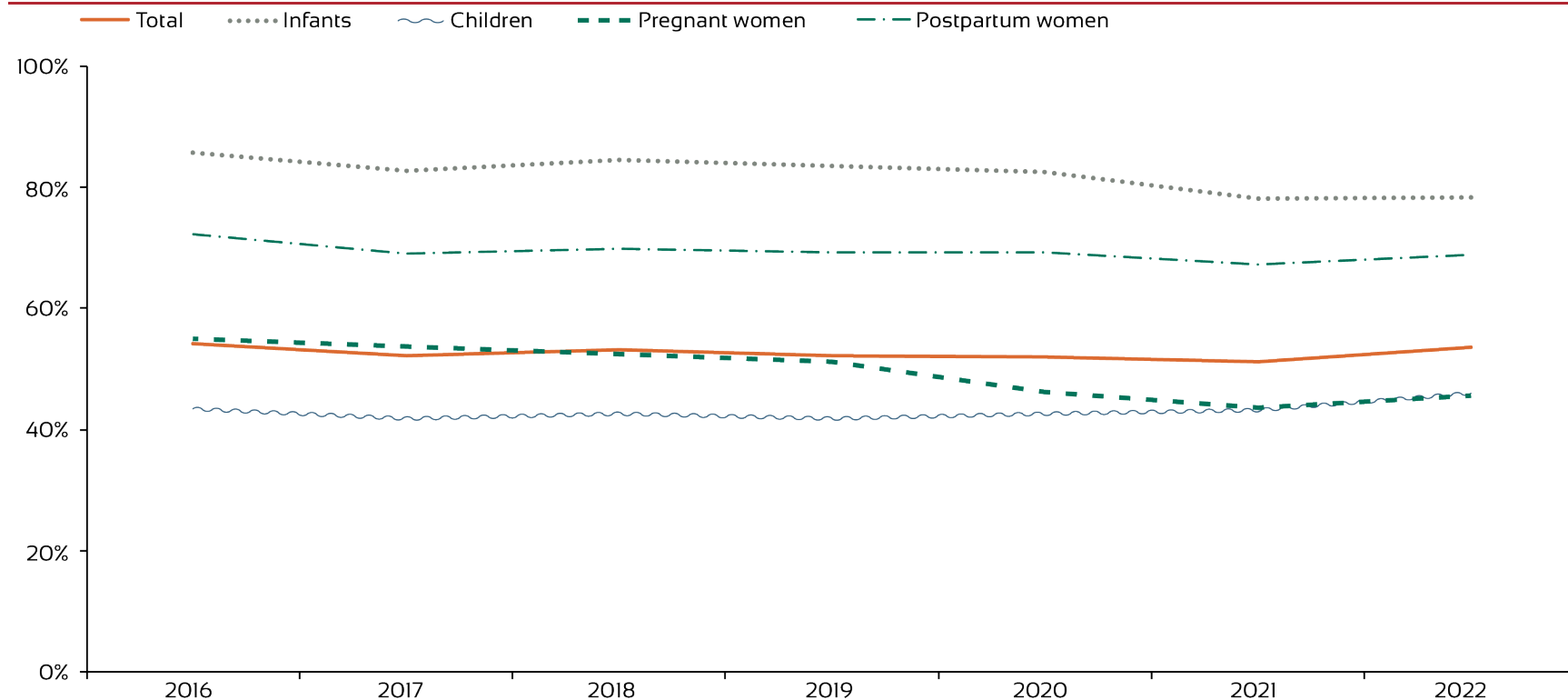
Participant Category		2016	2017	2018	2019	2020	2021	2022
Number eligible	Infants	2,162,700	2,139,130	1,998,988	1,900,491	1,862,033	1,846,394	1,830,448
	Children	9,023,248	8,847,389	8,123,987	7,726,475	7,784,680	7,851,014	7,523,916
	1-year-old children	2,306,123	2,222,959	2,012,357	1,837,802	1,942,173	1,852,884	1,852,300
	2-year-old children	2,284,503	2,304,834	2,043,373	1,916,514	1,916,424	2,051,553	1,909,244
	3-year-old children	2,235,416	2,211,684	2,066,549	1,948,148	1,970,726	1,932,072	1,864,052
	4-year-old children	2,197,205	2,107,912	2,001,709	2,024,011	1,955,357	2,014,506	1,898,321
	Pregnant women	1,287,402	1,221,038	1,144,961	1,091,257	1,103,246	1,128,406	1,124,940
	Postpartum women	1,532,362	1,532,105	1,423,761	1,356,486	1,331,757	1,305,482	1,313,719
	Breastfeeding women	969,380	978,905	896,644	851,671	833,152	796,911	822,967
	Non-breastfeeding women	562,982	553,199	527,117	504,816	498,605	508,571	490,752
	Total	14,005,712	13,739,662	12,691,698	12,074,709	12,081,717	12,131,296	11,793,023
Number participating	Infants	1,853,720	1,767,555	1,687,302	1,590,861	1,536,838	1,440,283	1,434,992
	Children	3,926,229	3,702,118	3,460,346	3,223,616	3,315,833	3,395,487	3,457,293
	1-year-old children	1,371,580	1,294,717	1,181,957	1,101,365	1,165,601	1,191,689	1,197,298
	2-year-old children	1,052,589	992,638	934,510	870,824	884,764	906,409	950,552
	3-year-old children	931,729	878,098	835,755	778,771	781,059	800,319	828,005
	4-year-old children	570,331	536,666	508,123	472,656	484,408	497,070	481,438
	Pregnant women	707,747	658,141	606,369	557,735	509,659	492,562	512,637
	Postpartum women	1,106,191	1,056,180	994,781	939,385	921,133	876,811	905,501
	Breastfeeding women	590,427	570,521	536,944	507,593	507,693	484,379	545,466
	Non-breastfeeding women	515,764	485,659	457,837	431,792	413,440	392,433	360,035
	Total	7,593,888	7,183,994	6,748,797	6,311,597	6,283,462	6,205,143	6,310,423

Participant Category		2016	2017	2018	2019	2020	2021	2022
Coverage rate	Infants	85.7	82.6	84.4	83.7	82.5	78.0	78.4
	Children	43.5	41.8	42.6	41.7	42.6	43.2	46.0
	1-year-old children	59.5	58.2	58.7	59.9	60.0	64.3	64.6
	2-year-old children	46.1	43.1	45.7	45.4	46.2	44.2	49.8
	3-year-old children	41.7	39.7	40.4	40.0	39.6	41.4	44.4
	4-year-old children	26.0	25.5	25.4	23.4	24.8	24.7	25.4
	Pregnant women	55.0	53.9	53.0	51.1	46.2	43.7	45.6
	Postpartum women	72.2	68.9	69.9	69.3	69.2	67.2	68.9
	Breastfeeding women	60.9	58.3	59.9	59.6	60.9	60.8	66.3
	Non-breastfeeding women	91.6	87.8	86.9	85.5	82.9	77.2	73.4
	Total	54.2	52.3	53.2	52.3	52.0	51.2	53.5

CY = calendar year

Sources: FNS, 2023; IPUMS-USA, n.d.; U.S. Census Bureau, n.d.-a, n.d.-b; Zvavitch et al., 2024

Figure 3.14. Trends in WIC Coverage Rates by Participant Category: CY 2016–CY 2022

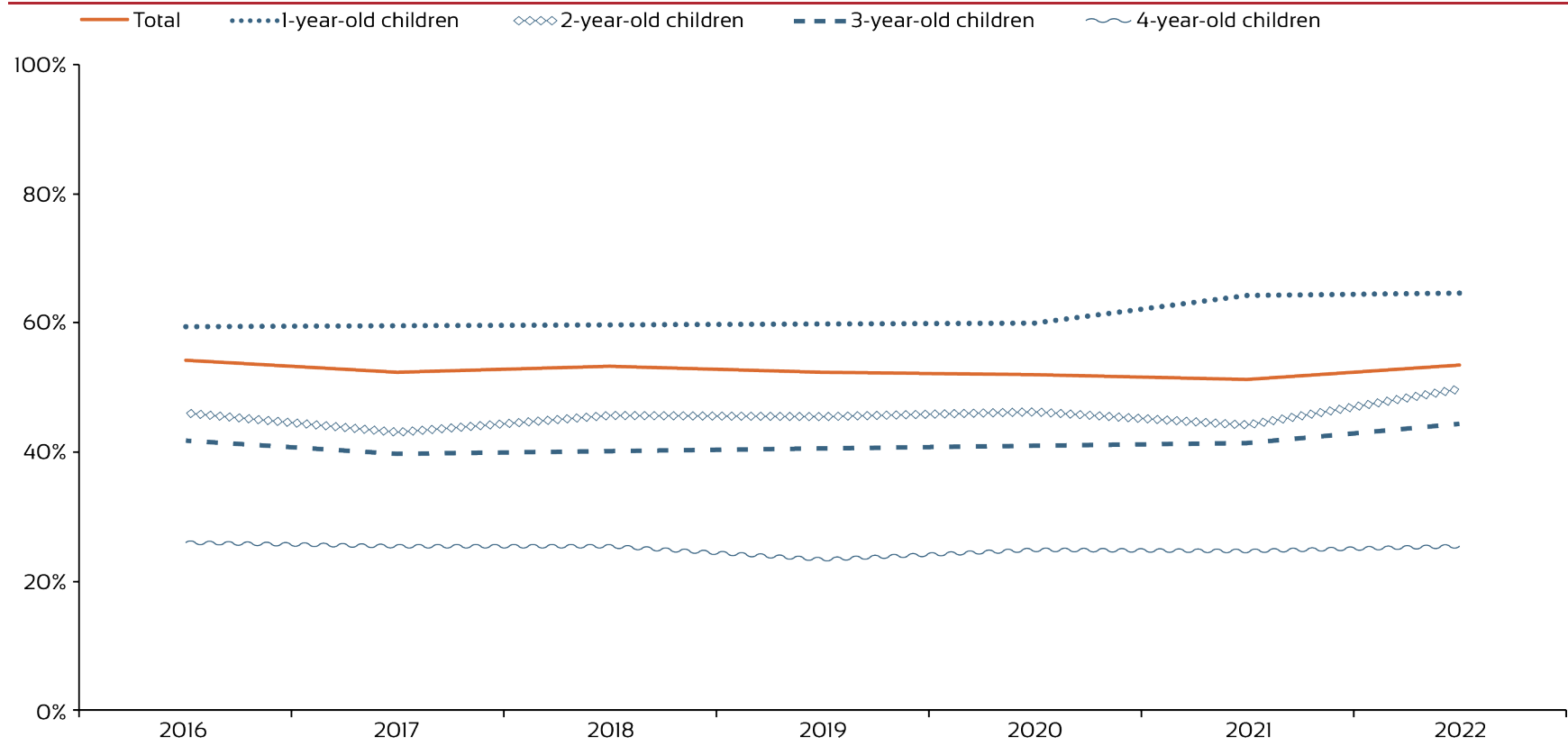


Note: [Data for figure 3.14 are available in table 3.12](#). The estimates for CY 2016 through CY 2020 are consistent with the results published in the CY 2021 report (Kessler et al., 2023) but differ from initial results published for those years because of updates to the methodology.

CY = calendar year

Sources: FNS, 2023; IPUMS-USA, n.d.; U.S. Census Bureau, n.d.-a, n.d.-b

Figure 3.15. Trends in WIC Coverage Rates for Children by Year of Age: CY 2016–CY 2022

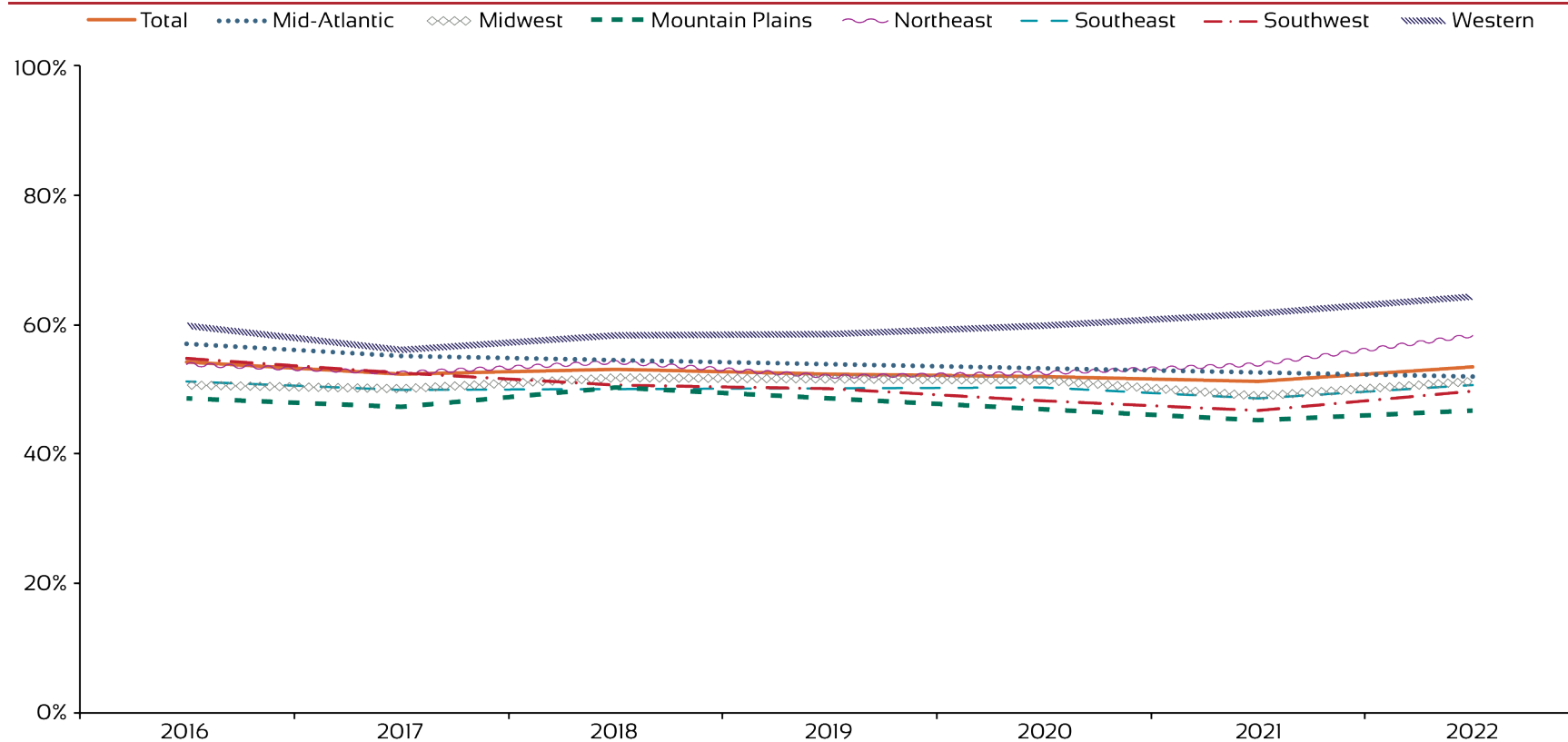


Note: [Data for figure 3.15 are available in table 3.12.](#)

