Preschool Development Grant Birth to Five

Missouri Statewide Needs Assessment

2019

Missouri Department of Elementary & Secondary Education

UMSL Community Innovation and Action Center

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Executive Summary

Missouri's mixed-delivery early childhood care and education (ECCE) system needs a more integrated, coordinated, and data-informed approach in order to ensure that Missouri's families have equitable access to high-quality, comprehensive services that support the healthy development of the state's youngest residents.

This needs assessment uses a combined approach of analyzing both available quantitative data, as well as qualitative data collected through statewide listening sessions, interviews, and surveys of parents, ECCE professionals, and other stakeholders.

MISSOURI'S CHILDREN

Missouri is a largely rural state by geography, with 81 of the 115 counties classified as rural (70%).[1] However, the majority (74%) of its overall population lives in urban counties. Missouri is home to 447,782 children ages birth through five, 49% of whom are under the age of three (defined as birth through two) and 51% of whom are ages three through five.

The needs assessment focused specifically on children who are considered vulnerable and/or underserved in both rural and urban parts of the state. In an effort to identify specific areas in which children may be vulnerable or underserved, researchers conducted a Risk and Reach analysis of *risk* indicators that are tied to healthy early childhood development (such as living in poverty and child mobility), as well as the *reach* of support programs (such as Medicaid or Head Start) that seek to address some of those risk factors. The Risk and Reach Analysis is intended as a starting point for a conversation about specific counties in the state that may be at greater risk for specific indicators, and where there may be an opportunity for greater reach of support programs.

81 of Missouri's 115 counties classified as rural (70%)[1]

The majority (74%) of Missouri's overall population lives in urban counties

Missouri is home to 447,782 children ages birth through five

MISSOURI'S ECCE CAPACITY, ACCESSIBILITY, AND QUALITY

Missouri's mixed-delivery ECCE system is complex, and data available on different program types is both varied and limited. However, there are patterns in ECCE program availability across the state that merit attention, most notably the fact that more than 80% of Missouri's children live in what is known as a "child care desert," with less than one licensed child care slot for every three young children. Across the state, this trend is even more pronounced when looking at the availability of licensed care for children under the age of two; on this metric, every county in Missouri qualifies as a child care desert.

Coverage or capacity does not necessarily equal the number of children enrolled in or served by an ECCE program, nor does it indicate whether a particular ECCE facility provides high-quality programming. Currently, there is no comprehensive way for families or policymakers to assess the quality of early childhood centers in Missouri. Qualitative data reveals that finding quality ECCE settings is a chief concern for families in both rural and urban areas; even areas that are not technically "child care deserts" may be experienced as such, if families cannot find care that meets their expectations for quality.

In the development of this needs assessment, families and ECCE professionals articulated many of the challenges that they experience related to access and quality in Missouri's current ECCE system. Many of these challenges and issues are described below.

More than 80% of Missouri's children live in what is known as a 'child care desert,' with less than one licensed child care slot for every three young children

Currently, there is no comprehensive way for families or policymakers to assess the quality of early childhood centers in Missouri

Affordability

Families from around the state struggle with the high cost of child care. This issue is exacerbated for infant and toddler care, which is typically more costly due to lower staff to child ratios and smaller group sizes as required by licensing and accreditation standards. In particular, low-income families struggle with the high cost of child care, despite subsidy programs that seek to offset the cost of care. Many families and ECCE professionals report that subsidy thresholds are too low, leaving low-income families who earn more than the maximum threshold unable to afford care.

Missouri counties that are least affordable for center-based infant care are Boone, Greene, Newton, Buchanan, Adair counties. For home-based infant care, the least affordable counties are Jasper, Newton, Buchanan, Wright, and Howell. However, families experience challenges with ECCE affordability across the state.

The high cost of child care also has implications for Missouri's workforce and economy. Families with working parents (70% of Missouri's families) spend large proportions of their annual income on child care, and therefore have less disposable income for other expenses and are sometimes forced to opt out of the workforce due to a lack of affordable care options.

Culturally and Linguistically Appropriate ECCE

Missouri's ECCE system serves a diverse population. The U.S. Census Bureau's 2018 population estimates indicate that 6% of Missourians speak a language other than English at home. Additionally, the two largest non-white demographic groups in Missouri — people who are Black/African American and people who are Hispanic — have both grown over past decades.

Qualitative data indicates a need for more culturally competent ECCE services and information in both urban and rural areas, stating that culturally competent child care and curriculum is necessary to reflect the needs of diverse children, to increase their engagement in the classroom, and prepare them for continued school success.

Supportive Transitions to School Entry

Research shows that a successful transition from ECCE programs to school entry is important for a child's later success in school — and an unsuccessful transition can be stressful for the child, resulting in negative academic, social, and emotional effects that can persist for years. The school-entry transition supports that are available for families are generally a function of the type of ECCE program in which they are enrolled. A small number of program types require transition supports to be provided, but transition supports at most other ECCE programs are inconsistent and highly variable depending on the specific program.

Services for Children with Special Needs

Overall, about 3% of Missouri's children ages birth to three, and 8% of children ages three to five receive special education services. Qualitative data suggests that families across the state experience challenges in supporting children with special needs. ECCE professionals expressed that it is likely that special needs in very young children may be under-identified, because their symptoms or related behaviors may not present severely enough to result in a diagnosis. In rural areas, families noted that there are fewer ECCE professionals available to do special education assessments in rural areas, and that they have to drive to the nearest urban area in order to have their children assessed for special education. In order to make this trip, families reported having to arrange time off work, which often results in a delay in accessing the needed services.

Both families and ECCE professionals felt there were too few qualified adults with the capacity to observe, diagnose, and intervene appropriately, in order to support the learning needs of students with developmental, behavioral, or physical challenges.

Access to Mental Health Supports

Qualitative data from both urban and rural parts of the state suggests a need for additional support related to infant and early childhood social and emotional development, mental health, and trauma-informed care.

ECCE professionals identified a need for increased professional development related to children's mental health and on how best to support children who have experienced trauma. They also expressed a desire for mental health professionals available to support ECCE centers. There are currently some existing programs that seek to address these needs, though they may need to be expanded or improved.

Nationally, children who are from low-income families are more likely to experience adverse childhood experiences(ACEs) than their wealthier peers; and, children who are non-Hispanic Black are more likely to experience adverse childhood experiences than their White and Hispanic counterparts. As Missouri works to build an ECCE system that supports all children, policymakers should consider adopting an equity lens as they work to design systems that prevent ACEs, build protective factors, and address the social and economic policies that have resulted in increased ACEs exposure, trauma, and generational poverty for many low-income children and children of color.

Inter-Agency Collaboration and Access to Information

There are a number of services and supports that supplement the effectiveness of traditional ECCE delivery options and support healthy child development. These "wrap-around" services include mental health supports, developmental screenings, home visiting programs, special needs supports, and basic needs support services like WIC, Medicaid, SNAP, and others.

Accessing these services typically means interacting with multiple agencies and service systems; families report that this system is confusing and difficult to navigate, resulting in missed opportunities and lack of access to needed services. Currently, there is no comprehensive system for accessing information regarding both ECCE services, and other support systems. In the absence of such a system, families often rely on word-of-mouth to find information on programs and services for their children and must navigate a complex service provision system that parents, providers, and system-level stakeholders all describe as being confusing and uncoordinated.

Transportation

Transportation is a barrier for working families managing part-day child care schedules, multiple children, and public transportation fees. These challenges are exacerbated for families living in rural areas, with greater distances traveled to and from child care facilities.

Safety in ECCE Settings

In March of 2019, the Missouri Governor's Office established a Child Care Working Group to develop recommendations to improve the safety and quality of child care in Missouri. The primary safety-related concerns that emerged out of the public hearing included the lack of funding to meet and maintain safety requirements, especially state financing of the now mandatory background check screening cost.

ECCE Workforce

Missouri's predominantly female child care workforce is paid low wages, has insufficient access to benefits, and struggles to maintain their own well-being, financial stability and morale. ECCE professionals desire additional professional development, but feel limited in their ability to access it. High staff turnover negatively impacts children and creates operational challenges and expenses for the operators of ECCE programs.

Significant public stigma exists that prevents the "professionalization" of the ECCE field, associating it with low-skill "babysitting" rather than viewing ECCE as the critical field of early childhood development and education with which many ECCE professionals identify. Economic factors related to the way in which ECCE is financed are also a significant factor in perpetuating low wages for professionals.

Strategic Financing for Missouri's ECCE System

Missouri's complex funding system in ECCE lacks strategic alignment among various state departments, negatively impacts low-income families, perpetuates a service system that is unaffordable for many of Missouri's families, renders high-quality services unaffordable to ECCE service providers, and is not conducive to building a high-functioning mixed-delivery system for ECCE services.

