REINVESTMENT FUND

Investing in Virginia's Future: An Access to Early Education Toolkit for Ready Region Southeastern

Prepared by **REINVESTMENT FUND**

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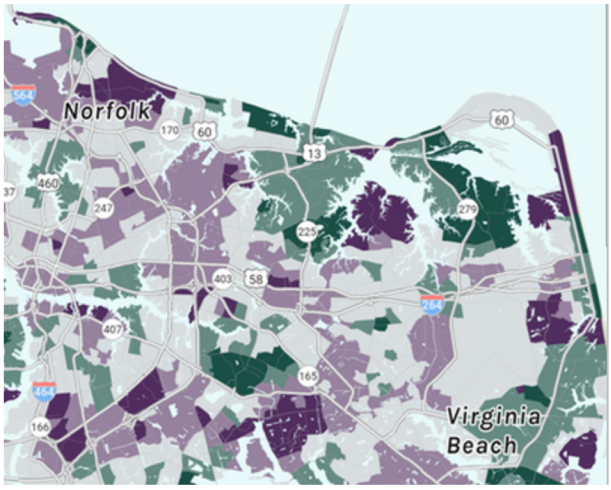

RESEARCH CONDUCTED BY

Policy Solutions at Reinvestment Fund

Jacob L. Rosch, Senior Policy Analyst

Sara Patenaude, Ph.D., Southeast Director

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INTRODUCTION

In 2025, Reinvestment Fund (RF) partnered with Minus 9 to 5 and the Virginia Early Childhood Foundation (VECF) to conduct an Early Childhood Care and Education (ECCE) gap analysis across Ready Region Southeastern.

Over the course of the project, the RF team worked with Minus 9 to 5 to understand and describe ECCE supply, demand, and shortages across Ready Region Southeastern. The analysis was conducted in close consultation with local stakeholders and designed to support efforts to improve access to high-quality early learning for children and families across the region. In addition, the RF team hosted sessions to develop specific strategies to address these shortages. RF also developed an ECCE Data Analyst Tool Kit (see Appendix C) for use by VECF's Ready Region leads, supporting their ability to conduct ongoing assessments of access to care in their geographies.

Ready Region Southeastern is made up of three subregions: South Hampton Roads (comprised of the independent cities of Chesapeake, Norfolk, Portsmouth, and Virginia Beach); Western Tidewater (comprised of Isle of Wight and Southampton counties and the independent cities of Franklin and Suffolk); and Eastern Shore (comprised of Accomack and Northampton counties).

The following report includes a regional report for each of these subregions detailing the existing supply, demand, and shortages of availability within the subregion as well as the availability of two specific types of care, infant/toddler care and subsidized care. The report also includes a discussion of the strategy sessions held with key community stakeholders to identify concrete strategies that are tailored to the needs of Ready Region Southeastern.

METHODS

The objective of the ECCE gap analysis is to measure and map the availability of ECCE across Ready Region Southeastern to help stakeholders understand how and where to support supply building and other activities and investments. This section provides a brief overview of the methods used to complete the gap analysis. **See Appendix A for additional detail.**

The analysis begins by measuring supply and demand at a precise geographic level. Supply was measured by combining multiple ECCE databases to create a single unique list of all childcare providers in the region who serve children under age 5, whether year-round or during the school year. Providers that do not serve children under age 5 (defined as sites where the minimum age served was 4 years 9 months or higher) and short-term programs including summer camps were excluded. For each provider, their location was recorded and mapped, and their service capacity was estimated from licensed capacity records. Licensed capacity represents the maximum number of children a program can serve. While licensed capacity likely overstates the true ECCE capacity in the area, it is the most consistent measure available and a useful proxy for overall supply.

To estimate demand for ECCE, the RF analysis examined both the population of children under five and the location of jobs employing parents across the region. Although most parents prefer to use childcare near their home some parents bring their children to sites near, or on the way to, work. The RF demand calculation considers both factors to estimate the total number of potential childcare customers across the region.

Estimates of supply and demand were calculated for each census block group in Ready Region Southeastern. Block groups are small geographic areas—generally 4 to 5 city blocks in an urban area. Estimating supply and demand at this level allows the analysis to explore access both within and between neighborhoods and localities.

To measure access, RF conducted a relative shortage analysis that uses estimates of supply and demand to identify the census block groups in each submarket where the availability of care is low and the need for additional supply is great. This estimate takes into consideration that not all families use full-time or non-parental care by adjusting expected levels of supply in relation to demand and to subregional (i.e., submarket) averages.

For each submarket RF estimated the overall access to care, access to care for infants and toddlers, and access to publicly funded care.

For more information about the analysis and methods used in this report, see Appendix A.

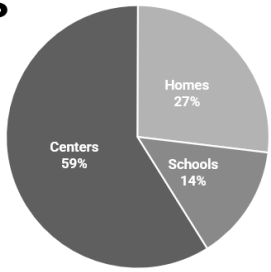
South Hampton Roads: Demand, Supply, and Access to ECCE

The South Hampton Roads section of Ready Region Southeastern is comprised of the independent cities of Chesapeake, Norfolk, Portsmouth, and Virginia Beach. The area is the population center in Ready Region Southeastern, with a population of 1,040,555 and median family income of $100,500.[1]

South Hampton Roads: ECCE Supply

711 Providers

Provider Types



Licensed Capacity

*Program Participation**

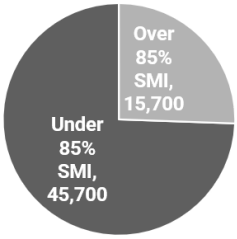
Child Care Subsidy Program	283
Virginia Preschool Initiative	67
VECF Mixed Delivery	11
Head Start/Early Head Start	15
Military Assistance	193

**Providers may participate in multiple programs*

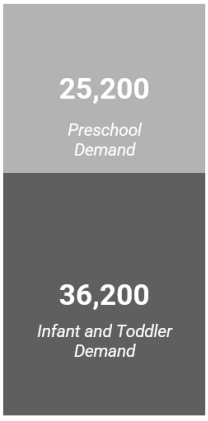
South Hampton Roads: ECCE Demand

61,400 Children

Family Income compared to State Median Income (SMI)



ECCE Demand by Age



Family Characteristics

Language: 18% of Children have Parents that Do Not Speak English at Home

Working Parents: 70% of Children Have Working Parents

Remote Work: 17% of Children Have Parents Working From Home

[1] Total Population and Median Family Income from five-year ACS data accessed in IPUMS USA (2023).

South Hampton Road: Access to ECCE (All Ages and Programs)

Supply of Care

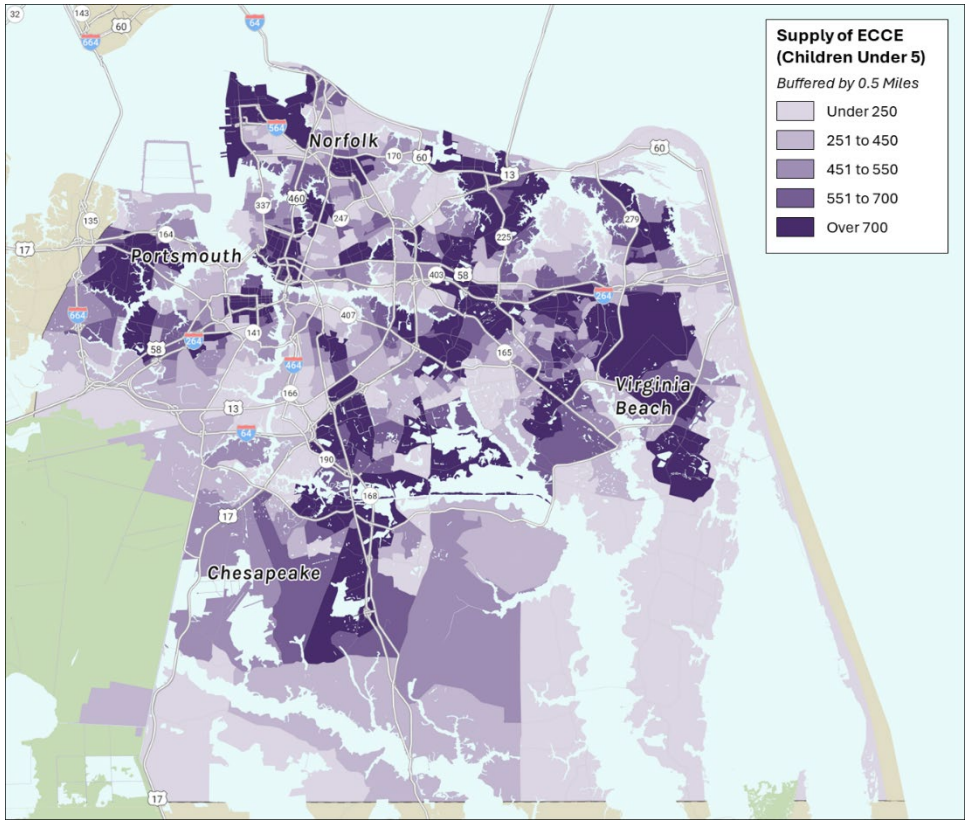
South Hampton Roads contains an estimated 711 ECCE providers, which include center-based, licensed home-based, and school-based sites. These providers have a total licensed capacity of 49,400. While licensed capacity likely overstates the true ECCE capacity in the area, it is a useful proxy for overall supply.

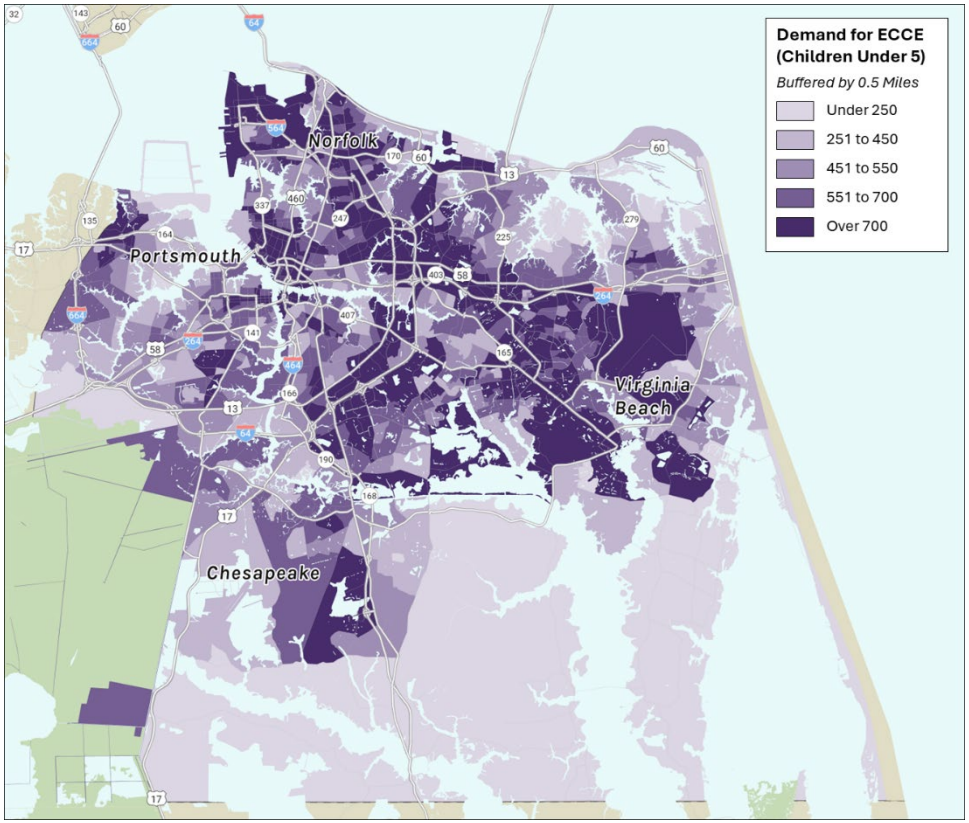
The map on the left illustrates the location of supply, which is concentrated in several areas around the subregion.

Demand for Care

South Hampton Roads has an overall demand for 61,400 seats. This figure represents the maximum potential demand for care in the subregion. This estimate includes children under five who live in the area, and children who could commute to the area for care near their parents' place of work.

The map on the right illustrates the location of demand, which is predominantly in Norfolk and the eastern portion of the subregion.

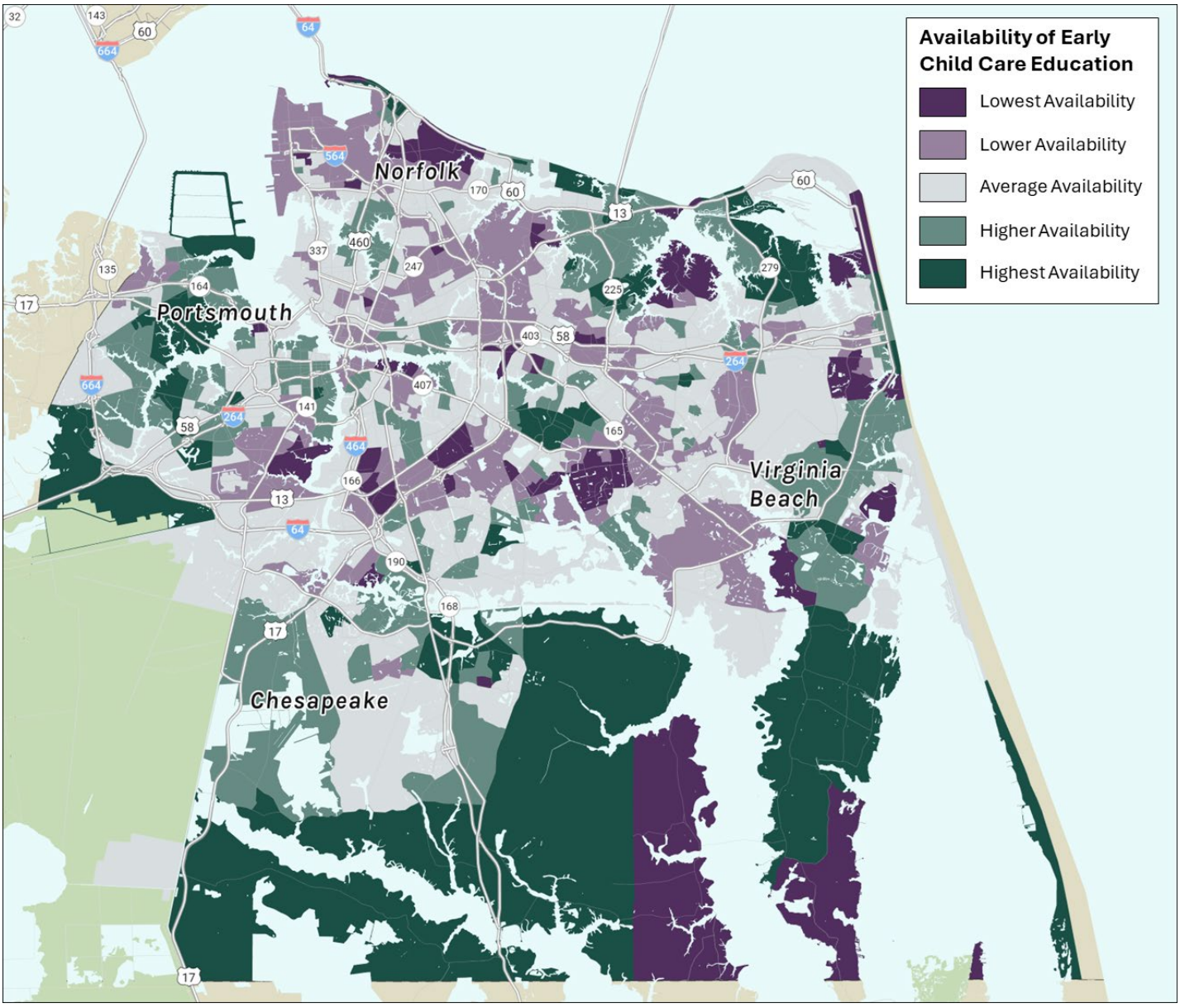




South Hampton Roads: Availability of Care

With a supply of 49,400 seats and a demand for 61,400 seats, the South Hampton Roads subregion has an absolute shortage of 12,000 seats. These estimates suggest there are enough seats for roughly 80% of children under the age of five.

The map below illustrates how the availability of care varies across South Hampton Roads. Areas shaded in green have the highest availability of seats. Many of the areas shaded in dark green have more ECCE capacity than demand for care. Areas in purple shades have the lowest availability of care. In these areas, demand for care far exceeds supply. Shortages are concentrated north of Norfolk and the area west of Virginia Beach.



South Hampton Roads: Access to Publicly Funded Care

Supply of Publicly Funded Care

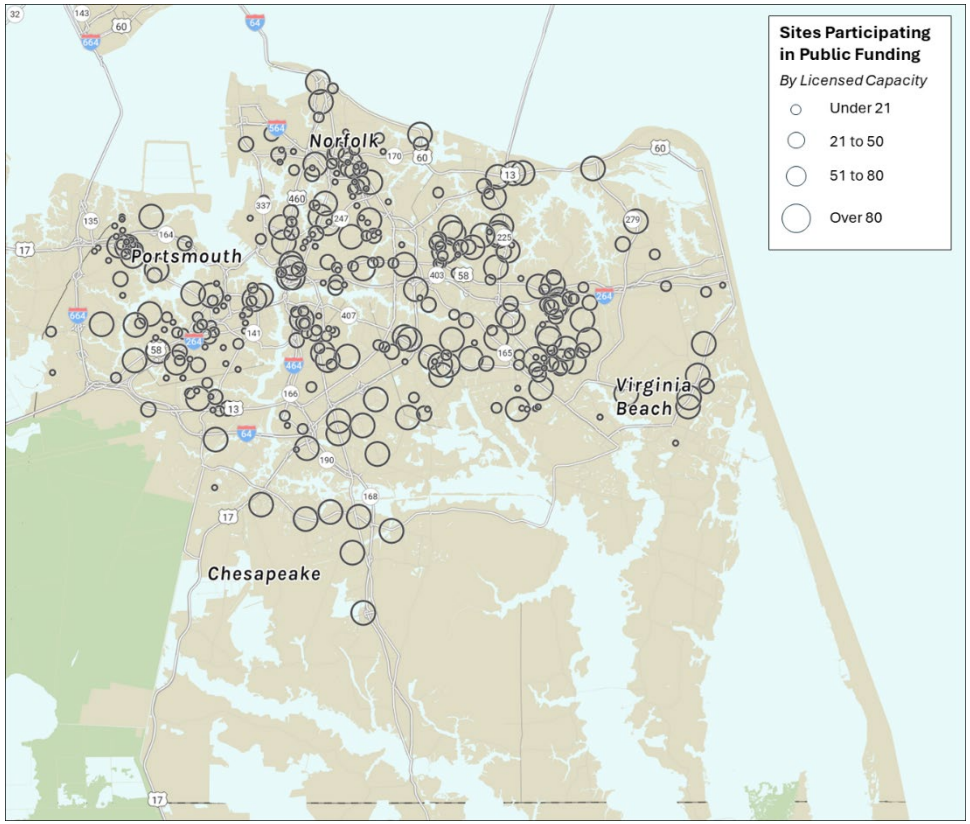
In South Hampton Roads, 62% of ECCE providers participate in at least one publicly funded program, with the most common being the Child Care Subsidy Program (CCSP), Military Care, Virginia Preschool Initiative (VPI), and Head Start.

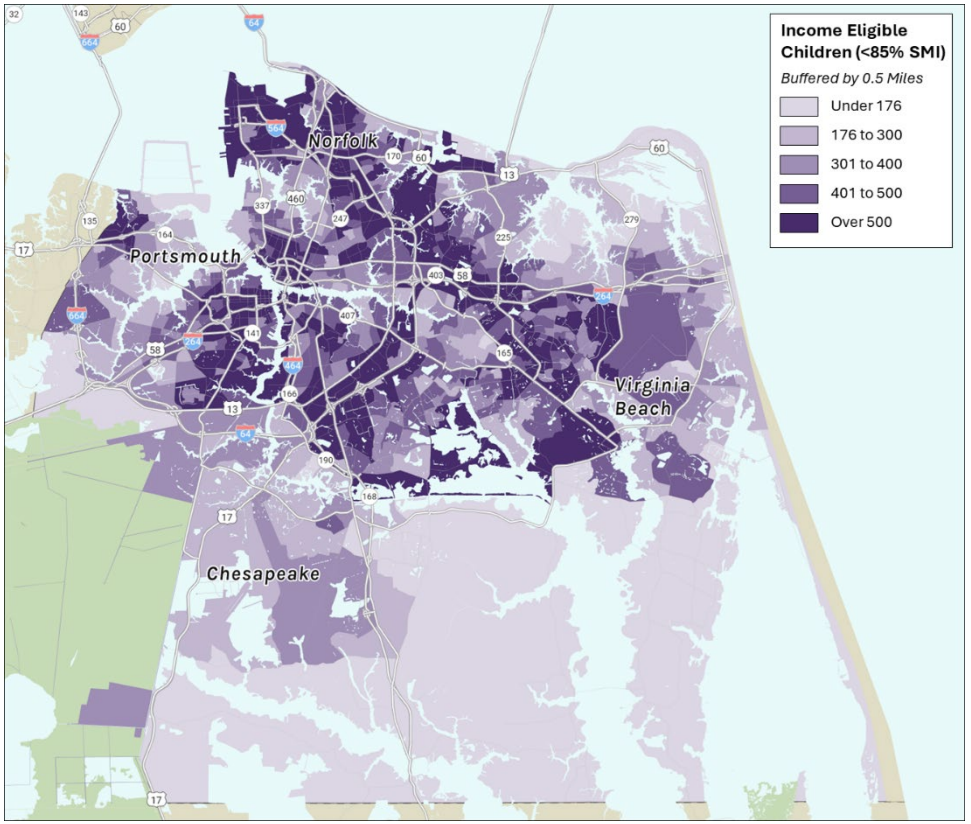
The map on the left illustrates the location and size of providers that participate in programs with income eligibility criteria (i.e., CCSP, VPI, VECF Mixed Delivery, or Head Start/Early Head Start). Most of the ECCE providers participating in these programs are concentrated near Portsmouth, Norfolk, and west of Virginia Beach.