CY = calendar year

Sources: FNS, 2023; IPUMS-USA, n.d.; Zvavitch et al., 2024; U.S. Census Bureau, n.d.-a, n.d.-b

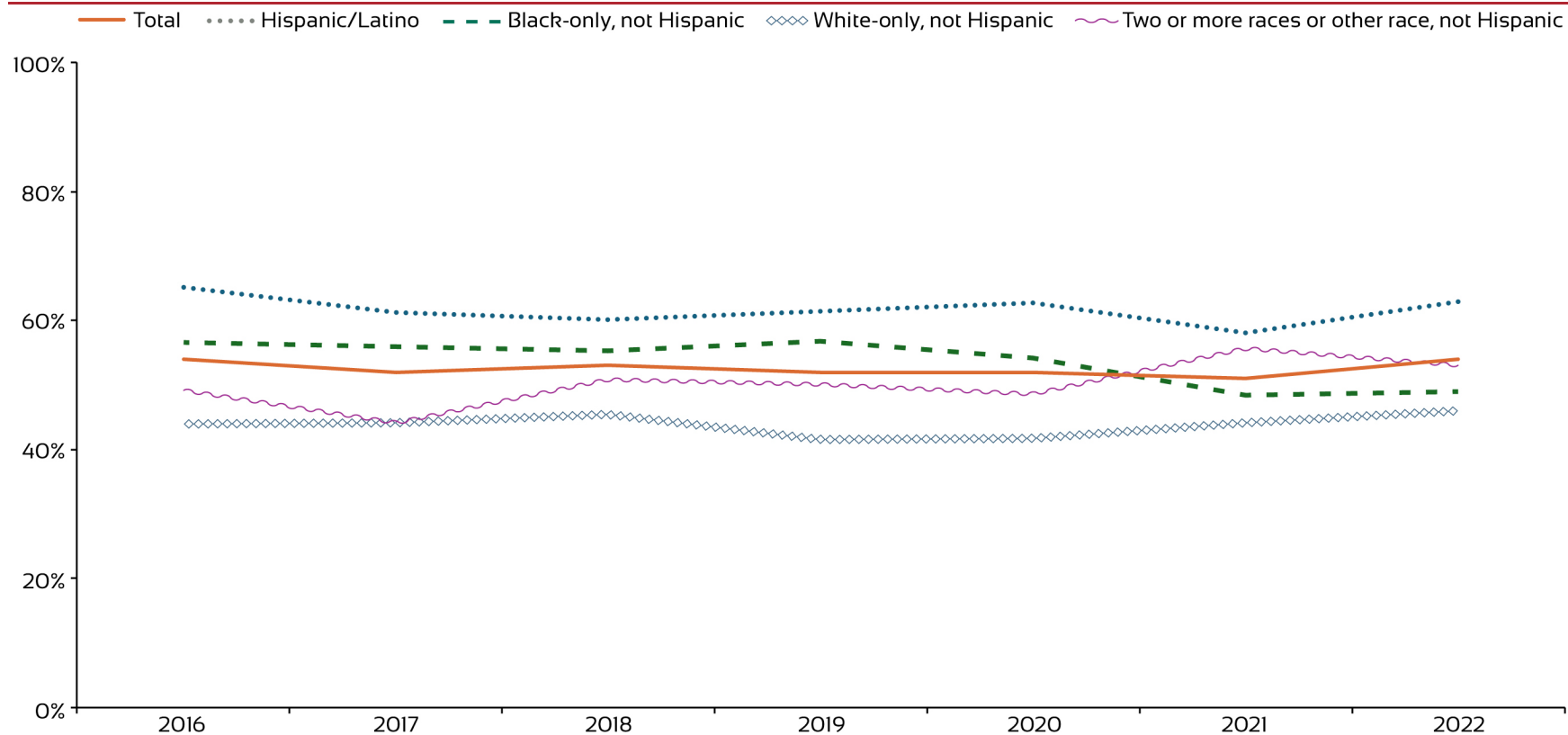
Figure 3.16. Trends in WIC Coverage Rates by FNS Region: CY 2016–CY 2022



CY = calendar year; FNS = Food and Nutrition Service

Sources: FNS, 2023; IPUMS-USA, n.d.; U.S. Census Bureau, n.d.-a, n.d.-b

Figure 3.17. Trends in WIC Coverage Rates by Race and Ethnicity: CY 2016–CY 2022



Note: Non-Hispanic individuals who self-identified as two or more races or Asian, American Indian/Alaska Native, or Hawaiian/Pacific Islander are included in the “Two or more races or other race, not Hispanic” category.

CY = calendar year; FNS = Food and Nutrition Service

Sources: FNS, 2023; IPUMS-USA, n.d.; U.S. Census Bureau, n.d.-a, n.d.-b; Zvavitch et al., 2024

E. Participation Counts for Tribal Organizations

The current WIC eligibility estimation methods and data sources do not permit an accurate estimation of coverage rates for Tribal Organizations that administer WIC. Coverage rates are estimated for geographic States, which include both State and Tribal Organization WIC State agencies that share geographies. In 2022, 33 Tribal Organizations served a monthly average of 44,255 WIC participants (see table 3.13 for a summary of the number of participants each Tribal Organization served). Appendix A includes more information about the limitations of the current WIC eligibility estimation methods for estimating eligibility and coverage and offers preliminary suggestions for developing a WIC reach metric for Tribal Organizations.

Table 3.13. Average Monthly WIC Participants in ITOs by Participant Category: CY 2022

FNS Region	WIC ITO	Infants	Children	Women	Total
Northeast	Indian Township Passamaquoddy Reservation	12	24	9	45
	Pleasant Point Passamaquoddy Reservation	5	20	10	35
Southeast	Mississippi Band of Choctaw Indians	194	425	161	780
	Eastern Band of Cherokee Indians	113	355	110	578
Southwest	Acoma, Canoncito, Laguna	60	185	58	303
	Cherokee Nation	1,335	2,479	1,105	4,919
	Chickasaw Nation	861	1,963	756	3,580
	Choctaw Nation	1,067	3,407	946	5,420
	Citizen Potawatomi Nation	296	815	270	1,381
	Eight Northern Indian Pueblos Council	45	122	35	202
	Five Sandoval Indian Pueblos	36	83	22	141
	Inter Tribal Council of Arizona	1,330	4,216	1,149	6,695
	Inter-Tribal Council of Oklahoma	142	298	114	554
	Pueblo of Isleta	245	482	190	917
	Muscogee Creek Nation	459	1,437	387	2,283
	Navajo Nation	861	2,667	885	4,413
	Osage Nation	859	2,363	692	3,914
	Otoe-Missouria Tribe	69	110	51	230
	Pueblo of San Felipe	37	105	35	177
	Santo Domingo Pueblo	21	77	23	121
	Wichita, Caddo, Delaware	819	2,477	782	4,078
	Pueblo of Zuni	81	271	92	444

FNS Region	WIC ITO	Infants	Children	Women	Total
Mountain Plains	Cheyenne River Sioux Tribe	101	303	89	493
	Northern Arapaho Tribe	60	70	45	175
	Omaha Nation	56	121	33	210
	Rosebud Sioux Tribe	173	531	161	865
	Santee Sioux Nation	11	19	7	37
	Eastern Shoshone Tribe	29	45	19	93
	Standing Rock Sioux Tribe	68	140	32	240
	Three Affiliated Tribes	32	50	20	102
	Ute Mountain Ute Tribe	23	84	28	135
	Winnebago Tribe	31	54	19	104
Western	Inter-Tribal Council of Nevada	106	379	106	591
All FNS Regions	Total	9,637	26,177	8,441	44,255

CY = calendar year; FNS = Food and Nutrition Service; ITO = Indian Tribal Organization

Sources: FNS. (2024). *WIC data tables: Monthly data – State level participation by category and program costs: FY 2022 (final)* [Data set]. U.S. Department of Agriculture. <https://www.fns.usda.gov/pd/wic-program>; FNS. (2024). *WIC data tables: Monthly data – State level participation by category and program costs: FY 2023 (preliminary)* [Data set]. U.S. Department of Agriculture. <https://www.fns.usda.gov/pd/wic-program>

Chapter 4. WIC Participation Rates for CY 2022

This chapter presents participation rates for women, infants, and children in 2022. The participation rates were calculated as the percentages of the total population of women, infants, and children who received or picked up WIC benefits in an average month in 2022. In contrast to coverage rates, participation rates are calculated as the ratio of the number of WIC participants to the number of individuals in the population, regardless of income level, adjunctive income eligibility, or nutritional risk.

Participation rates are useful for understanding the overall reach of WIC across the total population. The 2022 WIC participation rates may be influenced by the CVB increase, infant formula shortage, and continued effects of the COVID-19 pandemic and the PHE.

Participation Rate

Percentage of the total population of women, infants, and children who received or picked up WIC benefits in an average month

A. National-Level WIC Participation Rates

In 2022, 39 percent of all infants and 23 percent of all children in the Nation received WIC benefits (see table 4.1). Similar to WIC coverage rates, participation rates for children were highest for 1-year-old children (33 percent) and lowest for 4-year-old children (13 percent). A greater share of postpartum women (23 percent) than pregnant women (18 percent) received WIC benefits. The participation rate for postpartum breastfeeding women was 28 percent, and the rate for postpartum non-breastfeeding women was 19 percent.

Table 4.1. WIC Participation Rates by Participant Category: CY 2022

Participant Category	Number Participating	Total Population	Participation Rate
Infants	1,434,992	3,672,318	39.1
Children	3,457,293	14,837,992	23.3
1-year-old children	1,197,298	3,667,605	32.6
2-year-old children	950,552	3,619,676	26.3
3-year-old children	828,005	3,753,387	22.1
4-year-old children	481,438	3,797,324	12.7
Pregnant women	512,637	2,851,339	18.0
Postpartum women	905,501	3,907,642	23.2
Breastfeeding women	545,466	1,977,449	27.6
Non-breastfeeding women	360,035	1,930,192	18.7
Total	6,310,423	25,269,292	25.0

Note: WIC administrative data on participating children by year of age were not available. The number of participating children by year of age in this table is based on the distribution of children who were enrolled in WIC in 2022 according to WIC PC2022 data.

CY = calendar year; WIC PC = WIC Program and Participant Characteristics

Sources: FNS, 2023; U.S. Census Bureau, n.d.-a, n.d.-b; Zvavitch et al., 2024

B. Regional- and State-Level WIC Participation Rates

Participation rates varied among FNS Regions and States. The Western Region had the highest participation rate (30 percent), and the Mountain Plains Region had the lowest (19 percent) in comparison with the national average of 25 percent (see table 4.2). Among States, rates ranged from a

low of 12 percent in Utah to a high of 34 percent in California. Most States (32) had participation rates between 20 percent and 30 percent. Puerto Rico had a higher participation rate (66 percent) than any State.

Table 4.2. WIC Participation Rates by State and FNS Region: CY 2022

State/FNS Region		Number Participating	Total Population	Participation Rate	Lower Bound	Upper Bound
State	Alabama	109,119	407,545	26.8*	26.0	27.6
	Alaska	13,582	59,166	23.0*	21.0	24.9
	Arizona	142,677	529,466	26.9*	26.4	27.5
	Arkansas	57,585	246,274	23.4*	22.7	24.0
	California	942,039	2,815,605	33.5*	33.1	33.8
	Colorado	79,228	417,788	19.0*	18.5	19.4
	Connecticut	47,268	243,801	19.4*	18.9	19.9
	Delaware	18,023	72,739	24.8	23.1	26.4
	District of Columbia	10,879	55,979	19.4*	18.5	20.4
	Florida	414,550	1,529,244	27.1*	26.8	27.4
	Georgia	184,213	883,408	20.9*	20.5	21.2
	Hawaii	26,241	94,880	27.7*	26.4	28.9
	Idaho	29,339	151,182	19.4*	18.7	20.1
	Illinois	157,999	920,103	17.2*	16.9	17.4
	Indiana	148,457	548,496	27.1*	26.6	27.5
	Iowa	56,629	250,667	22.6*	21.8	23.4
	Kansas	44,257	234,541	18.9*	18.3	19.5
	Kentucky	110,486	354,324	31.2*	30.4	32.0
	Louisiana	84,553	399,530	21.2*	20.6	21.8
	Maine	17,071	82,118	20.8*	19.7	21.9
	Maryland	120,031	483,978	24.8	24.2	25.4
	Massachusetts	117,552	462,902	25.4	24.9	25.9
	Michigan	201,879	728,183	27.7*	27.2	28.2
	Minnesota	101,359	438,551	23.1*	22.5	23.8
	Mississippi	66,328	250,730	26.5*	25.6	27.3
	Missouri	84,733	477,149	17.8*	17.4	18.1
	Montana	13,840	75,067	18.4*	17.6	19.2
	Nebraska	35,647	165,345	21.6*	20.8	22.3
	Nevada	52,017	231,366	22.5*	21.8	23.2
	New Hampshire	13,516	84,496	16.0*	15.2	16.8
	New Jersey	150,077	695,844	21.6*	21.1	22.0
	New Mexico	35,390	146,365	24.2	23.3	25.1
	New York	394,909	1,429,778	27.6*	27.3	28.0
	North Carolina	260,882	820,297	31.8*	31.3	32.3
	North Dakota	10,198	66,028	15.4*	14.5	16.4
	Ohio	162,278	896,285	18.1*	17.8	18.4
	Oklahoma	90,622	318,752	28.4*	27.6	29.2

State/FNS Region		Number Participating	Total Population	Participation Rate	Lower Bound	Upper Bound
State (continued)	Oregon	74,613	272,365	27.4*	26.7	28.0
	Pennsylvania	160,026	901,753	17.7*	17.4	18.0
	Puerto Rico	87,783	133,400	65.8*	62.9	68.7
	Rhode Island	16,258	70,630	23.0*	21.9	24.1
	South Carolina	86,832	398,718	21.8*	21.3	22.3
	South Dakota	15,048	76,153	19.8*	18.7	20.8
	Tennessee	116,549	557,081	20.9*	20.5	21.3
	Texas	712,515	2,607,090	27.3*	27.0	27.6
	Utah	38,217	313,291	12.2*	11.9	12.5
	Vermont	11,172	36,472	30.6*	28.2	33.0
	Virginia	121,207	658,723	18.4*	18.0	18.8
	Washington	122,881	556,159	22.1*	21.7	22.5
	West Virginia	35,141	118,318	29.7*	28.5	30.9
	Wisconsin	85,059	419,882	20.3*	19.8	20.7
	Wyoming	7,092	41,672	17.0*	15.5	18.5
FNS Region	Northeast	620,324	2,418,716	25.6*	25.4	25.9
	Mid-Atlantic	703,167	3,120,733	22.5*	22.3	22.8
	Southeast	1,348,959	5,201,347	25.9*	25.7	26.1
	Midwest	913,659	4,202,167	21.7*	21.6	21.9
	Southwest	1,161,559	4,560,767	25.5*	25.3	25.7
	Mountain Plains	290,043	1,553,743	18.7*	18.4	18.9
	Western	1,272,712	4,211,819	30.2*	29.9	30.4
	Total	6,310,423	25,269,292	25.0	24.1	24.5

Note: Estimates for U.S. territories other than Puerto Rico are included in regional totals but not shown separately because of constraints related to small sample sizes. Estimates for Puerto Rico are shown separately. State and regional estimates and participant data include individuals in ITOs. Confidence intervals for the total and Northeast and Western regional participation rates are based on participation rate estimates that exclude the U.S. territories other than Puerto Rico, which may cause the confidence interval to appear asymmetrical.