Confusing System Impacts Low-Income Families. The funding structure for the early childhood care and education system and family supports in Missouri is a complex, challenging system for both families and providers to navigate, and has a particularly negative impact on low-income families. These navigational challenges are further exacerbated by the income eligibility thresholds that often abruptly render families ineligible for services, despite still being low-income. Missouri's child care subsidy eligibility threshold is lower than that of most other states, resulting in fewer low-income families who are eligible for assistance.

True Cost of Quality Care Surpasses Affordability. The Center for American Progress estimates that the true operating cost of high-quality infant care in Missouri is $25,900 per year. These figures compare sharply to estimates for the average price paid for center-based infant care in Missouri of $9,880 per year — less than half of the estimated operating cost of providing high-quality infant care. The Missouri child care subsidy provided for infant care in 2017 was $8,340 per year, which is less than one-third of what it costs to provide high-quality care.

Many Missouri families can't afford the current price of child care, and the current price of care is not sufficient to support the operating costs of providing high-quality child care. Given that staffing costs make up the majority of ECCE program budgets, low wages for ECCE professionals are a common release valve for this fundamental tension which, in turn, can lower the quality of care provided. If Missouri seeks to support a high-quality ECCE system, it must address this fundamental problem in financing the system.

Creating a Coordinated Mixed-Delivery System

Coordination and collaboration around ECCE systems has been one of the challenges Missouri faces. A 2019 survey of Missouri ECCE stakeholders revealed that "a lack of communication and coordination between programs in the state and a limitation on program resources" lead to children and families that "fall through the cracks" for beneficial and essential services. Fifteen percent of the respondents identified the statement "state supports connections between state and local system-building efforts" as an effort that Missouri has not yet begun to address.

While several state-level and regional coordinating bodies exist to support a strong system across different types of ECCE programs, stakeholders would like to see improved system-wide coordination.

Accountability and Measurement Systems

The lack of a statewide quality rating and improvement system (QRIS) in Missouri makes it nearly impossible to determine whether families have access to quality programs; and disconnected data systems housed in various state departments make it difficult to gain an accurate picture of ECCE capacity and enrollment across a complex mixed-delivery system.

Missouri needs an improved and integrated system to accurately assess a) the degree to which urban and rural areas of the state have ECCE program coverage that responds equitably to the demographics of their populations and b) the quality of the programs available. Missouri's recent Quality Assurance Report (QAR) pilot program represents a starting point in establishing quality standards, but additional infrastructure is needed for measuring program quality across the state.

Alongside the many challenges of the current ECCE system in Missouri, many families, ECCE professionals, and system-level stakeholders also see great potential. Opportunities exist for increased quality of services available to children and families, more comprehensive service provision across the state, and increased coordination among oversight and funding entities.

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SECTION 1:

Introduction

Missouri's children deserve to start off strong. Early experiences have a particular impact on young children, due to the rapid brain development that takes place during the first years of a child's life.[2] The benefits of quality early childhood care and education are well-documented, yielding positive outcomes for children in both the short- and long-term, and are particularly beneficial for children growing up in low-income families.[3] Research shows that children who experience quality early childhood care and education perform better academically, have fewer behavioral problems, and also see long-term benefits related to employment, income, and health later in life.[4]

Missouri has a long history of supporting young children and their families through the development of nationally recognized programs such as Parents at Teachers and Project Construct. However, Missouri still has work to do to ensure all children thrive.

- **Missouri ranks 28th out of 50 states for its overall child well-being** which includes factors such as economic well-being, children in poverty, parents who lack secure employment, health, and school readiness.[5]
- **Nearly 26% of Missouri's children ages 0–17 have experienced two or more adverse childhood experiences** (ACEs) or other early trauma, such as economic hardship, parental divorce or separation, or living with someone who is mentally ill or struggles with alcohol consumption — only seven U.S. states have a higher percentage of children with exposure to two or more ACEs.[6]
- **Missouri is one of 33 states where the cost of infant child care is higher than in-state college tuition**[7] — and Missouri's income eligibility threshold for child care subsidy has long been lower than that of other states, which means that fewer low-income families can access child care.[8]

Missouri has an opportunity to improve the system that supports its youngest citizens, and to do so with an equity lens. Funded by a federal Preschool Development Grant, the Stronger Together Missouri initiative provides the opportunity to build upon and accelerate the many existing efforts to improve Missouri's early childhood care and education system for all children. The following needs assessment is a first step in that process.

Overview of Stronger Together Missouri

Stronger Together Missouri *is a $6.5 million project funded by the U.S. Department of Health and Human Services and supported by the Missouri Department of Elementary and Secondary Education to strengthen early childhood services across the state of Missouri.*

Stronger Together Missouri (STMO) originated from the Missouri Department of Elementary and Secondary Education (DESE), in response to a federal Preschool Development Grant, Birth–5 (PDG B-5) request for proposals, seeking to "analyze the current landscape of early childhood care and education (ECCE) mixed-delivery system and implement changes to the system that maximize the availability of high-quality early childhood care and education options for low-income and disadvantaged families across providers and partners, improve the quality of care, streamline administrative infrastructure, and improve state/territory-level early childhood care and education funding efficiencies."

STMO is comprised of five activities, the first of which is this needs assessment.

ACTIVITY ONE:

Birth to Kindergarten Entry Statewide Needs Assessment

The needs assessment uses a combined approach of analyzing existing data sets, compiling existing needs assessment data, and conducting statewide listening sessions for both families and ECCE professionals to identify gaps and needs in the current ECCE service and data ecosystem.

ACTIVITY TWO:

Birth to Kindergarten Entry Statewide Strategic Plan

The state of Missouri has an existing strategic plan, last updated in 2015, whose creation and maintenance is statutorily assigned to Missouri's Coordinating Board for Early Childhood (CBEC). This strategic plan will be updated based on this needs assessment and other stakeholder input.

ACTIVITY THREE:

Maximizing Parental Choice and Knowledge

This activity's goal is to maximize family involvement and engagement and increase their knowledge of available resources and programs. Two specific initiatives, Parent Cafes and the National Parent Leadership Training Institute, were launched to improve family engagement with their children's education and to increase family knowledge of available ECCE resources and programs. A key component of this work in Missouri is planned around collaboration and coordination among and between providers of a number of varied home visiting programs throughout the state that are supported by several federal, state, and other sources of funding.

ACTIVITY FOUR:

Sharing Best Practices

Another goal of STMO is to define what the best practices are in many ECCE areas, and then use those best practices to improve ECCE in Missouri. The projects under this activity emphasize workforce development, data use and management, and trauma-informed care.

ACTIVITY FIVE:

Improving Overall Quality

To assist ECCE programs in improving their overall quality, staff are offered specific professional development in the Conscious Discipline approach. In addition, for those 19 ECCE programs participating in the state's Quality Assurance Report (QAR) pilot, which is Missouri's new foray into QRIS, consultation is provided based on onsite observations and scores on the QAR items.

Stronger Together Missouri Project Team

The Community Innovation and Action Center (CIAC) at the University of Missouri–St. Louis (UMSL), in partnership with the Office of Social and Economic Data Analysis (OSEDA) at the Institute of Public Policy (IPP) at the University of Missouri, partnered to conduct this needs assessment on early childhood services across the state of Missouri as part of the Department of Elementary and Secondary Education's (DESE) federal Preschool Development Grant.

The needs assessment was overseen by an advisory committee comprised of 18 stakeholders representing statewide perspectives from early childhood care and education advocates, service providers, researchers, funders, and parents who provided oversight and guidance throughout the development of this needs assessment.

In addition to the project leads, numerous graduate research assistants and contractors were engaged to support different stages of needs assessment research and writing.

STRONGER TOGETHER MISSOURI, PROJECT LEADS

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Approach

In an effort to illustrate the areas in which Missouri's ECCE system can improve, and describe the experiences of families, ECCE professionals, and other stakeholders, this needs assessment is organized into four major sections:

- **A Risk and Reach Analysis**, which maps available demographic data indicators that are associated with healthy early childhood development (mapping counties that have high *risk*) as well as participation data for state-funded support programs that seek to support healthy early childhood development (mapping counties that have high program *reach*).

- **A Child Care Capacity Analysis**, which describes the data challenges that Missouri faces when attempting to determine the extent to which families have access to quality ECCE across the state and uses proxy measures to show which areas may lack sufficient ECCE capacity to serve children.

- **A discussion of Key Issues in ECCE Access and Quality**, which describes the challenges experienced by families and ECCE professionals as they work to provide quality care and education for young children in Missouri.

- **A discussion of System-Level Challenges and Opportunities**, which seeks to describe complex system-level issues that present barriers to improving Missouri's ECCE system.

