

Mapping Infant-Toddler

Child Care Supply and Demand



Child Care Works



Tracking child care supply and demand is very important for understanding the child care landscape in a state and community. Mapping and measuring child care supply and demand by age ensures that resources can be targeted efficiently and equitably so all children can have access to quality child care. Child Care Resource and Referral agencies (CCR&Rs) and similar organizations have been conducting this research for decades, and much can be learned from their experiences. This paper explains strategies and best practices for mapping child care supply and demand for children ages zero to three – those who often have the lowest access to licensed child care slots – so other CCR&Rs and advocacy organizations can conduct supply and demand analysis in their states or communities.

Introduction

Every family in the United States should have access to a high-quality, affordable child care system that supports children's growth, development and educational advancement and creates positive economic impacts for families and communities. For working families, finding and paying for high-quality care for their very young children (birth to three) can be especially challenging. Birth to three is an incredibly important period of growth and development for children: brain development will never again occur as quickly as it does during this time and these children are learning rapidly. Because of this, child care is more than just workforce support – it is pivotal to children's

development. As crucial as quality child care is for infants and toddlers, finding slots for babies in these child care programs can be difficult for several reasons; Infants and toddlers require lower ratios than preschoolers. [The National Association for the Education of Young Children](#) (NAEYC) recommends a staff-to-student ratio of 1:4 (and no higher than 1:6) for infants and toddlers, while recommending 1:10 for preschoolers.

These low ratios mean more child care staff who are trained to work with infants and toddlers are needed in each program. Infant and toddler teachers should receive training on caring for young learners safely, while helping them develop both their brains and their bodies. Due to the [low wages](#) of child care staff, finding and keeping these qualified infant-toddler teachers can be a challenge for child care providers and directors. All of these factors combined make child care for infants and toddlers difficult to access and [very expensive](#).

With the reauthorization of the Child Care and Development Block Grant (CCDBG) in 2014, states are required to track licensed child care supply and demand and target resources where the supply is insufficient. This includes increasing and improving the supply of quality child care for special populations, including infants and toddlers and children with disabilities. Additionally, the Child Care Development Fund (CCDF) Final Rule allows state agencies to dedicate funds to CCR&Rs to collect data and provide information on the supply and demand

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for child care services. For many CCR&Rs and states, this means tracking the licensed capacity of programs for children ages 0-5 and using U.S. Census Bureau data to estimate the number of children potentially needing child care. Since states license child care programs for either ages 0-5 or 0-12, tracking the number of infants in a program can be very difficult.

The ability to collect data on infants and toddlers is extremely important in ensuring that resources are being targeted effectively and equitably for this age group in child care. Many states acknowledge infant-toddler data collection is a problem, but struggle with finding solutions at the state level, since states typically license child care providers for the maximum number of children at any age they can serve. CCAoA has engaged with many CCR&Rs who run into this problem. CCR&Rs, and organizations who perform similar functions, are uniquely positioned for this type of analysis as many of them are in contact with all licensed child care providers through trainings, referrals, quality improvement, data collection and other services providers and families may need. Several CCR&Rs are interested in conducting this work and have been able to track data this way – some on a statewide level and some on a local level. In May 2018, CCAoA released a series of story maps showing the gaps in infant-toddler supply and demand by zip code in four states. This paper walks through different methodologies for states to consider, several of the lessons learned through these infant-toddler mapping processes, and strategies for CCR&Rs, advocacy organizations and similar groups in the child care field who are interested in mapping the child care landscape in their state or region.

Mapping Process and Lessons Learned

Infant-Toddler Child Care Demand

Calculating the number of infants and toddlers potentially needing child care is challenging.

Research has shown that young children are the group [most often missed](#) in the census, which can have serious implications for children under five. There are various [reasons](#) for this. Young children are more likely to live in households that are considered “hard to count,” such as rental properties, or households with a large number of people, than any other group counted in the census. Undercounts in the census can lead to discrepancies in funding distributions at federal, state and local levels. These discrepancies can cause major concerns for children and families – especially for child care subsidy assistance, Early Head Start and Head Start, TANF and other government programs. This undercount also makes measuring child care supply and demand more challenging, as the demand that is able to be estimated is likely lower than reality.

To map child care demand as children under six with all parents in the labor force, CCAoA uses American Community Survey table B23008: “Age of Own Children under 18 Years in Families and Subfamilies by Living Arrangements by Employment Status of Parents, 5-Year Estimates.” By using this table to approximate demand, it is assumed that children with all parents – single or married – in the labor force will need licensed child care while their parents are at work. This analysis does not account for children who may be in the care of family, friends or neighbors who are often unlicensed and may not report child care capacity to CCR&Rs or state licensing agencies. It is also assumed that parents are working during the same time that child care programs in their zip code or county are open, and therefore often doesn’t account for parents who work during the early morning or night shifts. Additionally, by only being able to account for all children under six with parents in the labor force, it is more difficult to account for different ages that are served by programs in a given zip code or county (such as care for children under three years old). This difficulty led CCAoA and other organizations to begin to take steps to measure the supply and demand for children under 3 years old.

