

## 2021 Prenatal-to-3 State Policy Roadmap

### Methods and Sources

### Additional Notes

#### COVID-19

The COVID-19 pandemic has created numerous challenges for families, particularly those with young children and families of color. Loss of employment has led to the loss of employer-sponsored health insurance, economic insecurity, and food insecurity. Working parents have had to juggle child care, schooling, and care for themselves and their families. In an effort to support families through the crisis, state and federal governments have implemented changes to existing programs to ensure access to needed services; however, many of these temporary changes are slated to expire in the coming months. Rigorous research conducted by the Prenatal-to-3 Policy Impact Center both prior and during the pandemic has shown that many of these temporary policy changes spurred by COVID-19 can positively impact child and family wellbeing and that states may consider maintaining these changes beyond the pandemic to improve outcomes for infants, toddlers, and their parents.<sup>1</sup>

In consideration of these potential forthcoming policy changes, we opted to limit the timing of our measures of progress toward policy goals to the period immediately prior to the start of the COVID-19 pandemic. By limiting measures to the most recently available data through March 2020, the data presented in the 2021 Prenatal-to-3 State Policy Roadmap provide a portrait of state progress immediately prior to the impact of both the pandemic and the subsequent federal and state policy changes initiated in response to the COVID-19 pandemic.

To further facilitate future assessments of state progress in the wake of the COVID-19 pandemic, with the 2021 Prenatal-to-3 State Policy Roadmap we have incorporated data (when available) for the most recent five years leading up to the COVID-19 pandemic. These five-year patterns help demonstrate the recent trends states have made towards achieving the eight policy goals and provide a benchmark for the evaluation of future data post 2019.

With respect to monitoring states' progress toward adopting and implementing the 11 effective policies and strategies, we did not impose any temporal limitation on the information incorporated into the 2021 Prenatal-to-3 State Policy Roadmap. In general, the information presented in the Roadmap regarding adoption and implementation of the five evidence-based policies is accurate as of October 1, 2021; implementation information associated with the six effective strategies reflects information as of July 1, 2021.

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<sup>1</sup> Prenatal-to-3 Policy Impact Center. (2020). *Beyond the pandemic: State policy options for supporting families* (B.OO2.1120). Child and Family Research Partnership. Lyndon B. Johnson School of Public Affairs, University of Texas at Austin.

<https://pn3policy.org/resources/beyond-the-pandemic-state-policy-options-for-supporting-families/>

## The American Rescue Plan Act (ARPA)

The American Rescue Plan Act (ARPA) of 2021 invests unprecedented amounts of funding in the prenatal-to-3 period.<sup>2</sup> As a result of this investment, states will have more support and choices to effectively build a comprehensive and equitable prenatal-to-3 system of care. The \$1.9 trillion dollar stimulus bill has major implications for the prenatal-to-3 period because it:

- Expands eligibility for programs;
- Increases the value and refundability of tax credits for families; and
- Provides substantial funding increases to public programs serving families and caregivers.

As with our measures tracking state progress toward the prenatal-to-3 policy goals, in tracking state generosity and variation in the adoption and implementation of each of the 11 evidence-based policies and strategies we opted to minimize the impact of ARPA on these measures of state variation in the 2021 Prenatal-to-3 State Policy Roadmap. For example, in evaluating the state variation in child care subsidy assistance we opted not to include the impact of temporary policy changes such as waived family copayment fees or expanded eligibility on our measures. However, if a state passed and enacted permanent legislation in response to ARPA, any impact of this new legislation was incorporated into our measures and calculations.

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<sup>2</sup> Prenatal-to-3 Policy Impact Center. (2021). *How Will the American Rescue Plan Act Strengthen the Prenatal-to-3 System of Care? A Summary of the 2021 Act's Benefits for Infants and Toddlers*. Child and Family Research Partnership, Lyndon B. Johnson School of Public Affairs, University of Texas at Austin. B.005.0321. <https://pn3policy.org/resources/how-will-the-american-rescue-plan-strengthen-the-prenatal-to-3-system-of-care/>

## Same Family: Different Resources

Economic resources have a significant influence on the health and wellbeing of children and their parents. Federal and state income transfer and benefits policies can play a substantial role in increasing and stabilizing the resources that families have available to them. However, states vary considerably in the benefits they provide and policy choices they make.

Our “Same Family: Different Resources” simulation examines the extent to which the household income and in-kind benefits available to a single-mother with an infant and toddler, who works full-time/full-year at a minimum wage job, varies based on the state in which the family resides. We take into consideration four state-level policies, including the state’s minimum wage, earned income tax credit (EITC), child tax credit (CTC), and child care assistance programs, and four federal policies, including the federal EITC, CTC, Supplemental Nutrition and Assistance Program (SNAP), and the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) benefit levels. We examine the total available resources that this hypothetical “family of three” would have after all child care costs and including all state and federal benefits and how those resources vary depending upon the state of residence and its respective policies. We also examine the impact of increased federal tax credits associated with the American Rescue Plan Act (ARPA) on these available resources – including the expanded CTC and Child Dependent Care Tax Credit (CDCTC).