APPLYING AN EQUITY LENS

The Stronger Together Missouri needs assessment project team sought to conduct its research and analysis through an equity lens. The team worked to maintain a constant awareness of the ways in which decades of public policy supported some groups over others,[9] and the ways in which those policies have impacted differential access to quality ECCE. The team sought to use this research to shine light on those inequities and identify them as priorities for policy change.

There are ways in which the project team fell short of this goal; some are a function of the data the project team was able to access and analyze, and others are unintentional oversights. In any instances of possible improvements, the project team hopes that attentive readers will take note of these missed opportunities and call for continued and improved research regarding Missouri's ECCE system. As readers identify areas for improving future research, they can contact CIAC by emailing ciac@umsl.edu or by visiting ciac.umsl.edu.

Several known barriers and challenges to an improved equity lens in this report include:

County-Level Data

As described in the Overview of Research Methodology, demographic and service data shared in this report are represented at the county level. While this approach offers a manageable scale at which to take in statewide data, it does not offer a granular picture of differences within Missouri's counties, and may render invisible the inequities that exist within a given county. This is of particular importance in the state's most populous counties — which are also its most diverse and often racially segregated counties — where living in particular zip codes and neighborhoods can be the determining factor for whether a family has the resources it needs.[10] An indication of well-being at the county-level does not necessarily mean that all of its residents have what they need.

Data Split by Race

Despite the project team's desire to analyze service data by race to identify inequities, these data were not consistently available for analysis. Given the small populations of many rural counties, such data were often required to be suppressed (not shared) in order to protect the privacy of people who might be individually identifiable if the data were reported.

Lack of Quality Measures

Missouri lacks a statewide system to measure and assess quality in ECCE settings, which presents an equity issue simply due to the inability to measure quality. In the Child Care Capacity Analysis included in this needs assessment, the project team describes county-level access to licensed child care, in relation to each county's population of young children. However, without a means to assess the quality of child care options, a county that has the appropriate number of child care slots for its population may be overlooked for support even if the reality the care options are of a low quality.

Numbers Are Insufficient

Particularly in this report's Risk and Reach Analysis, the quantitative data available to researchers focus on deficits. While the purpose of a needs assessment is to identify areas of need, such a focus on deficits can overlook the inherent strengths of a community. The project team can attest to the care, creativity, and persistence they observed throughout listening sessions and interviews with families and ECCE professionals — and hope that this is visible through the qualitative data shared throughout the report.

OVERVIEW OF REPORT METHODOLOGY

The Stronger Together Missouri Needs Assessment weaves together both quantitative and qualitative data in an effort to tell the story of Missouri children ages birth through five, and to identify areas in which the state's ECCE system needs to improve in order to best support its youngest residents. A brief overview of the methods used in gathering and analyzing data is described here; for a more detailed and comprehensive description of these methods, please see Appendix 3 and Appendix 4.

In addition to the quantitative and qualitative research methods described below and in the report's appendices, researchers sought to build upon existing research and knowledge about Missouri's ECCE system, as well as position it in relation to national trends, where possible. Researchers reviewed and summarized existing local, regional and statewide needs assessments focused on early childhood (see Appendix 1). Due to the statewide nature of this needs assessment, researchers refrained from relying too heavily on existing analyses that focused on particular regions of the state, but used them as guideposts as they analyzed statewide data.

Quantitative Methods Overview

The quantitative portion of this needs assessment brings together multiple data sources on early childhood in Missouri to help tell the story of children ages birth through five and identify specific urban and rural geographic areas that may be at risk and/or in need of services.

Data for this report were obtained from a variety of sources. Overall population and demographic information were obtained directly from the U.S. Census Bureau 2013–2017 American Community Survey 5-Year Estimates and the 2018 Current Population Survey. Additional data for the report were obtained from the Missouri Departments of Elementary and Secondary Education (DESE), Social Services (DSS), and Health and Senior Services (DHSS). Child care capacity data were provided by Child Care Aware® of Missouri and Head Start data were obtained from the Office of Head Start within the Department of Health Human Services at the federal level.

Nearly all data were obtained at the county-level. Head Start data were only available at the level of service area which in Missouri, are created by combining 1 or more counties. Missouri has a total of 115 counties, including the City of St. Louis (which uniquely serves both municipal and county functions).

While data limitations are described throughout the report and in Appendix 3, the project team's choice to conduct county-level data analyses presents a limitation that is particularly important for readers to keep in mind as they consider the findings of this needs assessment. The project team selected the county-level as the primary unit of geographic analysis for both simplicity and to mirror the approach taken by similar reports. However, counties often cover large areas containing many diverse populations, especially in urban areas. Therefore, presenting county-level statistics for racially and economically diverse urban counties carries some risk of diminishing the true picture in that county for a given data indicator. Similarly, conducting child care capacity analyses in geographically large counties where child care centers could be clustered in one area of a county does not adequately depict the hardship experienced by families living in a different area within the same county. These geographic limitations should be considered when reading this report.

Qualitative Methods Overview

In an effort to represent the lived experiences of families, ECCE professionals, and other stakeholders, researchers conducted 22 listening sessions to engage a total of 289 people in both rural and urban areas across Missouri. A key limitation of these listening sessions is that a majority of participants were recruited due to their association with an existing child care facility. While the project team felt this approach led to adequate participation, it should be acknowledged that this likely resulted in some selection bias or what is commonly referred to as a 'convenience sample'. For example, families utilizing home-based child care providers or who choose to provide care for their own children at home were likely under-represented in the sample; home-based child care providers were also likely under-represented in the sample.

In an effort to reach key perspectives that researchers found to be missing from those represented in listening sessions, researchers conducted 15 interviews with ECCE stakeholders. All listening sessions and interviews were recorded with permission of the participants, professionally transcribed, and analyzed for themes.

Additionally, researchers distributed an online survey to ECCE stakeholders across the state, based on the Zero to Three's Infants and Toddlers in the Policy Picture: A Self-Assessment Toolkit for States. The survey reached approximately 920 individuals who represented school districts, nonprofit organizations, government agencies, and other ECCE agencies from 272 different zip codes.

Definitions

A shared understanding of the definitions of key terms is critical in completing a comprehensive needs assessment of an early childhood landscape. These definitions support clarity as researchers, stakeholders, and policymakers seek to define the current status of the ECCE system and identify gaps in services that can inform an effective strategic plan.

GENERAL DEFINITIONS

Early Childhood Care and Education (ECCE)

For the purpose of this report, the term early childhood care and education describes programs for children from birth to kindergarten entry designed to support learning, development, and school readiness in group settings or through home visits.[11]

This report also references other support systems that exist outside of formal ECCE programs but also impact the healthy development of many Missouri children (e.g., healthcare, nutrition assistance). While important, these other support systems are not included when using the term early childhood care and education or ECCE in this report.

Child Care

Child care is a term used by the DHSS, Section for Child Care Regulation (SCCR), which is the state entity responsible for regulation of Missouri's ECCE facilities.

The term *child care* can refer to any setting in which families leave their children to be cared for during the day or evening hours while they are occupied with work, training, education, or other responsibilities. Child care can include all types of settings and programs, some of which distinguish themselves by having an educational focus and can be identified by a variety of terms including daycare, child care, pre-kindergarten, preschool, and others. While these terms can mean different things to ECCE professionals and families, the state of Missouri does not distinguish between types of programs except for distinctions used when regulating child care for licensure in Missouri (Licensed, License-Exempt, and Exempt).

Access

Access to ECCE means that, "with reasonable effort and affordability, [families] can enroll their child in an arrangement that supports the child's development and meets the [families'] needs,"[12] including the desired type and quality of the program, availability of transportation, hours of operation, and cultural or linguistic characteristics of the family.

Quality

According to the National Association for the Education of Young Children (NAEYC)[13], *quality* in ECCE programs is in place when programs do the following (emphasis added):

- Promote positive *relationships* among all children and adults;
- Implement a *curriculum* that promotes learning and development across domains;
- Use developmentally, culturally, and linguistically appropriate and effective *teaching approaches*;
- Are informed by ongoing formal and informal *assessment* approaches to provide information on children's learning and development;
- Promote the nutrition and *health* of children and protects children and staff from illness and injury;
- Employ and support a teaching *staff* with the educational qualifications, knowledge and professional commitment necessary to promote children's learning and development and to support families' diverse needs and interests;
- Establish and maintain collaborative relationships with each child's family, sensitive to family composition, language, and culture;
- Have a safe, healthful, and well-maintained indoor and outdoor physical environment; and
- Effectively implement policies, procedures, and systems that support stable staff and program management.