CPS ASEC = Current Population Survey Annual Social and Economic Supplement; CY = calendar year; FNS = Food and Nutrition Service; ITO = Indian Tribal Organization; PRCS = Puerto Rico Community Survey

* Indicates a statistically significant difference between the State or regional participation rate and the national participation rate at the 95 percent confidence level. The statistical significance testing was conducted based on the CPS ASEC and PRCS data, which included data only for States and Puerto Rico. It did not include data for the other U.S. territories served by WIC.

Sources: FNS, 2023; IPUMS-USA, n.d.; U.S. Census Bureau, n.d.-a, n.d.-b

Two States (California and North Carolina) and Puerto Rico consistently had higher participation rates than national participation rates across all participant categories (see table 4.3). Eight States (Alabama, Indiana, Iowa, Kentucky, Michigan, North Carolina, Oklahoma, and Vermont) consistently had higher participation rates than national participation rates across race and Hispanic ethnicity (see table 4.4).

Table 4.3. WIC Participation Rates by State and FNS Region and Participant Category: CY 2022

State/FNS Region		Infants	All Children	1-Year-Old Children	2-Year-Old Children	3-Year-Old Children	4-Year-Old Children	Pregnant Women	Postpartum Women	Total
State	Alabama	48.7	23.8	33.9	28.7	20.2	12.5	23.4	20.2	26.8
	Alaska	33.5	22.4	29.8	25.2	22.3	11.9	15.9	20.3	23.0
	Arizona	41.3	26.2	37.3	29.5	25.1	13.9	16.7	23.4	26.9
	Arkansas	47.2	18.2	27.7	19.6	14.9	11.1	21.0	22.1	23.4
	California	43.1	34.1	48.4	36.0	34.6	18.5	23.9	28.5	33.5
	Colorado	27.9	18.1	25.7	20.0	16.8	10.0	12.9	18.2	19.0
	Connecticut	32.1	18.2	26.1	20.2	16.3	10.6	15.5	15.0	19.4
	Delaware	41.9	23.0	31.4	27.2	21.3	11.9	17.2	21.5	24.8
	District of Columbia	33.1	17.0	20.3	20.5	14.6	12.5	12.1	20.8	19.4
	Florida	44.1	24.6	35.0	28.6	22.2	13.1	20.1	25.8	27.1
	Georgia	37.6	18.4	24.0	23.2	17.1	9.1	15.5	19.0	20.9
	Hawaii	39.7	26.6	34.5	30.9	24.6	16.0	20.2	25.9	27.7
	Idaho	28.5	18.9	28.7	21.0	17.2	9.8	11.9	18.1	19.4
	Illinois	33.0	14.4	20.2	14.1	12.1	11.4	13.6	15.9	17.2
	Indiana	42.3	25.9	34.5	30.2	24.8	14.7	16.9	24.7	27.1
	Iowa	34.7	21.4	31.1	24.1	19.9	11.2	14.9	21.4	22.6
	Kansas	29.0	18.0	25.3	21.1	17.1	9.2	13.9	16.1	18.9
	Kentucky	49.8	30.4	43.8	36.5	27.3	14.7	22.7	23.2	31.2
	Louisiana	45.5	15.0	23.5	16.1	12.7	7.0	17.3	24.6	21.2
	Maine	30.8	20.9	26.2	22.2	23.5	12.3	13.2	16.8	20.8
	Maryland	40.0	22.4	28.7	27.1	21.1	12.6	19.6	23.9	24.8
	Massachusetts	32.8	26.8	38.2	29.2	25.1	15.2	16.2	20.0	25.4
	Michigan	42.7	27.3	37.2	31.6	27.0	14.1	20.4	20.7	27.7
	Minnesota	33.2	22.7	27.9	25.5	23.7	14.2	15.7	20.6	23.1
	Mississippi	51.6	23.3	30.6	26.7	23.1	12.2	16.3	23.2	26.5
	Missouri	33.9	14.4	21.7	15.5	13.1	7.5	14.9	17.8	17.8

State/FNS Region		Infants	All Children	1-Year-Old Children	2-Year-Old Children	3-Year-Old Children	4-Year-Old Children	Pregnant Women	Postpartum Women	Total
State (continued)	Montana	27.5	18.2	26.7	20.3	18.0	8.7	12.9	15.0	18.4
	Nebraska	30.6	21.7	31.2	24.9	19.4	12.1	13.0	18.8	21.6
	Nevada	36.6	20.7	28.5	22.7	20.0	12.0	13.9	22.3	22.5
	New Hampshire	19.8	17.7	24.1	18.9	17.4	10.8	9.0	11.6	16.0
	New Jersey	31.7	20.8	30.5	23.6	18.7	10.9	13.6	20.8	21.6
	New Mexico	41.4	20.4	35.1	20.0	15.3	12.5	19.8	25.7	24.2
	New York	40.3	27.0	36.5	30.6	25.7	15.5	17.2	25.6	27.6
	North Carolina	48.2	30.6	40.2	38.8	28.3	15.3	23.3	27.1	31.8
	North Dakota	22.2	15.8	22.0	18.2	14.6	8.5	8.8	12.7	15.4
	Ohio	31.7	15.7	26.1	16.2	13.7	7.3	11.7	19.3	18.1
	Oklahoma	48.7	25.1	29.3	30.6	25.8	15.4	25.9	24.0	28.4
	Oregon	35.1	28.3	43.9	30.5	26.7	13.8	17.2	24.1	27.4
	Pennsylvania	29.3	16.2	24.0	19.2	15.0	7.1	11.6	17.4	17.7
	Rhode Island	36.6	21.4	30.8	27.1	19.0	10.2	15.8	21.3	23.0
	South Carolina	38.5	19.6	28.7	24.4	16.7	8.4	15.6	19.2	21.8
	South Dakota	30.0	19.9	24.9	18.9	18.4	17.6	13.1	14.8	19.8
	Tennessee	37.9	17.4	25.6	19.8	16.0	8.5	17.3	20.7	20.9
	Texas	45.6	22.5	33.9	24.0	21.4	11.0	21.8	32.5	27.3
	Utah	18.4	11.5	17.2	12.4	10.7	6.2	8.3	11.8	12.2
	Vermont	36.0	33.3	43.9	37.7	34.2	19.2	17.9	25.0	30.6
	Virginia	29.0	17.7	16.5	23.4	19.1	12.0	12.5	15.7	18.4
	Washington	30.5	21.9	28.4	24.5	20.9	14.1	16.7	18.9	22.1
	West Virginia	46.0	29.5	43.0	33.7	25.7	16.9	19.6	22.5	29.7
	Wisconsin	30.2	20.3	28.9	22.2	19.5	11.3	12.6	16.5	20.3
	Wyoming	26.7	15.9	24.5	17.5	14.6	7.7	11.8	16.1	17.0

State/FNS Region		Infants	All Children	1-Year-Old Children	2-Year-Old Children	3-Year-Old Children	4-Year-Old Children	Pregnant Women	Postpartum Women	Total
FNS Region	Northeast	36.9	25.4	35.0	28.6	24.2	14.6	16.4	22.6	25.6
	Mid-Atlantic	35.1	21.2	27.8	25.2	20.2	12.0	15.8	20.7	22.5
	Southeast	43.7	23.6	32.6	28.5	21.4	11.9	19.4	23.1	25.9
	Midwest	35.5	20.3	28.5	22.3	19.1	11.7	15.0	19.5	21.7
	Southwest	43.4	21.4	31.6	23.3	20.1	11.1	20.0	27.9	25.5
	Mountain Plains	30.0	17.2	24.8	19.1	15.9	9.5	13.5	17.2	18.7
	Western	39.9	30.6	43.1	32.7	30.5	16.9	21.3	26.1	30.2
	Total	39.1	23.3	32.6	26.3	22.1	12.7	18.0	23.2	25.0

Note: Estimates for the U.S. territories are included in the total but are not shown separately because of small sample sizes. Estimates of State-level participation rates by year of age for children and other participant categories should be viewed with caution because of the small sample sizes for many States.

CY = calendar year; FNS = Food and Nutrition Service

Sources: FNS, 2023; IPUMS-USA, n.d.; U.S. Census Bureau, n.d.-a, n.d.-b; Zvavitch et al., 2024

Table 4.4. State-Level WIC Participation Rates by Race and Hispanic Ethnicity: CY 2022

State	Hispanic/ Latino			White-Only, Not Hispanic			Other Than White- Only, Not Hispanic ^a			Total		
	Rate	Lower Bound	Upper Bound	Rate	Lower Bound	Upper Bound	Rate	Lower Bound	Upper Bound	Rate	Lower Bound	Upper Bound
Alabama	46.7*	39.9	53.4	17.6*	17.0	18.2	34.8*	32.9	36.8	26.8*	26.0	27.6
Alaska	19.3*	13.4	25.2	13.0*	11.9	14.2	36.4*	31.5	41.3	23.0*	21.0	24.9
Arizona	35.2*	34.3	36.2	15.3	14.7	15.8	28.2	26.8	29.7	26.9*	26.4	27.5
Arkansas	32.7*	30.2	35.2	21.7*	20.9	22.6	22.4*	20.6	24.1	23.4*	22.7	24.0
California	48.8*	48.2	49.4	10.6*	10.4	10.8	22.9*	22.3	23.5	33.5*	33.1	33.8
Colorado	30.1*	28.9	31.4	11.3*	10.9	11.6	20.4*	19.2	21.7	19.0*	18.5	19.4
Connecticut	35.6*	34.0	37.2	7.5*	7.2	7.7	22.5*	20.8	24.2	19.4*	18.9	19.9
Delaware	43.1	36.8	49.4	14.1	12.7	15.4	29.0	26.0	32.1	24.8	23.1	26.4
District of Columbia	33.3*	28.9	37.7	1.1*	1.0	1.2	23.8*	22.0	25.5	19.4*	18.5	20.4
Florida	38.8*	37.9	39.7	13.6*	13.3	13.8	32.2*	31.1	33.3	27.1*	26.8	27.4
Georgia	29.0*	27.5	30.5	14.0*	13.7	14.4	24.1*	23.3	24.9	20.9*	20.5	21.2
Hawaii	23.4*	20.9	25.9	16.9	14.6	19.3	31.9*	30.3	33.5	27.7*	26.4	28.9
Idaho	27.8*	25.5	30.0	16.5*	15.9	17.2	20.9*	17.2	24.6	19.4*	18.7	20.1
Illinois	28.0*	27.0	28.9	9.8*	9.6	10.0	20.8*	20.0	21.6	17.2*	16.9	17.4
Indiana	43.1*	40.3	46.0	20.1*	19.8	20.5	40.0*	38.1	41.9	27.1*	26.6	27.5
Iowa	45.1	39.4	50.8	16.0*	15.6	16.5	38.5*	33.6	43.4	22.6*	21.8	23.4
Kansas	31.2*	28.5	33.9	12.8*	12.4	13.3	26.7	24.0	29.4	18.9*	18.3	19.5
Kentucky	52.8*	44.5	61.1	27.7*	27.0	28.3	37.2*	34.3	40.1	31.2*	30.4	32.0
Louisiana	28.4*	26.1	30.6	15.3	14.8	15.8	25.4*	24.2	26.7	21.2*	20.6	21.8
Maine	36.7	21.0	52.4	18.5*	17.4	19.6	34.1	24.4	43.8	20.8*	19.7	21.9
Maryland	48.0*	45.1	50.9	9.9*	9.6	10.2	26.3*	25.2	27.5	24.8	24.2	25.4
Massachusetts	49.1*	46.5	51.7	13.2*	12.9	13.5	27.7	26.3	29.0	25.4	24.9	25.9
Michigan	43.4*	40.0	46.8	20.9*	20.4	21.4	38.2*	36.5	39.8	27.7*	27.2	28.2
Minnesota	43.1	37.8	48.3	13.4*	13.0	13.7	41.1*	37.4	44.8	23.1*	22.5	23.8
Mississippi	31.6*	25.9	37.2	19.1*	18.1	20.0	32.4*	30.6	34.1	26.5*	25.6	27.3
Missouri	25.5*	22.6	28.4	15.3*	14.9	15.7	22.0*	20.7	23.4	17.8*	17.4	18.1
Montana	17.3*	12.6	22.0	15.9*	15.1	16.8	31.9	25.7	38.1	18.4*	17.6	19.2
Nebraska	36.2	32.1	40.4	12.1*	11.7	12.5	42.5*	37.3	47.8	21.6*	20.8	22.3
Nevada	27.5*	26.4	28.6	16.3*	15.3	17.4	20.8*	19.3	22.2	22.5*	21.8	23.2
New Hampshire	32.2*	26.2	38.3	13.9*	13.0	14.9	18.1*	12.9	23.2	16.0*	15.2	16.8
New Jersey	37.0*	35.6	38.5	11.4*	11.1	11.8	19.8*	19.0	20.6	21.6*	21.1	22.0
New Mexico	26.7*	25.6	27.8	13.2*	12.2	14.1	30.1	27.0	33.3	24.2	23.3	25.1
New York	39.6	38.6	40.5	16.8*	16.5	17.1	33.4*	32.3	34.6	27.6*	27.3	28.0
North Carolina	47.4*	45.3	49.5	21.9*	21.4	22.4	37.2*	35.8	38.6	31.8*	31.3	32.3
North Dakota	24.0*	16.4	31.6	9.5*	8.9	10.1	35.3*	28.5	42.0	15.4*	14.5	16.4
Ohio	28.4*	26.2	30.5	14.0*	13.8	14.3	25.3*	24.3	26.2	18.1*	17.8	18.4
Oklahoma	40.7	38.0	43.4	19.5*	18.8	20.2	34.8*	32.7	37.0	28.4*	27.6	29.2
Oregon	40.8	38.7	43.0	23.6*	22.9	24.3	20.8*	19.0	22.7	27.4*	26.7	28.0