Families that are Income Eligible for Public Programs

In South Hampton Roads, an estimated 45,700 children live in families that earned less than 85% of the Commonwealth's median income and are income eligible to participate in programs like CCSP, VPI, Mixed Delivery, or Head Start/Early Head Start.

The map on the right illustrates where these families live. The highest concentration of income eligible families is in the center of the subregion.

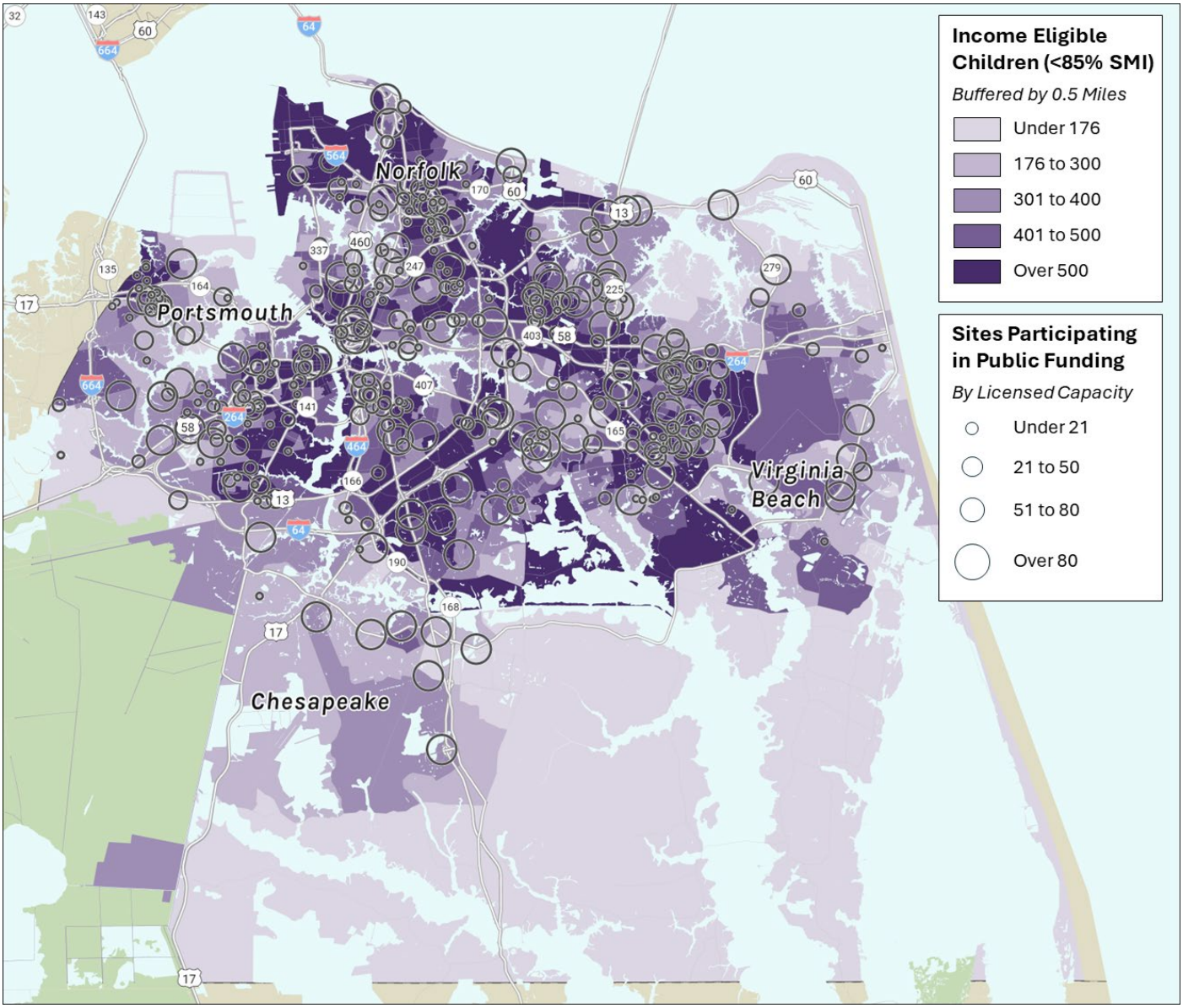




South Hampton Roads: Availability of Publicly Funded Programs

The analysis of availability focuses on the four largest publicly funded programs: VPI, CCSP, Mixed Delivery, and Head Start/Early Head Start. In FY 2025, there were 45,700 children who were income-eligible to participate in these programs, but just 8,200 slots for children were available.[2] These estimates suggest that only 18% of income-eligible children were able to enroll in these programs.

The map below shows the location of children who are income-eligible to participate in these publicly funded programs and the location of providers who participate in them. Many of the areas with high concentrations of income eligible children in South Hampton Roads had larger providers that participated in publicly subsidized programs. However, some areas near Norfolk and west of Virginia Beach appear underserved.



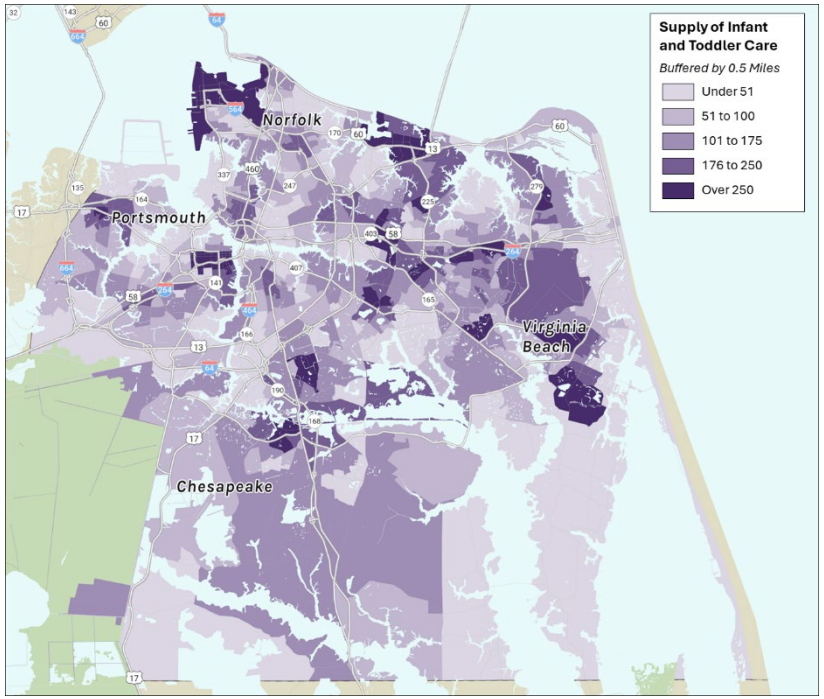
[2] Income-eligible children calculated from five-year ACS data access in IPUMS USA (2023) with VECF Ready Regions ECCE Supply/Demand Data Dashboard

South Hampton Roads: Access to Infant and Toddler Care

Supply of Infant and Toddler Care

Across South Hampton Roads, 69% of ECCE providers are licensed to serve infants and toddlers (children under 36 months old). In part because infant and toddler care is more expensive to provide than care for older children, most providers devote only a portion of their total capacity to infants and toddlers. A 2024 survey of providers in Ready Region Southeastern asked providers about the share of their enrollment devoted to infants and toddlers. South Hampton Roads providers' responses suggest that the subregion has a supply of roughly 10,200 infant and toddler seats.

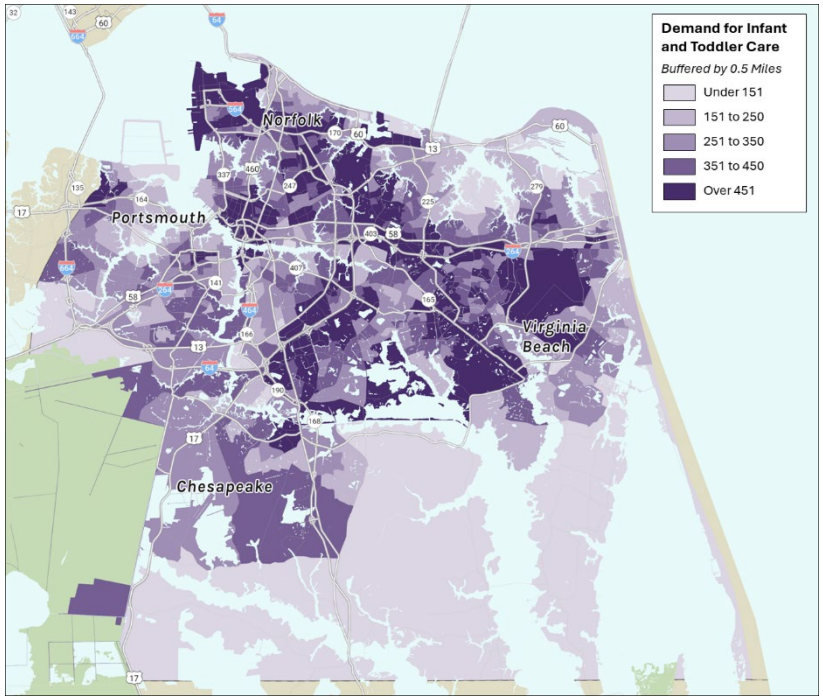
The map below illustrates the location of South Hampton Roads' infant and toddler supply. Capacity for infants and toddlers is low everywhere. The highest concentrations are in Norfolk and south of Virginia Beach.



Demand for Infant and Toddler Care

South Hampton Roads has an overall demand for 36,200 seats for infants and toddlers. This figure represents the maximum potential demand for care in the subregion. This estimate includes children under 36 months who live in the area, and children who could commute to the area for care near their parents' place of work.

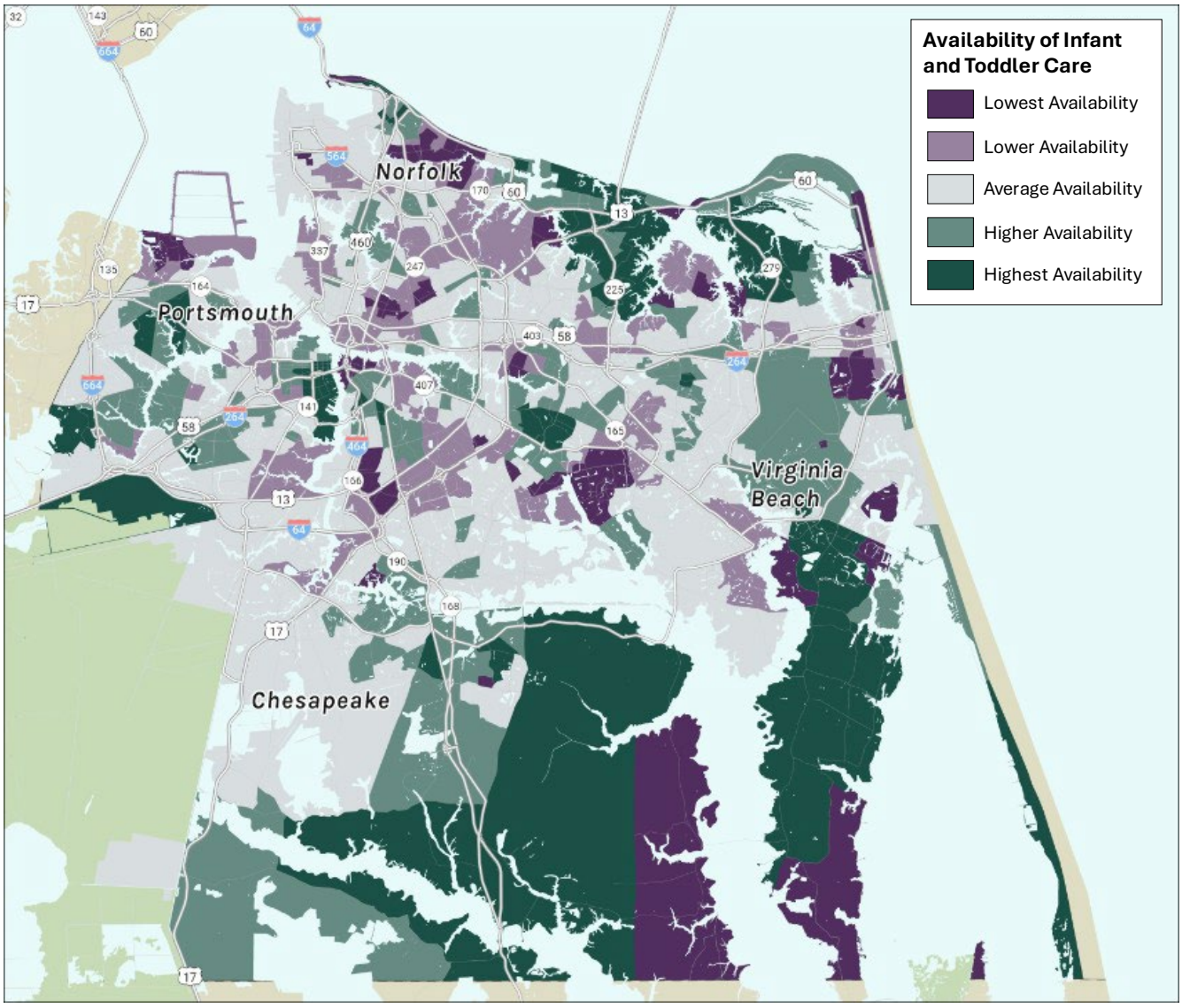
The map on the right illustrates the location of infant and toddler demand, which is concentrated in the center of the subregion.



South Hampton Roads: Availability of Infant and Toddler Care

With a supply of 10,200 infant and toddler seats and a demand for 36,200 seats, South Hampton Roads has an absolute shortage of 26,000 seats. These estimates suggest that the subregion only has enough capacity for roughly 28% of infants and toddlers.

The map below illustrates how the availability of care varies across South Hampton Roads. The areas shaded in dark green have the highest amount of supply relative to demand, enough supply for 86% of children on average. Areas in purple shades have the lowest availability of care. In these areas demand for care far exceeds supply. Shortages are located across the central and northwestern portion of the subregion.



Western Tidewater: Demand, Supply, and Access to ECCE

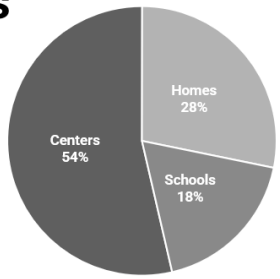
The Western Tidewater section of Ready Region Southeastern is comprised of Isle of Wight and Southampton counties and the independent cities of Franklin and Suffolk. The area has a population of 162,282 and median family income of $106,730. [3]

Western Tidewater: ECCE Supply

110 Providers

Licensed Capacity

Provider Types



*Program Participation**

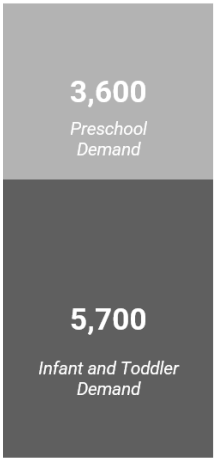
Child Care Subsidy Program	40
Virginia Preschool Initiative	20
VECF Mixed Delivery	3
Head Start/Early Head Start	6
Military Assistance	1

**Providers may participate in multiple programs*

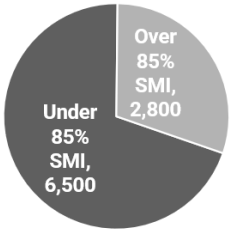
Western Tidewater: ECCE Demand

9,300 Children

ECCE Demand by Age



Family Income compared to State Median Income (SMI)



Family Characteristics

Language: 7% of Children have Parents that Do Not Speak English at Home

Working Parents: 67% of Children Have Working Parents

Remote Work: 15% of Children Have Parents Working From Home

[3] Total Population and Median Family Income from five-year ACS data accessed in IPUMS USA (2023).

Western Tidewater: Access to ECCE (All Ages and Programs)

Supply of Care

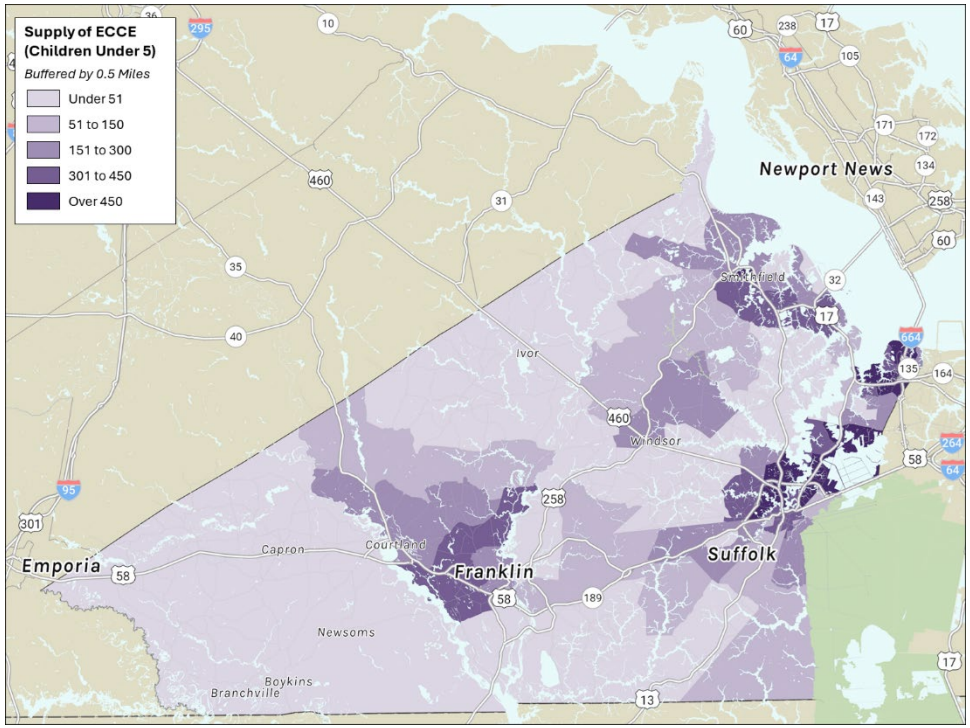
Western Tidewater contains an estimated 110 ECCE providers, which includes center-based, licensed home-based, and school-based sites. These providers have a total licensed capacity of 7,100. While licensed capacity likely overstates the true ECCE capacity in the area, it is a useful proxy for overall supply.

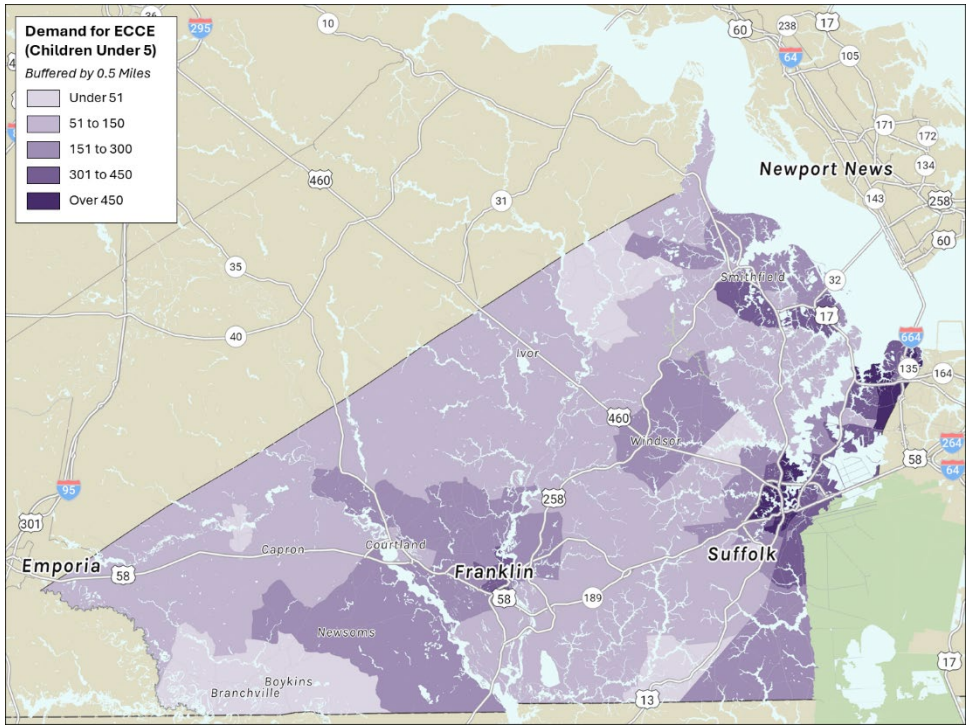
The map on the left illustrates the location of supply, which is concentrated in the eastern portion of the subregion in central and northeastern Suffolk.

Demand for Care

Western Tidewater has an overall demand for 9,300 seats. This figure represents the maximum potential demand for care in the subregion. This estimate includes children under five who live in the area, and children who could commute to the area for care near their parents' place of work.

The map on the right illustrates the location of demand, which is concentrated in the eastern portion of the subregion in central and northeastern Suffolk.