State/Federal Policy	Source
State Minimum Wage (as of October 1, 2021)	1. State-specific labor statutes, see the State Minimum Wage <a href="#">methods and sources</a> documentation
State Earned Income Tax Credit (as of October 1, 2021)	1. State-specific income tax statutes, see the State Earned Income Tax Credit <a href="#">methods and sources</a> documentation
State Child Tax Credit (as of October 1, 2021)	1. Tax Credits for Workers and Families. (n.d.) <i>State Tax Credits</i> . Retrieved on September 1, 2021, from <a href="https://www.taxcreditsforworkersandfamilies.org/state-tax-credits/">https://www.taxcreditsforworkersandfamilies.org/state-tax-credits/</a>
State Child Care Subsidies (as of July 1, 2021)	1. Personal communication with state CCDF Administrators and other staff overseeing the state’s child care subsidy programs; State children and families department websites; State Market Rate Surveys; the National Women’s Law Center; and the Center for American Progress, see the Child Care Subsidies <a href="#">methods and sources</a> documentation
SNAP (as of October 1, 2021)	1. US Department of Agriculture Food and Nutrition Service. (August 16, 2021). <i>SNAP – Fiscal Year 2022 Cost-of-Living Adjustments</i> . Retrieved on September 3, 2021, from <a href="https://www.fns.usda.gov/snap/fy-2022-cost-living-adjustments">https://www.fns.usda.gov/snap/fy-2022-cost-living-adjustments</a> 2. Center on Budget and Policy Priorities. (September 1, 2020.) <i>A Quick Guide to SNAP Eligibility and Benefits</i> . Retrieved on December 11, 2020, from <a href="https://www.cbpp.org/research/food-assistance/a-quick-guide-to-snap-eligibility-and-benefits">https://www.cbpp.org/research/food-assistance/a-quick-guide-to-snap-eligibility-and-benefits</a> 3. US Department of Housing and Urban Development. (April 1, 2021). <i>2021 Data – County Level Data</i> [Data set]. Retrieved on April 20, 2021, from <a href="https://www.huduser.gov/portal/datasets/fmr.html#2021_data">https://www.huduser.gov/portal/datasets/fmr.html#2021_data</a>
WIC (As of August 6, 2021)	1. US Department of Agriculture Food and Nutrition Services. (July 13, 2021). <i>WIC Data Tables</i> [Data set]. Retrieved on August 6, 2021, from <a href="https://www.fns.usda.gov/pd/wic-program">https://www.fns.usda.gov/pd/wic-program</a>
Federal Earned Income Tax Credit (as of Tax Year 2020)	1. Internal Revenue Service. (n.d.) <i>Earned Income Tax Credit (EITC) Assistant</i> . Retrieved on September 1, 2021, from <a href="https://apps.irs.gov/app/eitc">https://apps.irs.gov/app/eitc</a>

Federal Child Tax Credit (as of Tax Year 2020)	1. Internal Revenue Service. (January 11, 2021). <i>Publication 972 Child Tax Credit and Credit for Other Dependents</i> . Retrieved on April 1, 2021, from <a href="https://www.irs.gov/pub/irs-pdf/p972.pdf">https://www.irs.gov/pub/irs-pdf/p972.pdf</a>
Federal Child Tax Credit (as of Tax Year 2021)	1. H.R. 1319, 117 <sup>th</sup> Congress (2021-2022). American Rescue Plan Act of 2021. <a href="https://www.congress.gov/117/bills/hr1319/BILLS-117hr1319enr.pdf">https://www.congress.gov/117/bills/hr1319/BILLS-117hr1319enr.pdf</a>
Federal Dependent Care Tax Credit (as of Tax Year 2020)	1. Internal Revenue Service. (March 12, 2021). <i>Topic No. 602 Child and Dependent Care Credit</i> . Retrieved on April 1, 2021, from <a href="https://www.irs.gov/taxtopics/tc602">https://www.irs.gov/taxtopics/tc602</a>
Federal Dependent Care Tax Credit (as of Tax Year 2021)	1. H.R. 1319, 117 <sup>th</sup> Congress (2021-2022). American Rescue Plan Act of 2021. <a href="https://www.congress.gov/117/bills/hr1319/BILLS-117hr1319enr.pdf">https://www.congress.gov/117/bills/hr1319/BILLS-117hr1319enr.pdf</a>
Access to Medicaid (as of October 1, 2021)	1. Medicaid state plan amendments (SPAs), Section 1115 waivers, and state documents and legislation, see the Expanded Income Eligibility for Health Insurance <a href="#">methods and sources</a> documentation
Access to Paid Family Leave (as of October 1, 2021)	1. State-specific paid family leave legislation, see the Paid Family leave <a href="#">methods and sources</a> documentation