Quality in-home visiting programs is found in the following three elements:

- Dosage, or the frequency of the home visits;
- Content, the use of a curriculum appropriate to the child and family; and
- Relationships, which lie at the heart of effective home visiting programs.[14]

Equity

Equity is present when a child or family's race, economic status, or other demographic features do not determine their opportunities or outcomes.[15]

FOCAL POPULATION DEFINITIONS

The PDG B-5 Needs Assessment Guidance specifically calls for a focus on "vulnerable/underserved and rural children" in the state of Missouri.[16] While PDG's focus identifies important groups, the project team felt it important to frame its work in terms of vulnerable and/or underserved in both rural and urban areas of the state.

Children

For the purposes of this report, the term "children" will refer to Missouri residents ages birth through five years, inclusive.

Infant

According to Missouri's child care regulations, an infant is "any child under twelve (12) months of age."[17]

Toddler

According to Missouri's child care regulations, a toddler is "any child between twelve *to* twenty-four (12–24) months of age."[18] (emphasis added)

Preschool Child

According to Missouri's child care regulations, a preschool child is "any child two *through* five (2–5) years of age who is not in kindergarten for five (5)-year-old children."[19](emphasis added)

Underserved Children

Underserved children have insufficient or inequitable access to ECCE, as defined above.

Vulnerable Children

The term *vulnerable* children refers to children "who are at increased risk of being unprepared for success in kindergarten due to disability or developmental delay, trauma or adverse childhood experiences, being English Learners, have health concerns and/or environmental conditions such as insufficient income, housing, parental education, or safety at home."[20] This definition is borrowed from the PDG B-5 Needs Assessment from the Commonwealth of Virginia.

For the purposes of this report, available demographic and environmental indicators tied to healthy early childhood development, as well as indicators associated with negative child outcomes are used to operationalize and illustrate where vulnerable children may live in Missouri. A Risk and Reach Analysis summarizes these available indicators by county.

Urban Areas

Areas with a population of 50,000 or more (called urbanized or metropolitan statistical areas (MSA)) or areas with a population of at least 2,500 and less than 50,000 (called urban clusters).[21]

Urbanized areas are subdivided into large central counties (largest MSA cities with 1 million residents and more), large fringe counties (surrounding suburban counties with at least 1 million residents), and small metro counties (less than 1 million residents).[22]

Rural Areas

Counties in micropolitan statistical areas with a population between 10,000 and 49,999 people as well as any counties outside urbanized areas or urban clusters.[23] [24]

DIFFERENCES FROM PAST DEFINITIONS

Missouri's current Early Childhood Strategic Plan defines *early childhood* as the period of life extending from birth to age 8 years. For purposes of this needs assessment, the project team has limited the upper age to five years of age, except in cases where data is only available from birth to age 6.

Additionally, this report uses the DHSS definition of *toddlers* to refer to children who are ages 12 months to 24 months. This is different than how the term *toddler* is used in other contexts, which often refers to children ages 1 to 3, and different than how some data are analyzed and reported in other contexts. In each case, specific population data are cited and clarified as needed.

Other than these two differences, these definitions were derived from those used by DESE in Missouri and Missouri's current Early Childhood Strategic Plan, as well as those put forth by the U.S. Census Bureau and the research community. The definitions are consistent with the past shared understanding of the terms within education, health, and social service organizations in Missouri. Anticipated challenges with using these definitions are minimal.

Early Childhood Care and Education (ECCE) in Missouri

Missouri's ECCE landscape is complex, with a mixed-delivery system of ECCE services for families of young children through home visiting or group care settings. These are also affected by quality improvement and family support programs. All elements are funded and coordinated in a variety of ways with a variety of eligibility and program requirements. This is not an exhaustive list of supports and programs.

FIGURE 1: **THE ECCE LANDSCAPE IN MISSOURI**

SYSTEM INFRASTRUCTURE

Coordinating Board for Early Childhood – CBEC
Department of Elementary & Secondary Education – DESE
Department of Health & Senior Services – DHSS
Department of Mental Health – DMH
Department of Social Services – DSS
Federal Government – FED
Head Start State Collaboration Office – HSSCO

HSSCO is a liaison from HS to state departments and does not fund programs or set regulations.

PROGRAM OPTIONS

HOME VISITING

Maternal Infant & Early Childhood Home Visitation (MIECHV)	DHSS
Parents As Teachers (PAT)	DESE
Healthy Families Missouri	DHSS
Building Blocks of Missouri / Nurse Family Partnership	DHSS
First Steps / Early Intervention (Part C Birth to Age 3)	DESE
Early Head Start – Home-based	FED
Home Visiting Program	DSS

ECCE MIXED DELIVERY SYSTEM DHSS

All types are eligible to accept state child care **SUBSIDY** DSS

LICENSED

Centers
Can identify as one or more type of setting. Examples include, but are not limited to Head Start, Early Head Start,community-based/ private centers and other center-based settings.

Group homes
Small centers caring for more than 10 and fewer than 20 children

Family child care homes
Serving more than 6 children

LICENSE-EXEMPT*

Private religious programs

Nursery schools
Facilities operating for fewer than 4 hours per day per child

EXEMPT*

School districts
Including and not limited to Part B, Sec. 619 and Title I funded programs

Family child care homes
Serving up to 6 children, commonly referred to in other contexts as family friend and neighbor care (FFN)

**License-Exempt and Exempt facilities may also choose to undergo licensure and many have done so*

SYSTEM SUPPORTS

ECCE QUALITY IMPROVEMENT

ParentLink	DSS
Opportunities in a Professional Education on Network (OPEN) / Workforce Registry	DSS
Educare / Community Partnerships	DSS
Inclusion Services	DHSS
Child Care Aware® of Missouri / Resource & Referral	DSS
Missouri Preschool Program (MPP)	DESE
T.E.A.C.H. MISSOURI	DESE

PROGRAMS LAUNCHED OR NEW IN 2019

CDA Scholarship Project	DSS
Quality Assurance Report Pilot	DESE
Mental Health Consultation	DSS
Infant / Toddler Specialist Network	DSS

FAMILY SUPPORTS

Project LAUNCH	FED
Child Welfare Services	DSS
System of Care	DMH
Child and Adult Care Food Program (CACFP)	DHSS
Special Supplemental Nutrition on Program for Women, Infants, and Children (WIC)	DHSS
Temporary Assistance for Needy Families (TANF)	DSS
MO HealthNet for Kids (MHK)/Medicaid	DSS
State Children's Health Insurance Plan (CHIP)	DSS
Supplemental Nutritional Assistance Program (SNAP / Food Stamps)	DSS

SECTION 2:

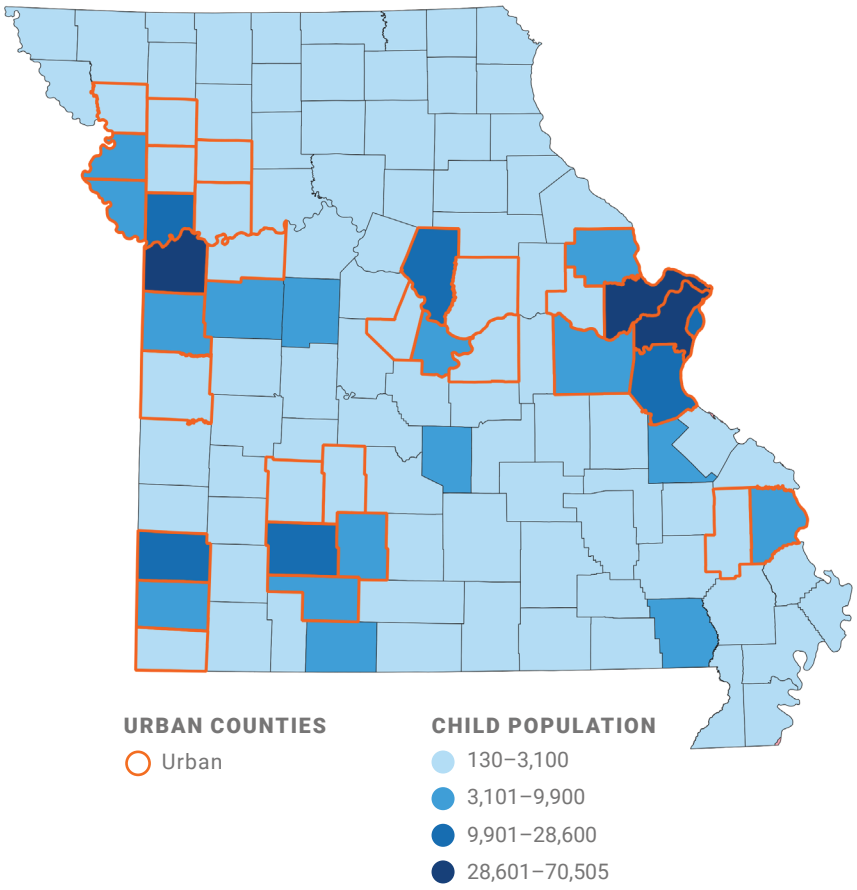
Focal Population Demographics

Missouri is a largely rural state by geography, with 81 of the 115 counties classified as rural (70%).[25] Missouri has an overall population of 6,075,300, and the majority (74%) of its overall population lives in urban counties.