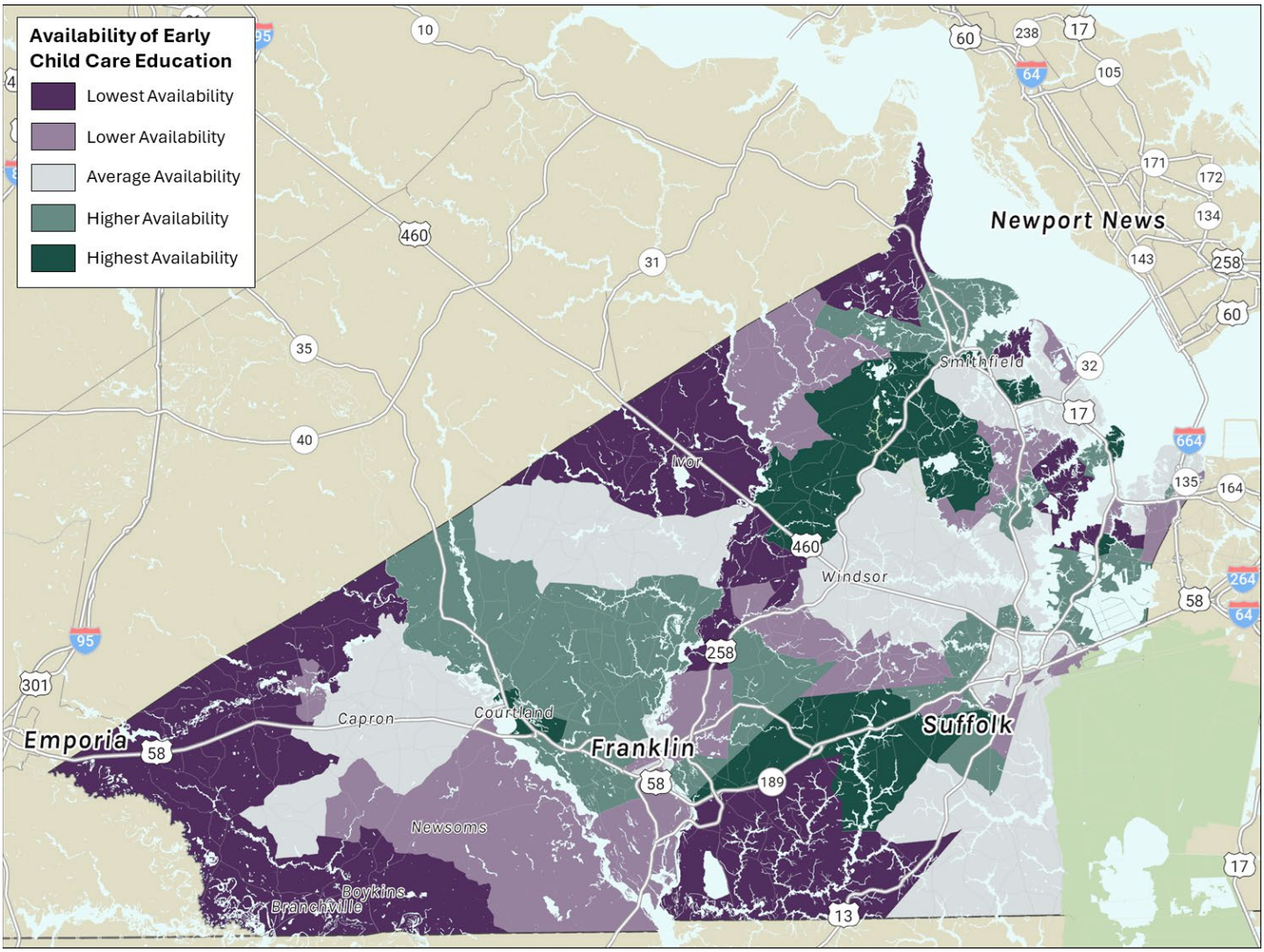




Western Tidewater: Availability of Care

With a supply of 7,100 seats and a demand for 9,300 seats, the Western Tidewater subregion has an absolute shortage of 2,200 seats. These estimates suggest there are enough seats for roughly 76% of children under the age of five.

The map below illustrates how the availability of care varies across the Western Tidewater. Areas shaded in green have the highest availability of seats. Many of the areas shaded in dark green have more ECCE capacity than demand for care. Areas in purple shades have the lowest availability of care. In these areas, demand for care far exceeds supply. Shortages are concentrated near the northeastern portion of the subregion and along the southern and western borders of the subregion.



Western Tidewater: Access to Publicly Funded Care

Supply of Publicly Funded Care

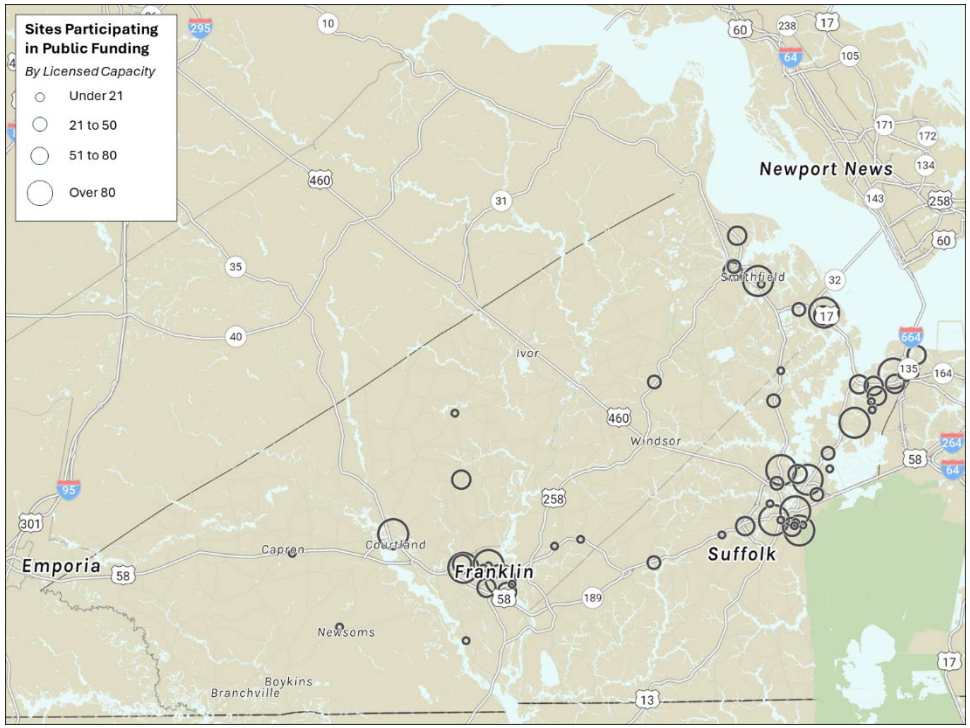
In Western Tidewater, 62% of ECCE providers participate in at least one publicly funded program, with the most common being the Child Care Subsidy Program (CCSP), Military Care, Virginia Preschool Initiative (VPI), and Head Start.

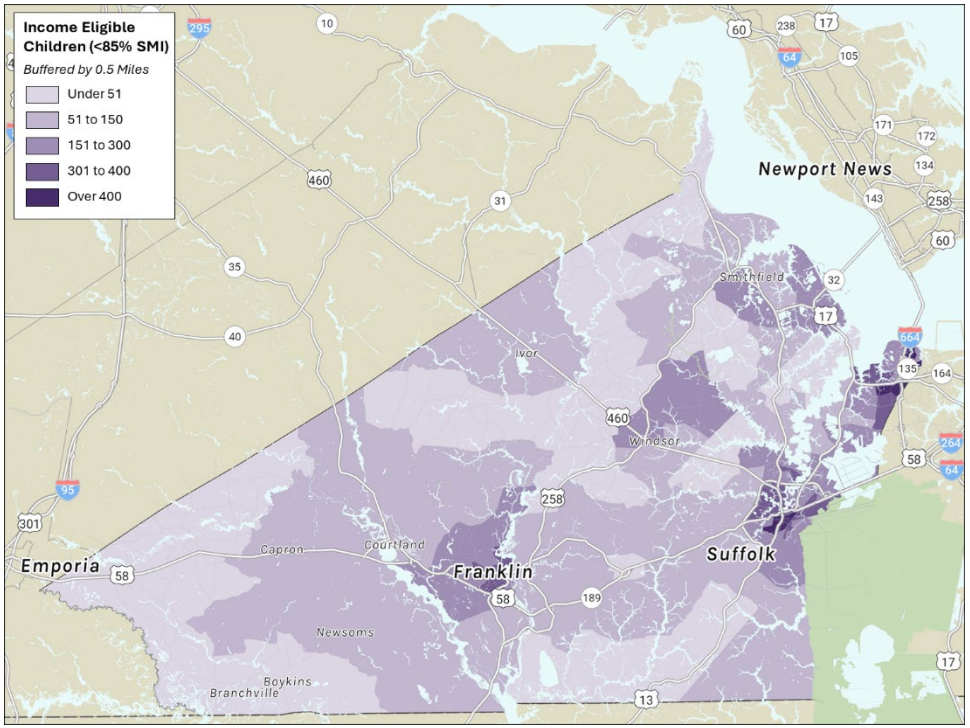
The map on the left illustrates the location and size of providers that participate in programs with income eligibility criteria (i.e., CCSP, VPI, VECF Mixed Delivery, or Head Start/Early Head Start). Most of the ECCE providers participating in these programs are concentrated in Franklin and in central and northeastern Suffolk. the areas west of Portsmouth, Suffolk and Franklin.

Families that are Income Eligible for Public Programs

In Western Tidewater, an estimated 6,500 children live in families that earned less than 85% of the Commonwealth's median income and are income eligible to participate in programs like CCSP, VPI, Mixed Delivery, or Head Start/Early Head Start.

The map on the right illustrates where these families live. The highest concentrations of income eligible families are in Franklin and in central and northeastern Suffolk.

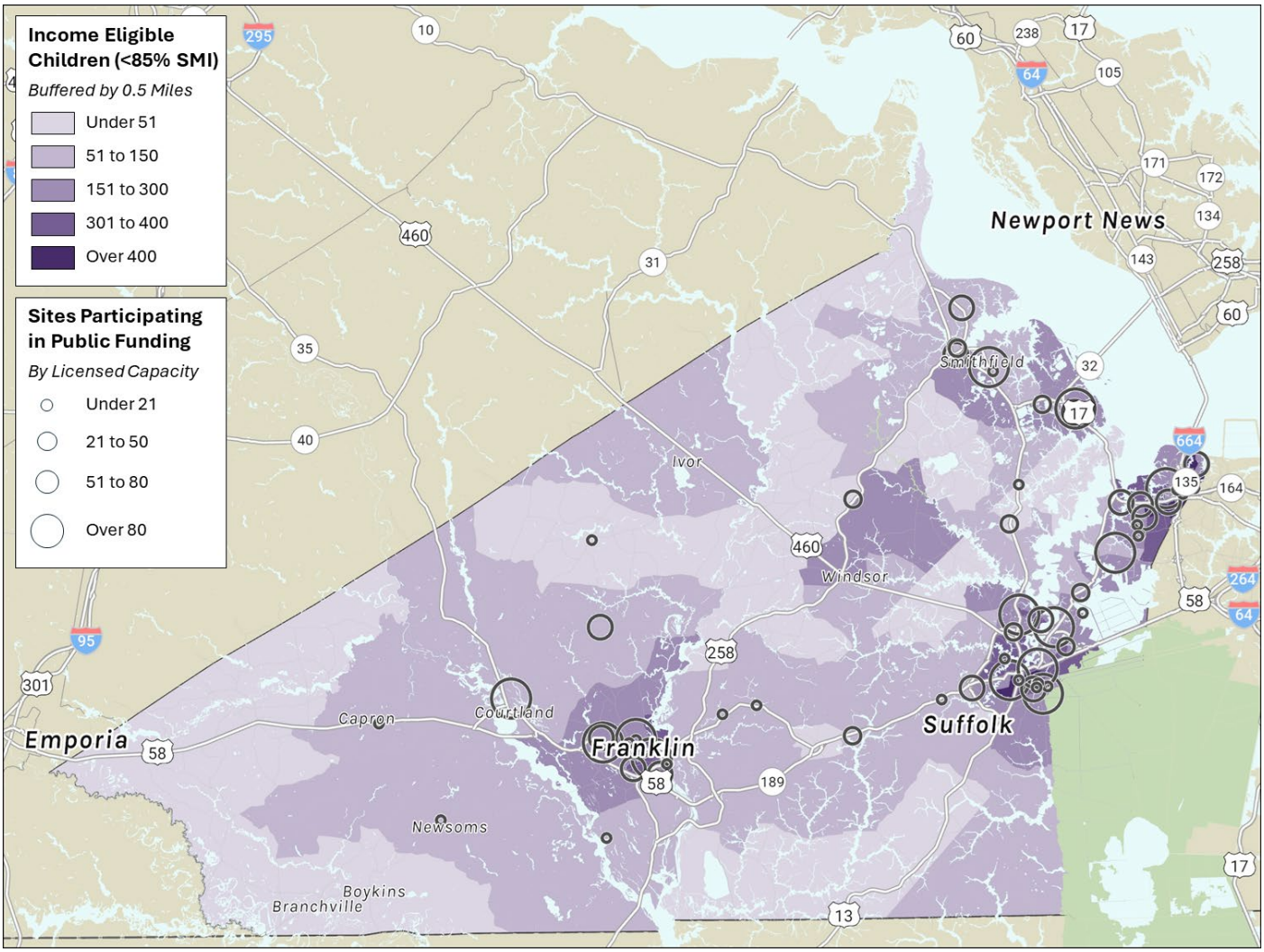




Western Tidewater: Availability of Publicly Funded Programs

The analysis of availability focuses on the four largest publicly funded programs: VPI, CCSP, Mixed Delivery, and Head Start/Early Head Start. In FY 2025, there were 6,500 children who were income-eligible to participate in these programs, but just 1,400 slots for children were available.[4] These estimates suggest that only 22% of income-eligible children were able to enroll in these programs.

The map below shows the location of children who are income-eligible to participate in these publicly funded programs and the location of providers who participate in them. While many of the areas with high concentrations of income-eligible children in Western Tidewater have providers that participate in publicly subsidized programs, some areas, like those near Windsor, appear to need additional supply.



[4] Income-eligible children calculated from five-year ACS data access in IPUMS USA (2023) with VECF Ready Regions ECCE Supply/Demand Data Dashboard

Western Tidewater: Access to Infant and Toddler Care

Supply of Infant and Toddler Care

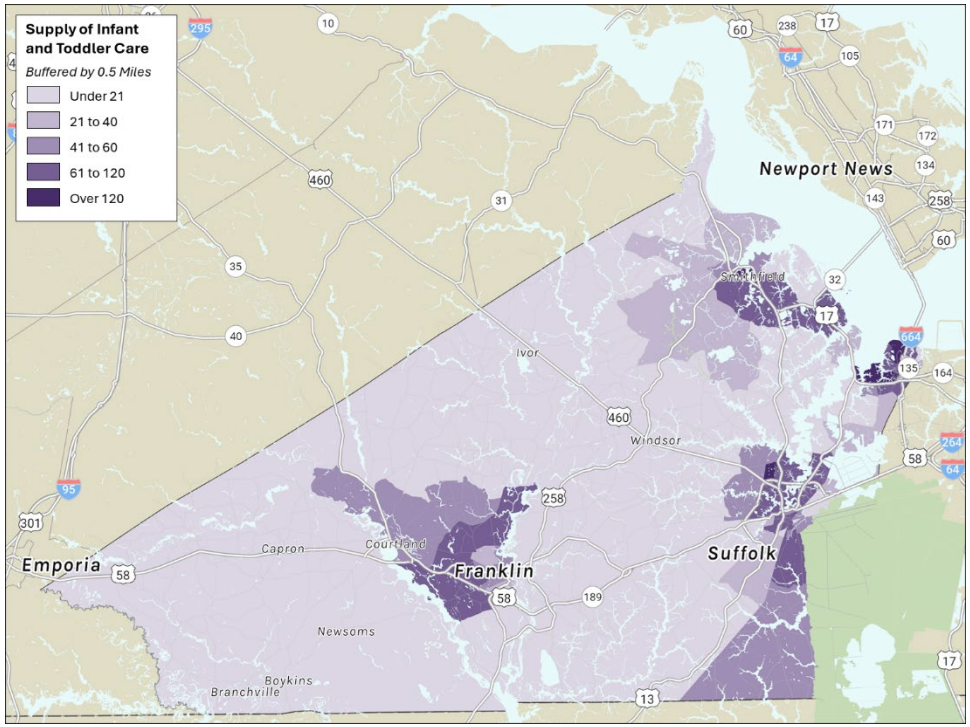
Across Western Tidewater, 65% of ECCE providers are licensed to serve infants and toddlers (children under 36 months old). In part because infant and toddler care is more expensive to provide than care for older children, most providers devote only a portion of their total capacity to infants and toddlers. A 2024 survey of providers in Ready Region Southeastern asked providers about the share of their enrollment devoted to infants and toddlers. Western Tidewater providers' responses suggest that the subregion has a supply of roughly 1,200 infant and toddler seats.

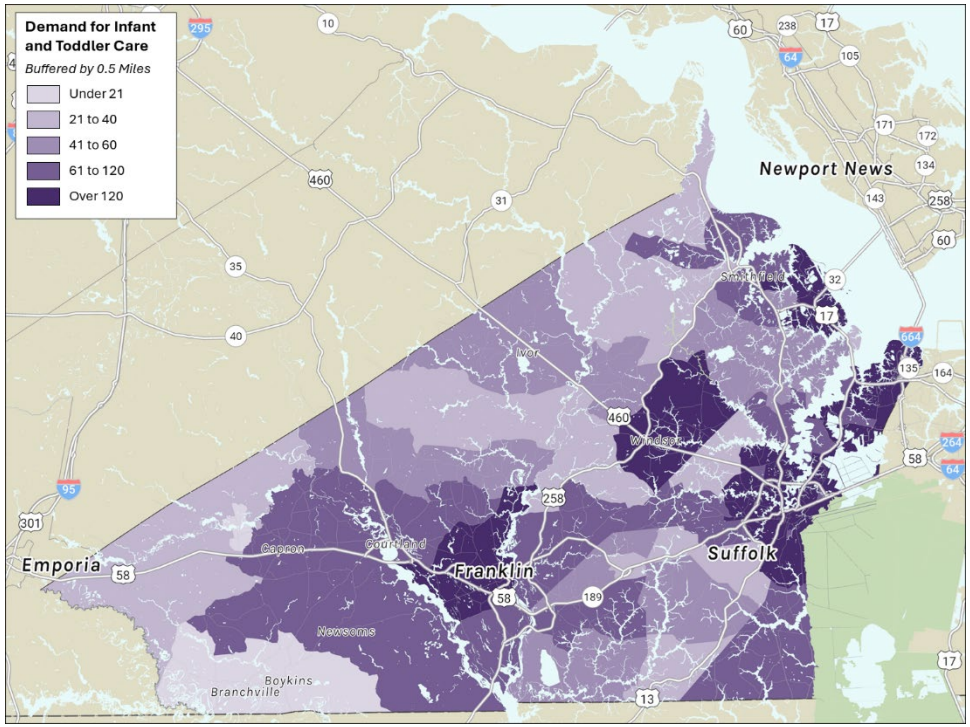
The map below illustrates the location of Western Tidewater's infant and toddler supply. Supply is concentrated near the subregion's cities.

Demand for Infant and Toddler Care

Western Tidewater has an overall demand for 5,700 seats for infants and toddlers. This figure represents the maximum potential demand for care in the subregion. This estimate includes children under 36 months who live in the area, and children who could commute to the area for care near their parents' place of work.

The map on the right illustrates the location of infant and toddler demand, which is spread across the subregion.

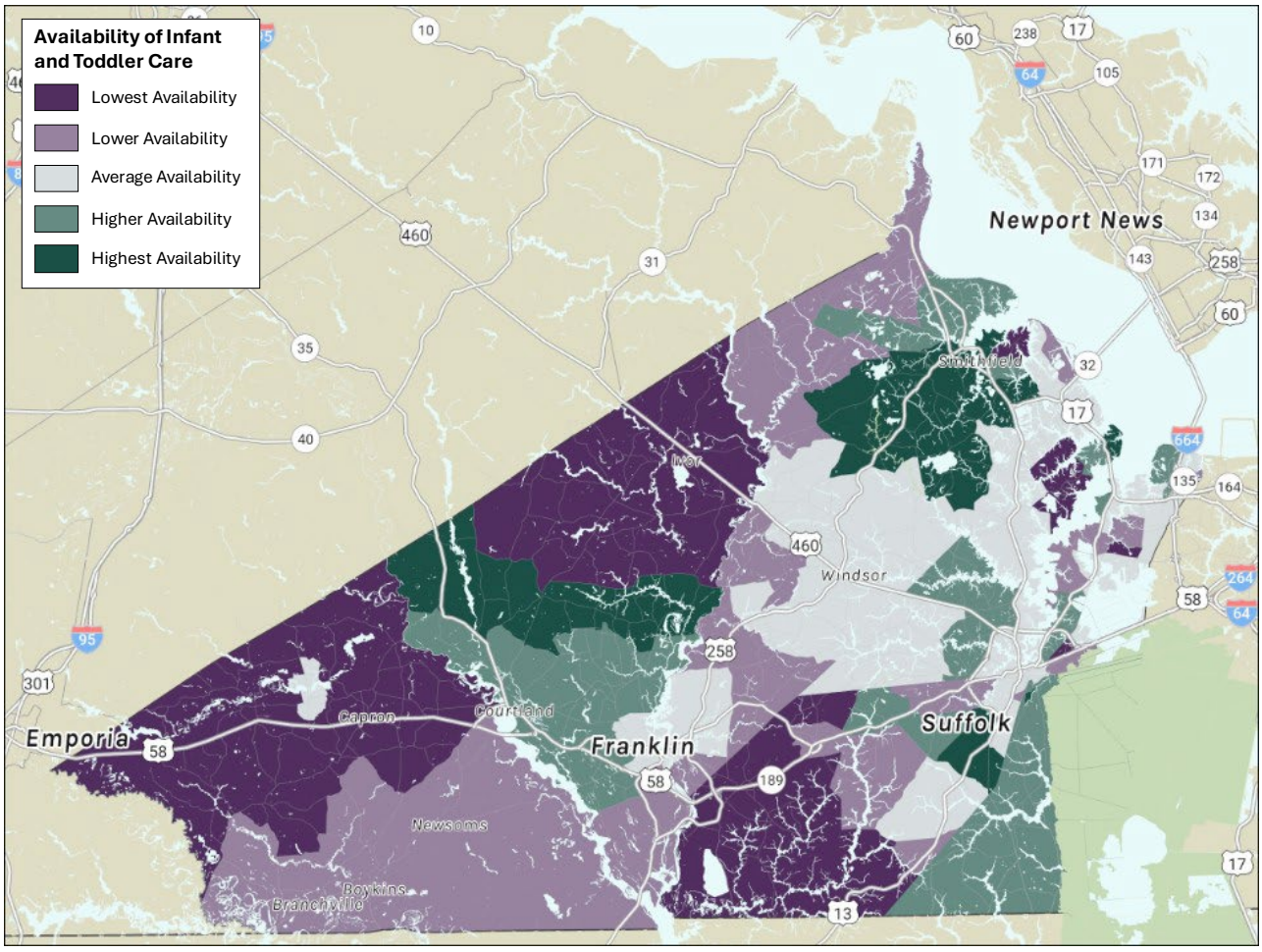




Western Tidewater: Availability of Infant and Toddler Care

With a supply of 1,200 infant and toddler seats and a demand for 5,700 seats, Western Tidewater has a shortage of 4,500 seats. These estimates suggest that the subregion only has enough capacity for about 21% of infants and toddlers.