**Notes:**

1. Sources for SNAP include those associated with SNAP deductions (e.g., the earnings, dependent care, and excess shelter deductions). For the excess shelter deduction, calculations were based on the fair market rate for a two-bedroom domicile in the most populous geographic region in the state (this aligns with the specification used in calculating child care subsidy reimbursement rates).
2. Child care subsidy calculations are based on the total market price of care (e.g., rates for an infant and a toddler in center-based care at the 75<sup>th</sup> percentile of market rate) for the most populous geographic region in the state.
3. Tax credits are only considered in the benefits calculations if they are fully refundable.
4. The federal child tax credit became entirely refundable as a part of the American Rescue Plan Act (ARPA). Only the portion that was originally refundable is included in pre-ARPA calculations.
5. The federal dependent care tax credit only became refundable as a part of the American Rescue Plan Act (ARPA) and is not included in the pre-ARPA calculations.

## Puerto Rico Exclusion

Puerto Rico's resident population of 3.2 million people<sup>3</sup> in 2019 is larger than that of 20 states and the District of Columbia. The Commonwealth faces a number of challenges that the Prenatal-to-3 Policy Impact Center has identified as impediments to the health and well-being of young children and their families. These include high levels of poverty, unemployment, employment instability, and childhood food insecurity as well as low levels of labor force participation when compared to the rest of the United States.<sup>4,5</sup> Even so, due to systematic differences in policy implementation in Puerto Rico and data limitations, Puerto Rico data are excluded from the Prenatal-to-3 State Policy Roadmap.

## Policy Implementation

Federal laws and programs apply equally to DC and the 50 states. The same is not true for the citizens of Puerto Rico. Public programs operate differently in Puerto Rico compared to the states.

Puerto Rico's Medicaid program has lower income eligibility levels, lower reimbursement rates, and covers fewer health services than the Medicaid programs in the rest of the United States.<sup>6</sup> The income eligibility for specific populations, including children and pregnant women, is lower in Puerto Rico than the federal minimum income eligibility threshold, as Puerto Rico is exempt from this federal eligibility requirement. Puerto Rico currently provides coverage to individuals with modified adjusted gross incomes up to 133 percent of the Puerto Rico Poverty Level (PRPL), which is \$11,316 annually for a family of four in 2021, or approximately 40 percent of the current US federal poverty level.<sup>7</sup>

Additionally, federal Medicaid spending in Puerto Rico and other US territories is provided as a block grant, with a fixed matching rate and is capped at a specific dollar value. In comparison, the federal match for Medicaid spending in states is uncapped and adjusted annually based on a state's relative per capita income.<sup>8</sup> Prior to the Affordable Care Act, the federal government covered 15 to 20 percent of Puerto Rico's annual Medicaid costs compared to the 50 percent minimum reimbursement rate provided to the states.<sup>9</sup> Since 2011, the Affordable Care Act and other temporary Medicaid relief funds been available to US territories to fund their Medicaid programs beyond the federal cap, including recent additional funding in both FY2020 appropriations and from the Families First Coronavirus Response Act (FFCRA). However, these funds are scheduled to expire at the end of September 2021 and even if they are again extended the continued temporary nature of this funding inhibits the territories' ability to establish and maintain a strong Medicaid

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<sup>3</sup> US Census Population Estimates. (2021). *State population totals and components of change: 2010-2019*. Retrieved August 1, 2021 from <https://www.census.gov/data/tables/time-series/demo/popest/2010s-state-total.html>

<sup>4</sup> Kids Count Data Center. (2020). *Child wellbeing indicators & data: Puerto Rico*. Retrieved August 1, 2021 from <https://datacenter.kidscount.org/data#PR/4/O/char/O>

<sup>5</sup> Center on Budget and Policy Priorities. (2015). *Puerto Rico has higher poverty and unemployment, lower labor force participation than US as a whole*. As of December 4, 2015. Retrieved August 1, 2021 from <https://www.cbpp.org/puerto-rico-has-higher-poverty-unemployment-lower-labor-force-participation>

<sup>6</sup> Center on Budget and Policy Priorities. (2019, April 22). *Puerto Rico's Medicaid program needs an ongoing commitment of federal funds*. Retrieved August 1, 2021 from <https://www.cbpp.org/research/health/puerto-ricos-medicaid-program-needs-an-ongoing-commitment-of-federal-funds>

<sup>7</sup> MACPAC. (2021 February). *Medicaid and CHIP in Puerto Rico*. Retrieved August 1, 2021 from <https://www.macpac.gov/wp-content/uploads/2020/08/Medicaid-and-CHIP-in-Puerto-Rico.pdf>