This needs assessment focuses on the 447,782 children ages birth through five who reside in Missouri, 49% of whom are under the age of three (defined as birth through two) and the remaining 51% are ages three through five.

Like its overall population, the majority of Missouri's children live in urban areas, as shown in Figure 2; the counties with the highest and lowest population of children ages birth through five are listed in Table 1. The largest concentrations of young children are in Missouri's urban areas, including the St. Louis area (St. Louis County, St. Louis City, St. Charles County), the Kansas City area (Jackson County, Clay County), and the Springfield area (Greene County).

FIGURE 2: **DISTRIBUTION OF CHILDREN AGES BIRTH THROUGH FIVE, URBAN/RURAL**



** Source: This map uses the Urban-Rural Classification Scheme (2013) from the National Center for Health Statistics. All Missouri counties designated as Metropolitan using the NCHS scheme were classified as Urban in this map.*

TABLE 1: **COUNTIES WITH SMALLEST AND LARGEST POPULATIONS OF CHILDREN AS A PERCENT OF TOTAL CHILD POPULATION, AGES BIRTH THROUGH FIVE**

SMALLEST COUNTIES	COUNT (%)	LARGEST COUNTIES	COUNT (%)
Worth	130 (0.03%)	St. Louis County	70,505 (15.75%)
Holt	278 (0.06%)	Jackson	55,649 (12.43%)
Mercer	278 (0.06%)	St. Charles	28,622 (6.39%)
Knox	293 (0.07%)	St. Louis City	21,998 (4.91%)
Atchison	315 (0.07%)	Greene	21,157 (4.72%)
Reynolds	327 (0.07%)	Clay	18,967 (4.24%)
Putnam	351 (0.08%)	Jefferson	16,107 (3.60%)
Schuyler	425 (0.09%)	Boone	12,634 (2.82%)
Dade	443 (0.1%)	Jasper	9,930 (2.22%)

Seventy percent of Missouri's children live in families where all parents in the household are active in the workforce (i.e. in families with two parents, both parents are working, and in families with one parent, that single parent is working). This offers an approximate indicator of how many of Missouri families use a child care arrangement of some sort.

According to the U.S. Census, racial demographic data shows that 79.6% of young children in Missouri are White and 20% are non-white. The majority of children who are not identified as White live in St. Louis City, St. Louis County, and Jackson County, though children of different racial backgrounds live across the state. The two largest non-White racial groups are children who are identified as Black/African American, and children who are identified as Hispanic. The statewide distribution of children in these two racial groups is shown in Figure 3 and Figure 4.

Additional demographic information regarding Missouri's children and their families are analyzed in-depth in the following Risk and Reach Analysis.

FIGURE 3: **PERCENT HISPANIC, CHILDREN AGES BIRTH THROUGH FOUR**

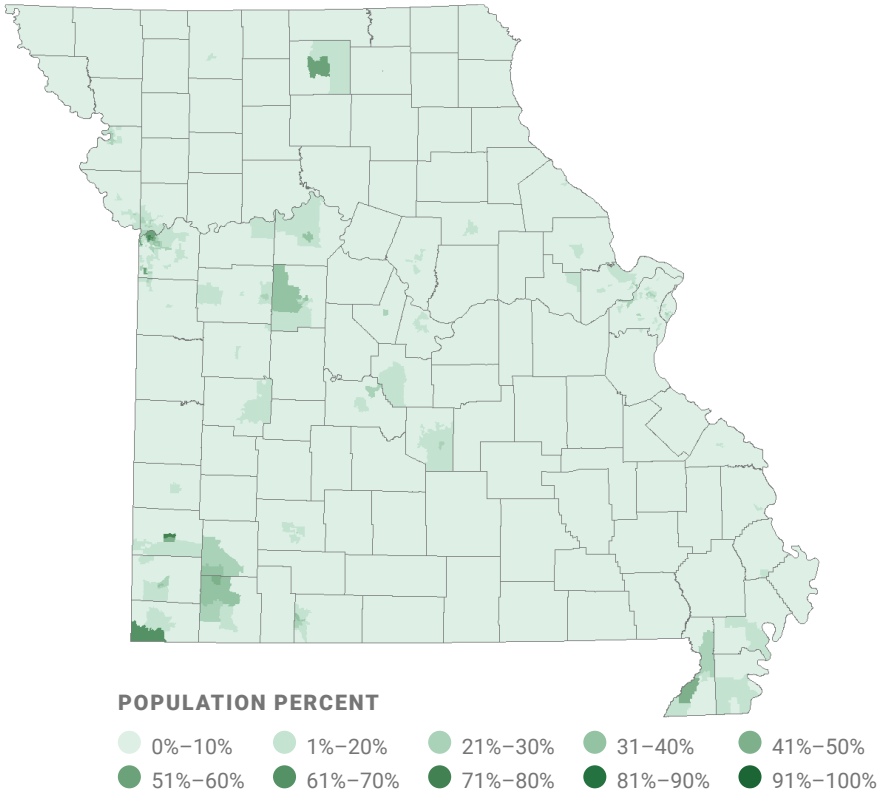
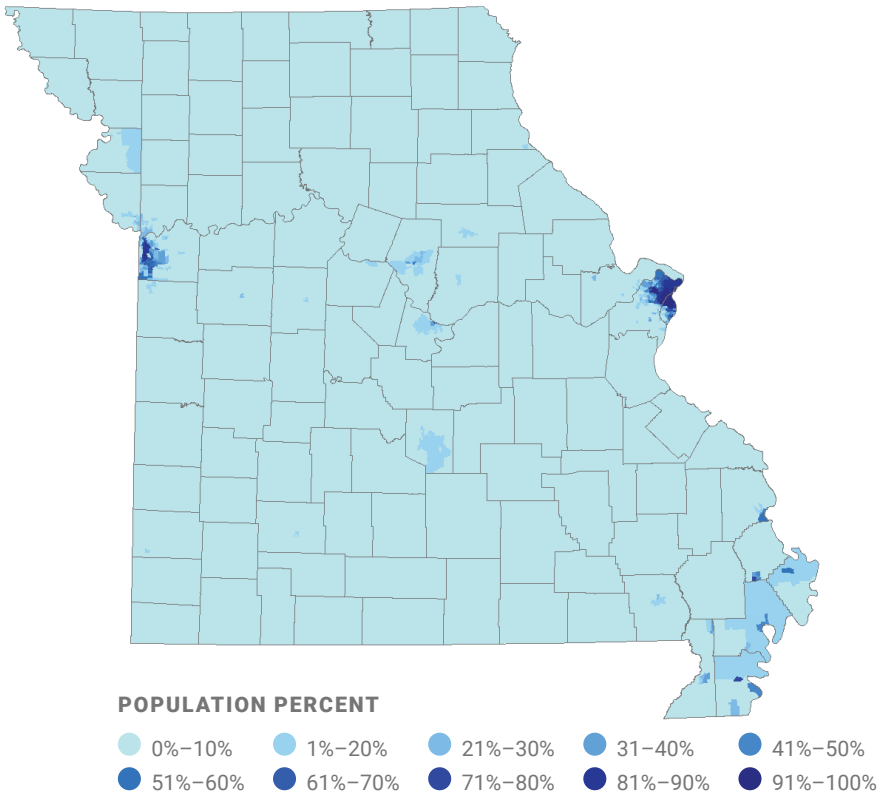


FIGURE 4: **PERCENT BLACK/AFRICAN AMERICAN, CHILDREN AGES BIRTH THROUGH FOUR**



SECTION 3:

Risk and Reach Analysis

With guidance from the Stronger Together Missouri Needs Assessment Advisory Committee, the project team chose to follow a "Risk and Reach" model to analyze demographic and service data across Missouri's 115 counties, building on methodologies established by other states including Minnesota,[26] Illinois,[27] and Pennsylvania.[28] This model maps risk indicators related to early childhood development and well-being, as well as reach indicators that represent services that support children and families.

The "Risk and Reach" model seeks to balance challenges with opportunities, it presents geographic trends in a consistent visual format, and it allows for the analysis of both individual indicators that are associated with early childhood development as well as "composite scores" to identify areas of highest need. By highlighting areas of need that are ripe for improvement, along with areas of "service reach" where opportunities for and expansion exist, the "Risk and Reach" model helps to advance the conversation in Missouri by visually identifying starting points for action.

All of the data indicators included in this Risk and Reach Analysis were assigned to one of two categories: *Family and Community Context* or *Child Development*. While some indicators can easily fall into both categories, researchers attempted to organize the indicators to make the information easier for readers to take in. Each Risk and Reach indicator is presented with a brief summary of data insights, a statewide map, and a table presenting the counties with the ten lowest and highest values for that indicator.