The map below illustrates how the availability of care varies across Western Tidewater. Areas shaded in dark green had the highest amount of supply relative to demand, enough seats for 90% of children, on average. Areas in purple shades have the lowest availability of care. In these areas demand for care far exceeds supply. Shortages are located in the northeastern corner and along the western and southern portions of the subregion.



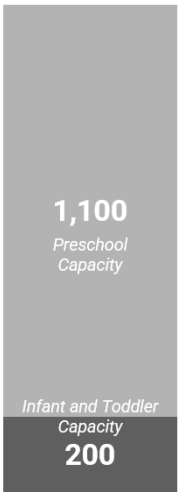
Eastern Shore: Demand, Supply, and Access to ECCE

The Eastern Shore in Ready Region Southeastern is comprised of Accomack and Northampton Counties. The area is more rural and isolated than the rest of the Ready Region, with a population of 45,441 and median family income of $74,470. [5]

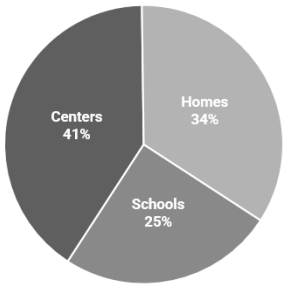
Eastern Shore: ECCE Supply

32 Providers

Licensed Capacity



Provider Types



*Program Participation**

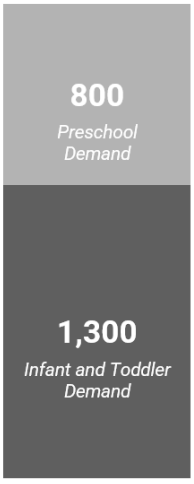
Child Care Subsidy Program	12
Virginia Preschool Initiative	7
VECF Mixed Delivery	1
Head Start/Early Head Start	3
Military Assistance	1

**Providers may participate in multiple programs*

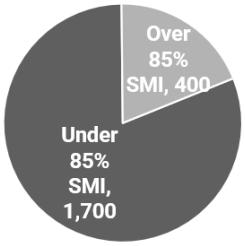
Eastern Shore: ECCE Demand

2,100 Children

ECCE Demand by Age



Family Income compared to State Median Income (SMI)



Family Characteristics

Language: 12% of Children have Parents that Do Not Speak English at Home

Working Parents: 71% of Children Have Working Parents

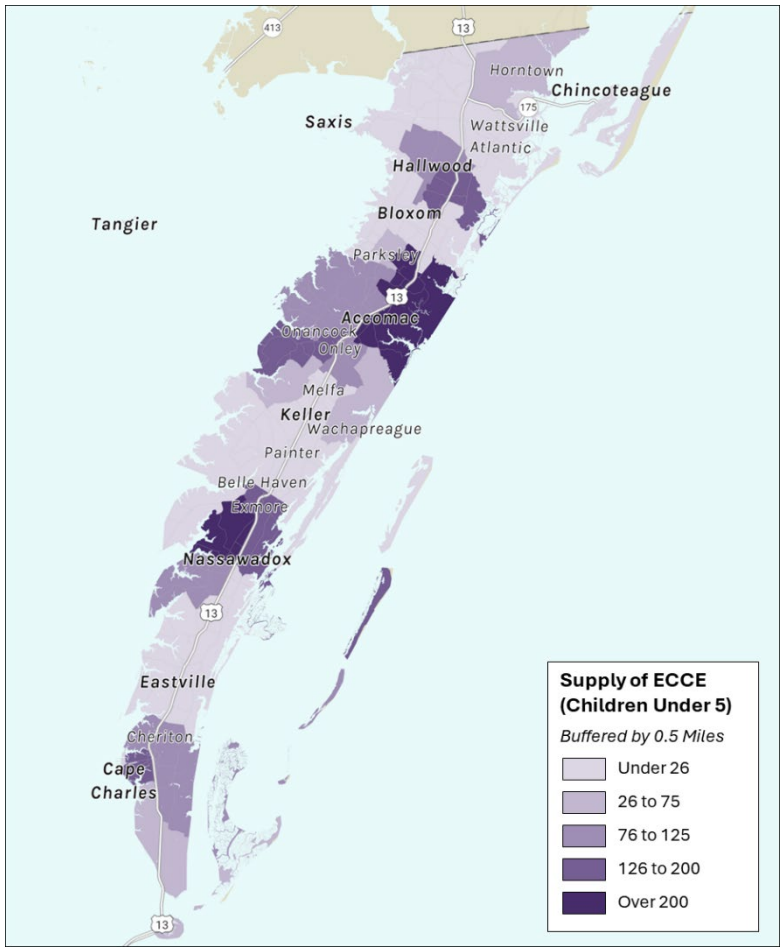
Remote Work: 4% of Children Have Parents Working From Home

[5] Total Population and Median Family Income from five-year ACS data accessed in IPUMS USA (2023).

Eastern Shore: Access to ECCE (All Ages and Programs)

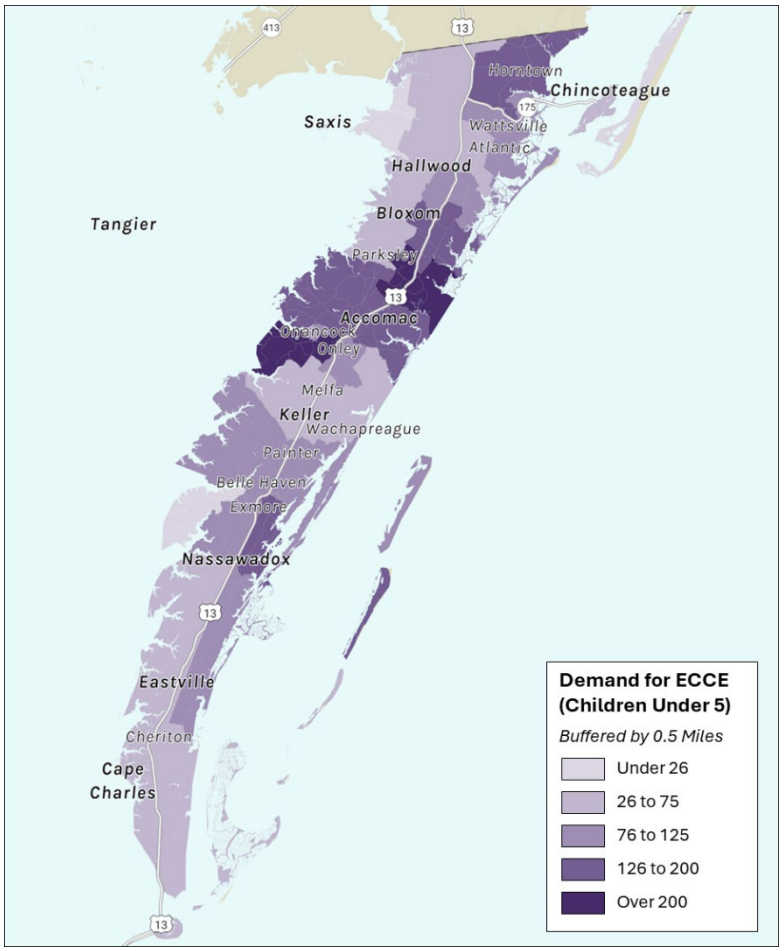
Supply of Care

Eastern Shore contains an estimated 32 ECCE providers, which include center-based, licensed home-based, and school-based sites. These providers have a total licensed capacity of 1,300. While licensed capacity likely overstates the true ECCE capacity in the area, it is a useful proxy for overall supply. The map on the left illustrates the location of supply, which is concentrated in Accomac and Nassawadox.



Demand for Care

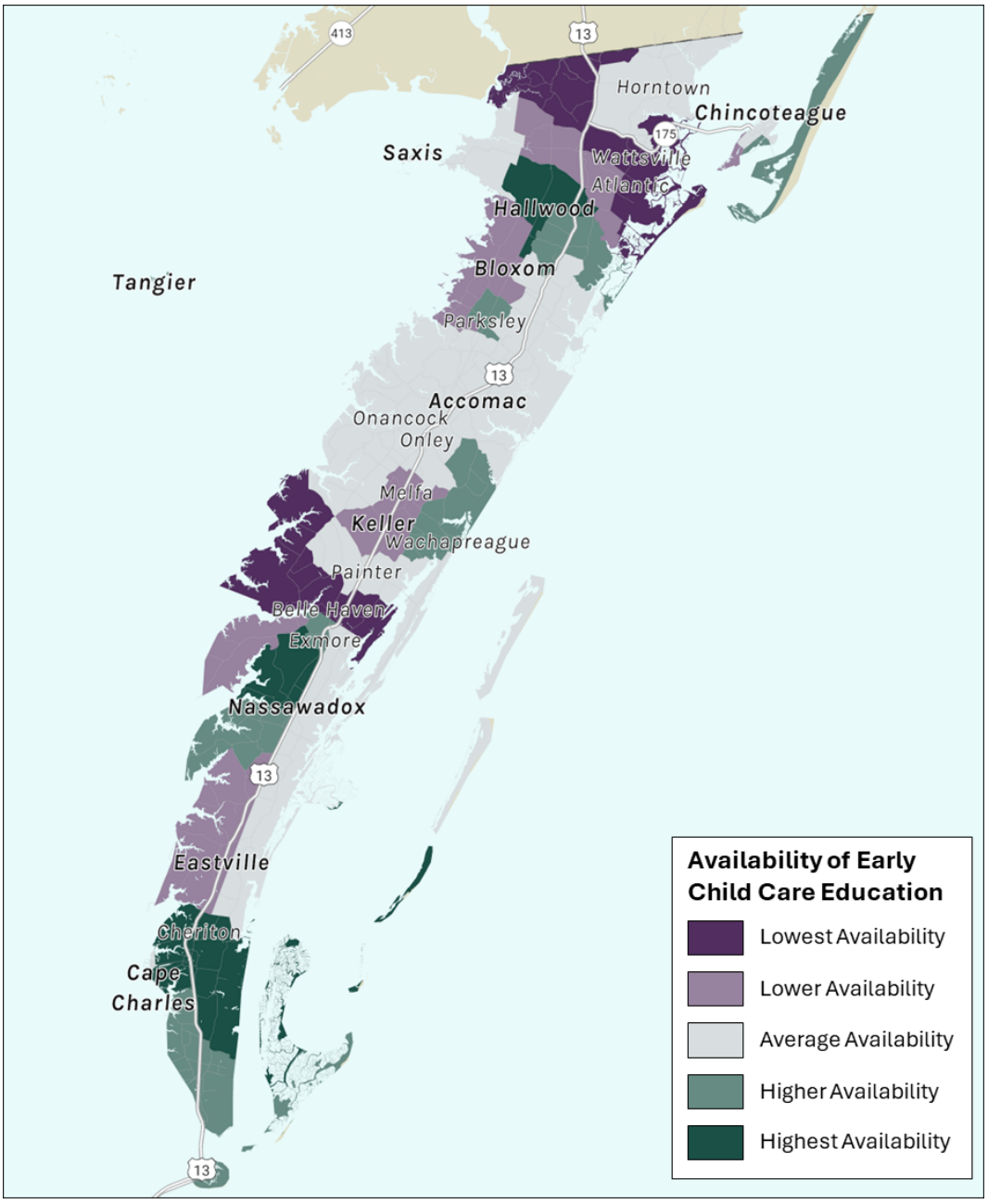
Eastern Shore has an overall demand for 2,100 seats. This figure represents the maximum potential demand for care in the subregion. This estimate includes children under five who live in the area, and children who could commute to the area for care near their parents' place of work. The map on the right illustrates the location of demand, which is predominantly concentrated around Accomac.



Eastern Shore: Availability of Care

With a supply of 1,300 seats and a demand for 2,100 seats, the Eastern Shore subregion has an absolute shortage of 800 seats. These estimates suggest there are enough seats for roughly 63% of children under the age of five.

The map below illustrates how the availability of care varies across the Eastern Shore. Areas shaded in green have the highest availability of seats. Many of the areas shaded in dark green have more ECCE capacity than demand for care. Areas in purple shades have the lowest availability of care. In these areas demand for care far exceeds supply. Shortages are concentrated north of Hallwood and south of Keller.



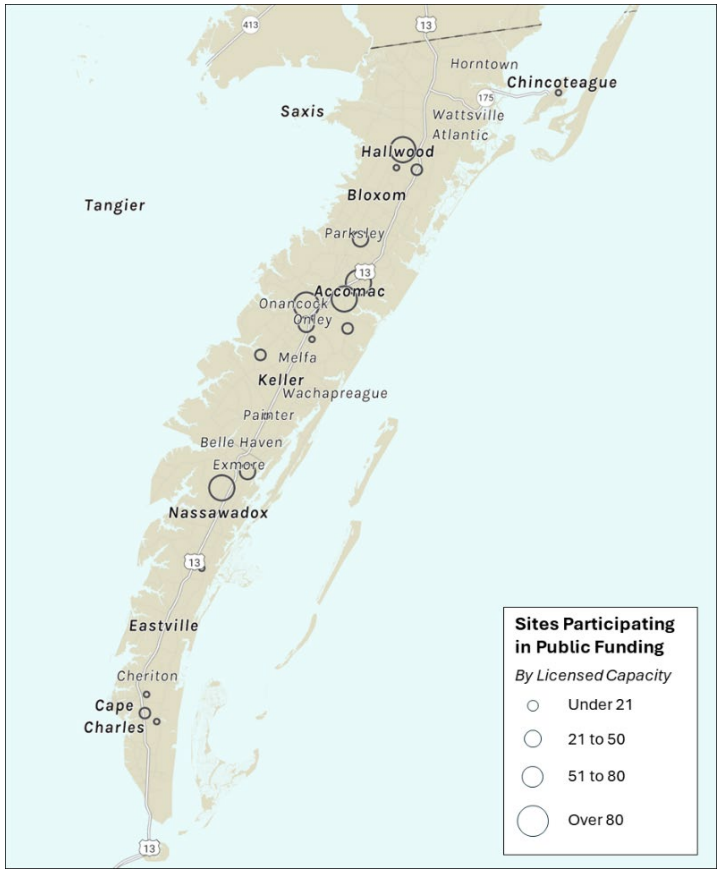
Overall Availability of Care (All Ages Under Five) in Eastern Shore

Eastern Shore: Access to Publicly Funded Care

Supply of Publicly Funded Care

In Eastern Shore, 59% of ECCE providers participate in at least one publicly funded program, with the most common being Child Care Subsidy Program (CCSP), Virginia Preschool Initiative (VPI), and Head Start/Early Head Start.

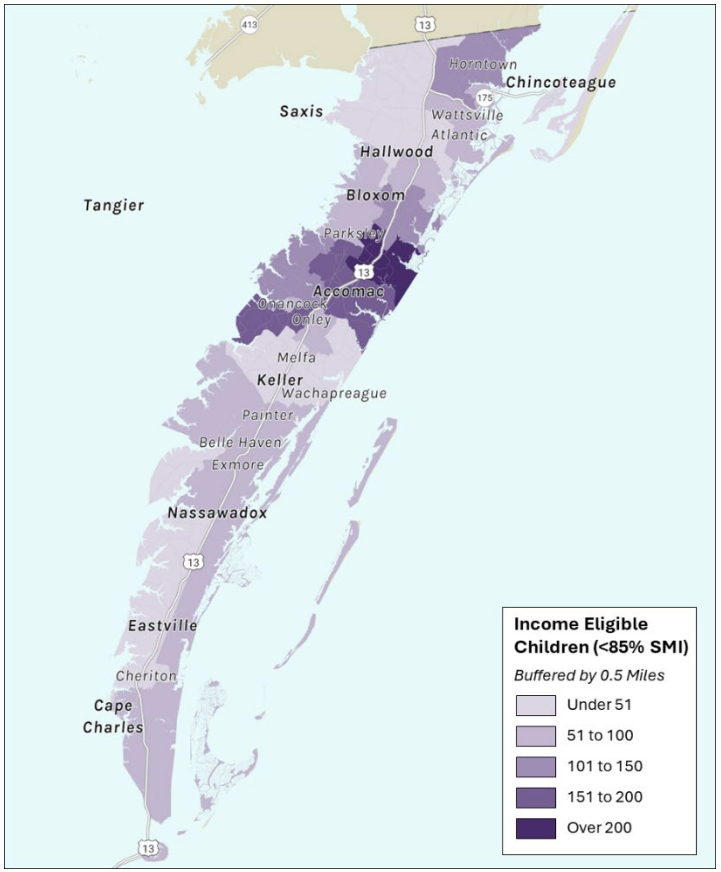
The map on the left illustrates the location and size of providers that participate in programs with income eligibility criteria (i.e., CCSP, VPI, VECF Mixed Delivery, or Head Start/Early Head Start). Most of the ECCE providers participating in these programs are concentrated near Accomac.



Families that are Income Eligible for Public Programs

In Eastern Shore, an estimated 1,700 children live in families that earned less than 85% of the Commonwealth's median income and are income eligible to participate in programs like CCSP, VPI, Mixed Delivery, or Head Start/Early Head Start.

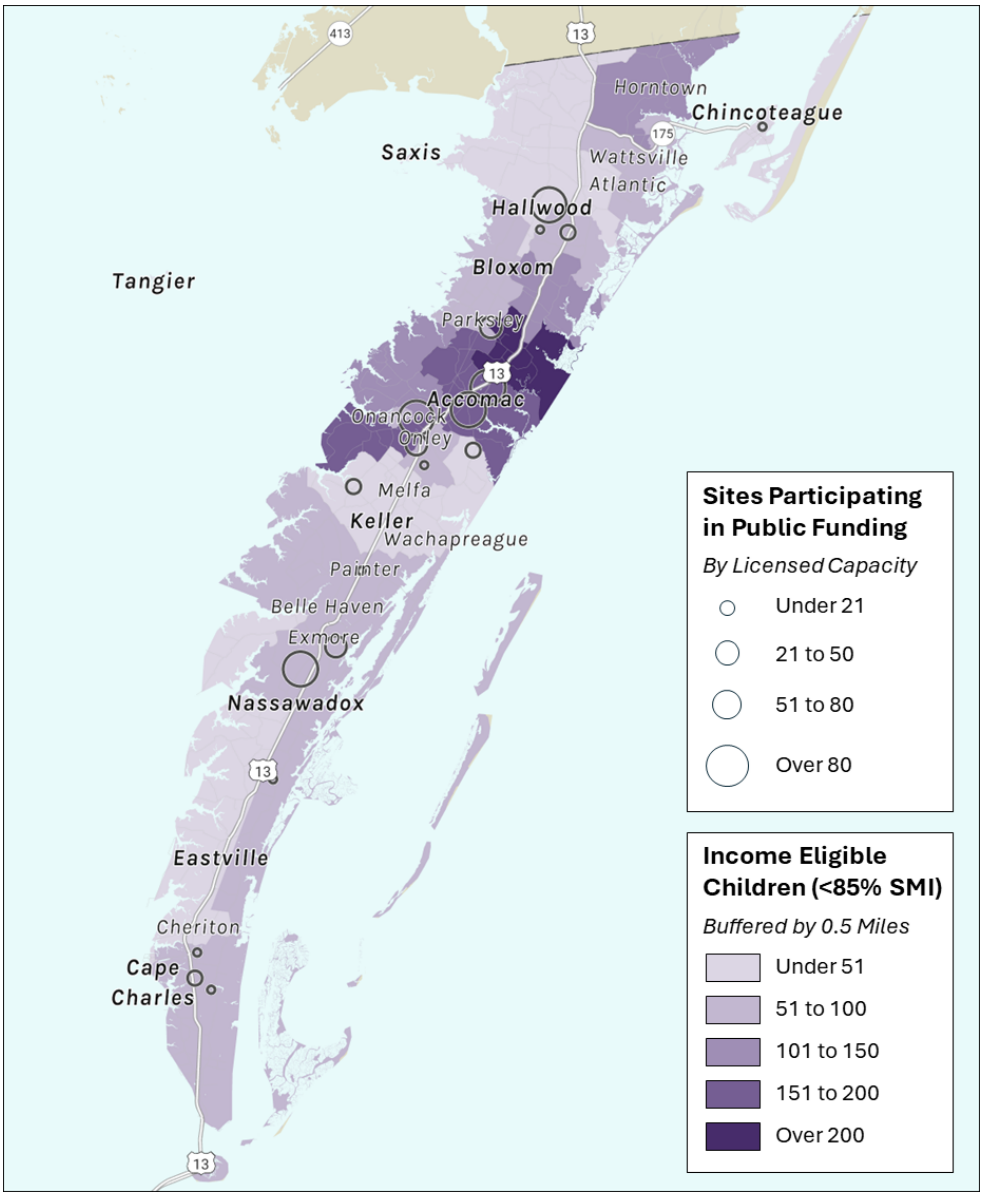
The map on the right illustrates where these families live. The highest concentration of income-eligible families is near Accomac.



Eastern Shore: Availability of Publicly Funded Programs

The analysis of availability focuses on the four largest publicly funded programs: VPI, CCSP, Mixed Delivery, and Head Start/Early Head Start. In FY 2025, there were 1,700 children who were income-eligible to participate in these programs, but just 500 slots for children were available.[6] These estimates suggest that only 29% of income-eligible children were able to enroll in these programs.

The map below shows the location of children who are income-eligible to participate in these publicly funded programs and the location of providers who participate in them. The area around Accomac has most of the subregion's participating ECCE providers and is home to the largest number of income-eligible children. West of Chincoteague, near Wattsville and Horntown, are a moderate number of income-eligible children, but no participating providers.