State	Hispanic/ Latino			White-Only, Not Hispanic			Other Than White- Only, Not Hispanic ^a			Total		
	Rate	Lower Bound	Upper Bound	Rate	Lower Bound	Upper Bound	Rate	Lower Bound	Upper Bound	Rate	Lower Bound	Upper Bound
Pennsylvania	30.6*	28.6	32.5	12.3*	12.0	12.5	23.3*	22.2	24.4	17.7*	17.4	18.0
Rhode Island	39.7	35.5	43.9	10.0*	9.5	10.6	29.2	25.1	33.2	23.0*	21.9	24.1
South Carolina	31.0*	28.1	33.8	13.9*	13.5	14.2	29.9*	28.4	31.4	21.8*	21.3	22.3
South Dakota	31.2	20.5	42.0	10.1*	9.5	10.6	48.5*	42.1	54.9	19.8*	18.7	20.8
Tennessee	31.1*	28.8	33.3	18.1*	17.7	18.5	22.4*	21.4	23.4	20.9*	20.5	21.3
Texas	38.0*	37.5	38.5	12.1*	11.8	12.3	22.2*	21.5	23.0	27.3*	27.0	27.6
Utah	23.7*	22.2	25.2	8.3*	8.1	8.5	15.0*	13.4	16.6	12.2*	11.9	12.5
Vermont	43.9	14.4	73.4	30.0*	27.3	32.7	31.6	19.5	43.8	30.6*	28.2	33.0
Virginia	33.0*	31.4	34.5	10.6*	10.3	10.8	22.5*	21.7	23.3	18.4*	18.0	18.8
Washington	38.8	37.3	40.4	14.8	14.4	15.1	20.3*	19.4	21.2	22.1*	21.7	22.5
West Virginia	35.5	24.8	46.1	28.1*	26.8	29.5	44.2*	37.5	51.0	29.7*	28.5	30.9
Wisconsin	41.1	36.0	46.2	11.5*	11.2	11.8	37.8*	34.6	41.0	20.3*	19.8	20.7
Wyoming	25.6*	17.1	34.1	14.7	13.5	15.8	21.6	14.9	28.4	17.0*	15.5	18.5

Note: Estimates for Puerto Rico are included in the totals but not shown separately because of small sample sizes. Estimates for U.S. territories other than Puerto Rico are not included in the calculation of the coverage rates in this table because information on race and ethnicity was not available for the other U.S. territories in the data.

CPS ASEC = Current Population Survey Annual Social and Economic Supplement; CY = calendar year; PRCS = Puerto Rico Community Survey

^a This category includes non-Hispanic individuals who self-identify as two or more races or self-identify as a race other than White. These categories were combined because of sample size concerns.

* Indicates a statistically significant difference between the State participation rate for a participant category's race and ethnicity and the national participation rate for that category at the 95 percent confidence level. The statistical significance testing was conducted based on the CPS ASEC and PRCS data, which included data only for States and Puerto Rico. It did not include data for the other U.S. territories served by WIC.

Sources: FNS, 2023; IPUMS-USA, n.d.; U.S. Census Bureau, n.d.-a; Zvavitch et al., 2024

Chapter 5. WIC Nonparticipation Among Individuals Participating in Medicaid and SNAP for CY 2022

Pregnant and postpartum women, infants, and children who participate in Medicaid or SNAP are adjunctively income-eligible for WIC, yet many do not participate. This chapter describes the estimated WIC nonparticipation rates among Medicaid and SNAP participants in 2022. This chapter also presents trends in WIC nonparticipation among Medicaid and SNAP participants from 2016 through 2022. These analyses use a different approach than the coverage and participation rates presented in chapters 3 and 4. The 2022 WIC nonparticipation rates may be influenced by the CVB increase, infant formula shortage, and continued effects of the COVID-19 pandemic and the PHE.

WIC Nonparticipation Rate

Percentage of the total population of Medicaid and SNAP participants categorically eligible for WIC who do not participate in WIC

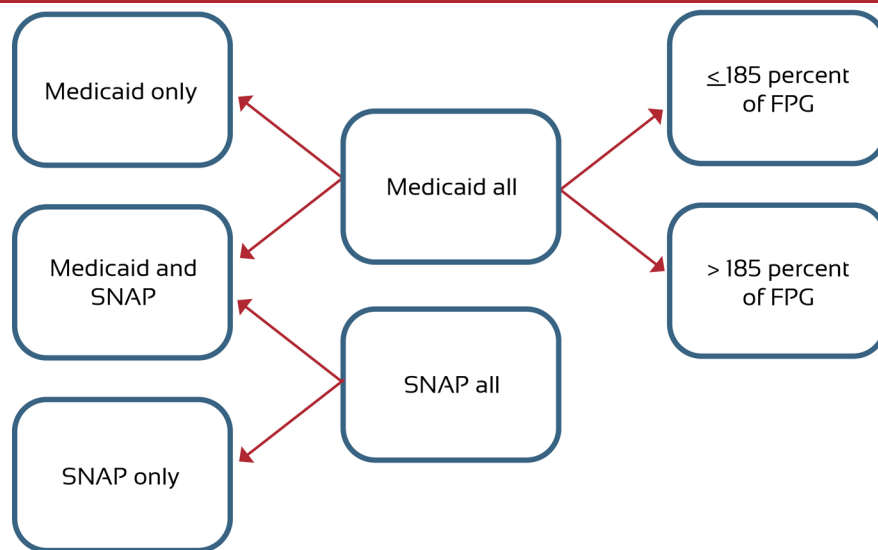
A. WIC Nonparticipation Methodology

The CPS ASEC is the primary data source for estimating the WIC nonparticipation rates among Medicaid and SNAP participants. The overall WIC eligibility estimates rely on FNS administrative and WIC Program and Participant Characteristics (WIC PC) data to provide data on WIC participation; however, Medicaid and SNAP participation measurement is limited in WIC PC and unavailable in the FNS administrative data. As a result, neither of these data sources could be used for the nonparticipation analyses. Instead, these analyses use WIC participation as measured in the CPS ASEC to calculate the numerator of the nonparticipation rates. The denominator for the rates is calculated using the same general procedures and adjustments as the overall eligibility estimates, except the ACS is not used to impute Medicaid and SNAP participation.³⁶ WIC nonparticipation rates are calculated as the proportion of categorically eligible Medicaid and SNAP participants who do not participate in WIC.

This chapter presents WIC nonparticipation rates for seven overlapping categories of Medicaid and SNAP participation (figure 5.1) to account for possible differences in participation between individuals enrolled in, for example, only Medicaid compared with individuals participating in both Medicaid and SNAP. These groups include (1) all Medicaid participants (regardless of whether they participate in SNAP); (2) all SNAP participants (regardless of whether they participate in Medicaid); (3) Medicaid-only participants (i.e., they do not participate in SNAP); (4) SNAP-only participants (i.e., they do not participate in Medicaid); and (5) SNAP and Medicaid participants. The universe of Medicaid participants is further broken out by poverty status, specifically (6) above and (7) at or below 185 percent of the Federal Poverty Guidelines.

³⁶ The ACS does not include a measure of WIC participation, so WIC participation cannot be imputed using the same techniques used to impute Medicaid and SNAP. Imputing Medicaid and SNAP without imputing WIC would result in artificially high nonparticipation rates. See appendix A of Kessler et al. (2023) for more information on the imputation procedures.

Figure 5.1. Medicaid and SNAP Categories Used for Producing Nonparticipation Rates Among Individuals Eligible for WIC



FPG = Federal Poverty Guidelines; SNAP = Supplemental Nutrition Assistance Program

The WIC nonparticipation analyses have several key limitations:

- ▶ All data used to produce the WIC nonparticipation rates come from self-reported data. Using any survey inherently adds uncertainty to the estimates.
- ▶ The CPS ASEC has a documented undercount of individuals with low incomes (U.S. Census Bureau, 2016, 2019) and underreporting of program participation (Meyer et al., 2020). The underreporting of WIC, Medicaid, and SNAP varies (Noon et al., 2019; Macartney, 2013; Meyer et al., 2020), which may mean the actual levels of participation among the three programs are higher than reported. The CPS ASEC methods for assessing income vary from how WIC assesses data.
- ▶ The CPS ASEC lacks a measure of pregnancy, making the estimation of pregnant women particularly challenging.

Chapter 6 includes a more detailed description of the methodology used to produce the WIC nonparticipation estimates.

B. WIC Nonparticipation Rates: CY 2022

In 2022, a total of 9 million individuals who were categorically eligible for WIC participated in Medicaid, SNAP, or both. Table 5.1 presents the WIC nonparticipation rates among individuals who were eligible for WIC and participated in Medicaid and SNAP. Nonparticipation rates were higher among those enrolled in Medicaid (61 percent) than those enrolled in SNAP (53 percent). These nonparticipation rates are higher than the nonparticipation rate (46 percent) calculated among the entire population of individuals eligible for WIC in 2022.³⁷

³⁷ Chapter 3 estimates an overall WIC coverage rate of 54 percent for 2022, which translates to a WIC nonparticipation rate of 46 percent.

Among both programs, pregnant women were least likely to be enrolled in WIC of the four WIC participant categories examined in the analysis, followed by children. Estimated nonparticipation rates were similar for infants and postpartum women because the estimates of postpartum women are based on the counts of eligible infants.³⁸ Postpartum women and infants often enroll simultaneously, which may contribute to similar nonparticipation rates.

Table 5.1. WIC Nonparticipation Among Medicaid and SNAP Participants Eligible for WIC: CY 2022

Medicaid and SNAP Subgroups		Number Eligible for WIC	Number Not Participating in WIC	WIC Non-participation Rate	Lower Bound	Upper Bound
Medicaid all	Total	7,998,487	4,879,902	61.0	58.5	63.5
	Infants	1,176,381	559,809	47.6	41.9	53.2
	Children, 1–4	5,354,993	3,384,347	63.2	60.7	65.7
	Pregnant women	620,715	532,400	85.8	84.5	87.0
	Postpartum women	846,398	403,346	47.7	42.0	53.3
SNAP all	Total	4,467,171	2,352,692	52.7	48.9	56.4
	Infants	668,431	251,627	37.6	29.5	45.8
	Children, 1–4	2,907,698	1,579,847	54.3	50.3	58.3
	Pregnant women	412,000	340,753	82.7	81.1	84.3
	Postpartum women	479,041	180,465	37.7	29.5	45.8
Medicaid only	Total	4,570,711	3,136,823	68.6	65.3	71.9
	Infants	721,901	406,598	56.3	49.4	63.3
	Children, 1–4	2,959,203	2,105,528	71.2	67.9	74.4
	Pregnant women	369,308	331,643	89.8	88.4	91.2
	Postpartum women	520,299	293,053	56.3	49.3	63.3
SNAP only	Total	1,039,395	609,613	58.7	51.1	66.2
	Infants	213,951	98,416	46.0	31.2	60.8
	Children, 1–4	511,908	301,028	58.8	51.0	66.6
	Pregnant women	160,593	139,996	87.2	84.9	89.4
	Postpartum women	152,942	70,172	45.9	31.1	60.7
Medicaid and SNAP	Total	3,427,776	1,743,080	50.9	46.7	55.0
	Infants	454,480	153,211	33.7	24.2	43.2
	Children, 1–4	2,395,791	1,278,818	53.4	48.9	57.9
	Pregnant women	251,407	200,757	79.9	77.8	81.9
	Postpartum women	326,099	110,293	33.8	24.3	43.4
Medicaid ≤ 185 percent of FPG	Total	4,576,141	2,544,722	55.6	52.3	58.9
	Infants	637,418	252,289	39.6	32.2	47.0
	Children, 1–4	3,173,333	1,859,973	58.6	55.2	62.1
	Pregnant women	306,829	250,904	81.8	79.8	83.7
	Postpartum women	458,561	181,556	39.6	32.2	47.0

³⁸ The numerator and denominator for the nonparticipation rates among postpartum women are based on infant WIC participation in the CPS ASEC (numerator) and Medicaid and SNAP program participation in the CPS ASEC (denominator). As a result, nonparticipation rates for infants and postpartum women are much more similar than the coverage rates for infants and postpartum women presented in the rest of this report.

Medicaid and SNAP Subgroups		Number Eligible for WIC	Number Not Participating in WIC	WIC Non-participation Rate	Lower Bound	Upper Bound
Medicaid > 185 percent of FPG	Total	3,422,346	2,335,181	68.2	64.8	71.6
	Infants	538,963	307,520	57.1	49.1	65.0
	Children, 1–4	2,181,660	1,524,374	69.9	66.2	73.5
	Pregnant women	313,885	281,496	89.7	88.4	91.0
	Postpartum women	387,837	221,790	57.2	49.3	65.1

Note: Estimates are not comparable with the counts used to produce the overall WIC coverage rates. For the nonparticipation rates presented in this table, WIC participation and nonparticipation are calculated using self-reported CPS ASEC data, while other tables calculate coverage rates using FNS administrative data. Income data used for the Medicaid stratification are also based on the CPS ASEC. The CPS ASEC methods for assessing income vary from how WIC assesses data.

CPS ASEC = Current Population Survey Annual Social and Economic Supplement; FPG = Federal Poverty Guidelines;

SNAP = Supplemental Nutrition Assistance Program

Source: U.S. Census Bureau, n.d.-a.