The Risk and Reach indicators that are included in the following analysis are limited to the data to which the project team had access, and are not comprehensive of the factors that influence the healthy development of young children; in some cases, "emerging indicators" are mentioned in the accompanying narrative. These emerging indicators refer to information that is tied to healthy early childhood development but is not represented through quantitative data and represent areas for further exploration.

Among the factors that are not well represented through a Risk and Reach analysis — but that are of essential importance to the wellbeing of young children — are the strengths of the families and communities in which children grow up and the support and care that is given to children by the people around them. As readers digest information about demographic characteristics and service reach across the state, it is important to remember that demographics tell only a small part of the story and that they do so in a way that lacks broader context about the strengths of individual communities and people.

TABLE 2: **FAMILY AND COMMUNITY CONTEXT INDICATORS**

DATA INDICATOR	CATEGORY
Violent crime	RISK
Total child maltreatment incidents	RISK
Children under 6 years experiencing poverty	RISK
Children under 6 years with all parent(s) in home not working	RISK
Child mobility children under 5	RISK
Teen births age 10–19	RISK
Low maternal education at birth (less than high school graduation)	RISK
Parents as teachers participation	REACH
Composite support program indicator (Food stamps, TANF or Medicaid)	REACH
Medicaid enrollment	REACH
WIC utilization at birth	REACH

TABLE 3: **CHILD DEVELOPMENT INDICATORS**

DATA INDICATOR	CATEGORY
Low Birth weight Births	RISK
Children under 6 years with No Healthcare Coverage	RISK
Inadequate Prenatal Care	RISK
Head Start Enrollment	REACH
Early Head Start Enrollment	REACH
First Steps Enrollment	REACH
Early Childhood Special Education Enrollment	REACH
Child Care Subsidy Utilization	REACH
Missouri Preschool Project Enrollment	REACH*
DESE Child Care Development Fund Enrollment	REACH*
Title I Enrollment	REACH

**Program availability and/or participation is particularly low across Missouri counties so these indicators are not treated as a full "reach" indicators for this analysis.*

RISK AND REACH METHODOLOGY

Risk and Reach maps illustrate the relationship between risk levels in relation to the reach or utilization of available services.

Interpreting a Risk Map

For each risk indicator, individual counties were compared to the statewide average and assigned to a category ranking (a ranking of 1 represents low risk and a ranking of 4 represents high risk). This approach enabled county-to-county comparison by using z-scores — the number of standard deviations (SD) that the indicator departs from the statewide average. Counties that fell below the mean were assigned low or moderate-low risk rankings, while counties that fell above the mean were assigned moderate-high or high rankings, respectively.

The maps contain single-hue progression that illustrates the geographic distribution of risk by county (see Table 4: Risk Indicator Categories). A county with low risk status is represented by the lightest shade of blue, while a county with high risk status is represented by the darkest shade of blue. A composite risk score was assigned to each county based on the combined score of all ten risk indicators. To determine the overall composite risk score, the average risk value across all risk indicators within each county was computed, then standardized using z-scores and assigned an overall risk score 1 (low) to 4 (high).

Interpreting a Reach Map

Similarly, this analysis uses county-to-county comparisons for each Reach indicator after first standardizing based on z-scores and then assigning a level of reach (a ranking of 1 represents low reach, and a ranking of 4 represents high reach). Each reach indicator section also provides an explanation of the indicator and the table of Missouri counties with the highest and lowest reach. Consistent with other Risk and Reach analyses, these reach indicators are displayed as circles of differing sizes based on the varying percent of each reach indicator for each county and are overlaid on a shaded "composite risk map" that depicts the composite risk levels for all counties. The counties with low reach status are represented by the smallest circles, while counties with high reach status are represented by the largest circles. Below these circles, the counties with low composite risk status are represented by the lightest shade of blue, while the counties with high composite risk status are represented by the darkest shade of blue.

TABLE 4: **RISK INDICATOR CATEGORIES**

LEVEL	RISK COLOR	SCORE	Z-SCORE	EXPLANATION
Low		1	z-score < -1	Greater than one SD below the statewide mean
Low to Moderate		2	-1≤ z-score < 0	Less than one SD below the statewide mean
Moderate to High		3	0≤ z-score < 1	Less than one SD above the statewide mean
High		4	z-score ≥1	Greater than one SD above the statewide mean

Risk and Reach: Family and Community Context

The family and community context in which children grow has an enormous impact on their ability to thrive. The following indicators focus primarily on a family's ability to meet basic needs of children, both economically and developmentally. As future researchers consider expanding upon this analysis, the project team encourages a focus on expanding the positive (rather than negative) indicators that illustrate a family's ability to support their children's needs, as well as the positive and negative community context that impacts a child's development and early experiences.

RISK | VIOLENT CRIME

Violent crime is defined as any offense involving force or a threat of force, particularly murder, manslaughter, rape, robbery, and aggravated assault.[29] In 2018, Missouri had higher violent crimes rate per 1,000 population than federal rate (5 and 3.8 respectively)[30].

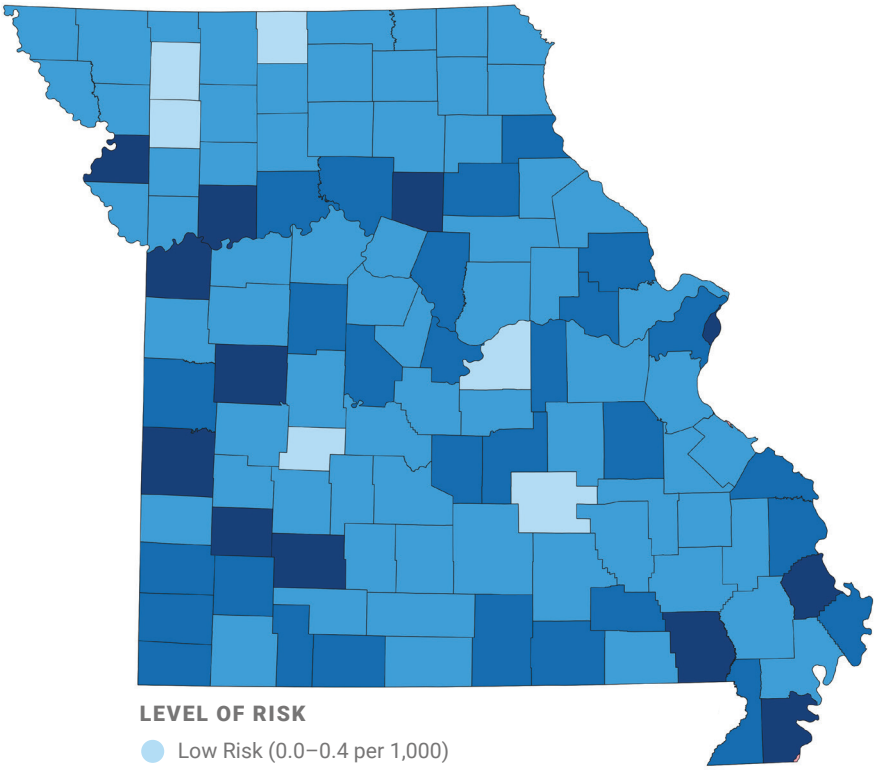
Neighborhood violence can expose children to unsafe conditions and can result in negative effects such as stress, obesity, sleep disorders, impaired memory, regressive behavior, aggression, anxiety, depression, as well as other challenges later in life.[31]

For this report, violent crime data were obtained from the Missouri Highway patrol and converted into a rate per one thousand people. This crime data was not specific to children; it is intended as an approximate indicator of the exposure to violence that children might experience.