<sup>8</sup> Kaiser Family Foundation. (2019, January 25). *Medicaid in the territories: Program features, challenges, and changes*. Retrieved August 1, 2021 from <https://www.kff.org/report-section/medicaid-in-the-territories-program-features-challenges-and-changes-issue-brief/>

<sup>9</sup> Park, E., Georgetown University Health Policy Institute, Center for Children and Families. (2018, March 16). *Ensuring robust and resilient Medicaid programs in Puerto Rico and the US Virgin Islands during post-hurricane recovery and over the long run*. Retrieved August 1, 2021 from <https://ccf.georgetown.edu/2018/03/16/ensuring-robust-and-resilient-medicaid-programs-in-puerto-rico-and-the-u-s-virgin-islands-during-post-hurricane-recovery-and-over-the-long-run/>

infrastructure including consistent income eligibility levels and provider fees.<sup>10</sup> The ability of states to expand Medicaid eligibility and/or require Medicaid coverage for specific services is central to successful implementation of three policies the Prenatal-to3 Policy Impact Center has found to have a strong evidence base for improving the health and well-being of young children and their families.

Similarly, federal funding for food assistance is provided in Puerto Rico through the Nutrition Assistance Program (NAP), rather than the Supplemental Nutrition Assistance Program which operates in the 50 states and the District of Columbia. NAP is a block grant, while SNAP is an uncapped entitlement program. As such, NAP is unable to provide the same level of benefits and restricts eligibility to a lower level than SNAP. The USDA found that if Puerto Rico participated in SNAP using the same criteria as states, it would require a 23 percent increase in current spending through NAP.<sup>11</sup> The participation in SNAP by eligible recipients was found to be strongly associated with improved health and well-being for young children and their families.

Due to the differences in program administration, funding, and eligibility Medicaid and SNAP/NAP are fundamentally different programs in Puerto Rico than the 50 states and the District of Columbia and will have a more limited ability to improve the health and well-being of young children and their families in the territory.

### Data Availability

There are a number of limitations when comparing specific indicators across Puerto Rico and the rest of the United States. Specifically, Puerto Rico is not included in some of the datasets which are used for examining variation among states in terms of their demographic, health, socioeconomic, or other characteristics. In some cases, there are comparable Puerto Rico-specific datasets, but not all.

Puerto Rico is included in the Census Bureau's total annual resident population counts. It is not included in the American Community Survey, but is included in a customized version called the Puerto Rico Community Survey, that differs in survey terminology and methodology.<sup>12</sup>

Puerto Rico is not included in the National Survey of Children's Health or the Current Population Survey (including the Annual Social and Economic and Food Security Supplements)—datasets used in calculating several outcome metrics of child and family wellbeing.

Other datasets including the Office of Special Education's SPP/APRs, the Quality Compendium's state QRIS profiles, the Office of Child Care's CCDF plans, the Centers for Disease Control's Vital Statistics datasets, the Bureau of Labor Statistics' Occupational Employment Statistics and Local Area Unemployment Statistics datasets, and the Early Childhood Learning and Knowledge Center's EHS PIRs do include data for Puerto Rico, though these data are not always the same as those provided for states.

Finally, there are ways in which the data for Puerto Rico are significantly different from that of the rest of the United States. In terms of poverty, income, and unemployment Puerto Rico is a considerable outlier from the national distribution. This makes a direct comparison with states less meaningful for the purposes of assessing the success of policy development and implementation.

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<sup>10</sup> Kaiser Family Foundation. (2021, September 14). Implications of the Medicaid fiscal cliff for the US territories. Retrieved September 15 from <https://www.kff.org/medicaid/issue-brief/implications-of-the-medicaid-fiscal-cliff-for-the-u-s-territories/>

<sup>11</sup> Center on Budget and Policy Priorities. (2020, November 3). *How does household food assistance in Puerto Rico compare to the rest of the United States?* Retrieved August 1, 2021 from <https://www.cbpp.org/research/food-assistance/how-is-food-assistance-different-in-puerto-rico-than-in-the-rest-of-the>

<sup>12</sup> US Census Bureau. (2021). *About the Puerto Rico Community Survey*. As of August 10, 2021. Retrieved August 12, 2021 from <https://www.census.gov/programs-surveys/acs/about/puerto-rico-community-survey.html>

## Data Sources, Quality, and Accuracy in the Prenatal-to-3 State Policy Roadmap

Large, national datasets provide high-quality information on the familial circumstances and overall wellbeing for children and their families and allow for the consistent comparison of this information across states. Unfortunately, with the narrowed focus of the [2021 Prenatal-to-3 State Policy Roadmap](#) on children and their families in this prenatal-to-3 age group, even the large, nationally representative datasets have more limited sample sizes that frequently prohibit the measurement of state-level data and racial and ethnic disparities in outcomes without combining multiple years of data. Pooling data across years, however, restricts a state's ability to track progress toward the prenatal-to-3 policy goals over time.