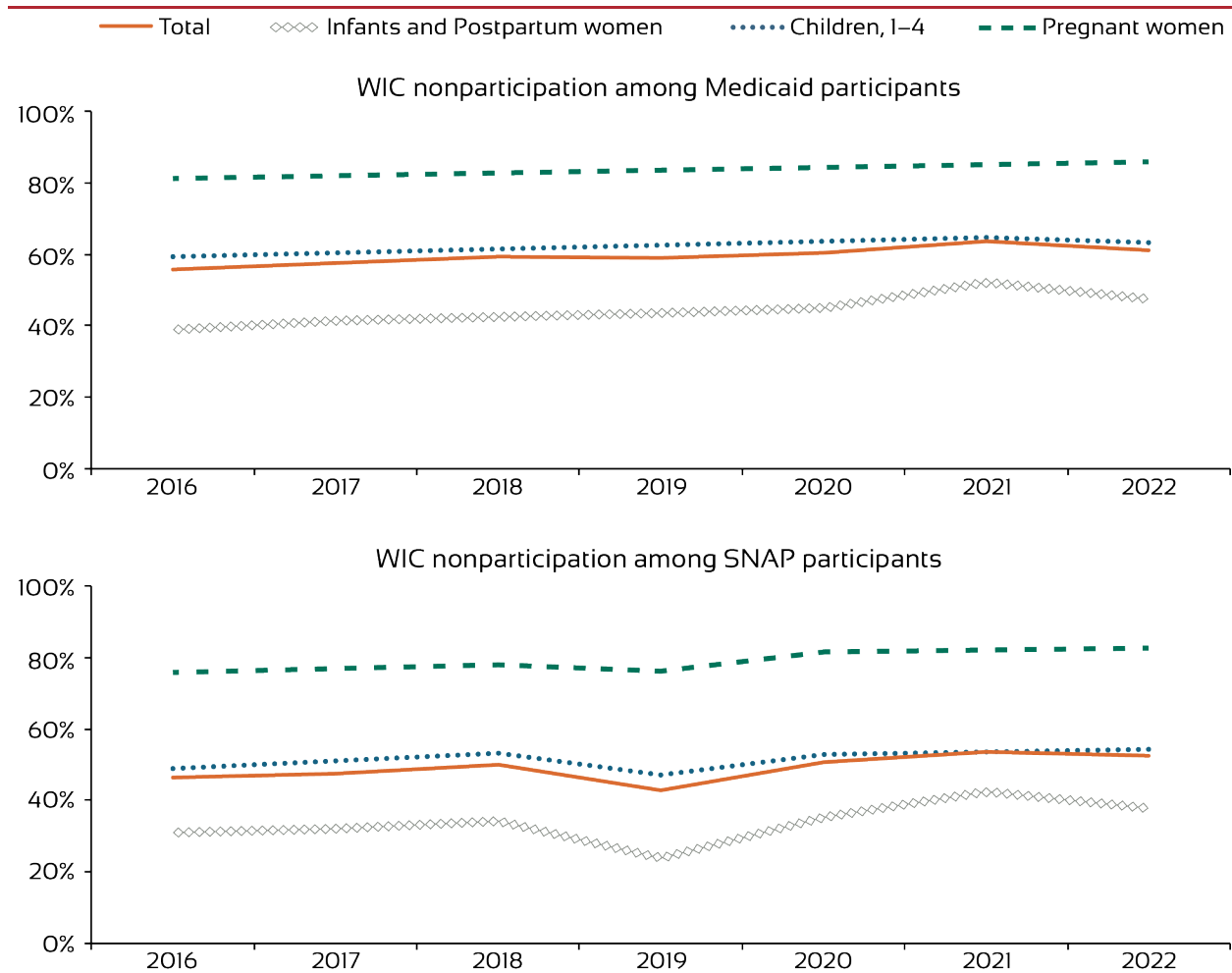
For individuals who participated only in Medicaid, WIC nonparticipation rates were consistently higher than WIC nonparticipation rates of individuals participating in SNAP only or both Medicaid and SNAP. WIC nonparticipation rates were lower overall and for each WIC participant category among individuals enrolled in both Medicaid and SNAP compared with individuals enrolled in only one program.

Among Medicaid participants, WIC nonparticipation rates were higher for individuals living in households with incomes above 185 percent of the FPG, with 68 percent of this group not participating in WIC compared with 56 percent of individuals living in households with income at or below 185 percent of the FPG.

C. Trends in National WIC Nonparticipation Rates

National-level WIC nonparticipation rates among Medicaid participants remained relatively stable between 2016 and 2022 (figure 5.2, first panel), followed by decreases in nonparticipation rates across all participant categories except for pregnant women (no change) between 2021 and 2022. The largest decreases were observed for infants and postpartum women participating in Medicaid, from 52 percent in 2021 to 48 percent in 2022 for both participant categories. Among SNAP participants, WIC nonparticipation rates increased from an observed nonparticipation low of 43 percent in 2019 to 54 percent in 2021, remaining similar in 2022 at 53 percent (figure 5.2, second panel). Nonparticipation rates among infants and postpartum women participating in SNAP decreased by 4 percentage points between 2021 and 2022; nonparticipation increased by 1 percentage point for pregnant women participating in SNAP.

Figure 5.2. Trends in WIC Nonparticipation Rates by Participant Category: CY 2016–CY 2022



CY = calendar year; SNAP = Supplemental Nutrition Assistance Program
Source: U.S. Census Bureau, n.d.-a

Chapter 6. Methodology

This chapter describes the methodology used to produce estimates of individuals eligible for WIC, coverage rates, and participation rates for 2022.³⁹ The estimation procedures used to develop the estimates for WIC eligibility are based primarily on the methodology recommended by CNSTAT panel members (Ver Ploeg & Betson, 2003) and incorporate updates made during the production of the 2020 and 2021 eligibility estimates (Kessler et al., 2023). The estimates also include two additional improvements to the estimation methodology: (1) incorporating additional information about individuals who identify as American Indian/Alaska Native and for Tribal Organizations and (2) providing confidence intervals for many estimates. These enhancements are discussed in this chapter; additional details about these new procedures are included in appendix A of volume II.

The following data sources were used as the starting point for the 2022 estimates: (1) 2023 CPS ASEC data (U.S. Census Bureau, n.d.-a), which asks about income and program participation during 2022; (2) 2021 and 2022 ACS and PRCS data (IPUMS-USA, n.d.); and (3) 2022 IDB data (U.S. Census Bureau, n.d.-b). Additional data sources were used to adjust the estimates to more closely reflect the population eligible for WIC.

The step-by-step process for producing the 2022 national, State, and U.S. territory estimates of individuals eligible for WIC is explained in section A (for infants and children), section B (for pregnant women), and section C (for postpartum women). Section D describes the method used to calculate WIC coverage rates, section E explains the method used to calculate participation rates, and section F explains the method used to calculate WIC nonparticipation rates among Medicaid and SNAP participants. Section G highlights additions to this report compared with the most recent report (Kessler et al., 2023).

Table 6.1 summarizes the steps, data sources, and adjustment factors used to estimate eligibility for WIC in 2022. Table 6.2 shows the derivation of the number of individuals eligible for WIC at each step of the process and the final number of eligible individuals. Tables 6.1 and 6.2 appear at the end of this chapter.

A. Determining the Number of Infants and Children Eligible for WIC

The first step in estimating the number of individuals eligible for WIC was to determine the number of infants and children eligible for WIC nationally, in each State, and in the U.S. territories WIC serves. The current methodology cannot be used to estimate the number of individuals eligible for WIC that could be served by the WIC Tribal Organizations because of several reasons (see appendix A for more details). Data for individuals eligible for WIC through Tribal Organizations are included in the data for the geographic State where the Tribal Organization is located.⁴⁰

³⁹ The eligibility estimates are intended to represent average monthly figures—the numbers of women, infants, and children eligible for WIC in an average month of a calendar year—to be consistent with average monthly data on program participation.

⁴⁰ Some Tribal Organizations cover land outside of a geographic State. The Tribal Organization is associated with the State where its primary address is located.

1. National Estimates

Produce preliminary counts of infants and children

The national estimates of infants and children eligible for WIC are based on the 2023 CPS ASEC data. These data are used to produce preliminary counts of infants and children eligible for WIC in 2022. The data were collected in spring 2023, and each household was asked to report income and program participation for the prior calendar year (2022).

Produce adjusted counts of infants and children

The preliminary counts of infants and children from the CPS ASEC were then adjusted to compensate for the differences between the weighted counts of infants and children in the CPS ASEC data and the CDC Vital Statistics annual report of births adjusted for observed infant deaths (CDC WONDER, n.d.) and immigration patterns (Migration Policy Institute, n.d.). Two possible reasons explain the differences in the number of infants and children reported in the CPS ASEC and the CDC Vital Statistics data: (1) the U.S. Census Bureau's weighting procedures for the CPS ASEC data were not designed to meet population targets by year of age, and (2) Vital Statistics data offer the most recent and accurate count of births. The adjustment factors (see table 6.1) reflect Vital Statistics data by age and sex relative to the weighted counts in the CPS ASEC data for the same year.⁴¹ The adjustment factors inflated or deflated the CPS ASEC count for each subgroup (age and sex) to better reflect the Vital Statistics population estimate for that subgroup.

Determine the number of income-eligible infants and children

WIC regulations specify all individuals living as one economic unit (i.e., related or unrelated individuals who contribute to the household income) are treated as one unit for eligibility determination.⁴² The CPS ASEC data do not explicitly indicate how household members (people living in the same dwelling) share resources. For purposes of estimating WIC eligibility, the economic unit was defined as all individuals in the CPS ASEC household who were related by blood, marriage, or adoption, plus the unmarried partner of any of those individuals and that partner's dependents.⁴³ Economic units in the CPS ASEC with annual income less than or equal to 185 percent of the Federal Poverty Guidelines were identified as income-eligible.^{44, 45} The adjusted counts of infants and children were used to estimate the number of income-eligible infants and children.

Determine the number of adjunctively income-eligible infants and children

Individuals who participate in Medicaid, SNAP, or TANF may be adjunctively income-eligible for WIC. Participation in these programs was determined by first identifying the infants and children who

⁴¹ The national-level adjustment factors were calculated separately by (1) age of infant or child (0, 1, 2, 3, or 4 years old) and (2) sex (female or male).

⁴² For all references to WIC regulations in this report, see Special Supplemental Nutrition Program for Women, Infants, and Children, 7 C.F.R. § 246 (2014).

⁴³ For example, if a CPS ASEC household consisted of a woman living with her children, her unmarried partner, and the partner's child from a prior relationship, all individuals would be included in the economic unit for the purposes of calculating the WIC eligibility estimates in this report.

⁴⁴ Special Supplemental Nutrition Program for Women, Infants, and Children (WIC): 2021/2022 Income Eligibility Guidelines, 86 F.R. 12903 (2021).

⁴⁵ HHS issues new Federal Poverty Guidelines near the start of each calendar year, but the WIC program begins using each year's new guidelines in July; therefore, the poverty guidelines for 2 consecutive years were averaged to estimate income eligibility for WIC. For the 2022 estimates, the guidelines used to estimate WIC eligibility from July 2021 through June 2022 (the guidelines released in early 2021) were averaged with the guidelines used by the WIC program for July 2022 through June 2023 (the guidelines released in early 2022).

appeared adjunctively income-eligible according to data from the CPS ASEC. However, the CPS ASEC is known to underestimate participation in these programs, especially relative to the ACS (Meyer et al., 2020). Because of this limitation, data from the ACS were used to impute Medicaid and SNAP participation in the CPS ASEC.

Because the concern in relying on the CPS ASEC is with the survey underreporting program participation rates, the imputations were made only for CPS ASEC respondents who indicated they were nonparticipants but were likely to have participated based on their age, race and ethnicity, and income eligibility status. Imputations were made until the share of participants in the CPS ASEC was equal to the share of participants in the ACS.⁴⁶ While these imputations were made for all infants and children regardless of income eligibility, only adjunctively income-eligible infants and children in economic units whose annual income exceeded 185 percent of the Federal Poverty Guidelines were added to the number of income-eligible infants and children.⁴⁷ Appendix A of volume II of the 2021 WIC eligibility estimates report (Kessler et al., 2023) provides additional information on these logistic regression models.

Adjust for fluctuations in monthly income and certification periods

After determining the adjusted count of income-eligible or adjunctively income-eligible infants and children, adjustments were made to address (1) the differences between annual and monthly income, and (2) the effects of 6- and 12-month certification periods.⁴⁸ The annual-to-monthly income adjustment accounted for how annual income data and program participation data could incorrectly estimate monthly eligibility.⁴⁹ The adjustment for certification periods accounted for the fact that eligible infants were certified for a year, whereas some eligible children were certified for only 6 months and others for a year, depending on the State or territory.⁵⁰ After a participant's certification period ends, eligibility must be confirmed again.

These adjustment factors—calculated separately for infants and children by race and ethnicity and to reflect shorter certification periods for children in some States and territories⁵¹—were calculated using data from the Survey of Income and Program Participation (SIPP), which provides month-by-month observation of family circumstances (see table 6.1; U.S. Census Bureau, n.d.-c). The 2016–2017 eligibility estimates presented in this report use data collected as part of the 2014 SIPP panel to calculate the annual-to-monthly adjustment factor. The 2018–2021 SIPP panels were used to update the adjustment factor (see appendix A of volume II for more information) for the 2018–2021 estimates; 2019–2021 SIPP panels were used to update the adjustment factor for the 2022 estimates.

⁴⁶ TANF participation, however, was still based on the CPS ASEC's program participation data because the ACS does not ask specifically about receiving TANF benefits, while the CPS ASEC does.

⁴⁷ Adjunctive income eligibility is counted by the first program that qualifies the person for WIC, in this order: SNAP, TANF, and Medicaid.

⁴⁸ The Healthy, Hunger-Free Kids Act of 2010 (Pub. L. 111–296) gave States the option of certifying children eligible for WIC every 12 months instead of every 6 months. Whether and when a State has adopted this option affects WIC eligibility for children.

⁴⁹ For example, family income may fluctuate during the year, which may result in an infant or child being eligible based on income in certain months even though the family's annual income is above 185 percent of the poverty guidelines, or the family's annual income may suggest eligibility, but the family's monthly income is above 185 percent of the poverty guidelines for certain months of the year. Program participation in Medicaid, SNAP, and TANF may also fluctuate during the year.

⁵⁰ For example, an infant or child may appear ineligible based on annual income but could have been eligible because they were certified in the prior year. Conversely, a child may appear eligible based on annual income, but the family income could have increased by the time the child needed to be recertified.

⁵¹ Forty-nine States and the District of Columbia implemented the 12-month certification policy for children prior to 2022. Arkansas adopted the 12-month certification policy for children in May 2022. Among territories, the U.S. Virgin Islands uses a 6-month certification policy for children.

Adjust for nutritional risk

The final step in producing national estimates of infants and children eligible for WIC was to adjust for nutritional risk. For all estimates presented in this report, the nutritional risk adjustment factor is set to 1.0 based on guidance from the Institute of Medicine (2002) establishing “failure to meet the Dietary Guidelines [for Americans]” (p. 5) as a WIC nutritional risk category. Although this risk code does not apply to infants or children under 2, FNS and a panel of subject matter experts recommended updating this factor to 1.0 for all participant categories.

2. State Estimates

The State-level estimates of infants and children eligible for WIC were calculated using the same methods used to generate the national-level estimates but with ACS data instead of CPS ASEC data.⁵² Data from the 2021 and 2022 ACS were pooled to account for small sample sizes in several States. The total numbers of infants and children were first identified in each State, and the counts were then adjusted to reflect State population estimates (U.S. Census Bureau, 2023c).⁵³ The number of infants and children in economic units with annual income less than or equal to 185 percent of the Federal Poverty Guidelines was determined, and the numbers of adjunctively income-eligible infants and children were added to that count. The annual-to-monthly income adjustments and the nutritional risk adjustments were then applied.⁵⁴ The ACS-based counts of infants and children eligible for WIC were totaled across the States, and each State’s share of the ACS-based national-level estimate was determined (separately by year of age⁵⁵ of participant) and applied to the CPS-based national estimates to derive State-specific estimates by age.