In 2017–2018, 49.2 per 1,000 Missouri children ages birth to five were living in unsafe neighborhoods.[32] The rate of children in Missouri ages birth to five who experienced at least one adverse childhood experience (such as witnessing domestic violence, being a victim of violence, or witnessing violence in his/her neighborhood) was 165 per 1,000 children as of 2018.[33]

The highest rate of reported violent crimes in Missouri are in St. Louis City together with Jackson, Greene, Pemiscot, and Scott counties. The five counties with the lowest rates of reported violent crimes are Mercer, Osage, Gentry, DeKalb, and Hickory.[34]

VIOLENT CRIME IN THE OVERALL POPULATION



LOW	RATE	HIGH	RATE
Mercer	0	St. Louis City	17.6
Osage	0.2	Jackson	13.2
Gentry	0.2	Greene	8.2
DeKalb	0.2	Pemiscot	7.8
Hickory	0.3	Scott	7.4
Dent	0.4	Ray	7.0
Worth	0.5	Dade	6.2
Knox	0.5	Buchanan	6.2
Shelby	0.7	Vernon	5.9
Schuyler	0.7	Randolph	5.8

RISK | CHILD MALTREATMENT INCIDENTS

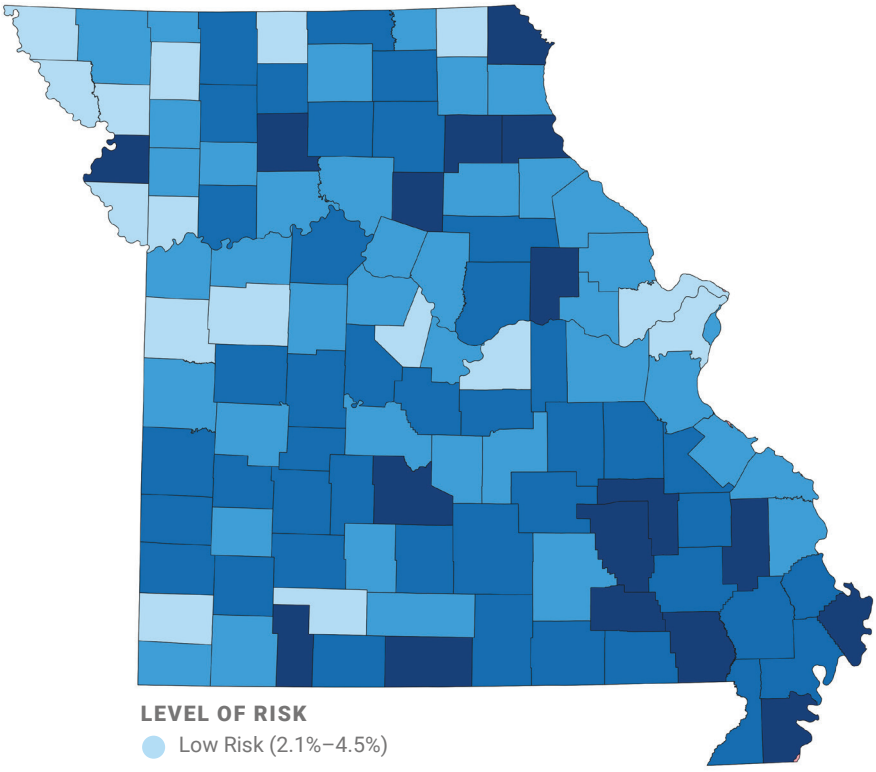
Child maltreatment is defined as using force against, sexually coercing, or emotionally manipulating children.[35] Children who experience child maltreatment often suffer serious consequences, including an increased risk of various physical health issues, diminished cognition, social challenges, mental health issues including post-traumatic stress, and behavioral challenges.[36] Neglect, or failure to meet a child's basic needs-housing, food, clothing, education, and medical care may lead to similar consequences.[37]

Typically, national and state rates of child maltreatment only include *substantiated* incidents of child maltreatment; however, researchers for this report sought to recognize all reported incidents of potential child maltreatment;* this more encompassing definition can lead to slightly increased rates of child maltreatment. In Missouri, this rate is 5.4 per 100 children under the age of five.

Using this broader definition, the five Missouri counties with the highest rate of reported incidents of child abuse and neglect are Buchanan, Greene, Laclede, Polk, and Douglas counties. The five counties with the lowest rates of reported child abuse and neglect are St. Charles, Knox, Osage, Platte and St. Louis County.

**Note: Data were received from the DSS for the 2018 calendar year and included only children ages birth to five years. Percent was computed using U.S. Census population estimates. For this report, child maltreatment was defined broadly as a child subject to any incident in 2018 ending with the classification of Substantiated, Unsubstantiated, Unsubstantiated-Preventative Services Indicated, Family Assessment, or Other categories.[38]*

CHILD MALTREATMENT FOR CHILDREN AGES BIRTH TO FIVE



LOW	RATE	HIGH	RATE
St. Charles	3.7	Buchanan	13.0
Knox	3.8	Greene	12.8
Osage	4.2	Laclede	12.7
Platte	4.3	Polk	12.6
St. Louis	4.5	Douglas	12.5
Andrew	4.8	Howell	12.4
Clay	4.8	Henry	12.3
Schuyler	4.9	Carter	11.9
Johnson	5.1	Dade	11.9
Cass	5.4	Hickory	11.8

RISK | CHILDREN UNDER 6: LIVING IN POVERTY

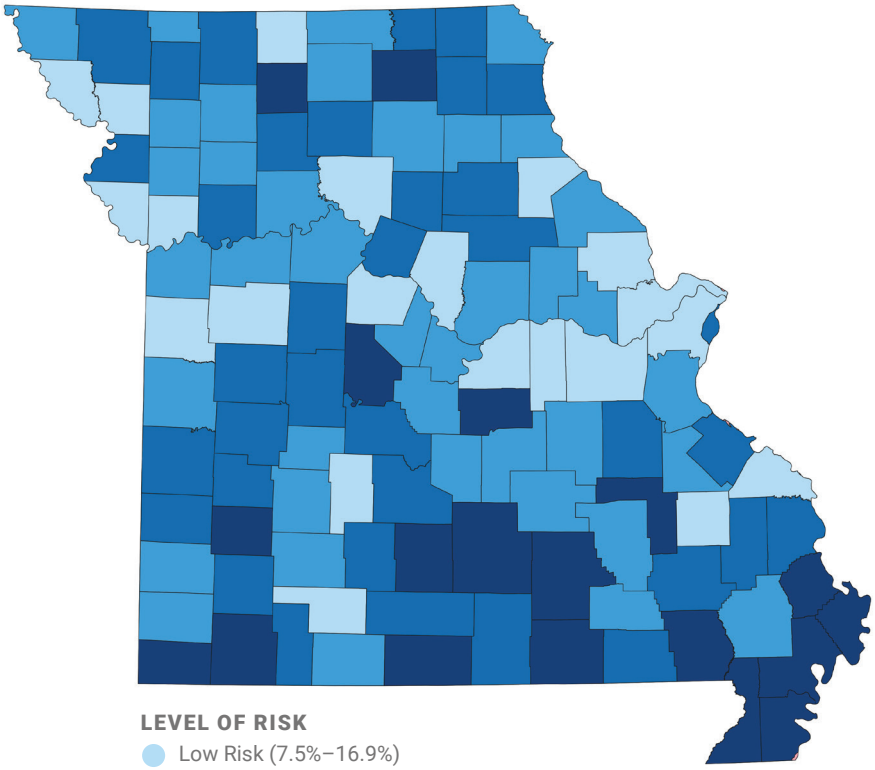
Families and children living in poverty experience a high level of chronic stress which, among other effects, can inhibit children's performance in school as compared to children who were born into more financially-stable homes.[39]

Children who are raised in poverty, or who have experienced neighboring poverty, are also more likely to face serious problems associated with poor physical and mental health[40] including low birth weight, asthma, increased accidental injuries, violence, overall poor health, and other chronic health conditions that directly impact early childhood development, learning, and school achievement.[41]

According to the Missouri Poverty Report (2018), the percentage of all Americans living at or below the Federal Poverty Level (FPL) is about 13%.[42] In the state of Missouri, the overall poverty rate is 14%. This rate is higher when looking only at children under the age of five: in Missouri, the poverty rate for children under five is estimated at 23%, just above the national average of 22.5%.[43]

The Missouri county with the highest poverty rate for children under six is Mississippi County (64.6%). Other counties with high rates are Oregon, McDonald, Pemiscot, and Grundy. The counties with the lowest rates are Osage (7.5%), followed by St. Charles, Madison, Ralls, and Platte counties.