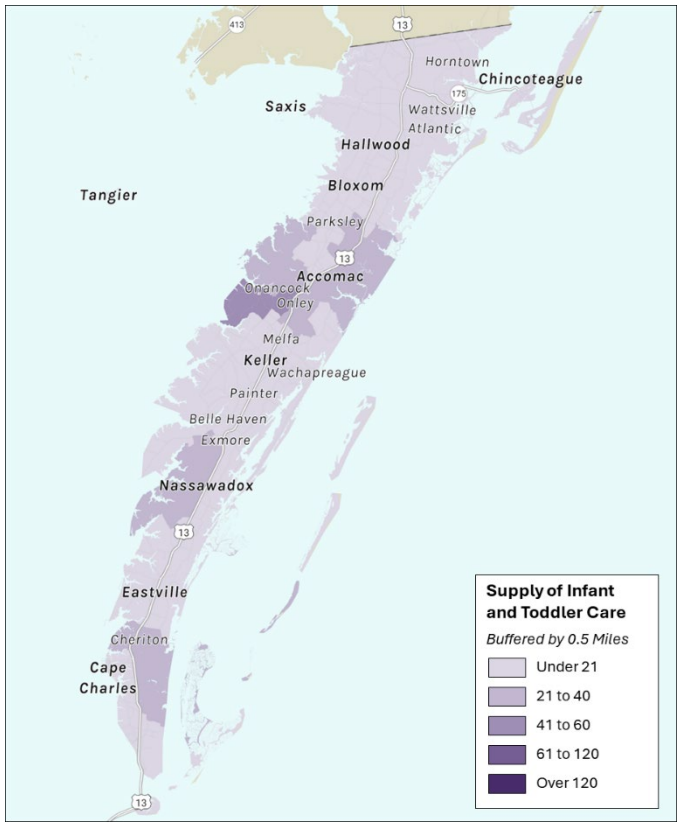
[6] Income-eligible children calculated from five-year ACS data access in IPUMS USA (2023) with VECF Ready Regions ECCE Supply/Demand Data Dashboard

Eastern Shore: Access to Infant and Toddler Care

Supply of Infant and Toddler Care

Across Eastern Shore, 56% of ECCE providers are licensed to serve infants and toddlers (children under 36 months old). In part because infant and toddler care is more expensive to provide than care for older children, most ECCE providers devote only a portion of their total capacity to infants and toddlers.

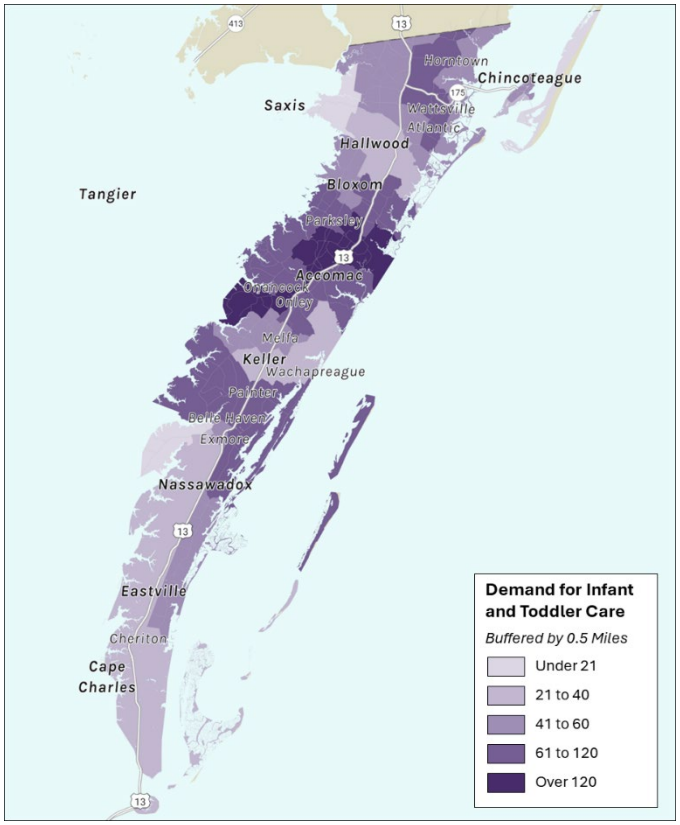
A 2024 survey of providers in Ready Region Southeastern asked providers about the share of their enrollment devoted to infants and toddlers. Eastern Shore providers' responses suggest that the subregion has a supply of roughly 200 infant and toddler seats. The map below illustrates the location of Eastern Shore's infant and toddler supply. Capacity for infants and toddlers is low everywhere. The highest concentration is west of Accomac, near Onancock.



Demand for Infant and Toddler Care

Eastern Shore has an overall demand for 1,300 seats for infants and toddlers. This figure represents the maximum potential demand for care in the subregion. This estimate includes children under 36 months who live in the area, and children who could commute to the area for care near their parents' place of work.

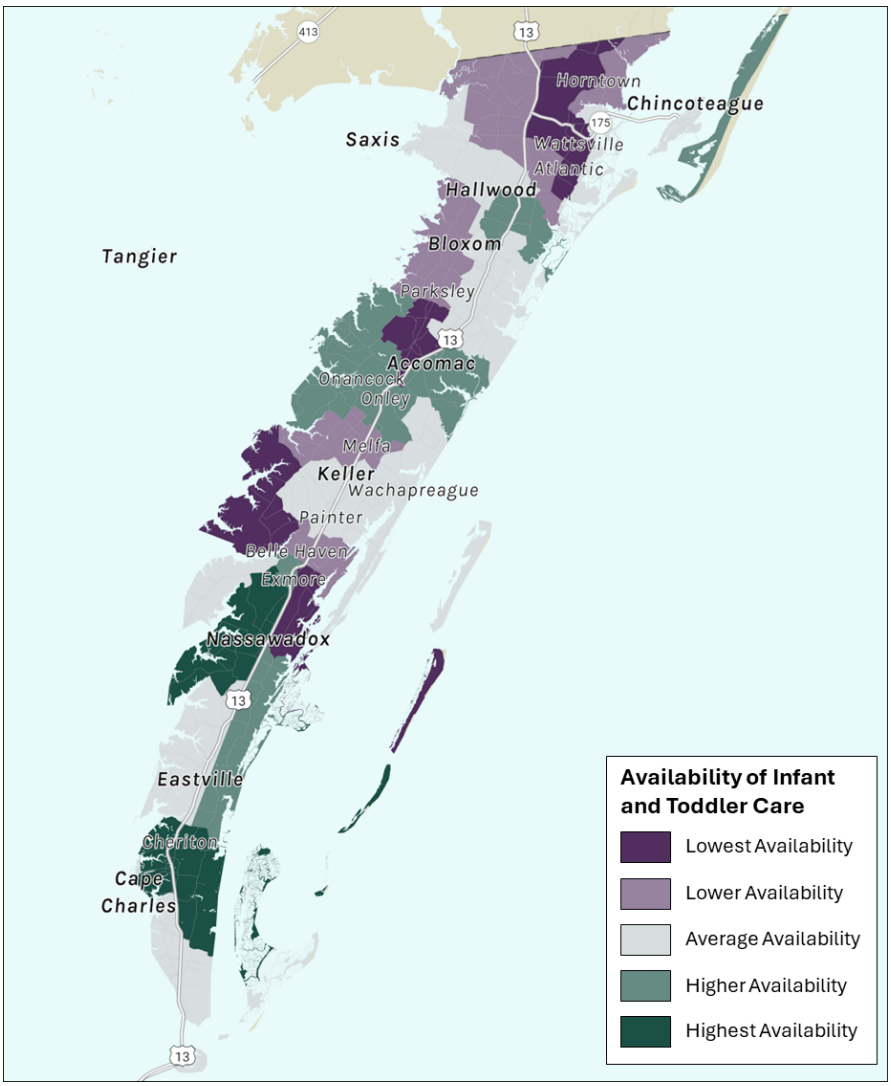
The map on the right illustrates the location of infant and toddler demand, which is concentrated around Accomac.



Eastern Shore: Availability of Infant and Toddler Care

With a supply of 200 infant and toddler seats and a demand for 1,300 seats, Eastern Shore has a shortage of 1,100 seats. These estimates suggest that the subregion only has enough capacity for about 13% of infants and toddlers.

The map below illustrates how the availability of care varies across the Eastern Shore. The areas shaded in dark green have the highest amount of supply relative to demand, enough supply for 90% of children, on average. Areas in purple shades have the lowest availability of care. In these areas demand for care far exceeds supply. Shortages are concentrated west of Chincoteague, near Wattsville and Atlantic, and around Keller.



CONSIDERATIONS FOR STRATEGIC ACTION

Reinvestment Fund (RF) and Minus 9 to 5 hosted strategy sessions for local stakeholders including business leaders, local childcare providers, and Ready Region Southeastern's Family Council members. These sessions incorporated visioning exercises for participants to consider the underlying challenges causing the gaps shown in the RF analysis and to identify specific strategies to address them. Over the course of two days, nearly 60 participants across eight groups brainstormed and discussed challenges and solutions relevant to Ready Region Southeastern.

Strategy recommendations are separated into four categories: Supply Building, Business Sustainability, Family Engagement, and Workforce Supports. The ideas presented here are those that can be implemented by Minus 9 to 5 and Ready Region Southeastern partners. Each of the strategies below is discussed in additional detail on the following pages.

Supply Building
Find new low-cost facilities that may be used for childcare
Explore innovative business models
Business Sustainability
Train Ready Region Staff to assist with subsidy applications and required reporting
Provide cohesive and well-advertised business assistance and technical support
Build on the existing director consortium for ECCE directors to network and share best practices
Tailor each of the recommended strategies to the needs of home-based ECCE providers
Family Engagement
Increase families' understanding of available resources
Support provider use of family engagement software
Publicly recognize employers who offer ECCE subsidies
Develop navigator and advocate roles on Ready Region staff
Strengthen family access to subsidized care
Emphasize trust building with families
Build and strengthen relationships with parents of children with special needs
Workforce Supports
Increase awareness of workforce programs to strengthen the pipeline of future ECCE educators
Facilitate additional partnerships between ECCE centers and local higher education programs
Host events for local high school and higher education advisors

Additional suggestions for strategies that require public or private sector partnerships, policy change(s), and funding resource development are included in Appendix B. It is also possible that some programs already exist and could benefit from additional marketing to expand awareness and usage.

Supply Building

The RF analysis showed the need for additional supply in many areas across the Ready Region. Stakeholders identified several challenges related to supply building: a lack of funding to support startup costs, burdensome administrative systems that slow the creation of new sites, and a lack of support for new innovative business models. Participants in the strategy session particularly noted the need for a robust and easily expandable childcare supply given the prevalence of military families in the region, whose numbers could surge dramatically in the face of future military action. They also noted that the region's growth was an asset that could help support the ECCE sector.

Strategies for Ready Region Southeastern:

- **Find new low-cost facilities that may be used for childcare.** Develop a census of un- or under-utilized facilities (public, ecumenical, commercial, etc.) that could be re-purposed or donated for potential re-use as ECCE centers. Partner with public sector, military, and local faith groups/houses of worship to assemble and convert these spaces into new opportunities to expand ECCE.
- **Explore innovative business models,** such as the creation of spaces for "micro sites" (shared facility spaces, where multiple ECCE providers can operate separate classrooms or be co-located within a host public school) or partnership with businesses to create on-site spaces operated by experienced family day home providers who do not have interest or resources in opening a stand-alone childcare center. Consider advocating to Virginia Housing, the state housing finance agency, for co-location of ECCE facilities within affordable housing developments.

Business Sustainability

Ensuring the ongoing sustainability of existing ECCE providers is vital to reducing the gaps in childcare access shown in the RF analysis. Stakeholders identified several challenges existing ECCE businesses face, including: an overall lack of resources to support the cost of care and capital expenses, challenges accessing existing public resources and funding, and various barriers to reaching families interested in using their services. Streamlining systems and providing new funding and programmatic resources can have a significant impact on the ongoing financial viability of ECCE businesses.

Strategies for Ready Region Southeastern:

- Partner with organizations like Child Care Aware of Virginia to **train Ready Region staff to assist with subsidy applications and required reporting.** This could also

involve the use of volunteers to assist with subsidy paperwork in order to ease the administrative burden on providers. Ensure training includes programming tailored to family day home providers to support their access to subsidy programs.

- **Provide cohesive and well-advertised business assistance and technical support** for local providers. This can include offering classes on financial modeling to help providers understand the true cost of care they provide, operate more efficiently, and increase operational capacity. This could draw upon VECF's ECCE Business Academy tools and trainings, or financially-supported access to Early Education Business Consultants.
- Build upon existing efforts, such as RRSE's Roundtable Office Hours, to **support a director consortium for ECCE directors to network and share best practices** within their program type (e.g., center- vs home-based providers), or geography.
- **Tailor each of the recommended strategies to the needs of home-based ECCE providers.** Family day home providers have unique needs that can increase the difficulty of accessing resources. Ensure that program offerings consider the unique circumstances and limitations for these providers and are scaled appropriately.

Family Engagement

Families are facing increasing childcare costs alongside other pressures on household budgets. Stakeholders identified challenges related to the cost of care and affordability for families, challenges accessing services for children with special needs, and challenges understanding and navigating administrative systems. Strategy session participants spoke at length about the need to provide supports to families, particularly low-income families and those who have children with special needs. The suggested strategies are meant to build upon and enhance Ready Region Southeastern's existing Family Council programs.

Strategies for Ready Region Southeastern:

- **Increase families' understanding of available resources.** Partner with faith based groups, libraries, school districts, immigrant-serving organizations, and other family networks to host workshops to help families understand how subsidy works and how to access subsidized care and develop additional translation resources for families who speak languages other than English.
- **Support provider use of family engagement software** through joint subscriptions or grant funding.
- **Publicly recognize employers who offer ECCE subsidies** to their employees and encourage others to follow suit while also allowing jobseekers to make informed employment decisions.

- **Develop navigator and advocate roles** to support families of children with special needs in accessing appropriate care. This role could also include educating ECCE teachers around available resources and appropriate strategies for supporting children with special needs.
- **Strengthen family access to subsidized childcare** by integrating and promoting partner/provider information in the VA Ready to Find Child Care Marketplace and existing search engines including those hosted by Ready Set Register Southeastern, DSS, and ChildCare Aware of VA..
- **Emphasize trust building with families.** Dedicate staff to connecting home visiting agencies to ECCE providers and programs. Identify community partners, including houses of worship, local nonprofits, or hospital systems, who can help build trusting relationships between parents/caregivers and ECCE providers. These could include faith-based communities, local nonprofits, or hospital systems. Find opportunities to do more home visiting and assistance programs that support relationship building with new parents. This could include holding events in and near trusted community locations (e.g. book mobiles, story hours, and farmers markets).
- **Build and strengthen relationships with parents of children with special needs** to reduce stigma, and increase follow through with intervention services. Increase awareness and promote usage of Parent Educational Advocacy Training Center (PEATC) resources for parents.

Workforce Supports

The ECCE industry has faced significant workforce challenges due to low wages, regulatory hurdles, and lack of interest by young people in ECCE careers. Stakeholders identified challenges related to teacher retention and recruitment and administrative bottlenecks that slow the pace and increase the cost of hiring workers, and opportunities to form closer connections with educational institutions. Providing targeted supports to the ECCE workforce will increase teacher recruitment and retention and strengthen provider sustainability.

Strategies for Ready Region Southeastern:

- **Increase awareness of workforce programs to strengthen the pipeline of future ECCE educators,** including Project Pathfinders, which offers dual enrollment opportunities for high school students, G-3 funding for students enrolled in community colleges, registered apprenticeships, and partnerships between providers and community colleges.

- **Facilitate additional partnerships between ECCE centers and local higher education programs** to provide internships and build closer relationships between centers and educational institutions.
- **Host events for local high school and higher education advisors** to inform them about ECCE careers and ensure they are not steering students away from the sector.

APPENDIX A: Overview of Data Sources and Methods

The childcare gap analysis is based on the methodology used in Reinvestment Fund (RF)'s Childcare Map analysis. For more information about the development of the original analysis, see: https://www.reinvestment.com/childcaremap/

RF worked closely with Minus 9 to 5 and VECF to adapt the gap analysis for Ready Region Southeastern. This section provides an overview of the RF methodology.

Measuring Supply

There is no single dataset that captures every childcare provider. In Virginia, childcare information is located in a number of different databases, including LinkB5, DOLPHIN, and others. The RF supply analysis combined data from multiple datasets to create a single, unique list of childcare providers that offered full-time, non-parental care. For the purposes of this report, full-time care refers to programs open at least 5 or more hours a day (e.g., 9am to 2pm). Some ECCE providers operate year-round and others are only open for the school year. In cases where hours of operation were missing or unreliable, the RF teamrelied on data from VECF to identify full-time programs.

VECF created the initial list of sites by combining records from the Virginia Department of Social Services licensing database (DOLPHIN) from Virginia Department of Education, LinkB5, Local Ordinance Home data, and the Mixed Delivery Data Portal. To this list, RF added the names and locations of military affiliated centers and military licensed home-based providers.[7] RF also gathered business listings for childcare firms from DataAxle to capture other childcare related businesses that may have been missed. These data sources were combined and deduplicated to create a unique list of childcare providers in Ready Region Southeastern.

For each unique program, the site's address was geocoded and its licensed capacity was determined from official records. For school-based sites, the total of enrollment plus openings was used in place of licensed capacity.

In addition to total supply, a number of other metrics were calculated using site-level characteristics.

Infant and toddler capacity was estimated using two different approaches. For military affiliated providers RF was able to access age-level capacity numbers for each site. For all other providers, age-level capacity was not available, but site license data did include

[7] Information about military affiliated providers was drawn from https://public.militarychildcare.csd.disa.mil/mcc-central/provider-search and correspondence with Beverly Clymer (02/24/24)

information about the age levels that each site was licensed to serve. To estimate each program's infant and toddler capacity, RF relied on survey data from the 2024 UVA Provider Survey, which describes the share of enrollment each site reserves for infants and toddlers. For providers that were not licensed to serve infants and toddlers, infant and toddler capacity was assumed to be zero. For providers licensed to serve infants and toddlers, capacity was estimated using the survey derived weights described below. Only survey responses from Ready Region Southeastern were used to derive these weights:

Weights for Estimating Infant and Toddler Capacity

Age Level(s) Licensed in Site	Center-Based Care	Home-Based Care
Infant & Toddler Only	100% of licensed capacity	100% of licensed capacity
Infant & Toddler, Pre-K	36% of licensed capacity	65% of licensed capacity
Infant & Toddler, Pre-K, School Aged	25% of licensed capacity	40% of licensed capacity
Pre-K Only	0% of licensed capacity	0% of licensed capacity

Publicly funded care was measured by examining the number and share of providers that participated in various publicly funded and subsidy programs, specifically the Virginia Preschool Initiative (VPI), Child Care Subsidy Programs (CCSP), VECF Mixed Delivery Grants, Head Start, and Early Head Start.

Measuring Demand

The RF measure of demand is designed to represent the total number of potential customers for child care in each census block group in the region. The measure begins by estimating the number of children under five years old in each census block group. These population estimates were drawn from data provided by Claritas360 and represent the population as of January 1, 2025.

These population estimates were then adjusted based on commuters and the number of jobs in each census block group. These commuter adjustments rely on the most recent estimates from the US Census's Longitudinal Employer-Household Dynamics (LEHD) survey (LODES8, 2022).

RF began by estimating the number of parents who worked in each census block group and would consider using care near their office. This calculation began by using the Workplace Area Characteristics (WAC) table from LEHD to calculate the number of individuals working

primary jobs in each block group by industry and age. To calculate the number of workers in each block group who have children under five, weights from census IPUMS data were calculated using the latest five-year ACS data from IPUMS USA (2023) for each industry and age combination for adults working in the region.

The number of potential commuters was further reduced to adjust for the share of workers who worked from home. Data from the latest Census PULSE survey in Virginia (Phase 3-10, 2024) were used to estimate the share of parents with young children who worked from home three or more days per week. Workers were classified into two categories: those working in industries where the national rate of hybrid work was over 20% and those in all other industries.[8] Rates of hybrid work were calculated for each group and applied to the weighted LEHD estimates described above.

Because most parents prefer using care near their home, these estimates were further reduced by one third, based on national survey data that suggests only up to a third of parents would consider care near their office.[9]

Next, a similar method was used to calculate the number of workers who lived in each census block group but commuted to look for care near their jobs. This calculation follows the same logic as above, but relied on the Resident Area Characteristics (RAC) table. The number of residents with primary jobs by industry and age was calculated in each census block group and weights from IPUMS were applied to calculate the number of these workers with young children. Next, estimates were further reduced based on industry and the rate of hybrid work. Finally, each estimate was reduced to approximate the one-third of parents who would consider care near their office.

Demand was calculated by taking the population under five in each block group, increasing it by the estimated number of commuters into the block group, and reducing it by the number of commuters who leave each block group.

In addition to overall demand, a number of other metrics were calculated from RF demand estimates.

Demand for infant and toddler care was calculated by estimating the share of children in each block group that were under three years old. These figures were drawn from the latest ACS estimates of the share of children under five that were under three. These ACS figures

[8] Industries with a rate of hybrid work over 20% were NAICS codes 3, 6, 9, 10, 11, 12, 13, 14, 15, 17, 18, 21

[9] One-third measure was derived from review of the following: Laughlin, Lynda. 2013. Who's Minding the Kids? Child Care Arrangements: Spring 2011. Current Population Reports, P70-135. U.S. Census Bureau, Washington, DC.; Illinois Action for Children, Getting There: Cook County Parents' Commute to Child Care and Work, June 2012.

were applied to both population (Claritas360) and commuter adjustments (LEHD) in each block group.

Demand for publicly subsidized care was calculated by estimating the share of children in each block group that lived in households earning less than 85% of the State Median Income (SMI), and therefore were income eligible to participate in VPI, CCSP, Mixed Delivery, Head Start, or Early Head Start.

For the region, estimates were calculated by using the share of children living in families earning under 85% of SMI in each PUMA from IPUMs data and then aligning estimates to block groups using the methodology proposed by Glassman.[10] This approach distributes counts by correlating the share of children in families earning less than 85% SMI with the share of children earning less than 300% of federal poverty, which is available for each census tract. To calculate block group level results, RF used the number of families with children earning less than 300% of federal poverty to distribute tract-level counts of children among block groups.

Calculating Buffered Estimates

All of the estimates described previously describe either supply or demand within each census block group. For some maps and estimates it is helpful to calculate "buffered" figures that represent the level of supply or demand around or near each block group.