For the majority of our measures, we prioritized data sources using the following criteria:

- Consistent measurement across states
- Adequate sample size when limiting the analytic sample to the under three population and/or their families/households
- Recency of data
- Availability of annual data updates to facilitate tracking state-level changes across time
- Ability to create pooled, multi-year datasets (both for improving data quality and accuracy and for potential subgroup analyses, such as by race/ethnicity; income level; geography; etc.)
- Availability of population weights (for national and state-level representativeness) and replicate weights or other sampling indicators (to adjust standard errors and associated confidence intervals to account for sampling parameters)

### National Data Sources

#### [American Community Survey](#)

The American Community Survey (ACS) is the largest of the annual US Census Bureau's data collection efforts, targeting an estimated 3.5 million households every year (approximately 1% of the US population). The ACS includes questions associated with a variety of household and family topics, such as: household composition, family status, education, employment, income, transportation, housing, health insurance, and the access and use of various programs and services. The information collected by the ACS is used in the allocation and distribution of over \$675 billion in federal and state funding each year. Data from the ACS is not expected to match decennial census counts or data from other US Census Bureau surveys (e.g., the Current Population Survey).<sup>13</sup>

ACS data collection occurs on a rolling basis throughout the calendar year, with respondents providing data on the prior 12-month period; this collection methodology allows the ACS to capture nationally representative information across two calendar years with each annual survey administration. Respondents completing the survey in January of 2020 are providing information on the prior 12-month period (or most of 2019); whereas, survey takers who respond in December of 2020 will primarily be providing information for the 12-month period falling almost entirely in 2020.

For the majority of information from the ACS included in the [2021 Prenatal-to-3 State Policy Roadmap](#), data are based on calculated estimates from the Public-Use Microdata Sample (PUMS) files. Using the PUMS data files to calculate estimates allows us to limit the sample to our population of interest, depending upon the measure (e.g., children under age 3; women of childbearing age with family incomes at or below 138% of the

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<sup>13</sup> US Census Bureau (n.d.). *Differences between the American Community Survey (ACS) and the Annual Social and Economic Supplement to the Current Population Survey (CPS ASEC)* [Fact Sheet]. As of May 16, 2016. Retrieved February 23, 2020 from <https://www.census.gov/topics/income-poverty/poverty/guidance/data-sources/acs-vs-cps.html>

federal poverty level; children under age 3 living with parents of various employment status; etc.). There are a few differences between the data included in the PUMS files and data available in tables and the data interactive on the US Census Bureau website. Most notably, the PUMS files include approximately two-thirds of the original ACS sample used in creating the estimates released by the Census Bureau in other products (such as the supplemental tables and data interactive). The PUMS data files also include some top-and bottom coding of information; both of these truncation measures are incorporated to assure respondent confidentiality in the microdata.

In addition to the one-year ACS PUMS files, each year the US Census Bureau also releases five-year PUMS data files that cover the most recent five years of ACS data collection, incorporating weighting adjustments to account for both the national representation and sample selection of the combined files. These five-year files lose some of the advantage of recency of data that the one-year files have, but substantially increase the precision of estimates based on calculations from the five-year file given the increased sample size. While the one-year estimates are recommended for geographies with a population of at least 65,000, the five-year estimates can be used in calculating estimates for smaller areas or for smaller subgroups.<sup>14</sup> Currently, none of the measures included in the [2021 Prenatal-to-3 State Policy Roadmap](#) are based on these 5-year data files. Upcoming Policy Impact Center analyses exploring variations across specific subgroups within and across states will require the sample size and increased precision of these five-year data files.

### [Census Population and Housing Unit Estimates](#)

The US Census Bureau's Population Estimates Program (PEP) produces annual estimates of the US resident population as of July 1 of each year, disaggregated by various demographics (e.g., age, gender, race/ethnicity, and geography). These annual estimates provide information on the current population during the ten-year gap between decennial census data collections. To estimate each year's population, the PEP begins with the most recent decennial census and then estimates the population for each year since that decennial census, incorporating information associated with population change and mobility, such as births, deaths, immigration/emigration rates, tax return data, enrollment in federal programs, etc.. Each release, or vintage, includes revised versions of all years between the decennial census and the current vintage updated to account for more recently available information. For example, the 2019 Vintage Census Population Estimates included the 2019 estimates plus revised estimates for all years between 2010 and 2019.

### [Current Population Survey](#)

The Current Population Survey (CPS), a joint project between the US Census Bureau and Bureau of Labor Statistics, is a monthly, nationally representative survey that serves as the main source for labor force data in the US.