3. Territory Estimates

Estimates of infants and children eligible for WIC in Puerto Rico are based on the 2021 and 2022 PRCS data and were created with the same methods and adjustments used to develop the State-level estimates. Estimates for the other four U.S. territories WIC serves are based on the 2022 IDB data for those areas. Starting from the numbers of infants and children in the U.S. territories in the IDB data, two adjustments were applied: (1) 2010 decennial census data were used to estimate the percentage of the income-eligible population, and (2) the relationship between income eligibility and adjunctive income eligibility in the States and Puerto Rico in 2022 was used to estimate the additional number of infants and children eligible through adjunctive income eligibility in the other four U.S. territories.⁵⁶

⁵² Unlike the CPS ASEC data, the ACS data provide information for each household member’s relationship to the reference person (householder) rather than the members’ relationships to each other. To better understand relationships across all household members, which is important for determining WIC eligibility, the Minnesota Population Center’s IPUMS data were used. IPUMS data provide users with educated conjectures about the relationships between household members not related to the reference person.

⁵³ For State estimates, the weight adjustments were calculated by year of age (within each State), not by sex.

⁵⁴ When the annual-to-monthly factors were applied at the State level, two race and ethnicity factors were applied in each State: one for White-only, non-Hispanic children and one for children who were either non-White or Hispanic/Latino. The factors for children were permitted to vary by each State’s implementation of 12-month certification.

⁵⁵ Age 0, 1, 2, 3, or 4

⁵⁶ The relationship between adjunctive income eligibility and income eligibility in Puerto Rico and the mainland in 2022 was used to estimate the additional number of infants and children who would gain eligibility through participation in other safety net programs. These procedures resulted in an estimate of 81 percent of infants and 85 percent of children eligible for WIC in the other island territories because of annual income or program participation.

B. Determining the Number of Pregnant Women Eligible for WIC

The next step in estimating eligibility for WIC in 2022 was to determine the number of pregnant women eligible for WIC in the States and U.S. territories WIC serves. Because the CPS ASEC and ACS data do not include information about pregnancy, there is no direct way to identify pregnant women in either survey. The national count of pregnant women was derived by first identifying women of reproductive age (15–44) in the CPS ASEC and then adjusting for the likelihood of pregnancy among this group based on CDC guidance on estimating the pregnant population (CDC, n.d.). The State-level estimates used the final average monthly estimates of infants eligible for WIC as the starting point for estimating pregnant women.

1. National Estimates

Produce preliminary counts of pregnant women

The number of pregnant women was derived from the population of women of reproductive age (15–44) in the CPS ASEC. The total population of women of reproductive age was adjusted to account for the likelihood of being pregnant based on CDC guidance (CDC, n.d.). The procedures estimate pregnancy based on the number of live births from Vital Statistics, the number of multiple births (e.g., twins), and the number of pregnancy losses and induced abortions and adjust for the expected duration of pregnancy.⁵⁷ The estimates of the total pregnant population account for differences in the likelihood of pregnancy based on race and ethnicity.

Produce adjusted counts of pregnant women

The preliminary counts of pregnant women from the CPS ASEC were then adjusted to compensate for the differences between the weighted counts of pregnant women in the CPS ASEC data and the U.S. Census Bureau's population estimates. The adjustment factors (see table C.3b3 of volume II of this report for the full list of adjustment factors by age) reflect national population estimates (U.S. Census Bureau, 2023b) by race and ethnicity and age during a 4-year period relative to the weighted counts in the CPS ASEC data for the same period. The adjustment factors inflated or deflated the CPS ASEC count for each subgroup (i.e., age; race and ethnicity) to better reflect the U.S. Census Bureau population estimate for that subgroup. The adjustment factors were used only when the direction of the difference between the U.S. Census Bureau population estimate and the CPS weighted count was the same as for the 4-year accumulations (i.e., if the Census Bureau figure was either greater or smaller in both cases). If the direction of the difference was not the same for a particular group, no adjustment was performed (i.e., the weight adjustment factor was 1.0). The same procedures for estimating income and adjunctive income eligibility, including the ACS imputation for Medicaid and SNAP, were applied to the adjusted count of pregnant women.

Adjust for nutritional risk

Based on recommendations from FNS and the presumption of nutritional risk, all estimates provided in this report set the nutritional risk adjustment factor to 1.0 for pregnant women (see table 6.1).

⁵⁷ Counts of births, multiple births, and pregnancy losses come from Vital Statistics. Counts of induced abortions are based on the CDC's Abortion Surveillance System (Kortsmitt et al., 2023).

2. State Estimates

The State-level estimates were calculated by using the ACS-based State estimates of infants eligible for WIC as a starting point. The infant estimates were then adjusted to reflect the population of pregnant women, accounting for multiple births and infant deaths, length of pregnancy, income during pregnancy, and nutritional risk, generating each State's share of pregnant women eligible for WIC in the ACS. Those shares were then applied to the national-level estimate of pregnant women eligible for WIC based on the CPS ASEC data to produce the final State-level estimates of eligible pregnant women.

Adjust estimates for multiple births and infant deaths

The number of pregnant women can differ from the number of infants because of (1) multiple births (which reduce the number of pregnant women compared with the number of infants) and (2) fetal and infant deaths (which increase the number of pregnant women compared with the number of infants). The adjustment factor is calculated using National Vital Statistics System data on births, infant deaths, and fetal deaths (see table 6.1).

Adjust estimates for length of pregnancy

The 2022 estimates were also adjusted to reflect that the length of a typical pregnancy is 9 months⁵⁸ (see table 6.1).

3. Territory Estimates

Estimates of pregnant women eligible for WIC in the U.S. territories were calculated with a method parallel to the one used to estimate the number of women eligible for WIC in the States. The adjustments described earlier in this section were applied to the infant eligibility estimates for the U.S. territories to derive the number of pregnant women eligible for WIC.

C. Determining the Number of Postpartum Women Eligible for WIC

The final step in estimating the number of individuals eligible for WIC in 2022 was to calculate the number of postpartum breastfeeding and non-breastfeeding women eligible for WIC in the Nation, States, and U.S. territories. National, State, and territory estimates of postpartum women eligible for WIC were calculated using adjusted counts of infants eligible for WIC instead of separate counts from the CPS ASEC data. Breastfeeding status is key to estimating WIC eligibility for postpartum women, and CPS ASEC data do not identify breastfeeding status. A new mother may receive WIC benefits for 6 months if she is not breastfeeding and up to 12 months if she is breastfeeding. Therefore, information was needed on breastfeeding rates among mothers eligible for WIC during the first 6 months and second 6 months after giving birth and the rate at which breastfeeding mothers ceased breastfeeding during these two periods. These rates were applied to the count of postpartum women to estimate the numbers of postpartum breastfeeding and postpartum non-breastfeeding women for 2022.

1. National Estimates

The national estimates of postpartum women were calculated based on the estimated counts of infants eligible for WIC. A series of adjustments were made to the final average monthly estimate of infants

⁵⁸ The estimates calculate pregnant women as eligible from conception, which is consistent with Federal WIC eligibility guidelines.

eligible for WIC to create the national-level estimate of postpartum women eligible for WIC. Descriptions of these adjustments follow.

Adjust estimates for multiple births, infant deaths, and maternal deaths

The number of postpartum breastfeeding and non-breastfeeding women can differ from the number of infants for a variety of reasons. These include (1) multiple births (which reduce the number of postpartum women compared with the number of infants), (2) fetal and infant deaths (which increase the number of non-breastfeeding women compared with the number of infants), (3) maternal deaths (which reduce the number of postpartum women compared with the number of infants), and (4) induced abortions (which increase the number of non-breastfeeding women compared with the number of infants). Separate breastfeeding and non-breastfeeding adjustment factors are calculated using National Vital Statistics System data on births, infant deaths, and fetal deaths; the National Vital Statistics System data on maternal deaths (Hoyert, 2023); and the Abortion Surveillance System data on induced abortions (Kortsmit et al., 2023). Separate adjustments were made to the counts of infants eligible for WIC for four race and ethnicity groups: White-only, not Hispanic; Black-only, not Hispanic; two or more races or other race, not Hispanic; and Hispanic/Latino (see table 6.1).

Adjust estimates for breastfeeding status

National breastfeeding rates were used to adjust for breastfeeding status by race and ethnicity for the 2022 estimates. The breastfeeding rates were drawn from the most recent National Immunization Survey (NIS) the CDC conducted: the 2022 and 2021 surveys for the 2020 birth cohort.⁵⁹ CDC conducted special tabulations of the NIS data to provide breastfeeding rates for all infants, infants participating in WIC, and nonparticipating infants who were eligible for WIC and were born in 2020. (For these tabulations, eligibility for WIC accounted for income and Medicaid participation.) NIS participant caregivers of children aged 19–35 months were asked whether the child was ever breastfed or fed breast milk and the age when the child completely stopped breastfeeding or being fed breast milk. These data were provided for three points in time: (1) ever, (2) at 6 months, and (3) at 12 months. These data were also collected for four racial and ethnic categories: White-only, not Hispanic; Black-only, not Hispanic; two or more races or other race, not Hispanic; and Hispanic/Latino. This information was used to calculate adjustments to derive postpartum women eligible for WIC by breastfeeding status.

Adjust for nutritional risk

All postpartum women were assumed to be at nutritional risk, so an adjustment factor of 1.0 was used (see table 6.1).

2. State Estimates

Adjustments similar to those applied to the CPS ASEC data were applied to the ACS-based infant eligibility estimates to derive State-level estimates of postpartum breastfeeding and non-breastfeeding women eligible for WIC. State-level NIS data on breastfeeding rates were provided by CDC to produce the 2022 estimates.⁶⁰ The ACS-based estimates were then used to generate each State's share of total

⁵⁹ Unpublished internal CDC data

⁶⁰ The three most recent birth cohorts were pooled to produce a 3-year average rate for each State to reduce year-to-year variation because of small sample sizes in some States.

postpartum women eligible for WIC, and those shares were applied to the national-level estimate of postpartum women eligible for WIC based on the CPS ASEC data.

3. Territory Estimates

Adjustments similar to those applied to the CPS ASEC data were applied to the estimates of eligible infants in the U.S. territories to derive estimates of postpartum breastfeeding and non-breastfeeding women eligible for WIC in the U.S. territories WIC serves. National breastfeeding rates were used to estimate the numbers of postpartum breastfeeding and non-breastfeeding women eligible for WIC in the U.S. territories other than Puerto Rico.⁶¹

D. Estimating Coverage Rates

The coverage rate is defined as the percentage of women, infants, and children eligible for WIC who were enrolled in WIC *and* received their benefits in an average month in 2022.⁶² Coverage rates are useful for understanding how well WIC reaches individuals who may benefit from the program.

The source for the number of participants was WIC administrative data from FNS. FNS provides these administrative counts of WIC program participants by State for each of the five WIC participant categories: infants, children, pregnant women, postpartum breastfeeding women, and postpartum non-breastfeeding women. The coverage rates were calculated based on the ratio of WIC participants (numerator) in an average month in 2022 to the estimates of individuals eligible for WIC (denominator) in an average month in 2022.

The administrative data on WIC participant counts used for this study did not provide the number of participating children by year of age (age 1, 2, 3, or 4) and did not count participants by race and ethnicity. However, these data were available in the WIC PC2022 report (Zvavitch et al., 2024). Therefore, the distribution of WIC-enrolled individuals across these participant categories was applied to the total number of WIC participants to estimate coverage rates by year of age for children and by race and Hispanic ethnicity.⁶³ This approach implicitly assumes that the likelihood an enrolled person's benefits are not received does not vary by race or ethnicity or a child's age.

National coverage rate estimates for 2022 were derived for infants, children by year of age, pregnant women, postpartum breastfeeding and non-breastfeeding women, and race and Hispanic ethnicity (see chapter 3). State coverage rates were also derived for infants, children by year of age, and pregnant and postpartum women by race and Hispanic ethnicity.

Urbanicity among the population eligible for WIC is determined using the CPS ASEC measure of metropolitan status based on Office of Management and Budget (OMB) metropolitan designations. The OMB classifies a core based statistical area as metropolitan if it includes at least one urbanized area with 50,000 or more individuals; all other areas are classified as nonmetropolitan (U.S. Office of Management and Budget, 2021). For urbanicity among WIC participants, ZIP Codes for each participant's WIC local agency serve as a proxy for ZIP Code of residence. Local agency ZIP Codes are classified as metropolitan

⁶¹ National breastfeeding rates were used because breastfeeding rates were not available for the U.S. territories other than Puerto Rico.

⁶² A small number of individuals who were enrolled in WIC during a given month may not have participated (i.e., received their benefits from their State agencies that month).

⁶³ For example, to estimate the number of WIC participants who were 2 years old, WIC PC2020 data were used to estimate the percentage of WIC-enrolled children with those characteristics; that proportion was then applied to the number of WIC-participating children according to WIC administrative data.

or nonmetropolitan using the core-based statistical area codes. Using the WIC local agency likely leads to some misclassification of participant residences, with more metropolitan agencies than metropolitan residences. This misclassification results in an overestimation of coverage rates for metropolitan areas and an underestimation of coverage rates for nonmetropolitan areas.

Coverage rates for Tribal Organizations cannot be calculated using the data sources and methods used in this report because of how the source data sample Tribal populations. Tribal Organizations vary in how they define their service area, which adds complexity to defining the eligible population and matching CPS ASEC or ACS data to Tribal Organization service areas (see appendix A for more details on these variations). Counts of individuals served by Tribal Organizations administering WIC were included in the State where the Tribal Organization is headquartered.

In addition, this year's report includes national WIC coverage rates for individuals who identify as non-Hispanic and American Indian/Alaska Native. American Indian/Alaska Native race was identified using the same variable used to identify the other race categories used in the report. Section G and volume II (appendix A) provide more details about the methodology used for this update.

Each coverage rate is estimated independently based on the number of participating individuals in WIC compared with the estimated number of individuals eligible for WIC in that category. To create a consistent set of estimates, the total number of eligible individuals is the same regardless of how they are stratified by subgroup. This report contains some coverage rate estimates over 100 percent, meaning the number of individuals estimated to be eligible in a particular subgroup was smaller than the number of participants. In large part, a coverage rate over 100 percent is likely the result of sampling variability in the CPS ASEC or ACS survey data used to estimate the number of eligible individuals (denominator of the rate). Appendix B of volume II contains more information on measures of statistical precision for the eligibility estimates. Rates over 100 percent are indicated in the notes of each table and figure.

E. Estimating Participation Rates

The participation rate is defined as the percentage of the total population of women, infants, and children who received WIC benefits in an average month in 2022. Participation rates provide information on the percentage of all infants, children, pregnant women, and postpartum women in the Nation who received WIC benefits in 2022.