Buffered supply estimates were calculated by aggregating the capacity of all sites inside of or within a half mile of the boundaries of each block group.

Buffered demand estimates were calculated in two steps. First, the population under five was aggregated for all blocks whose geographic centers (i.e., centroids) are inside of or within a half mile of the boundaries of each census block group. Block population estimates were calculated by taking block group level population and using census 2020 housing unit figures to proportionately allocate population figures to blocks. Next, commuter adjustments were calculated for each block inside of or within a half mile of the boundaries of each census block group. Because LEHD data are already available at the block level, the figures are calculated in the same way as the original RF demand estimates.

Calculating Shortages

Shortages of care were calculated in two ways. First, estimated supply was subtracted from estimated demand. This figure represents the number of additional seats an area

[10] Glassman, Brian. 2022. "Producing County-level MDI Rates Using Public Use Data: 2010 to 2019." Census Working Paper SEHSD-WP2022-19

would need to provide one seat for every child. This estimate is referred to as an absolute shortage. Absolute shortages were also reported as fractions (supply divided by demand), which represent the share of children that can currently be served with existing supply.

Next, RF estimated relative shortages. The relative shortage estimate is intended to help stakeholders prioritize areas where supply is low and supply building activities are most appropriate.

The relative shortage is a regression-based estimate. It begins by logging supply and demand measures using a natural log, then regressing logged demand on logged supply for each census block group. Buffered figures were used for both supply and demand.

Residuals from this regression are captured and grouped into categories. Each block group's residual represents the difference between its actual supply and the level of supply that would be typical for the area, based on its level of demand (i.e., the observed/actual amount of supply minus the expected amount of supply). Regression analyses were performed for each submarket within Ready Region Southeastern, allowing estimates to be calculated separately for each submarket.

The bottom 10% of residuals were classified as highest availability, residuals in the 11th to 30th percentiles were classified as high availability, and residuals in the 31st through 70th percentiles were classified as average availability. Block groups with residuals in the 71st to 90th percentiles were classified as low availability, and those above the 91st percentile were classified as lowest availability.

APPENDIX B: Additional Strategy Session Recommendations

Appendix B presents additional recommendations suggested by Strategy Session participants. These recommendations are presented in the Appendix because they require considerable coordination across multiple entities and/or policy changes to effectively implement.

Supply Building

Resources

Strategies that require partnership:

- **Develop additional financing resources for start-up costs.** This could include a revolving loan fund or grants for facility build-outs, purchasing start-up supplies for home-based ECCE providers, and other related costs.

Strategies that require policy change:

- **Implement a development or impact fee** when new businesses move to an area or large residential projects are permitted. These funds should be used for provider grants or a revolving low-interest loan program that supports ECCE supply building activities.
- **Provide city or county property or business personal property tax incentives for ECCE providers,** particularly for family day homes in areas with lower population density or far from commercial districts, to offset start-up and operating costs.

Systems

Strategies that require policy change:

- **Review existing requirements for establishing new ECCE sites to identify opportunities to streamline start-up costs and timelines**. Stakeholders specifically cited local zoning codes as a barrier to ensuring ECCE centers and home-based care are allowable in sufficient quantity.
- **Decrease start-up time for new providers** by creating fast-tracked or reduced-cost permit and license system, and increasing the number of health and safety inspectors to reduce the wait time for facility inspections. Consider developing

a streamlined application for new ECCE providers and sites that incorporates all jurisdictional requirements to reduce duplication of work.
- **Coordinate ECCE and Housing planning** to ensure that the planning process for new development considers the impact on ECCE demand. Consider leveraging density or other development bonuses for developers to encourage inclusion of ECCE facilities co-located within or proximate to new housing developments.

Business Sustainability

Resources

Strategies that require policy change:

- **Increase subsidy payments.** This includes regularly re-evaluating Child Care Subsidy Program (CCSP) reimbursement rates and developing new funding streams through local revenue sources (e.g., lottery funds, business taxes). If funding is unable to be increased for all providers, priority should be given to those who can show a consistent track record of quality care, potentially taking the form of graduated increases in subsidy payments as providers maintain quality ratings.
- Develop programs **incentivizing direct or indirect employer investment** for employees. This may include tax credit programs that incentivize employers to offer subsidy, provide low-cost on-site care, or partnerships with nearby/on-site providers to cover a portion of the cost of care for their employees.
- **Develop a public business insurance option** for ECCE providers. The price of business insurance continues to increase, compromising ECCE provider operational budgets; developing a public option could help reduce premiums and costs.

Strategies that require partnership:

- **Provide state-backed debt financing** to pay off high-cost debts held by ECCE provider (e.g. credit cards) at lower interest rates. Family day home providers are particularly likely to use personal credit cards or higher-cost financing for business-related costs.
- Develop a **funding pool or revolving loan fund for facility capital expenses, repairs, and improvements** that ECCE providers, including family day home providers, can access.

- **Develop funding to compensate providers** for classroom materials and space modifications that make classes accessible to children with special needs.

Systems

Strategies that require policy change:

- **Streamline and simplify subsidy compliance requirements** for providers. Piggyback program requirements to avoid paperwork duplication. Consider shifting to an advance payment system that pays providers for contracted subsidy slots ahead of service, rather than as reimbursement.

Family Engagement

Resources

Strategies that require partnership:

- **Partner with rideshare companies** to provide fare discounts to help families with transportation needs access subsidized care providers.
- Subsidize the development of **special education services in after hours or extended hours settings**.

Strategies that require policy change:

- Create a **refundable state tax credit for childcare costs** that helps families more easily afford the cost of licensed ECCE**.**

Systems

Strategies that require policy change:

- **Streamline and simplify subsidy application and certification requirements** for families. Align subsidy program eligibility with other public supports such as SNAP or TANF. Consider automatic qualification for families receiving these supports.
- **Review licensing requirements** to ensure adequate flexibility for providers that want to serve children with special needs (e.g. space requirements, bathroom requirements, elopement rules).

Services

Strategies that require partnership:

- Partner with local schools or health system providers to **increase speed of diagnosis** for families of children with special needs.

Workforce Supports

Resources

Strategies that require policy change:

- **Create a low-barrier, service-learning program** for ECCE teachers modeled after programs such as AmeriCorps or Teach for America.
- **Retain existing ECCE workforce by developing new streams of public funding to subsidize wages.** This could take the form of grants paid to providers to fund a portion of staff salaries, or be modeled from the Child Care WAGE$ program in North Carolina or the Pay Equity program in Washington, DC.
- **Provide financial and programmatic support for ECCE educators** pursuing advanced credentials. This could take the form of mentorship, financial support and career counseling, and can be modeled from the Delaware Early Childhood Innovation Center RISE Scholarships.

Systems

Strategies that require partnership:

- **Create a pool of pre-screened potential hires or substitute teachers**, updated by the state/localities or a multi-center consortia, to speed the process and reduce costs for hiring.
- **Encourage use of the Background Check Portability system** for childcare workers who are changing jobs to avoid lengthy delays.

Strategies that require policy change:

- **Streamline employee background checks and screening processes.** Consider joining a national compact so that results of background checks and screenings can be shared across states.

Services

Strategies that require partnership:

- Strengthen partnerships with local high schools to **encourage inclusion of ECCE offerings in Career and Technical Education (CTE) tracks**.

APPENDIX C: VECF ECCE Analyst Toolkit

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Virginia Early Childhood Foundation

READY REGIONS

ECCE Analyst Toolkit

A Guide for Ready Region Analysts Measuring Access to Early Childhood Education in Virginia

October 2025

Introduction

This toolkit is designed to help Ready Region analysts measure the supply, demand, and shortage of Early Child Care and Education (ECCE) in their region. The toolkit describes considerations for measuring supply, demand, and shortage; recommendations for putting analysis into action and monitoring changes over time; and common sources of data.

The toolkit is organized into seven sections. Click on a section below to begin.

Before You Begin: Designing a Research Study

Before you launch into a research study to better measure ECCE access, consider the following questions to help guide your study design:

What problems are you trying to solve? Considering from the beginning how you might use the results of the study can guide your decision making on where to focus your study geographically, which program types to include for primary or additional analysis, and what next steps are appropriate for your work.

What is your staff and funding capacity? ECCE access can be investigated at a high level, considering overall gaps in supply and demand in a locality, or at deeper levels, incorporating submarkets and specific segments of ECCE supply and demand. Studies with significant staff capacity and experience can include sophisticated statistical methods and advanced geographic analyses; studies with additional funding capacity may want to incorporate family surveys.

How will you include stakeholders? Stakeholders who feel like they have been involved in the creation of your analysis are more likely to believe the results of your work and use your findings. Stakeholders can be asked to review and validate preliminary data findings, provide feedback on analysis, and offer suggested investment strategies. See Putting Your Analysis Into Action for more on stakeholder involvement.

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Defining a Study Area

Every analysis happens somewhere. This section provides guidance on how to define and subdivide the geographic area or areas in your analysis.

Selecting the Right Geographic Scale

Every analysis happens in a place. A child care analysis might examine care across an entire Ready Region, throughout a locality, or even within a specific neighborhood. The geographic scale of your analysis—the size of the area you'll be analyzing—is an important first consideration for any analysis.

Before you begin gathering data, think about your goals and the level of geographic precision that you'll need.

An analysis that is intended to inform broad policy discussion or spark stakeholder engagement will likely require a large geographic scale. For example, measuring the aggregate supply and aggregate demand across an entire Ready Region or a legislative district.

These kinds of high-level analyses don't provide information about the variation inside of communities, but they do offer clear findings that can spark discussions about needs and challenges.

An analysis designed to inform programmatic decisions or resource allocation on the other hand, will likely require more geographic precision. An analysis to inform where grants are awarded, for example, might need to calculate the supply and demand in every census tract in a locality in order to identify the areas with the highest unmet need.

An analysis at a smaller geographic scale provides insights into the variation within and between different areas but may be too much information for those not already steeped in the child care sector.

Reinvestment Fund's child care analysis is performed at a census block group level. Block groups are small enough to allow for results that show differences within and between neighborhoods, but large enough so that the analysis still provides information about the characteristics of residents living in the area. For more, see "What are Census Block Groups?"

Using Census Geographies

Regardless of the scale you select, it will be easier to complete your analysis if you conduct your work using census geographies.

Using census geographies allows you to link your analysis to data from the Census Bureau's data products, like the American Community Survey (ACS), that offer information about the characteristics of children and families.

Census Geographies

The Census Bureau divides the nation into a set of contiguous geographies that are nested to allow analysts to examine data at different levels of geographic precision. These geographies range from large areas like regions, states, and counties, to smaller geographies like census tracts, block groups, and census blocks.

Most geographic analyses are performed at a census tract or block group level. Census tracts generally have a population size between 1,200 and 8,000 people, while block groups, which in urban areas cover only a few city blocks, generally have a population of 600 to 3,000 people.

Illustration of Census Geographies by Decreasing Size

States → Counties → Tracts → Block Groups

Some ACS tables are only available at larger census geographies like counties; however, most are available at a census tract level, and many are also available at the smaller block group level.

Identifying Submarkets

If your analysis covers a large geographic area, like a state or Ready Region, it will likely include multiple distinct communities and population centers. Combining multiple disparate markets into a single analysis can lead to results that obscure the unique trends and needs within individual areas. When working across a large geographic area that contains multiple markets, it can be helpful to define distinct regions for conducting “submarket” analyses.

To define submarkets in a region, look at the geographic boundaries in the area and select or create a set of divisions that make sense for your analysis. Submarkets should generally be contiguous and contain areas with similar population density (i.e grouping an urbanized metro across localities or separating denser areas of a region from more rural areas).

If you are unsure of which geographic divisions to use, consider the follow census boundaries:

Locality Borders. Localities (cities or counties) are an easy and intuitive way to divide a larger region into parts. Localities have distinct administrative units that make them a natural choice to define submarkets. Localities can be used individually or combined into groups; for example, when the population centers of two adjacent localities are close together.

Public Use Micro Areas (PUMAs). PUMAs are defined by the Census Bureau to contain approximately 100,000 residents and to divide areas using natural boundaries (such as major roads, rivers, or administrative borders). PUMAs can be a single locality, part of a locality, or a combination of multiple locality areas. The Census provides highly detailed information about the characteristics of residents in PUMAs.

Core Based Statistical Area (CBSA). CBSAs, also sometimes knowns as metro areas or micropolitan areas, represent urban clusters around a core population-dense area. Although large, CBSAs are often natural commuting zones within which workers live or travel for jobs, making them a good candidate for defining regional submarkets.

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Considerations for Measuring Supply

Measuring ECCE supply requires an understanding of the location, size, and other characteristics of the ECCE providers in an area. This section provides an overview of approaches to measuring ECCE supply and considerations for using ECCE supply data.

Program Types and Characteristics

ECCE supply analyses often start by identifying the number, type, and characteristics of programs that are operating in an area. Understanding the type of programs in an area is critical for determining the types of interventions and strategies that are appropriate. Program characteristics like those described below are helpful for understanding more about the programs and services that providers are offering.

Types of ECCE Programs

Child care programs can be divided into three broad categories. These categories are helpful for understanding the types of interventions and supports that are most appropriate.

- **Center-Based Programs** provide most of the ECCE capacity across the commonwealth. These programs are located in commercial facilities and range in size from under 20 to over 100 children.
- **Home-Based Programs** are smaller residential-based ECCE options. Home-based providers operate out of a residential property that they live in as a renter or owner. These programs are small with a maximum licensed capacity of 12 children.
- **School-Based Programs** are located in school facilities, either public or private. These programs most often specialize in pre-kindergarten education for three- and four-year-olds.

Program Characteristics

Although they are not always available, it can also be helpful to examine the following program characteristics when evaluating ECCE supply.

- Location/Address
- Hours of Operation
- Licensed Capacity
- Actual Enrollment
- Ages Served
- Full Day Prices
- Languages Spoken by Staff
- Participation in Public Subsidy Programs
- Special Education Expertise
- VBQ5 Quality Rating

Measuring Supply

Supply is intended to represent the number of children in an area that existing programs can serve. Studies of ECCE supply often make a distinction between three different measures of supply: licensed capacity, operational capacity, and program enrollment.

Licensed Capacity is the maximum enrollment that an individual program can have. Programs are assigned a licensed capacity based on state regulations concerning student teacher ratios, facility square footage, and other factors. Licensed capacity figures are available for nearly all programs, but in practice often overstate the actual enrollment that individual programs are willing to accept.

Operational Capacity is the number of children that an individual program will serve in practice. Programs decide on an operational capacity based on their curriculum, current staffing, and pedagogical philosophy. Operational capacity is a more accurate representation of supply than licensed capacity but is difficult to measure. In practice, operational capacity is not fixed and varies based on staffing availability and financial considerations.*

Actual Enrollment represents the number of full-time equivalent students enrolled in a program at a specific point in time. The difference between operational capacity and actual enrollment represents the number of seats that are available for new families. Enrollments often fluctuate over the course of the year as students age and families move. Definitions of “full-time” vary but generally include programs open for at least five hours a day (e.g., 9am to 2pm).

See the Common Data Sources section for more information about where to find these data

*See this recent study from Early Childhood Research Quarterly for more on using licensed vs. operational capacity: https://www.sciencedirect.com/science/article/abs/pii/S0885200624001716a - ScienceDirect

Geocoding Program Locations

For ECCE analyses it is often helpful to aggregate information about individual sites to a larger geography such as zip code, census tract, or locality to compare an area's supply with its demand.

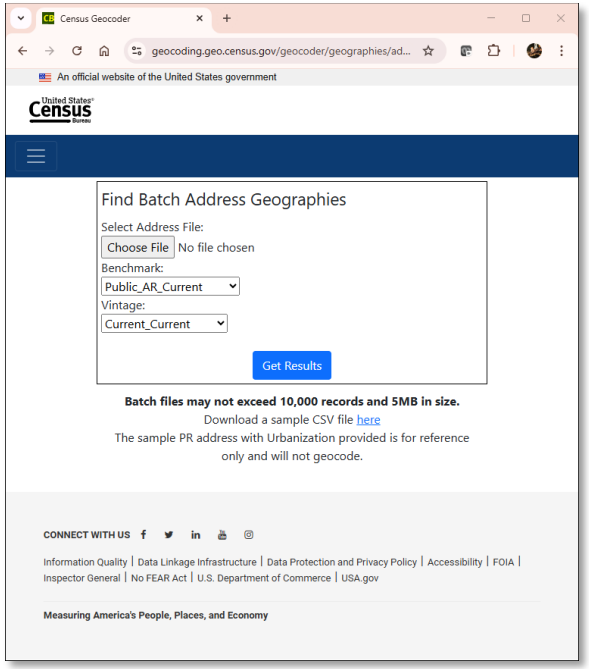
Geocoding is the process through which street addresses are coded with geographic information, such as latitude and longitude coordinates, or assigned to a specific census geography.

The Census Bureau provides a free geocoding tool that converts up to 10,000 address at a time into latitude and longitude coordinates and census geographies.

https://geocoding.geo.census.gov/geocoder/

Geocodio also provides a low-cost option for high-quality geocoding services.

https://www.geocod.io/



Segments of Supply

Evaluating the total number of seats in an area is often sufficient for basic comparison of supply and demand, however, analysts may be interested in understanding different segments of an area's supply:

Age. Evaluate the number and share of programs that serve children at different age levels (infants, toddlers, preschoolers).

Price. Examine the supply of care at different price levels based on family incomes in the community.

Public Funding. Evaluate the number and share of programs that participate in public subsidy programs to help families afford the cost of care.

Hours of Operation. Examine the number of programs open early in the morning (before 7am) or later in the evening (after 6pm).

Quality Level. Evaluate the number of programs that have received high quality ratings on the state's VBQ5 system.

See the Common Data Sources section for more information about where to find these data

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Considerations for Measuring Demand

Demand for ECCE fluctuates based on families' changing needs and preferences as well as market factors like the availability and pricing of care. This section provides an overview of approaches to measuring demand for ECCE and considerations for using ECCE demand data.

Understanding Demand for ECCE

Measuring a community's ECCE demand is important for understanding if the level of supply is sufficient for families' needs.

To measure the demand for ECCE we recommend starting by estimating the potential customers for child care rather than the true demand in an economic sense. The potential customers for child care are all the families with young children that live in the area you are analyzing as well as those who might travel to the area in search of child care.

This measure of potential customers for care is usually an over-estimate of child care demand because it includes both families that are actively using or looking for care, as well as some who are not. However, for most ECCE analyses it is a sufficient benchmark for evaluating if there is enough supply for families.

This section describes approaches to measuring the number of potential customers for ECCE, as well as various ways to refine your estimates to get closer to the true level of "demand" for ECCE services.

What is Demand in the Child Care Sector?

In classical economics "demand" refers to the quantity of goods that customers are willing to purchase at a specific price at a specific point in time.

In the child care sector, the level of demand responds to the cost of child care in the market, but also the location and quality of existing providers, and each family's unique preferences and needs over time.

In other words, demand for child care is not a fixed number that can be easily measured or approximated. It is constantly in flux based on changing market conditions and individual family preferences.

Who are the Customers for ECCE?

To understand the number of potential ECCE customers, you should start by analyzing the characteristics of families that live in the area you are studying. If the area you are trying to study includes large employers or job centers, you may also want to consider the characteristics of parents that work in the area but live somewhere else.

Population of Children and Families

Since most families prefer child care near their homes, the number of young children living in an area is the foundation of most demand estimates. Information from the Census Bureau is the most common source of population estimates, but more sophisticated approaches using historic birth rates or migration data are also possible.

See the Common Data Sources section on the American Communities Survey for more information about population estimates.

Workforce and Commuting Patterns

Parents who work in an area but live somewhere else might also be potential customers for child care, particularly if the area you are studying includes large job centers or major employers. Additionally, understanding where the parents in your target area work can inform your understanding of where they might look for care outside of their neighborhoods or communities.

See the Common Data Sources section example of estimating workforce demand for more information about job location and commuting analyses.

Family Attributes and Characteristics

Depending on the purpose of your analysis you may only be interested families or potential customers that meet certain criteria. For example, families with incomes that make them eligible for public programs, children with working parents, or families with infants or older children. Information from family surveys or Census Bureau data can be useful for parsing out the potential ECCE customers you are trying to study from the broader population.

See the Segments of Demand page for more information about the family characteristics and attributes that may be helpful for your analysis.

Considerations for Measuring Demand

Population estimates generally overestimate demand for ECCE because they include families that don't use or aren't looking for out-of-home child care. In most cases this is sufficient, however, analysts interested in estimating a more precise measure of ECCE demand should look for other factors that can help calibrate population figures.

Labor Force Participation. Dual-parent households where both parents are employed, or single-parent households where one parent is employed, will likely require some form of nonparental care. Census data provides an estimate of the share of children living in homes where all of their parents are working. Analyzing only the share of children in these working families provides a more conservative estimate of ECCE demand.

Family and Caregiver Preferences. Parents have strong preferences for how they would like to care for their children. Designing a family or caregiver survey, as described on the following page, can provide more precise information about the share or characteristics of parents who are current or potential users of ECCE.

Waitlist Information. Areas where most or all providers maintain a waitlist should have higher demand than areas where providers do not have waitlists. However, information from provider waitlists is difficult to collect and interpret. For one, not all providers keep a waitlist. For example, in areas where providers are confident they will fill their programs, they may not feel the need to maintain a list of interested families. Additionally, parents often join multiple waitlists, and the size of a program's waitlist may not indicate an area's actual demand. Finally, waitlist data are age specific. One program may have a waitlist for an infant classroom but vacancies in a pre-school classroom. Analysts should carefully consider these factors when using waitlist data to measure demand.

Family Surveys

Family surveys can provide a wealth of information about family preferences and needs, but reaching a representative group of parents and families is challenging.

To accurately capture the perceptions of families, a survey should reach both families that currently use ECCE and those that do not. Be mindful that children are not always cared for by parents – surveys should allow for other appropriate individuals to engage with the survey as well.

Use Caution When Administering Surveys

Surveys should reach a balance of families across the income spectrum, with cultural/linguistic backgrounds and household structures that reflect the broader community.

Surveys that only reach one type of family could provide a misleading view of community needs.