#### *Current Population Survey - Annual Social and Economic Survey (March Supplement):*

The Current Population Survey – Annual Social and Economic Survey (CPS ASEC) is one of the annual supplements collected along with the CPS basic monthly survey collection, and is considered one of the best sources for nationally representative data on economic metrics, such as income and poverty. Like the ACS, the CPS ASEC collects information on multiple household and family measures, such as household composition and family status, employment, education, health insurance, and participation in federal programs (including the receipt of non-cash benefits).<sup>15</sup> The CPS ASEC is collected in March of each year (and is therefore sometimes referred to as the CPS

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<sup>14</sup> US Census Bureau. (n.d.). Distinguishing features of ACS 1-year, 1-year supplemental, 3-year, and 5-year estimates. As of September 10, 2020. Retrieved August 1, 2021 from <https://www.census.gov/programs-surveys/acs/guidance/estimates.html>

<sup>15</sup> US Census Bureau. (n.d.). Comparing the American Community Survey (ACS) and the Annual Social and Economic Supplement to the Current Population Survey (CPS ASEC). As of June 6, 2019. Retrieved September 1, 2021 from <https://www.census.gov/topics/population/foreign-born/guidance/cps-guidance/comparing-acs-vs-cpsasec.html>



March supplement). Data are collected from respondents regarding the prior calendar year; for example, survey participants responding to the 2020 CPS ASEC are reporting on information for the 2019 calendar year. Estimates from the CPS ASEC provide the most current and accurate national data on income and are the source of the official national poverty estimates. However, due to its smaller sample size, single year estimates are not recommended when looking at sub-national geographies. The US Census Bureau recommends combining three years of CPS ASEC data when examining state-level variation.

*Current Population Survey – Food Security Supplement (December Supplement):*

The Current Population Survey – Food Security Supplement (CPS FSS) is one of the annual supplements collected along with the CPS basic monthly survey collection and is the primary source of national data on access and spending on food and household and child food insecurity. The CPS FSS is collected in December of each year (and is therefore sometimes referred to as the CPS December supplement). Like the CPS ASEC, the US Census Bureau recommends combining three years of CPS FSS data when calculating estimates at the state-level.

### [National Child Abuse and Neglect Data System](#)

The National Child Abuse and Neglect Data System (NCANDS) collects annual, state-level data associated with suspected and substantiated incidents of child abuse and neglect, including age and demographic information associated with victims, details about the allegations, and information related to the suspected perpetrator. NCANDS data collection began in 1988 following the passing of the Child Abuse Prevention and Treatment Act of 1988 (CAPTA) and is a federally mandated and sponsored reporting system maintained by the Children's Bureau, an office of the Administration for Children & Families (ACF). Data are collected annually from states (including the District of Columbia and Puerto Rico) according to the federal fiscal year (October 1 to September 30) and are included in the annual Child Maltreatment and Child Welfare Outcomes reports to Congress. The Children's Bureau is also partnered with the [National Data Archive on Child Abuse and Neglect \(NDACAN\)](#) housed at Cornell University, a research center that manages the restricted-use versions of the agency and child files that comprise the annual data collection efforts. The Prenatal-to-3 Policy Impact Center currently holds a restricted-use license with NDACAN for the data collected from 2014 through the most recent data release.

### [National Immunization Survey – Child](#)

The National Immunization Survey – Child sample (NIS-Child) is part of the Center for Disease Control's (CDC) National Immunization Surveys and is an annual, nationally representative survey primarily focused on collecting vaccination information for children ages 19 to 35 months of age. Survey collection is coordinated by the National Center for Immunization and Respiratory Diseases (NCIRD) and initial data collection for the NIS-Child began in 1994 following several measles outbreaks across the US during the early 1990s.

Data are collected annually from parents or guardians of children ages 19 to 35 months with vaccine data verified by providers for whom the parent or guardian has given permission and contact information. Approximately 50% of the NIS-Child sample each year have vaccination information that has been verified by providers. Guidelines for determining the appropriate type and number of vaccines by age are based on recommendations from the Advisory Committee on Immunization Practices (ACIP) and the NIS-Child survey classifies children as being "up-to-date" on each vaccine based on these guidelines. As of July 2021, the NIS-Child has added a COVID section to the survey (the NIS-Child COVID Module [NIS-CCM]) designed to capture COVID-19 vaccination coverage among children in vaccine-eligible populations.

While the primary focus of the NIS-Child is collecting national and state-level data on vaccination coverage, the survey also includes items associated with child and family demographics, the child's early nutrition

history (e.g., receipt of breast milk and/or formula), and information associated with the family's receipt of early nutrition support, such as participation in the Women, Infant, and Children (WIC) program.

### [National Survey of Children's Health](#)

The National Survey of Children's Health (NSCH) is an annual survey sponsored by the Health Resources and Services Administration (HRSA) Maternal and Child Health Bureau (MCHB) and is designed to provide national and state-level information on the health and wellbeing of children, focusing on familial, school, and neighborhood contexts, health care, and general physical and emotional growth and development. Beginning in 2016, the NSCH underwent a substantial redesign, combining two previously separate surveys – the National Survey of Children's Health (NSCH) and the National Survey of Children's Health with Special Health Care Needs (NS-CSHCN).