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Method 1: Women who gave birth by labor force status

In order to estimate the demand for infants and toddlers, CCAoA used the Census Table B13012: "Women 16 to 50 Years Who Had a Birth in the Past 12 Months by Marital Status and Labor Force Status, 5-Year Estimates."

Using estimates for years 2013-2015, CCAoA approximated the number of children under three years old in each zip code in four states. This table was used to approximate demand because the census does not report data for children under three years old with parents in the workforce. Several assumptions have to be made and shortcomings acknowledged by using this data set as well. First, it is assumed that every live birth to a woman in the labor force between the years 2013-2015 results in a child needing licensed child care, meaning this doesn't account for children dying prematurely. Second, by counting women instead of children, children of women who had multiple births (e.g., twins or triplets) are likely missing from this data set. Third, fathers are not accounted for in the dataset. This matters especially when fathers leave the workforce to take care of children, which has become [more common](#) in recent years. Finally, it is assumed that women who were in the labor force when they gave birth, are still in the labor force at the time of analysis.

Method 2: Applying a workforce percentage

Other organizations calculate infant-toddler demand differently. [Let's Grow Kids](#) (LGK), a Vermont-based advocacy organization, releases a bi-annual report about the infant-toddler landscape in their state called [Stalled at the Start](#). To calculate the demand for infant care, LGK uses data from the Vermont Department of Health for the number of children under three years old. They then take the percentage of children under 6 with all parents in the labor force (70.1%) and then apply that percentage to the total number of three year olds to estimate the number of children under three likely to need child care. A similar assumption has to be made when using this method as well. It is assumed that children under 3 years old are in child care at the same rate as children under 6 years old, with all

parents in the labor force, which may not be true due to the much higher cost of infant child care compared to 3-and 4 -year-old care.

Infant-Toddler Child Care Supply

Method 1: Community-level research utilizing partnerships and existing relationships

Utilizing community resources and partnerships to estimate infant-toddler child care supply can be extremely valuable. When both partners are interested in working towards finding a common solution, such as gaining a better understanding of the child care landscape, resources can be effectively merged to create better outcomes for the community.

Child & Family Resources (CFR) in Arizona leveraged existing relationships with the Arizona Association for the Education of Young Children (AAEYC) and Arizona State University (ASU) to conduct a study on child care availability in Tempe, AZ – where ASU is located. CFR, the single statewide CCR&R in Arizona, interviewed each child care program in Tempe to gain information about infant-toddler care:

- Licensed capacity
- Desired capacity
- Full-time vacancies
- Part-time vacancies
- Group size
- Minimum age serve
- Maximum age served

Through this research, CCAoA and CFR found that one in three infants in Tempe do not have access to licensed child care. Similar research will be conducted in Pima County, which encompasses Tucson and a large portion of the United States-Mexico border.

Method 2: Representative sample via survey

Surveys can be an effective way to collect a representative sample that can inform the child care landscape for infants and toddlers. Conducted either via phone or email, surveys can help agencies quickly determine the number of infants and toddlers, vacancies and ages served in each program that responds.

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It is important for those creating and conducting the survey to be mindful of:

- The differences in program types and classifications,
- Distributing the survey in multiple languages,
- Equitable community representation and culturally awareness, and
- Adequate respondents to make the survey representative of the whole community, county or state.

Children & Families First, the single statewide CCR&R in Delaware reached out to providers across their state to determine how many infants and toddlers are in different types of programs in different communities. This survey was conducted via phone to providers across the state to ensure they had an accurate picture of the child care supply landscape for infants and toddlers. Through this research, they found that in licensed programs that accept infants and toddlers, approximately 40 percent of the licensed capacity of child care centers and approximately 50 percent of the licensed capacity of family child care homes is going to infants and toddlers. These percentages were able to be applied across Delaware to providers that indicated that they accept infants and toddlers.

Method 3: Leveraging state-level partnerships

Strong state-level partnerships are vital to obtaining accurate data. Child care data is often fractured and separated into different agencies and organizations. Working at the state-level with licensing, CCR&Rs, training registries and advocacy groups can improve the overall quality of the data, which will then improve the overall quality of the maps.

Method 4: Ratios and licensing requirements

To be in compliance with the CCDF Final Rule, states are [required](#) to describe their standards for group sizes and child-to-staff ratios in their CCDF State Plan. These definitions can provide insight into the number of infants and toddlers that are potentially in a program, based on the licensed capacity and the number of staff members. When this information is collected by CCR&Rs, in addition to the licensed capacity information already collected, estimating the approximate number of infants, toddlers and preschoolers can be possible.