Possible Topics for a Family Survey

Family Composition

(e.g., number and age of children, presence of other household members)

Parent Work Arrangements

(e.g., employment status, typical work schedule, schedule stability)

Current Child Care Arrangements

(e.g., use of parental care, family and friends, licensed care, combination)

Child Care Preferences

(e.g., important quality factors, affordability, desired arrangement, understanding of existing options)

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Segments of Demand

In addition to understanding the potential customers for ECCE, analysts may be interested in understanding different segments of an area's demand.

Age. Examine population and demand estimates by the age of children to understand how demand varies across infants, toddlers, and preschoolers.

Income. Examine household and family income to learn about families' ability to afford care at different prices and potential eligibility for publicly funded programs.

Language. Examine household language usage to understand more about the likely need or interest in dual-language programs or the need for resources for non-English speakers.

Parental Employment. Examine labor force participation information such as commuting times and work departure times to understand the need for early morning or evening care.

See the Common Data Sources section for more information about where to find these data

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Considerations for Measuring Access and Shortages

The goal of many analyses is to improve families' access to ECCE, particularly high-quality ECCE. Measures of supply and demand help analysts evaluate whether the number of ECCE providers in an area is sufficient for the needs of families (i.e., ECCE availability). But access to care has other important dimensions beyond the number of providers or seats. This section provides an overview of approaches to measuring ECCE availability and considerations for evaluating other critical factors and potential barriers to access.

Measuring ECCE Availability

A family's access to ECCE is based on both the availability of care and the degree to which providers are offering services that meet the family's needs. This section focuses on measuring the availability of care, specifically the level of supply shortages or surpluses in a region, but other factors such as program quality and affordability are equally important.

Approaches to Measuring ECCE Supply Availability

Availability Measure	Pros	Cons
Absolute Shortage *Supply – Demand*	• Simple to calculate • Easy to interpret results	• Difficult to compare across communities • Usually overstates level of shortage
Supply Ratio *Supply ÷ Demand*	• Results are easy to explain • Easier to compare across communities	• Usually overstates level of shortage • No definition of "well served" vs. underserved
Relative Shortage	• Provides metric for prioritizing activity • Less likely to overstate level of shortage	• Calculation is more complex • Less useful in areas with overall capacity shortages

See the following slides for a discussion of each measure

Absolute Shortage

If your goal is to understand the size of the gap between supply and demand in an area, calculate the absolute shortage: the difference between an area's supply and demand. Absolute shortage represents the number of seats a community would need to add to ensure one seat for every child.

In general, areas with more demand than supply will have low program availability, while areas where supply is closer to demand will have higher availability.

While this measure is simple to understand and easy to calculate, it can be difficult to compare results across communities of different sizes. Smaller areas with less population will naturally have smaller absolute shortages than areas with more population.

Moreover, since most measures of demand capture the total number of children in an area, rather than the number of families actively searching for care, this measure can overstate the level of shortage. Using a supply measure that also overstates supply, such as licensed capacity, can mitigate these concerns.

Example

This section describes a simple example of the absolute shortage calculation for localities in Ready Region Southeastern.

Step 1: Use population estimates to calculate children under five in each locality.

This figure represents the demand for child care in each locality.

Step 2: Use data from VECF to calculate the aggregate licensed capacity for each of the child care programs in each locality.

This figure represents the supply of child care in each locality.

Step 3: Subtract the demand estimate calculated in step 1 from the supply estimate calculated in step 2.

This figure represents the number of seats each locality would need to add to have one seat for every child.

	Pop. Under Five	Licensed Capacity	Absolute Shortage
Accomack	1,700	800	900
Chesapeake	14,900	12,600	2,300
Franklin	600	400	200
Isle of Wight	2,100	1,400	700
Norfolk	14,300	10,200	4,100
Northampton	500	600	-100
Portsmouth	6,300	5,900	400
Southampton	700	600	100
Suffolk	6,400	4,700	1,700
Virginia Beach	25,900	20,700	5,200
Total	**73,400**	**57,900**	**15,500**

Example data for demonstration purposes

Supply Ratio

If your goal is to compare shortages across different areas or communities, another useful measure is the supply ratio: the level of supply in an area divided by the level of demand. This figure represents the share of children (demand) that can be served in existing programs (supply).

Communities with values closer to 1.0 (or 100%) have enough capacity to serve most children, while communities with values near 0.0 (or 0%) have capacity to serve very few children.

Because this value is a ratio, it is easier to compare across areas with different population sizes. Moreover, the supply ratio is easy to interpret and explain. Like absolute shortage, however, this measure likely overstates the true level of shortage since most communities do not need one seat for every child.

The ratio can be reported in two different ways. Supply divided by demand represents the share of the population that can be served (shown here). Demand divided by supply represents the number of seats per child available in the area.

Example

This section describes a simple example of the supply ratio calculation for localities in Ready Region Southeastern.

Step 1: Use population estimates to calculate children under five in each locality.

This figure represents the demand for child care in each locality.

Step 2: Use data from VECF to calculate the aggregate licensed capacity for each of the child care programs in each locality.

This figure represents the supply of child care in each locality.

Step 3: Divide the supply estimate calculated in step 2 by the demand estimate calculated in step 1. This can be converted to a percentage.

This figure represents the share of children that can be served with licensed capacity in each locality.

	Pop. Under Five	Licensed Capacity	Supply Ratio
Accomack	1,700	800	47%
Chesapeake	14,900	12,600	85%
Franklin	600	400	67%
Isle of Wight	2,100	1,400	67%
Norfolk	14,300	10,200	71%
Northampton	500	600	120%
Portsmouth	6,300	5,900	94%
Southampton	700	600	86%
Suffolk	6,400	4,700	73%
Virginia Beach	25,900	20,700	80%
Total	**73,400**	**57,900**	**79%**

Example data for demonstration purposes

Relative Shortage

If your goal is to prioritize different areas in your region for supply building activities, then relative shortage is a helpful measure. The measure is calculated by comparing the relationship between supply and demand in individual areas against a common benchmark, like the regional average. Areas with supply near or above a regional average are better served than areas with supply far below what is typical.

One way to implement this measure is to compare the supply ratio in different census tracts to the average supply ratio across a region. In this example, the average supply ratio across the region provides a benchmark for identifying areas that are well served and areas that are underserved.

Because relative shortage is designed to compare areas to one another, it is a useful metric for prioritizing activities. Moreover, because it uses a regional average as a benchmark it is less likely to overstate shortages than the previous two measures. However, relative shortages are more complicated to explain. Additionally, in areas that are underserved by supply overall, even communities that have more supply than average may still need support.

Example

This section describes a simple example of the relative shortage approach for localities in Ready Region Southeastern

Step 1: Calculate the supply ratio for each of the localities in the Ready Region.

Step 2: Find the average or median supply ratio among localities in the Ready Region.

This figure will become the benchmark against which localities are compared. It represents the average share of seats that are available for children in the region.

Step 3: Subtract each locality's supply ratio from the average ratio calculated in step 2. This figure represents how far each locality is from the regional average.

Localities with positive values have greater access than the regional average. Localities with negative values have less access than the regional average.

	Supply Ratio		Relative Shortage
Accomack	47%		-32%
Chesapeake	85%		+6%
Franklin	67%		-12%
Isle of Wight	67%		-12%
Norfolk	71%	*Average: 79%*	-8%
Northampton	120%		+41%
Portsmouth	94%		+15%
Southampton	86%		+7%
Suffolk	73%		-6%
Virginia Beach	80%		+1%

Example data for demonstration purposes

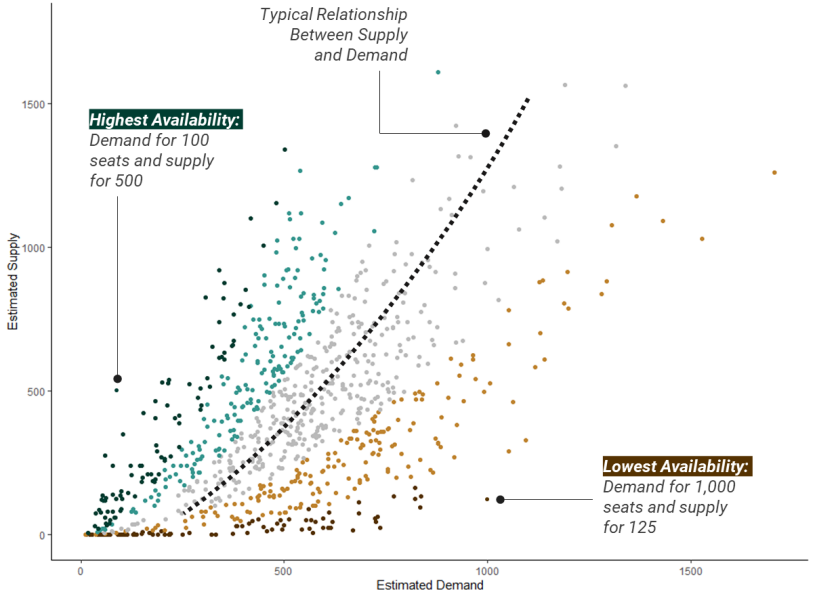
Measuring Relative Availability

Reinvestment Fund (RF)'s ECCE shortage analysis is another version of the relative shortage approach. RF's approach uses a regression analysis to estimate the relationship between supply and demand within a region. In this example, the regional benchmark is the typical level of supply at a given level of demand.

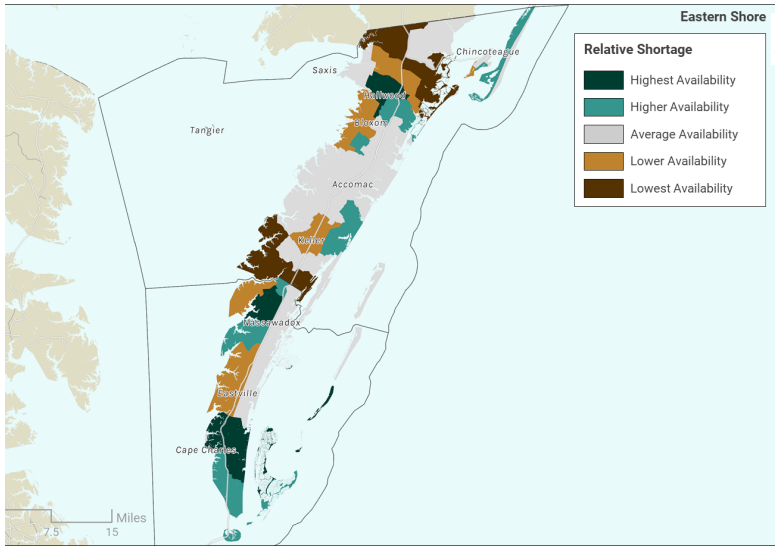
If your goal is to prioritize areas for supply building initiatives, this approach provides a measure for identifying areas that are well served and areas that are underserved. With an understanding of the typical relationship between supply and demand, it is possible to identify areas where, given their level of demand, supply is much lower than the rest of the region.

Areas with lower relative supply than the rest of the region are often good candidates for supply building initiatives.

Illustration of Relationship Between Supply and Demand



Mapping Area Classifications Based on Supply and Demand Relationship



Advanced Geographic Analyses

Researchers working in the healthcare field have developed a sophisticated set of methods for measuring access to healthcare services and facilities that can be adapted for ECCE analyses.

Many of these approaches rely on the concept of a Floating Catchment Area (FCA) around which both supply and demand are measured.

FCA approaches are designed to consider both the distance between the location of supply and demand, as well as potential competition between service providers for customers and between customers for services.

FCA approaches have been adapted to ECCE in various ways.

One of the most common FCA models is the Two Step Floating Catchment analysis (2SFCA), which works by breaking the analysis into two distinct steps:

In the first step of the 2SFCA analysis, analysts calculate an availability ratio for each service center. This ratio is calculated by dividing each service center's capacity by the total population that can reach it.

Higher ratios indicate that centers are likely to have excess capacity while lower ratios indicate centers likely experience excess demand.

In the second step of the analysis, analysts calculate the sum of the service ratios that are reachable from every population center.

High scores at the end of the second step indicate greater access, since population centers with high scores are either located near many service centers or service centers with excess capacity.

Lower scores indicate lower access, since population centers with low scores are either near over-subscribed service or very few service centers.

Advanced Geographic Analyses (cont.)

The 2SFCA methodology can be modified to consider additional factors like travel distances, consumer preferences, and commuting patterns.

Implementing an FCA approach requires statistical software with the ability to compute spatial distances. Additionally, the results of an analysis like a 2SFCA can be difficult to interpret since the final results are not expressed in terms of seats or shortages. This method is not necessary to gain an understanding of local childcare markets but is an approach you can choose if your Ready Region has the necessary resources and staff expertise.

Further Reading:

Malik, Lee, Sojourner, and Davis (2020). "Measuring Child Care Supply Using the Enhanced Two-Stage Floating Catchment Area Method" Center for American Progress http://cdn.americanprogress.org/content/uploads/2020/06/18081719/Child-Care-Deserts-Methodology.pdf

Fransen, Neutens, De Maeyer, and Deruyter (2015). "A Commuter-Based Two-Step Floating Catchment Area Method for Measuring Spatial Accessibility of Daycare Centers" Health & Place https://www.sciencedirect.com/science/article/abs/pii/S1353829215000040

Jorg, and Haldimann (2023). "MHV3SFCA: A New Measure to Capture the Spatial Accessibility of Health Care Systems" Health & Place https://www.sciencedirect.com/science/article/abs/pii/S1353829223000114

Tutorial:

Dylan Nagy. "Enhanced Two-Step Floating Catchment Area (E2SFCA)" University of Pittsburgh School of Public Health https://rpubs.com/djn34/e2sfca

Other Factors that Influence Access

Access to ECCE is about more than simply measuring supply and demand. Families living in areas that appear to have sufficient supply might still struggle to access care for a variety of other reasons. Analysts should carefully consider how these other factors might influence access by speaking with community members, providers, and other stakeholders:

Price. Cost is a driving factor behind child care decisions for many families. Families that live near ECCE options they cannot afford still lack ECCE access.

Quality. Parents want safe, high-quality environments for their children. If programs are available, but do not meet families' quality standards, they will not use them.

Hours. Many programs operate during traditional business hours. Parents that work nontraditional hours, weekends, or shift work may require care outside of the traditional 9am to 5pm schedule.

Language/Culture. Families that speak languages other than English may require additional language support to access care. Moreover, some families may only be interested in programs that align with their cultural background and traditions.

Special Needs. Families of children with special needs may require providers who have particular expertise, resources, or facilities.

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Putting Your Analysis Into Action

A rigorous analysis of supply, demand, and shortages in your region is the start, not the end, of the work. Putting your analysis into action to drive policy changes, investments, and programming requires identifying and engaging with the different stakeholders in your community. This section provides guidance on how to identify, convene, and work with your community to advance data-informed policies around ECCE.

Identifying Your Stakeholders

Before you begin, think about who the critical ECCE stakeholders are in your region and how to engage them. To help you with this process, this section provides a description of many common types of ECCE stakeholders:

Parents and Other Family Members have firsthand experience accessing and using ECCE. They provide a way to ground conversations in real lived experiences and test or validate your findings about access and availability.

ECCE Providers have firsthand experience working with families and navigating administrative systems. They can provide insight into challenges and market conditions and may also be able to review and validate findings related to demand, supply, and availability.

School District Administrators play a variety of roles in the sector as both funders and providers of ECCE. They can provide insight into gaps and available resources and will be critical partners for implementing new programs and investments.

Employers are reliant on ECCE to support their workforce. They can often provide insight into challenges related to access and can offer support advocating for change. Employers might also play a role in financially supporting access for their employees.

Policymakers and Administrators support the sector by designing policies and administering the systems that shape the ECCE landscape. They will be critical partners for developing and evaluating potential solutions to meet identified needs.

Funders support the sector through resources and convening. They can provide insight into resource availability and utilization and are often important partners for implementing new programs and investments.

Advocates support the sector by working to secure resources and address policy needs. They can provide valuable insight into challenges in the sector and guidance on framing and describing findings. When it comes time to implement solutions, they will be critical partners.

Convening for Change

The creation of an ECCE analysis is an excellent opportunity to convene stakeholders to work collectively to identify challenges and solutions. Stakeholders who feel that they have been involved in the creation of your analysis are more likely to believe the results of your work and use your findings. There are many ways to convene stakeholders as part of a gaps analysis.

This section describes some of the key areas where stakeholder input can help shape your analysis:

Documenting Supply

Ask stakeholders to review your data to ensure you are capturing as much of the market as possible.

Does existing data capture all of the providers in the market?

Beyond capacity, what additional provider characteristics shape demand?

Estimating Demand

Stakeholders can help inform your analytic assumptions for modeling demand for care.

What are the appropriate assumptions around commuting and travel times?

What other factors influence where and how families search for care?

Identifying Market Segments

Stakeholders can help you identify special populations or services that require additional analysis.

Are there unique family needs in the area that the analyst should consider?

How should the analysis disaggregate supply and demand for stakeholders?

Validating Results and Findings

Stakeholders can fill in gaps or explain factors that are difficult to capture with existing data.

What other factors not captured in the analysis could help explain results?

What are the causes behind identified shortages that stakeholders should address?

Developing Investment Strategies

In areas where there are large shortages of ECCE, stakeholders should consider how to grow supply through targeted investments. The specific investment strategies and interventions you develop should be informed by your data analysis but driven by feedback from stakeholders. To develop your strategy, consider these questions:

I. What Type of Supply is Needed?

Your analysis can offer guidance on what type of supply is needed in your community. Some areas may have a surplus of preschool care, but a large shortage of infant and toddler care. Others may have too few sites participating in state funded subsidy programs or achieving high quality ratings. The data you gathered on supply and demand can help identify the type of supply your region should prioritize.

II. Where is Supply Needed?

Even in regions with an overall shortage of care, there are usually neighborhoods that are well served. Creating new supply in these areas is often not the best use of limited resources. Data from your gap analysis can help prioritize the location of investments to high-need areas. The relative shortage analysis, for example, provides a metric for ranking different geographic areas based on their level of shortage. Prioritizing investments in the highest shortage areas is a good way to inform the allocation of limited resources.

III. What Type of Investments are Needed?

Once you have identified the type of supply to build and where to prioritize it, consider what type of supply building is most appropriate. In general, there are three approaches to building supply.

- *New Business Creation* is appropriate in areas without enough providers for families. This involves supporting new entrepreneurs or helping teachers, parents, and others working in the sector with business development.
- *Program Expansion* is appropriate in areas with well-established providers, but an overall shortage of capacity. Expansion projects involve investing in building modifications or renovations to add new classrooms and expand capacity within providers' current facility.
- *Program Replication* is appropriate in areas with insufficient capacity and where facility expansions are not feasible. Replication projects help providers with a track record of success open a new location of their existing business. Operating a multi-site program is substantially more complex than operating a single-site and these projects require substantial business coaching and planning.

Developing Investment Strategies (cont.)

In areas with sufficient supply, there may be other challenges that require investments in ECCE programs or activities to support families.

Provider Focused Strategies

Business Sustainability
Administrative services and business planning

Marketing Support
Develop marketing campaigns

Quality Improvement
Support rating improvements

Peer Support Networks
Create peer learning opportunities

Facility Renovation
Improve grounds and classrooms

Workforce Recruitment
Support workforce pipelines

Program Services
Support new program services

Workforce Training
Develop staff skills and competencies

Family Focused Strategies

Enrollment Support
Connect with suitable ECCE programs

Fresh Food Access
Healthy meal access in ECCE

Language Services
Support language accessibility

Benefits Enrollment
Help parents enroll in benefit programs

Peer Support Networks
Create peer engagement opportunities

Transportation Services Support geographic access

System Education
System navigation support

Employer Benefits
Encourage workplace benefits

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Monitoring Change Over Time

Tracking Change Over Time

Once you've completed your analysis of supply and demand, you may want to update it to monitor progress. Measuring change in ECCE markets over time provides a way to evaluate the impact of your work, monitor progress, and stay ahead of trends and changes.

How often you update your analysis will depend on how you plan to use your data. Most child care gap analyses that are designed to impact policy or advocacy are updated annually to correspond with administrative funding cycles. If you are using your data for programmatic purposes you may want to update your data more frequently, or less.

How often the data that you are relying on is updated is another important consideration. Data from the Census Bureau that are used for many demand analyses are updated only once a year. Some sources of supply data are updated continuously, while others are updated less frequently.

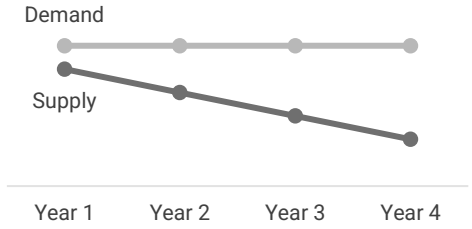
Tracking change over time does not always require a full update of your entire analysis. If your goal is to monitor the impact of interventions over time, simply tracking the location of public or private investments or the location of new sites or other supply changes over your existing measures of demand and shortage may be sufficient.

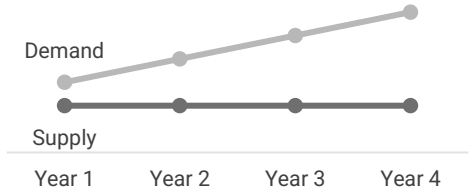
Tracking Change Over Time (cont.)

One complication with measuring change in ECCE availability over time is that shortages respond to both changes in supply and changes in demand. If you are interested in understanding changes in shortages over time, be sure to examine trends in both supply and demand separately. As shown in the examples below, a growing or shrinking shortage can be caused by changes in either supply or demand.

Growing Shortages

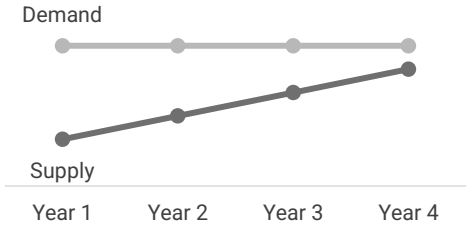
Both examples show a widening gap between supply and demand. In the top example, stakeholders should start by investigating the loss of supply. In the bottom example, they should focus on supply building.