NSCH typically recommends combining two-years of data for increased estimate accuracy and data quality for sub-national, e.g., state-level estimates. With the additional limitation of focusing primarily on the NSCH sample of children under three, we added an additional year of data to create a dataset that combined three years of data to improve the quality and reliability of estimates. With the most recent release of NSCH data (NSCH 2020 released October 4<sup>th</sup>, 2021), there are now five consecutive years of NSCH data available for analysis. Data prior to 2016 (e.g., the 2012 NSCH) cannot be combined with data from 2016 and later, due to the survey redesign.

### [Vital Statistics:](#)

The National Vital Statistics System (NVSS) is a branch of the National Center for Health Statistics (NCHS) at the Centers for Disease Control (CDC) and provides the most complete data available on births and deaths in the United States. Both birth and death certificate data are mandated by federal law to be collected and published as part of vital statistics reporting, with NCHS working collaboratively with states on the format and compilation of these data. Most data are available through the [CDC WONDER Interactive Database](#) (Wide-Ranging OnLine Data for Epidemiologic Research), with additional information provided through annual briefs and reports on various aspects of US natality<sup>16</sup> and mortality<sup>17</sup>.

### **Natality Files**

The NVSS Birth files, referred to in CDC WONDER as the Natality files, provide various birth certificate data associated with the birth (e.g., geographic location, gestational age, birthweight, type of delivery); maternal and paternal demographics (e.g., age, race, ethnicity, education); maternal health risk factors; pregnancy history and risk factors, including prenatal care; and any other pertinent medical information associated with the delivery. Data collected by NCHS from states has changed over the years, with substantial changes occurring in 2003 with the introduction of the US standard Certificate of Live Birth and again in 2016, when natality information was expanded to include additional medical and background health information. As a result of the changes in data collection, the public-use natality data are available on CDC WONDER in 4 online databases, with data available at multiple geographic levels (national, state, county, census region, etc.).

### **Mortality File**

The NVSS Mortality data includes data from death certificates for US residents and provides information on underlying cause, location, and day of death and basic demographic data (e.g., race, ethnicity, age, gender) for

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<sup>16</sup> E.g., Martin, J.A., Hamilton, B.E., & Osterman, M.J.K. (September 2021). Births in the United States, 2020. NCHS Data Brief No. 418. Hyattsville, MD: National Center for Health Statistics. DOI: <https://dx.doi.org/10.15620/cdc:109213>

<sup>17</sup> E.g., Xu, J., Murphy, S.L., Kochanek, K.D., & Arias, E. (July 2021). Deaths: Final data for 2019. National Vital Statistics Reports; Volume 70, Number 8. Hyattsville, MD: National Center for Health Statistics. DOI: <https://dx.doi.org/10.15620/cdc:106058>

the deceased. As with the birth data, this information is available at multiple geographic levels (national, state, census region, etc.). The underlying cause of death is indicated using the International Classification of Disease Tenth Revision codes (ICD-10; used for mortality data since 1999), which includes specific classification groups for the cause list for infant deaths. Mortality rate data in CDC WONDER are available as “crude” rates (out of 100,000) and as “age-adjusted” rates, which adjust the mortality rate based on an age-specific death rate. The population used for standard age-adjusted mortality rates is based on the year 2000.<sup>18</sup>

### Linked Birth/Infant Death File

In addition to providing infant death data in the mortality file, NVSS also provides linked birth/infant death records, which link birth certificate with death certificate data for deaths of children under 1 year of age following a live birth. Much of the information in the linked birth/infant death file is based on maternal information provided on the birth certificate (e.g., county of residence, race, ethnicity) and for the child based on the birth (e.g., gender, birthweight, gestational age at birth). The mortality file and linked birth/infant death files each have advantages – the mortality file provides the overall infant mortality rate for all infants residing in the US, regardless of place of birth; however the linked birth/infant death file provides better accuracy with respect to demographic characteristics such as race and ethnicity given the correlation of the death and birth certificate data.<sup>19</sup>

### Prenatal-to-3 Data Sources and Samples Sizes

Data Source	Unweighted Prenatal-to-3 Sample Size	Data Vintage	Number of Years Combined
American Community Survey (ACS)	92,118 (160 – 10,795)	2019	1
Census Population Estimates	11,534,695 (17,059 – 1,402,624)	2019	1
Current Population Survey – Annual Social and Economic Survey (CPS-ASEC)	15,013 (86 – 1,372)	2018-2020	3
Current Population Survey – Food Security Supplement (CPS-FSS)	7,267 (47 – 627)	2017-2019	3
National Survey of Children’s Health (NSCH)	10,369 (150 – 333)	2017-2019	3
National Immunization Survey – Child (NIS-Child)	33,137 (329 – 3,068)	2019	1
NIS-Child – Vaccine Sample	16,365 (159 – 1,397)	2019	1
Vital Statistics (Births)	3,791,712 (5,432 – 454,920)	2019	1