National participation rate estimates for 2022 were derived for infants, children by year of age, pregnant women, and postpartum breastfeeding and non-breastfeeding women (see chapter 4).

F. Estimating Nonparticipation Among Medicaid and SNAP Participants

This report also includes national estimates of WIC nonparticipation among Medicaid and SNAP participants. Medicaid and SNAP confer adjunctive income eligibility to categorically eligible individuals (i.e., pregnant, breastfeeding, or non-breastfeeding women; infants; and children up to age 5). Research on WIC participation among individuals eligible for WIC who participate in Medicaid and SNAP is limited.

The CPS ASEC served as the starting point for estimating WIC nonparticipation among Medicaid and SNAP participants eligible for WIC (the denominator of the nonparticipation rates). WIC participation (the numerator of the nonparticipation rates) was determined using the CPS ASEC measure of WIC

participation at any time during the past year instead of FNS administrative data. This approach is limited by how WIC is measured in the CPS ASEC. The CPS ASEC data indicate more than double the number of WIC participants in 2022 than the number recorded in WIC administrative data for the year. In addition, the WIC participation variable on the CPS ASEC is asked only of households with adult females (individuals aged 15 or older).⁶⁴ Individuals whose WIC status was not assessed were removed from the analysis.

Medicaid and SNAP participation is not mutually exclusive; individuals can participate in both programs. Individuals enrolled only in Medicaid may also have a different likelihood of participating in WIC than individuals who participate in both Medicaid and SNAP. Nonparticipation rates were calculated for seven groups:

1. All individuals in Medicaid
2. All individuals in SNAP
3. All individuals in Medicaid whose income is below 185 percent of the Federal Poverty Guidelines
4. All individuals in Medicaid whose income is at or above 185 percent of the Federal Poverty Guidelines
5. Individuals only in Medicaid
6. Individuals only in SNAP
7. Individuals in both Medicaid and SNAP

The total number of individuals eligible for WIC was determined for each of the seven groups. The CPS ASEC WIC participation variable was then used to identify the proportion of individuals in each group who did not participate in WIC using the following formula:

$$NonParticipation Rate_{PY} = \frac{CategoricallyEligPop_{PY,CPS} - WICParticipants_{PY,CPS}}{CategoricallyEligPop_{PY,CPS}}$$

—where *PY* represents the population that participates in program *P* (Medicaid, SNAP, or both) in year *Y*.

WIC nonparticipation rates were calculated among all individuals eligible for WIC and then separately for infants, children, pregnant women, and postpartum women.

G. Additions to This Year's Report

This section summarizes additions to this year's report compared with the previous report (Kessler et al., 2023).

⁶⁴ Approximately 47,100 additional children under 5 from households without an adult female participated in Medicaid or SNAP but did not have their WIC status assessed by the CPS ASEC.

1. Analysis of WIC Coverage Rates for Individuals Identifying as Non-Hispanic, American Indian/Alaska Native and Tribal Organization WIC Participant Counts

The report includes the first national level estimation of a WIC coverage rate for individuals who identify as non-Hispanic, American Indian/Alaska Native. The coverage rate uses CPS ASEC and WIC PC data to estimate the number of non-Hispanic individuals who identify as either only American Indian/Alaska Native or American Indian/Alaska Native and one or more other races who are eligible for WIC, as well as the percentage of those eligible who participate in WIC. Many Hispanic individuals identify as American Indian/Alaska Native. The report does not provide a coverage rate for these individuals because of differences in how WIC collects race and ethnicity data compared with the CPS ASEC. Appendix A of volume II includes more information about these limitations.

The report also includes a new table (table 3.13) summarizing the number of WIC participants served by the 33 Tribal Organization State agencies that administered WIC in 2022. Appendix A of volume II includes more information about the production of these new analyses. It also includes preliminary suggestions for producing a WIC coverage rate or other program reach metrics for Tribal Organizations.

2. Addition of 95 percent Wald Confidence Intervals

For the first time, the report displays 95 percent confidence intervals for key coverage rate and participation rate metrics. Confidence intervals have been added to 10 tables and a new figure (figure 3.5). Displaying these confidence intervals provides more context about the precision of the estimation and may help understand year-to-year and participant category variations in coverage rates. See appendix A in volume II for more information on the confidence intervals.

3. Analysis of Trends in WIC Coverage Rates by Race and Ethnicity

The report presents a new figure displaying coverage rates by race and ethnicity for 2016 through 2022 (see figure 3.17).

4. Updated Analysis of Factors Influencing WIC Participation in 2022

Building from an update made to the 2021 WIC eligibility estimates report, this report incorporates a brief summary of factors influencing WIC participation in 2022. WIC policy changes (i.e., the increase in CVB) and external events (i.e., infant formula shortages and the COVID-19 pandemic) influence who is eligible for WIC and who participates in the program. The report notes these issues to help the reader understand potential reasons for changes in WIC dynamics.

Table 6.1. Steps, Data Sources, Methods, and Adjustment Factors Used for CY 2022 Estimates of WIC Eligibility

Participant Category	Step	Data Source(s)	Methods and Adjustment Factors	
Infants and children	Categorical eligibility	2023 CPS ASEC, national estimates 2021 and 2022 ACS, State estimates 2021 and 2022 PRCS, Puerto Rico estimates 2022 IDB, other island territories estimates	Identify individuals aged 0, 1, 2, 3, and 4 in each survey.	
	Weight adjustment	- National estimates 2022 Vital Statistics and March CPS ASEC for 2023 - State and Puerto Rico estimates - Postcensal population estimates from U.S. Census Bureau for July 2022	Adjust sampling weights to account for undercount or overcount in CPS estimates relative to Vital Statistics estimates by year of age and sex.	
			Adjustment Factors for Females - Infants: 1.0354 1-year-old children: 0.9474 2-year-old children: 1.0107 3-year-old children: 0.9907 4-year-old children: 0.9958	Adjustment Factors for Males - Infants: 1.0697 1-year-old children: 0.9185 2-year-old children: 1.0124 3-year-old children: 0.9837 4-year-old children: 1.0027
	Income eligibility	2023 CPS ASEC, national estimates 2021 and 2022 ACS, State estimates 2021 and 2022 PRCS, Puerto Rico estimates 2022 IDB, other island territories estimates - Blended 2021 and 2022 FPGs	Count as eligible if the prior year’s annual income was ≤ 185 percent of the Federal Poverty Guidelines.	
	Adjunctive income eligibility	2023 CPS ASEC 2021 and 2022 ACS 2021 and 2022 PRCS	Add as eligible those infants and children in families who reported participating in Medicaid, SNAP, or TANF at any point during the prior calendar year. Use 2022 ACS to impute Medicaid and SNAP participation for those who do not report participating in either program to account for potential underreporting of program participation in CPS ASEC.	
	Adjustment for fluctuations in monthly income and certification periods	Average of factors from 2019, 2020, 2021, and 2022 Survey of Income and Program Participation panel	Adjust estimates to account for the impact of monthly fluctuations in income and program participation and for the impact of 6- and 12-month certification periods.^a - Infants adjustment factor (used for estimates from PRCS and IDB data): 1.0191 - Infants adjustment factors by race and ethnicity (used for estimates from CPS ASEC and ACS data) - White-Only, Not Hispanic: 1.1245 - All others: 1.0000 - Children adjustment factor assuming 12-month certification periods (used for estimates from PRCS and IDB data): 1.0000 - Children adjustment factors by race and ethnicity (used for estimates from CPS ASEC data) - White-Only, Not Hispanic: 1.0000 - All others: 1.0000	
Adjustment for nutritional risk	CNSTAT panel; IOM report (2002); FNS guidance	Multiply infant and child estimates by the factor to account for otherwise eligible infants and children who might not be at nutritional risk. Estimates assume all infants and children were at nutritional risk. Adjustment factor for infants and children: 1.0000		

Participant Category	Step	Data Source(s)	Methods and Adjustment Factors
Pregnant women	Categorical eligibility	2023 CPS ASEC, national estimates 2021 and 2022 ACS, State estimates 2021 and 2022 PRCS, Puerto Rico estimates 2022 IDB, other island territories estimates - Average of 3 years of CDC National Vital Statistics data (i.e., 2020–2022 Births: Final Data, 2018–2020 Period Linked Birth/Infant Death Data Files, and 2019–2021 Fetal Death Data Files); Abortion Surveillance System (2019–2021); National Vital Statistics System mortality file (2019–2021)	National: Identify women of reproductive age (15–44) in the CPS ASEC, and apply adjustments proposed by the CDC (n.d.) to estimate the number of pregnant women based on births, multiple births, abortions, and fetal deaths accounting for an average duration of pregnancy. State and territory: Use as a starting point the final average monthly eligibility estimate for infants. Multiply by the factor to account for the impact of multiple births, induced abortions, and fetal and infant deaths (so the number of pregnant women is not exactly equal to the number of infants).
	Weight adjustment	- National estimates - Postcensal population estimates from U.S. Census Bureau and March CPS ASEC for 2020, 2021, 2022, and 2023 - State and Puerto Rico estimates - Postcensal population estimates from U.S. Census Bureau for July 2022	Adjust sampling weights to account for undercount or overcount in CPS estimates relative to U.S. Census Bureau population estimates by year of age and four race/ethnic categories (White-only, not Hispanic; Black-only, not Hispanic; two or more races or other race, not Hispanic; and Hispanic/Latino).
	Income eligibility	2023 CPS ASEC, national estimates 2021 and 2022 ACS, State estimates 2021 and 2022 PRCS, Puerto Rico estimates 2022 IDB, other island territories estimates - Blended 2021 and 2022 FPGs	Count as eligible if prior year's annual income was ≤ 185 percent of the Federal Poverty Guidelines.
	Adjunctive income eligibility	2023 CPS ASEC 2021 and 2022 ACS 2021 and 2022 PRCS	Add in as eligible women in families who reported participating in Medicaid, SNAP, or TANF at any point during the prior calendar year. For national estimates, use 2022 ACS data to impute Medicaid and SNAP participation for those who do not report participating in either program to account for CPS ASEC undercount.
	Adjustment for length of pregnancy	N/A	For State estimates, account for 9 months of pregnancy (0.75 factor). National-level pregnancy calculations account for pregnancy duration.
	Adjustment for fluctuations in monthly income	Average of factors for 2019, 2020, 2021 and 2022 Survey of Income and Program Participation panel	Adjust estimates to account for the impact of monthly fluctuations in income. Use the infants adjustment factors: - Infant adjustment factor (used for estimates from PRCS and IDB data): 1.0191 - Infants adjustment factors by race and ethnicity (used for State-level estimates) - White-Only, Not Hispanic: 1.1245 - All others: 1.0000
	Adjustment for nutritional risk	CNSTAT panel; IOM report (2002); FNS guidance	Multiply pregnant women estimates by the factor to account for otherwise eligible pregnant women who might not be at nutritional risk. Estimates assume all pregnant women were at nutritional risk. Adjustment factor for pregnant women: 1.0000

Participant Category	Step	Data Source(s)	Methods and Adjustment Factors
Postpartum women	Starting point	Eligible infants as estimated using methods outlined earlier in table	Use as a starting point the final average monthly eligibility estimate for infants.
	Adjustment for multiple births and infant deaths	Separate adjustment factors for breastfeeding and non-breastfeeding postpartum women to reflect the population: ▪ Breastfeeding: CDC National Vital Statistics (i.e., 2022 Births: Final Data; 2018–2020 Period Linked Birth/Infant Death Data Files) and National Vital Statistics System mortality file (2019–2021) ▪ Non-breastfeeding: CDC National Vital Statistics (i.e., 2022 Births: Final Data, 2018–2020 Period Linked Birth/Infant Death Data Files, and 2019–2021 Fetal Death Data Files); National Vital Statistics System mortality file (2019–2021); Abortion Surveillance data	Breastfeeding postpartum women: Multiply by the factors to account for the impact of multiple births and maternal, fetal, and infant deaths (so the number of breastfeeding women is not exactly equal to the number of infants). ▪ Breastfeeding postpartum women adjustment factors: – Hispanic/Latino: 0.9871 – Black-Only, Not Hispanic: 0.9777 – White-Only, Not Hispanic: 0.9829 – Two or More Races or Other Race, Not Hispanic: 0.9857 Non-breastfeeding postpartum women: Multiply by the factors to account for the impact of multiple births; abortions; and maternal, fetal, and infant deaths (so the number of non-breastfeeding women is not exactly equal to the number of infants). ▪ Non-breastfeeding postpartum women adjustment factors: – Hispanic/Latino: 1.1367 – Black-Only, Not Hispanic: 1.1748 – White-Only, Not Hispanic: 1.1761 – Two or More Races or Other Race, Not Hispanic: 1.1546
	Adjustment for breastfeeding status	CDC NIS breastfeeding rates computed for 2018, 2019, and 2020 birth cohorts (NIS survey years 2021 and 2022)	Multiply by factors to estimate the average monthly women eligible for WIC as breastfeeding women (0 < 12 months postpartum) or non-breastfeeding women (< 6 months postpartum). Separate State-level breastfeeding adjustments are used for the ACS data. ▪ Breastfeeding (used for estimates from PRCS and IDB data): 0.4572 ▪ Breastfeeding by race and ethnicity (used for estimates from CPS ASEC) – Hispanic/Latino: 0.4868 – Black-Only, Not Hispanic: 0.4158 – White-Only, Not Hispanic: 0.4501 – Two or More Races or Other Race, Not Hispanic: 0.4475 ▪ Non-breastfeeding (used for estimates from PRCS and IDB data): 0.2316 ▪ Non-breastfeeding by race and ethnicity (used for estimates from CPS ASEC) – Hispanic/Latino: 0.2199 – Black-Only, Not Hispanic: 0.2460 – White-Only, Not Hispanic: 0.2347 – Two or More Races or Other Race, Not Hispanic: 0.2378

Participant Category	Step	Data Source(s)	Methods and Adjustment Factors
Postpartum women (continued)	Adjustment for nutritional risk	CNSTAT panel; IOM report (2002); FNS guidance	Multiply estimates for postpartum women by the factor to account for some otherwise eligible women who may not have been at nutritional risk. Estimates assume all postpartum women were at nutritional risk. Adjustment factor for postpartum women: 1.0000

Note: CDC NIS breastfeeding rates are based on unpublished internal CDC data. Adjustment factors shown in this table were used to produce estimates of eligible individuals. When applicable, the same adjustment factors were used to produce estimates of the total population; because of differences in breastfeeding rates, adjustment factors differed for mothers eligible for WIC and the total population of mothers.