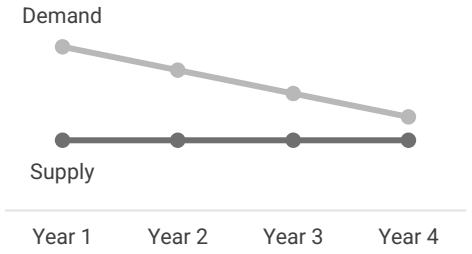




Shrinking Shortages

Both examples show shrinking gaps between supply and demand. In the top example, supply is growing to meet demand. In the bottom example, stakeholders should investigate the loss of demand.





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Considerations for Measuring Change

Data on changes in ECCE markets over time can help you answer questions that a snapshot of the market cannot. Below are some of the common types of questions analysts may wish to answer with data on change over time:

Changes in Demand. How has demand for care changed over time? Are changes due to changing birth rates or migration/immigration into or out of the area? Where in the region are changes concentrated?

Changes in Supply. How has the supply of ECCE changed over time? Are changes due to more sites opening and existing sites expanding or sites closing or moving? Are there trends in the type of new providers opening or the type of new services offered by expanding programs?

Sector Stability. How many new providers have opened over time and how many existing providers have closed? What is the average age of existing ECCE programs and how has it changed over time? What are the characteristics of providers that closed?

Future Projections. Where do planning officials expect population and job centers to change in the medium and long term? How would shortages change under different population and growth scenarios? What are existing supply levels in areas where local officials have plans for future development?

Future Population Growth

Comparing current supply trends and conditions against future population growth scenarios provides valuable insight into the need for ECCE investments.

The University of Virginia's Weldon Cooper Center for Public Service provides five-, fifteen-, and twenty-five-year population projections for municipalities across the Commonwealth.

https://www.coopercenter.org/virginia-population-projections

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Common Data Sources

Any analysis of ECCE in your region begins with selecting the right data to answer your research question. This section describes public data sources that are available to help you measure demand for and supply of ECCE within your region.

ECCE Provider Data

Most ECCE programs interact with at least one public agency that provides licensing or oversight. Most of these agencies maintain a database or a list of programs they oversee, along with basic site information such as location and capacity. These can be the basis of your ECCE analysis.

This section provides an overview of major databases and other data sources that describe ECCE programs in the Commonwealth. While each of these data sources is distinct, individual sites may be included in multiple databases. If your analysis combines information from multiple sources, make sure to deduplicate the sites in each source to avoid double counting.

DOLPHIN is the Commonwealth's licensing database and contains records for most ECCE programs operating in Virginia. The database includes records for sites licensed and regulated by the Virginia Department of Social Services as well as sites that are exempt from licensing or regulation and voluntarily register. It does not include programs in public schools. It also does not include the full list of programs that are exempt from public licensing and regulation. The database contains information about the ages each program is licensed to serve, location, licensed capacity, and participation in the Child Care Subsidy Program. Records are updated regularly, as new sites are licensed or site licenses lapse.

LinkB5 is an administrative database for VQB5 that includes information about all Virginia ECCE programs that receive public funding and operate at least three hours per day for 128 days a year (roughly four days a week). This includes providers that participate in Child Care Subsidy, Mixed Delivery, and programs that operate in public schools (Virginia Preschool Initiative, Title I). Programs for which the sole source of public funding is either Military Child Care Fee Assistance (MCCYN) or the Child and Adult Food Care Program (CACFP) are not required to participate in VQB5 and may not be in LinkB5. The database includes self-reported information about the various types of funding each provider accepts, hours of operation, and information on classroom enrollment and vacancies. Records are updated annually in the fall.

ECCE Provider Data (cont.)

Mixed Delivery Data Portal is an administrative database, maintained by the Virginia Early Childhood Foundation and Ready Regions, that describes participation in the Mixed Delivery program. Information in the database includes the location of participating programs, the number of children enrolled in Mixed Delivery by age, and children on Mixed Delivery waitlists. Data in the portal can be used to verify the self-reported information on Mixed Delivery funding reported in LinkB5.

Local Ordinance Programs. Four localities (Arlington, Alexandria, Fairfax, and Norfolk) have the authority to approve programs in their own jurisdictions. These programs may not be included in other public datasets. Ready Region Capital Area maintains a database of local ordinance programs in Arlington, Alexandria, and Fairfax.

Military Child Care. Child care programs operated by the military are not always captured by public datasets. The military operates a public website listing the location and characteristics of programs available for military families. It is unclear how often these data are updated.

Business Records and Listing Services. ECCE programs not captured in public child care databases may be captured in business licensing or business listing databases. While some municipalities maintain a public database of licensed businesses others do not. Private data vendors, such as Dun & Bradstreet and Data Axle, sell business lists which aim to capture the characteristics and locations of active businesses. Although they are not designed specifically for child care analyses, the data often include child care records. These databases are constructed from credit card, web scraping, and real estate records.

The Virginia Early Childhood Foundation maintains a crosswalk of sites between many of the databases listed above. Their crosswalk is a useful starting place for building a dataset of ECCE supply. For more information on how to access the Foundation's data, contact becky@vecf.org.

Example: Estimating Infant and Toddler Care

Many stakeholders are interested in the availability of age-specific child care services such as the availability of infant and toddler care. Child care supply data include information about overall licensed capacity or enrollment but often do not disaggregate this information by age. Analysts interested in understanding access to care for specific age groups will need to collect this information themselves or estimate it. This section describes a simple approach to estimating infant and toddler capacity when it is otherwise unavailable.

The approach described here relies on finding an accurate estimate of the typical share of infants and toddlers enrolled in ECCE programs. A representative survey of providers in your region is the best way to collect this information.

If a survey of providers is unavailable, consider using a range of estimates to calculate different enrollment scenarios.

Based on Reinvestment Fund's work in other communities, for example, we typically find that in centers, the share of infants and toddlers is between 20% and 40% of licensed capacity. Home-based providers typically serve a higher proportion of young children, generally between 30% and 50% of their licensed capacity.

Analysis Steps

Step 1: Using data from the DOLPHIN database, identify all programs that are NOT licensed to serve infants and toddlers. For these programs, assume that infant and toddler capacity is zero.

Step 2: Identify all programs that are only licensed to serve infant and toddlers. These programs are not licensed to serve children of any other age, so assume that their infant and toddler capacity is equal to their total licensed capacity.

Step 3: Identify a ratio that represents the typical share of a program's enrollment that is reserved for infants and toddlers. The typical ratios experienced by Reinvestment Fund are described to the left. Speaking with a providers in your area can provide more accurate estimate for your analysis.

Step 4: For all programs that are licensed to serve infants and toddlers and other age groups, multiply the ratio identified in step 3 by each program's licensed capacity to estimate their infant and toddler capacity.

Step 5: Sum the capacity estimates calculated in Steps 1, 2, and 4 to calculate the total infant and toddler capacity in your region.

American Community Survey

The American Community Survey (ACS) is a national survey conducted annually by the Census Bureau to help local officials, community groups, and businesses understand the population and housing trends in their communities.

Data from the ACS is widely used across a range of fields including housing, economic development, education, and planning. When it comes to ECCE data, the ACS can be helpful for determining population characteristics like labor force participation, household incomes, and commuting characteristics.

Information in the ACS is organized as tables that describe characteristics and conditions in different geographic areas (e.g., States, Counties, Zip Codes, Tracts). To view a full list of tables available from the ACS visit the Census Bureau website and access the latest list of Table Shells.

See: www.census.gov/programs-surveys/acs/technical-documentation/table-shells.html

Commonly Used Tables

Below are some of the ACS table names and numbers that you are most likely to use.

Sex by Age (B01001). Describes the population by age and sex, including number of children under five.

Age of Own Children Under 18 Years in Families and Subfamilies by Living Arrangements by Employment Status of Parents (B23008). Describes the labor force participation of parents of young children.

Family Type by Presence and Age of Related Children Under 18 Years (B11004). Describes composition of families with young children.

Age by Ratio of Income to Poverty Level in the Past 12 Months (B17024). Describes young children's family income level relative to the federal poverty line.

Time of Departure to Go to Work (B08302). Describes the hour of the day when workers leave to travel to work.

Household Language by Household Limited English Speaking Status (C16002). Describes the language spoken in each household and level of fluency with English.

American Community Survey (cont.)

The easiest way to access ACS information is through the Census Bureau website. The website, allows users to search for specific ACS tables, filter to their target geography, and download information.

See: www.data.census.gov

Limitations: Although the ACS is widely used, there are two important limitations to consider. First, although the Census Bureau uses sophisticated samples and weighting techniques to ensure that ACS results are an accurate depiction of community conditions, ACS estimates are subject to error.

Second, ACS data are often two to three years behind the current date. As of March 31st, 2025, for example, the most recent ACS data reflects community conditions in 2023 – a lag of two years.

While ACS figures are often the best estimate of population characteristics, it is always important to consider if there are local data sources that can provide a timelier depiction of your local ECCE conditions.

Accessing Census Data Through R

In recent years, the Census Bureau has created new tools that make it easier to access census products through statistical software.

If you use R, a free statistical software, the tidycensus package provides an easy way to select and download census data for analysis.

For more information about using tidycensus to access census data see:

Tutorial for Basic Functions in tidycensus: https://walker-data.com/tidycensus/articles/basic-usage.html

Tutorial for Accessing Spatial Data in tidycensus: https://walker-data.com/tidycensus/articles/spatial-data.html

American Community Survey (cont.)

Most data from the ACS are available as 1-year or 5-year estimates.

One-year estimates represent the characteristics of communities over the course of 12 months. For example, the 2022 ACS 1-year estimate of poverty in Accomack County represent the average share of Accomack residents that were below the poverty line between January 1 and December 31, 2022.

One-year data provide the most current information, but they are subject to higher rates of error, since the data are collected with smaller sample sizes. Additionally, for privacy reasons, one-year estimates are only reported for areas with a population above 65,000.

Five-year estimates aggregate information from multiple years into a single estimate. The 2019-2023 ACS 5-year estimate of the poverty rate in Norfolk, for example, represents the average share residents that earned below the poverty line between 2019 and 2023.

Because these data aggregate information over multiple years they have a higher sample size and lower rates of error. The census releases five-year estimates for all census geographies including small areas like block groups and census tracts. However, because they average information over a longer period of time, they may not accurately capture conditions that are subject rapid change, like employment rates or household income during recession. Use caution when comparing change over time to ensure your five-year estimates do not include overlapping time periods.

Example: Family Characteristics and Demand

The population of children under five is the starting place for estimating demand. Population counts from ACS or other sources can help you refine and improve your estimate of the need for child care in your community. ACS table B23008, for example, describes the number of children based on their living arrangements and parental employment status. This section describes how to use this table to develop a range of demand estimates for your community.

Analysis Steps

Step 1: Access table B23008 for your community on data.census.gov.

Step 2: Find the total number of children under 6 (B23008_002).

This figure represents maximum number of potential customers for child care in your community.

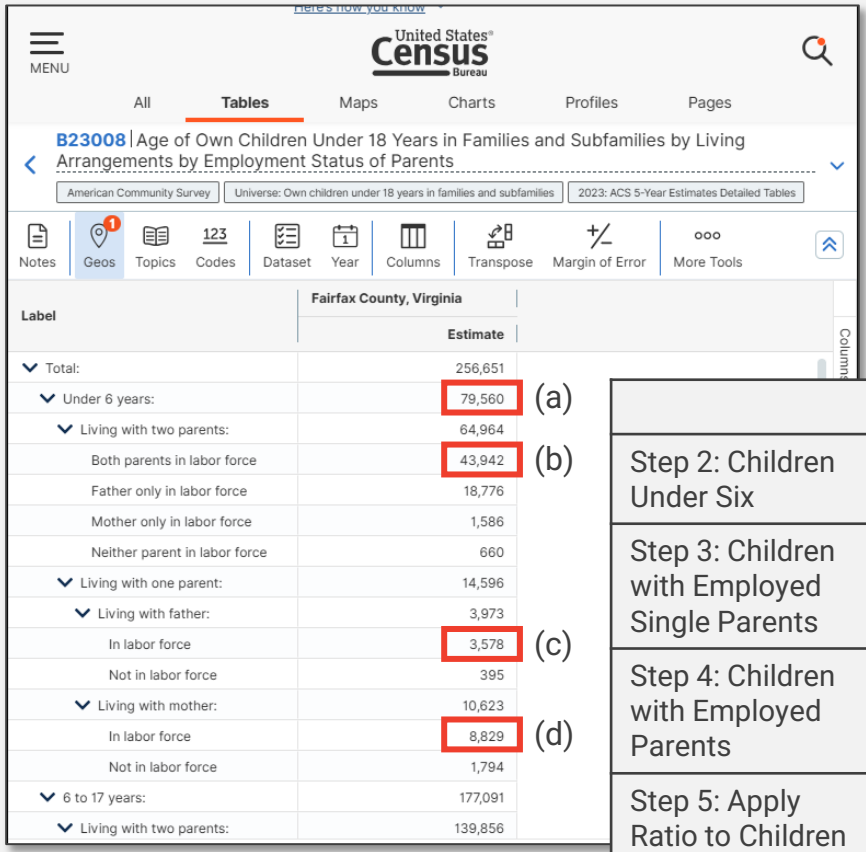
Step 3: Find the number of children under 6 who live with a single-parent who is currently working (B23008_010 + B23008_013).

Children living with a single parent who works may not choose licensed child care, but they will require some form of non-parental care, since their only parent is working. This figure represents a lower-bound estimate of child care need in your community.

Step 4: Find the number of children under 6 living in homes where all available parents are currently working (B23008_010 + B23008_013 + B23008_004).

This figure represents a higher demand estimate since it includes both children living with single parents who are employed as well as children in homes with two parents, where both of their parents are employed.

(possible) Step 5: To look at just the population of children under age 5, apply the ratio of these figures to the population under age 5 according to population counts (i.e. Table B01001). For assistance or questions about this adjustment, contact becky@vecf.org.



	Calc.	Estimate
Step 2: Children Under Six	(a)	79,560
Step 3: Children with Employed Single Parents	(c)+(d)	12,407
Step 4: Children with Employed Parents	(b)+(c)+(d)	56,349
Step 5: Apply Ratio to Children under Five	(b)+(c)+(d) /(a)	70.8% x pop. under 5

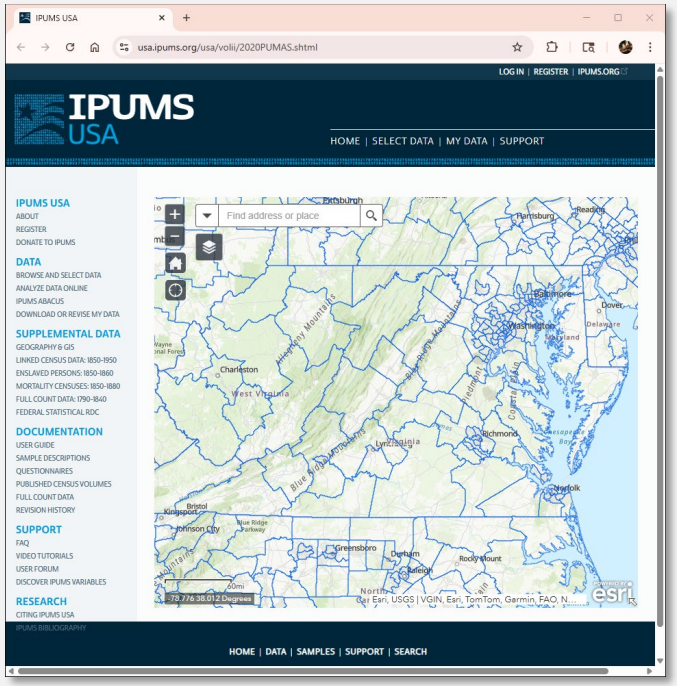
Public Use Microdata Sample

The ACS data described in the previous section are aggregated into a pre-existing set of tables. For more advanced users, the Census Bureau created a resource called the Public Use Microdata Sample (PUMS), that allows analysts to create their own custom tables from individual survey records. This can be useful when the specific research question you are trying to answer is not easily represented with existing ACS tables.

For example, an analyst might be interested in understanding the number of single parent families that need language support to access ECCE resources within a given area. The ACS provides a table that describes the number of young children living in single parent households and a table that describes the number of households that do not speak English at home, but not the overlap between these populations. With PUMS data, an analyst can create their own table that describes the number of children living in single parent households that do not speak English at home.

To protect the privacy of individual ACS respondents, PUMS data are not available at the same precise geographic level as the ACS tables described in the previous section. The most precise geographic level at which PUMS data can be calculated is known as a Public Use Microdata Area (PUMA), which divide states into non-overlapping geographic areas, each containing approximately 100,000 residents. Most PUMAs align well with locality boundaries.

Access an interactive map of PUMA geographies on the IPUMS website



https://usa.ipums.org/usa/volii/2020PUMAS.shtml

Public Use Microdata Sample (cont.)

The easiest way to access PUMS data is through the IPUMS.org website. IPUMS is a free, publicly available resource based at the Institute for Social Research and Data Innovation at the University of Minnesota. The organization collects, cleans, and documents Census Bureau (and other) microdata, making it easier for users to browse, select variables, and download data.

See: https://usa.ipums.org/usa/

Limitations: PUMS data have the same limitations as ACS information. Additionally, PUMS data require that analysts apply a series of weights to convert raw PUMS data counts into representative population estimates.

While it is possible to apply weights in spreadsheet software such as Microsoft Excel, most users rely on research programming languages such as Stata or R to implement weights and conduct analyses.

If your analysis only involves a few variables, the website's online analysis system may be helpful.

Additional Population Data Sources

There are many sources of data on resident population and demographics. The table below describes some of the data sets that are available publicly or for purchase.

	Description	Cost/Availability	Most Recent Data (as of June, 2025)
U.S. Census Bureau Population Estimates	Annual administrative records-based population estimates for all counties https://www.census.gov/programs-surveys/popest.html	Publicly Available – Free to access	2024
CDC Wonder	Database of births to US residents and parental characteristics https://wonder.cdc.gov/natality.html	Publicly Available – Free to access	2023
ESRI Demographics	Report tool describing current and projected demographics and population characteristics https://www.esri.com/en-us/arcgis/products/data/data-portfolio/demographics	Proprietary – Available for purchase	2025
Claritas Pop-Facts Demographics	Demographic report showing current and projected population counts and resident characteristics. https://www.claritas.com/data/	Proprietary – Available for purchase	2025

Longitudinal Employer-Household Dynamics

The Longitudinal Employer-Household Dynamics survey (LEHD) is a Census data product that combines information from the Census Bureau with state data on unemployment insurance to describe the location of jobs and where the residents who are employed in those jobs live. LEHD data captures 95% of employed workers in US.

For an analysis of ECCE, these data are helpful for understanding the location of employment centers that might require ECCE supply and the characteristics of the workforce in a specific area such as their income, age, industry, and where they travel from.

Job and Industry Coverage in LEHD

Data for LEHD is limited to jobs covered by state unemployment insurance programs. Since 2010, the dataset has also included information on most federal workers. While the dataset now covers most public and private jobs, due to security concerns, certain federal agencies are excluded from the data (e.g., Defense Intelligence Agency, Federal Bureau of Investigation).

For more information see: https://lehd.ces.census.gov/doc/help/onthemap/FederalEmploymentInOnTheMap.pdf

Data from LEHD is organized into three tables:

- **Residence Area Characteristics Table (RAC).** The RAC table describes the number and characteristics of employed workers who live in each census block.
- **Workplace Area Characteristics Table (WAC).** The WAC table describes the number and characteristics of employed workers who work in each census block.
- **Origin Destination Table (OD).** The OD table contains pairs of census blocks and describes the number of workers live in one block but work in another.

LEHD provides options to view All Jobs or Primary Jobs. A primary job is the highest paying job for an individual worker. **Analysis should generally be done with Primary Jobs**, as this results in one job per worker.

Longitudinal Employer-Household Dynamics

LEHD tables for each state are available from the Census Bureau's LEHD website. As of March 2025, the most recent LEHD data are from LODES 8.3.

See: https://lehd.ces.census.gov/data/lodes/

Limitations: Like the ACS, data from the LEHD are lagged. As of March 2025, the most recent LEHD data were available for 2022. Additionally, the raw LEHD data files are very large and require statistical software such as Stata or R to access and analyze.

Alternative Ways to Access LEHD Data

Using the raw LEHD data files can be complex. The Census Bureau's On the Map tool provides an easy graphical way to access LEHD information.

The tool is available at:
https://onthemap.ces.census.gov/

For more advanced users, the lehdr package for the R programming language provides an easy way to download aggregated LEHD files for specific geographies.

For more information about the package see:
https://cran.r-project.org/web/packages/lehdr/index.html

Example: Estimating Workforce Demand

Most child care analyses focus on the needs of the population living in a geographic area. When working on a child care analysis near a job center it can be helpful to consider the potential demand for child care that comes from employees that commute into the area for work. This section provides a short description of how to combine LEHD and ACS data to estimate workforce demand for child care.

The simple analysis described here can be modified in several ways. For example, the analysis might disaggregate workers by specific characteristics, such as age, income or industry to calculate a more precise estimate of workers with children.

An analysis might also consider how many workers live in the area you are analyzing but commute somewhere else for their jobs, or the preferences of parents around using care near their home or their office as an adjustment to estimated demand.

Analysis Steps

Step 1: Identify the PUMA area in which your analysis will take place.

Step 2: Access the ACS PUMS data for individuals that work in the PUMA identified in step 1.

Step 3: Among employed individuals in your PUMS dataset, calculate the share of workers with child care-aged children (usually children under five).

This figure represents the share of workers in your region who could use child care.

Step 4: Find the list of census blocks that are located in the area you are analyzing.

Step 5: Access the LEHD-RAC table for the census blocks identified in step 4.

Step 6: Filter the RAC table to primary workers and sum the total number of jobs.

This figure represents the number of workers who have primary jobs in the area you are analyzing.

Step 7: Multiply the percentage calculated in step 3 by the number of workers calculated in step 6.

This figure represents the number of workers with primary jobs in the area who have child care aged children and could use care in the area.

Step 8: Add the number of workers with child care aged children in the area to the population of families who live in the area to calculate the number of potential customers for child care.

Support and Questions

If you need additional support or have questions about using this toolkit, contact:

Becky Tippett

Chief Accountability Officer, VECF

becky@vecf.org

(804) 358-8323, ext. 125