Method 5: Desired capacity and enrollment data

Data sources other than licensed capacity can be effective ways to map infant and toddler child care supply. Licensed capacity is usually the most accessible way to estimate child care supply, because all licensed child care programs are required to report it. However, this may not paint the best picture of the true number of children enrolled in a program. If CCR&Rs or state agencies are able to track a provider's desired capacity of their child care program, the supply of child care slots would be more accurate, since desired capacity more accurately depicts how many infants and toddlers a provider is willing or able to accept. Similarly, a more accurate picture of the daily number of children in child care can come from CCR&Rs working with providers to track enrollment data by age groups, along with their desired and licensed capacities. Working with enrollment data can be challenging as it shows "point in time" and not the full picture of a child care capacity. This data could potentially be misleading if one were trying to measure this data over time, unlike licensed capacity, which is more set in policies, or desired capacity, which depicts the provider's desired circumstances.

thread Alaska, the managing statewide CCR&R in Alaska, partnered with the **Child Care Program Office (CCPO)**, the state administrator's office, to obtain the most accurate data possible in order to estimate infant-toddler supply by borough. The combination of thread's vision and relationship with CCAoA and with the CCPO's full-time data analyst, made the supply data more accurate and the map much stronger. Analyses included assessing the current enrollment, group size and number of staff to estimate the number of slots for each age group served for all providers in Alaska.

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Recommendations and Strategies for Mapping

- 1. Track data by ages in programs and have clear definitions for infants, toddlers and preschoolers in your state.** Data standardization across a state or region is extremely important. Having definitions of ages that are consistent across settings improves both the quality and the usability of the data. When CCR&Rs or state agencies can track slots by age in programs, calculating the supply of child care slots for children under 3 may require less data manipulation and calculations.
- 2. Collaborate with multiple partners in states and communities.** CCAoA relies heavily on partnerships with CCR&Rs and other state-level organizations during the entire mapping process. CCR&Rs and their partners provide “on-the-ground” knowledge that gives context to the issues the data may be highlighting. Bringing in additional partners and thought leaders may also provide access to additional data or other data sources that may not be in the CCR&Rs purview (see Alaska example).
- 3. Prepare for and create multiple iterations of the map going back and forth with partners and thought leaders.** Once you have partners engaged, the mapping process can take time to ensure a map meets the needs of state partners. Two-way communication between partners can ensure that data and analysis is accurate, map styling is appealing (points are not too big or too small, colors are appealing to the eye, map content is clear and concise, etc.), and accompanying text or talking points align with the data and state knowledge. CCAoA has found that utilizing screen sharing platforms can be valuable in walking partners through maps, rather than simply sending it off via email without context.
- 4. Collect data on the number of teachers and assistants in a program to track the supply of infants and toddlers based on ratios and group size.** If CCR&Rs and state agencies are able to collect data about the number of teachers and assistants in a program, information about ratios and group size can be used more effectively to track the number of children in each group. For example, if a program has two infant teachers in a state with a ratio of 1:4 for infants, it can be inferred that there are a maximum of eight infants in that program. Without the staff data, it would be much harder to estimate the number of infants in that program.
- 5. Utilize state or county data sources to estimate demand.** As stated above, there are a number of concerns when using census data to count young children. Being able to access more localized data sources, such as county- or state-level, might be able to provide a better estimate of the number of families in need of licensed child care. Bringing additional partners and thought leaders into the project can sometimes help provide access to any additional sources that might not be readily available.
- 6. Advocate for more funding to improve data collection practices.** Good data collection is so important for accurate child care supply analysis. This analysis cannot happen without quality child care supply data. For CCR&Rs or similar organizations, consider including data collection practices—such as updating software to include Esri products, Tableau, QGIS or others; hiring a GIS analyst, data technician or database administrators; or hiring additional staff to collect more data—in grant applications or foundation proposals as a way to improve the quality of child care data. Better child care data can inform supply and demand analysis, training opportunities and other services that are required through CCDBG and can help improve the child care landscape in the service area.

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7. If you can't map infant/toddler supply and demand now, begin to strategize ways that you could in the future. Think about potential barriers to mapping infant-toddler supply and demand currently, and begin to strategize ways to overcome these barriers. Bringing in additional partners who may have the resources needed, such as a local university that has a GIS program, can help overcome the cost and potential learning gap of mapping child care supply. Improving data collection practices to include collecting desired capacity, infant-toddler child care slots and the number of staff members in a program can help expedite the data analysis process and will likely make leveraging partnerships with other organizations easier, as CCAoA experienced with Arizona. Additionally, bringing awareness to the challenges of infant-toddler data collection can attract attention to the issue through media, legislators and foundations who may be able to support these efforts through funding.

ZERO TO THREE created the *Think Babies*™ campaign to make the potential of every baby a national priority. Funding partners for *Think Babies* include the Robert Wood Johnson Foundation, which supports the campaign's public education aspects, and the Perigee Fund, which supports the campaign's public education and advocacy aspects. Learn more at: <https://www.thinkbabies.org>.



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