ACS = American Community Survey; CDC = Centers for Disease Control and Prevention; CNSTAT = Committee on National Statistics; CPS ASEC = Current Population Survey Annual Social and Economic Supplement; CY = calendar year; FNS = Food and Nutrition Service; FPG = Federal Poverty Guidelines; IDB = International Database; N/A = not applicable; NIS = National Immunization Survey; PRCS = Puerto Rico Community Survey

^a An adjustment factor for the total number of children (1.0652) was also calculated but not used for any adjustment. The separate adjustment factors by race and ethnicity were used for the estimates.

Sources: The data sources listed in this table are as follows, in order of mention: for 2023 CPS ASEC data, see U.S. Census Bureau, n.d.-a; for 2021 and 2022 ACS and PRCS data, see IPUMS-USA, n.d.; for 2022 IDB data, see U.S. Census Bureau, n.d.-b; for 2019–2022 National Vital Statistics data, see National Center for Health Statistics, n.d.; for July 2022 postcensal population estimate data, see U.S. Census Bureau, 2023a, 2023b, 2023c; for WIC income eligibility criteria, see Special Supplemental Nutrition Program for Women, Infants, and Children, 2014; for 2021 and 2022 FPG, see HHS, n.d.; for 2019–2022 SIPP data, see U.S. Census Bureau, n.d.-c; for the Committee on National Statistics panel data, see Ver Ploeg & Betson, 2003; for 2019–2021 Abortion Surveillance System data, see Kortsmit et al. 2023; for 2019–2021 National Vital Statistics System data on maternal mortality, see Hoyert, 2023.

Table 6.2. Step-by-Step Adjustments Applied to CPS ASEC Data to Derive the Average Monthly Number of Individuals Eligible for WIC by Participant Category: CY 2022

Step	Infants	All Children	1-Year-Old Children	2-Year-Old Children	3-Year-Old Children	4-Year-Old Children	Pregnant Women	Postpartum Breastfeeding Women	Postpartum Non-Breastfeeding Women	Total
Total number of infants and children in CPS ASEC data	3,464,722	15,008,530	3,907,626	3,553,021	3,775,117	3,772,766	–	–	–	18,473,252
Number after adjustment for CPS undercount, overcount	3,647,110	14,734,250	3,643,505	3,594,123	3,726,447	3,770,174	–	–	–	18,381,360
Number with annual income ≤ 185 percent of the FPG	1,029,263	4,320,006	1,009,340	1,117,982	1,092,897	1,099,788	–	–	–	5,349,269
Number adjunctively income-eligible and with annual income > 185 percent of the FPG ^a	715,549	3,118,506	824,206	769,636	748,876	775,788	–	–	–	3,834,055
Through SNAP	299,145	1,328,950	354,780	332,987	305,823	335,359	–	–	–	1,628,094
Through TANF	3,196	19,718	2,009	2,761	6,604	8,344	–	–	–	22,914
Through Medicaid	413,208	1,769,839	467,417	433,888	436,449	432,085	–	–	–	2,183,047
Total number income- and adjunctively income-eligible	1,744,812	7,438,512	1,833,546	1,887,618	1,841,773	1,875,576	–	–	–	9,183,325
Number after adjustment for monthly income and certification periods	1,807,733	7,438,512	1,833,546	1,887,618	1,841,773	1,875,576	–	–	–	9,246,246
Total number eligible: Number after adjustment for nutritional risk (infants and children)	1,807,733	7,438,512	1,833,546	1,887,618	1,841,773	1,875,576	–	–	–	9,246,246
Starting point for estimates of pregnant and postpartum women	–	–	–	–	–	–	25,252,785	1,807,733	1,807,733	28,868,252

Step	Infants	All Children	1-Year-Old Children	2-Year-Old Children	3-Year-Old Children	4-Year-Old Children	Pregnant Women	Postpartum Breastfeeding Women	Postpartum Non-Breastfeeding Women	Total
Total number eligible: Number after adjustments for pregnancy and breastfeeding status	–	–	–	–	–	–	1,109,453	812,593	485,497	2,407,543
Total number eligible in the 50 States and the District of Columbia, excluding the U.S. territories WIC serves	1,807,733	7,438,512	1,833,546	1,887,618	1,841,773	1,875,576	1,109,453	812,593	485,497	11,653,789
Total number eligible in all U.S. territories WIC serves ^b	22,715	85,404	18,754	21,626	22,278	22,745	15,486	10,374	5,255	139,234
Total number eligible in the 50 States, the District of Columbia, and the U.S. territories WIC serves	1,830,448	7,523,916	1,852,300	1,909,244	1,864,052	1,898,321	1,124,940	822,967	490,752	11,793,023

CPS = Current Population Survey; CPS ASEC = CPS Annual Social and Economic Supplement; CY = calendar year; FPG = Federal Poverty Guidelines; SNAP = Supplemental Nutrition Assistance Program; TANF = Temporary Assistance for Needy Families

^a Adjunctive income eligibility was counted by the first program that qualified the individual for WIC, in this order: SNAP, TANF, and Medicaid.

^b See appendix D of volume II for the derivation of WIC eligibility in U.S. territories.

– denotes blank cells

Sources: IPUMS-USA, n.d.; U.S. Census Bureau, n.d.-a, n.d.-b

Abbreviations and Acronyms

ACS	American Community Survey
CDC	Centers for Disease Control and Prevention
CNSTAT	Committee on National Statistics
CPS ASEC	Current Population Survey Annual Social and Economic Supplement
CVB	Cash value benefit
CY	calendar year
EBT	electronic benefit transfer
FNS	Food and Nutrition Service
FPG	Federal Poverty Guidelines
FY	fiscal year
HHS	U.S. Department of Health and Human Services
IDB	International Database (of U.S. Census Bureau)
IOM	Institute of Medicine
ITO	Indian Tribal Organization
IPUMS	Integrated Public Use Microdata Series
NIS	National Immunization Survey
OMB	Office of Management and Budget
PHE	public health emergency
PRCS	Puerto Rico Community Survey
SIPP	Survey of Income and Program Participation
SNAP	Supplemental Nutrition Assistance Program
TANF	Temporary Assistance for Needy Families
USDA	U.S. Department of Agriculture
WIC	Special Supplemental Nutrition Program for Women, Infants, and Children
WIC PC	WIC participant and program characteristics

References

- CDC (Centers for Disease Control and Prevention). (n.d.). *Estimating the number of pregnant women in a geographic area*. https://www.cdc.gov/reproductivehealth/emergency/pdfs/pregestimator_pointintime-8_2013.pdf
- CDC WONDER. (n.d.). *About natality, 2016-2020 expanded*. <https://wonder.cdc.gov/natality-expanded-current.html>
- Economic Research Service. (2024). *Breastfeeding in WIC program increased following infant formula market disruptions in 2022*. U.S. Department of Agriculture. <https://www.ers.usda.gov/data-products/chart-gallery/gallery/chart-detail/?chartId=108570>
- Farson Gray, K., Balch-Crystal, E., Johnson, P., & Giannarelli, L. (2022). *National- and State-level estimates of WIC eligibility and WIC program reach in 2019*. U.S. Department of Agriculture, Food and Nutrition Service. <https://www.fns.usda.gov/wic/national-state-level-estimates-eligibility-program-reach-2019>
- FNS (Food and Nutrition Service). (2004). *Final WIC policy memorandum fiscal year 2002-6, revision 1 WIC racial/ethnic data collection*. U.S. Department of Agriculture. <https://www.fns.usda.gov/wic/racial-ethnic-data-collection>
- FNS. (2023). *WIC data tables*. U.S. Department of Agriculture. <https://www.fns.usda.gov/pd/wic-program>
- Gray, K., Kessler C., Rozen J., Bryant A., Griffiths R., & Wakar, B. (2022). *National- and State-level estimates of the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) eligibility and WIC program reach in 2020 (Online Graphics Only)*. U.S. Department of Agriculture, Food and Nutrition Service. <https://www.fns.usda.gov/research/wic/eligibility-and-program-reach-estimates-2020>
- Griffiths, R. (2009). *Confidence intervals for radio ratings estimators*. Presentation to the Social Statistics Section of the American Statistical Association, Proceedings of the Joint Statistical Meetings, American Statistical Association. <http://www.asasrms.org/Proceedings/y2009/Files/305514.pdf>
- Heberlein, M., Brooks, T., Artiga, S., & Stephens, J. (2013). *Getting into gear for 2014: Shifting new Medicaid eligibility and enrollment policies into drive*. <https://www.kff.org/medicaid/report/getting-into-gear-for-2014-shifting-new-medicaid-eligibility-and-enrollment-policies-into-drive/>
- HHS (U.S. Department of Health and Human Services). (n.d.). *Guidelines-1983-2023* [Excel file]. <https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Faspe.hhs.gov%2Fsites%2Fdefault%2Ffiles%2Fdocuments%2F8a3c200f613c1c7894d43846dce8815e%2Fguidelines-1983-2023.xlsx&wdOrigin=BROWSELINK>
- Hoyert, D. (2023). *Maternal mortality rates in the United States, 2021*. NCHS Health E-Stats. <https://www.cdc.gov/nchs/data/hestat/maternal-mortality/2021/maternal-mortality-rates-2021.htm>

- Institute of Medicine. (2002). *Dietary risk assessment in the WIC program*. <https://fns-prod.azureedge.us/sites/default/files/WICDietaryRisk.pdf>
- IPUMS-USA (Integrated Public Use Microdata Series-USA). (n.d.). *U.S. Census data for social, economic, and health research* [2021 American Community Survey and Puerto Rico Economic Indicators datasets]. <https://usa.ipums.org/usa/>
- Kessler, C., Bryant, A., Munkacsy, K., & Gray, K. (2023). *National- and State-level estimates of WIC eligibility and WIC program reach in 2021*. U.S. Department of Agriculture, Food and Nutrition Service. <https://www.fns.usda.gov/research/wic/eligibility-and-program-reach-estimates-2021>
- Kortsmit, K., Ngyuen, A. T., Mandel, M. G., Hollier, L. M., Ramer, S., Rodenhizer, J., & Whiteman, M. K. (2023). Abortion surveillance – United States, 2021. *Morbidity and Mortality Weekly Report*, 72(9), 1–29. <https://www.cdc.gov/mmwr/volumes/72/ss/ss7209a1.htm>
- Macartney, S. (2013). *Estimating the value of WIC benefits for the Supplemental Poverty Measure* (SEHSD Working Paper 2013-18). U.S. Census Bureau, Social, Economic and Housing Statistics Division. https://cps.ipums.org/cps/resources/spm/WIC_paper_July2013.pdf
- Magness, A., Chakravorty, A., Williams, K., Ruggiere, P., Papa, F., Okyere, D., Santos, K., Nisar, H., Bajowski, F., & Singer, B. (2021). *Certification error rates and estimates of improper payments in WIC: Brief report #8*. U.S. Department of Agriculture, Food and Nutrition Service. <https://fns-prod.azureedge.us/sites/default/files/resource-files/NSWP-III-BriefReport8.pdf>
- Meyer, B., Mittag, N., & George, R. (2020). *Errors in survey reporting and imputation and their effects on estimates of Food Stamp Program participation*. <https://doi.org/10.3368/jhr.58.1.0818-9704R2>
- Migration Policy Institute. (n.d.). *MPI data hub: Children under 6 in immigrant and native families, 2019 (in thousands)*. https://www.migrationpolicy.org/sites/default/files/datahub/MPI-Data-Hub-Children-in-Immigrant-Families_1990-2019.xlsx
- National Center for Health Statistics. (n.d.). *National vital statistics reports*. <https://www.cdc.gov/nchs/products/nvsr.htm>
- National Congress of American Indians. (2020). *Tribal Nations & the United States: An introduction*. <https://archive.ncai.org/about-tribes>
- Noon, J. M., Fernandez, L. E., & Porter, S. R. (2019). Response error and the Medicaid undercount in the Current Population Survey. *Health Services Research*, 54(1), 34–43. <https://doi.org/10.1111/1475-6773.13058>
- OMB (Office of Management and Budget). (1997). Revisions to the standards for the classification of Federal data on race and ethnicity. *Federal Register*, 62(210), 58789. <https://www.govinfo.gov/content/pkg/FR-1997-10-30/pdf/97-28653.pdf>
- OMB. (2021). 2020 standards for delineating core based statistical areas. *Federal Register*, 86(134), 37770–37778. <https://www.federalregister.gov/documents/2021/07/16/2021-15159/2020-standards-for-delineating-core-based-statistical-areas>

Special Supplemental Nutrition Program for Women, Infants, and Children, 7 C.F.R. § 246 (2014).

Trippe, C., Tadler, C., Johnson, P., Giannarelli, L., & Betson, D. (2019). *National and State-level estimates of WIC eligibility and WIC program reach in 2016*. <https://www.fns.usda.gov/wic/national-and-state-level-estimates-wic-eligibility-and-wic-program-reach-2016>

U.S. Census Bureau. (n.d.-a). *Current Population Survey Annual Social and Economic Supplements* [March 2023 dataset and technical documentation]. <https://www.census.gov/data/datasets/time-series/demo/cps/cps-asec.html>

U.S. Census Bureau. (n.d.-b). *International programs, International Database* [2022 international population estimates dataset]. <https://www.census.gov/programs-surveys/international-programs/about/idb.html>

U.S. Census Bureau. (n.d.-c). *Survey of Income and Program Participation datasets* [2019, 2020, 2021, 2022 datasets]. <https://www.census.gov/programs-surveys/sipp/data/datasets.html>

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>

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>

U.S. Census Bureau. (2020). *Profile of general population and housing characteristics*. <https://data.census.gov/table?g=010XX00US&d=DEC+Demographic+Profile>

U.S. Census Bureau. (2023a). *Annual estimates of the resident population by single year of age and sex for Puerto Rico Commonwealth* [July 2022 dataset]. <https://www2.census.gov/programs-surveys/popest/tables/2020-2022/state/detail/>

U.S. Census Bureau. (2023b). *National population estimates* [2018, 2019, 2020, 2021, 2022 datasets]. <https://www2.census.gov/programs-surveys/popest/tables/2020-2022/national/asrh/>

U.S. Census Bureau. (2023c). *State population estimates* [2023 dataset]. <https://www2.census.gov/programs-surveys/popest/tables/2020-2022/state/asrh/>

U.S. Census Bureau. (2023d). *U.S. Census Bureau statistical quality standards*. <https://www2.census.gov/about/policies/quality/quality-standards.pdf>

Ver Ploeg, M., & Betson, D. M. (Eds.). (2003). *Estimating eligibility and participation for the WIC program: Final report*. The National Academies Press. <https://nap.nationalacademies.org/read/10804/chapter/1>

Zvavitch, P., Beckerman-Hsu, J., Huret, N., Perez-Zetune, V., Reischmann, P., Calvin, K., & Thorn, B. (2024). *WIC Participant and Program Characteristics 2022*. U.S. Department of Agriculture, Food and Nutrition Service. <https://www.fns.usda.gov/research/wic/participant-program-characteristics-2022>