<sup>18</sup> National Center for Health Statistics, Centers for Disease Control. (n.d.). *Dataset documentation: Underlying cause of death 1999-2019*. Last reviewed March 11, 2021. Retrieved on September 1, 2021 from <https://wonder.cdc.gov/wonder/help/ucd.html#>

<sup>19</sup> National Center for Health Statistics, Centers for Disease Control. (n.d.). *Dataset documentation: Linked Birth/Infant Death Records Data Summary*. Last reviewed August 5, 2021. Retrieved on September 1, 2021 from <https://wonder.cdc.gov/wonder/help/lbd.html#>

**Notes:**

1. Unweighted state minimum and maximum sample sizes are presented italicized in parentheses below the national unweighted value.
2. For most of the data sets the unweighted prenatal-to-3 sample size refers to the number of children under age 3 in the data file. For the CPS-FSS file, the sample reflects the unweighted number of households with at least one child under age 3. The Vital Statistics data refer to births in 2019.
3. The NIS-Child sample only includes children between the ages of 19 and 35 months. The NIS-Child sample with adequate provider data for examining vaccination status is approximately half the size of the overall NIS-Child sample size.
4. The ACS sample does not include children living in group quarters.

**Suppression and Data Quality Criteria Used to Evaluate National and State-Level Estimates**

Data Source	Suppression Criteria	Data Quality Criteria	Minimum Number of Years Combined
American Community Survey (ACS)	A sample size of fewer than 30 in the denominator	A 90% confidence interval width greater than 10% OR an estimate with a standard error = .00 and weighted sample size of less than 3,000	1
Census Population Estimates	N/A	N/A	1
Current Population Survey – Annual Social and Economic Survey (CPS-ASEC)	A sample size of fewer than 30 in the denominator	A 90% confidence interval width greater than 10% OR an estimate with a standard error = .00 and weighted sample size of less than 3,000	3
Current Population Survey – Food Security Supplement (CPS-FSS)	A sample size of fewer than 30 in the denominator	A 90% confidence interval width greater than 10% OR an estimate with a standard error = .00 and weighted sample size of less than 3,000	3
National Survey of Children's Health (NSCH)	A sample size of fewer than 30 in the denominator	A 95% confidence interval width greater than 20%	3
National Immunization Survey – Child (NIS-Child)	A sample size of fewer than 30 in the denominator	A 95% confidence interval width greater than 20%	1
Vital Statistics	A sample size of fewer than 9 in the denominator	In the mortality data, rates are noted as unreliable if the count is less than 20.	1

**Notes:**

1. Estimates that were larger than the noted confidence interval width (or other data quality criteria) were noted in all [2021 Prenatal-to-3 State Policy Roadmap](#) materials.
2. To improve the quality and accuracy of state-level estimates, the CPS supplements recommend combining three years of data.
3. NSCH recommends combining a minimum of two years of data for better data accuracy. However, with the limitations of the prenatal-to-3 sample (children under age 3), a minimum of three years of data are required to obtain estimates that meet recommended data quality criteria.

## Disaggregation by Race and Ethnicity

Examining estimates by race/ethnic subgroups at the state level for our sample of interest, children under age 3 and their families, is challenging as even in the largest of the available data sets (the American Community Survey) several states have unweighted sample sizes below the recommended value. As seen in the table below, in the 2019 ACS one-year Public-Use Microdata Sample, eighteen states (including the District of Columbia) have at least one of the four race/ethnic groups of interest with an unweighted sample size that falls in the US Census Bureau's recommended suppression range.

It is also possible that even when a state and/or subgroup's sample size exceeds the recommended suppression value, the available sample size and information for that sample may not be sufficient to produce estimates with good data quality. As an example, in the 2019 ACS microdata sample nine states had estimates of children under age 3 living in near poverty (those living in families whose income was below 150% of the federal poverty level) that fell outside of the US Census Bureau's recommended confidence interval range.

### States with fewer than 30 children under age 3 (unweighted sample size) by race/ethnic group in the 2019 American Community Survey

State	White, non-Hispanic	Hispanic	Black, non-Hispanic	Other, non-Hispanic
Alaska		X	X	
Delaware		X		
District of Columbia		X		X
Hawaii			X	
Idaho			X	
Iowa			X	
Maine		X	X	X
Montana		X	X	
New Hampshire		X	X	X
New Mexico			X	
North Dakota		X	X	
Oregon			X	
Rhode Island			X	X
South Dakota		X	X	
Utah			X	
Vermont		X	X	X
West Virginia		X	X	
Wyoming		X	X	X

**Note:** This sample does not include children under age 3 living in group quarters.