CHILDREN UNDER 6 YEARS EXPERIENCING POVERTY



LOW	RATE	HIGH	RATE
Osage	7.5	Mississippi	64.6
St. Charles	7.6	Oregon	54.3
Madison	8.3	McDonald	47.5
Ralls	9.4	Pemiscot	47.2
Platte	9.8	Grundy	46.5
Mercer	10.2	Dade	45.4
Johnson	11.5	Morgan	44.6
Dallas	11.8	Wright	44.5
Cooper	12.1	Dunklin	43.7
Perry	13.1	Iron	43.6

RISK | CHILDREN UNDER 6: ALL HOUSEHOLD PARENTS NOT WORKING

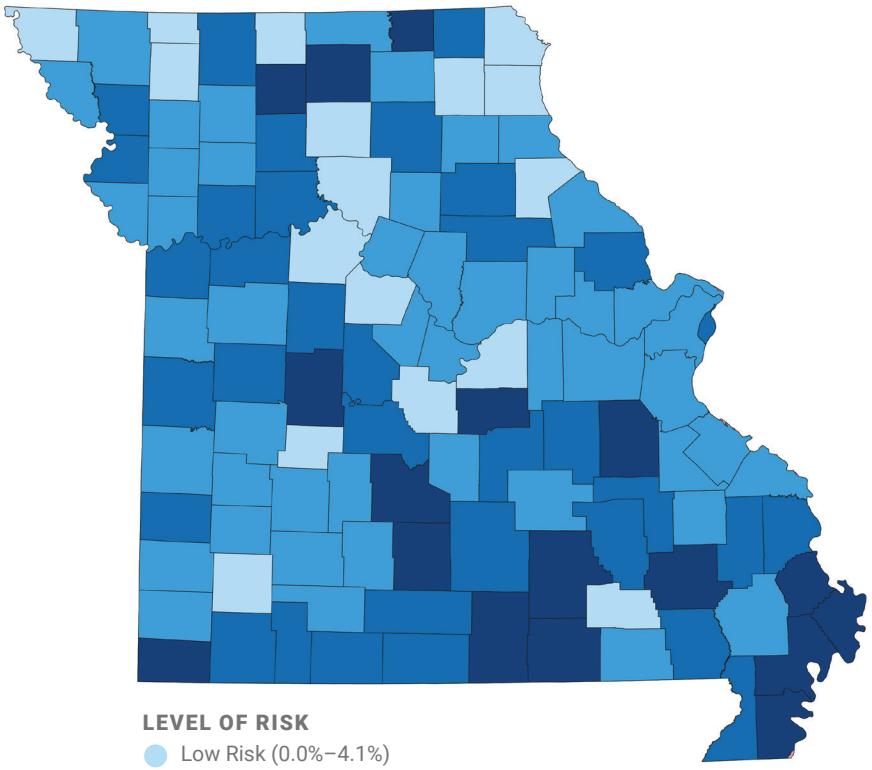
This indicator describes the percentage of children under the age of six living in one- and two-parent households where no parent in the household participates in the labor force.

Research shows parental unemployment can have long-lasting effects on children.[44] Younger children, such as those between birth and five years, are more likely to experience parental unemployment than older children.[45]

Based on the U.S. Census American Community Survey (ACS) 2017 5-year estimates, 8.9% of American children live in a household where no parent is in the labor force. In Missouri, this rate is 8.1%.[46]

Three Missouri counties have more than 20% of children living in such households: Oregon, Schuyler, and Pemiscot counties. The south-central and southeastern regions of the state exhibit the highest levels of parents not participating in the labor force.

CHILDREN UNDER 6 YEARS WITH ALL PARENTS IN HOME NOT WORKING



LOW	RATE	HIGH	RATE
Carter	0.0	Oregon	22.0
Gentry	0.5	Schuyler	21.7
Hickory	1.5	Pemiscot	20.8
Clark	1.6	Wright	19.8
Miller	2.1	Maries	18.8
Saline	2.5	Wayne	18.7
Knox	2.5	Mississippi	17.7
Lewis	2.7	McDonald	16.7
Worth	2.8	Howell	16.4
Linn	3.0	Washington	16.3

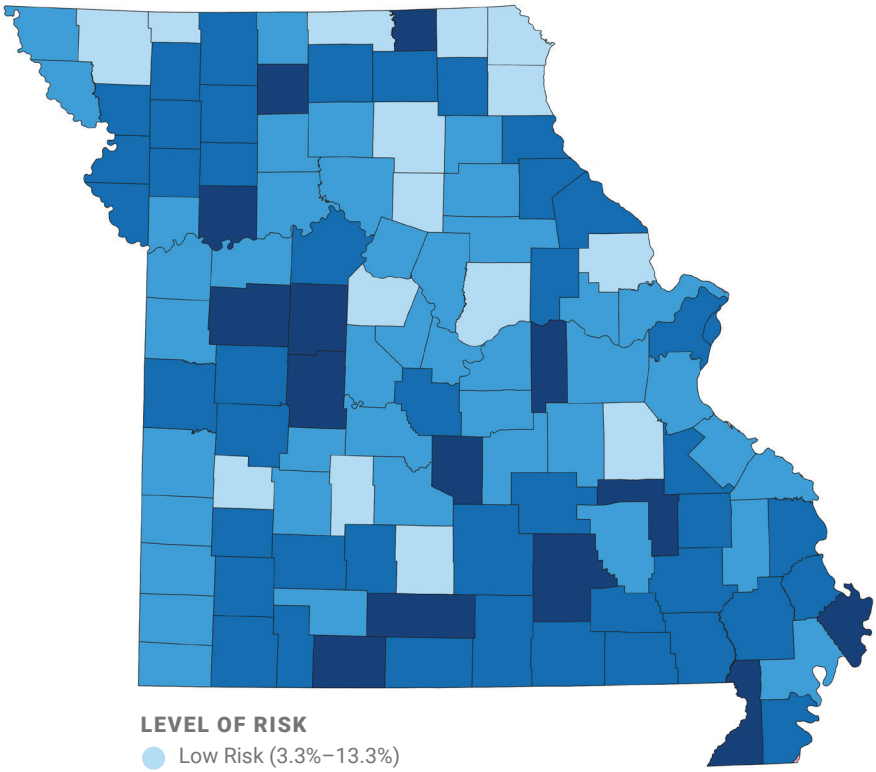
RISK | CHILDREN UNDER 5: CHILD MOBILITY

Research has shown that the number of times a child moves negatively impacts the child's school performance, and ultimately can increase the likelihood of high school dropout.[47]

According to data come from the ACS five-year data (2013–2017), approximately 20.6% of Missouri children under age five have moved in the preceding year; this rate is only slightly higher than the U.S. rate of 19.4%.

The counties with the highest rates and highest risk levels range are Schuyler, Taney, Benton, Dunklin, and Gasconade counties. It is interesting to note that Putnam County (3.3%) and Schuyler County (30.5%) are neighboring counties located on the Missouri and Iowa border. The counties with the lowest child mobility rates, all below 10%, are Putnam, Cedar, Randolph, Dallas Worth, Lewis, and Washington counties.

CHILD MOBILITY IN CHILDREN UNDER 5 IN PAST YEAR



LOW	RATE	HIGH	RATE
Putnam	3.3	Shannon	42.7
Cedar	3.6	Pettis	39.9
Randolph	5.8	Iron	37.2
Dallas	6.9	Mississippi	36.5
Worth	6.9	Pulaski	32.7
Lewis	7.9	Gasconade	31.6
Washington	9	Dunklin	31.3
Cooper	11	Benton	31.2
Scotland	11.2	Taney	30.8
Clark	11.3	Schuyler	30.5

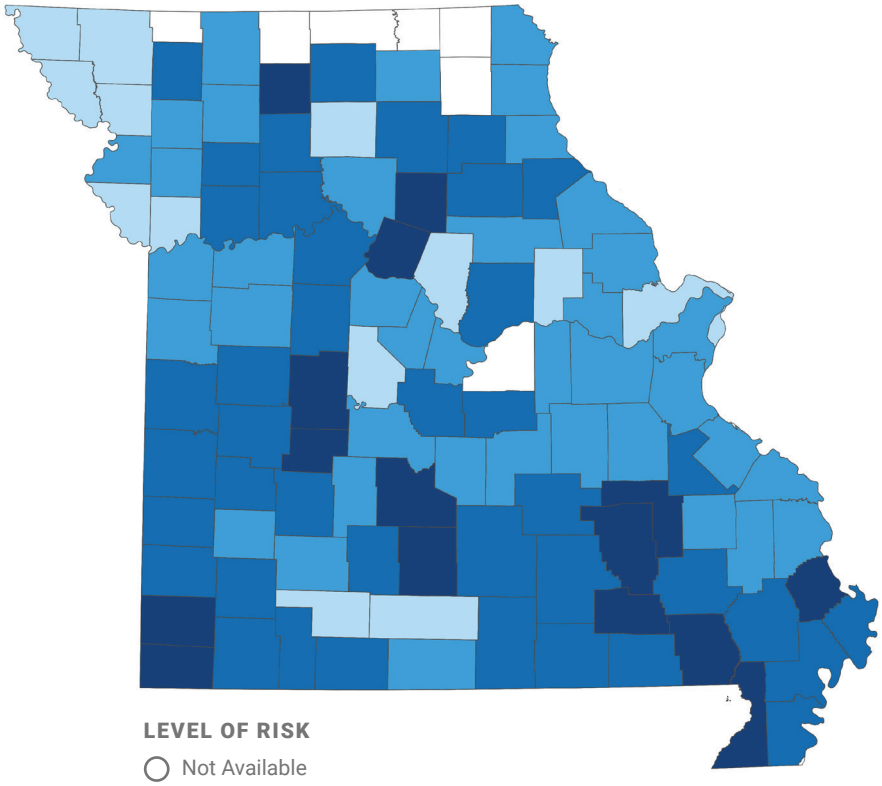
RISK | TEEN BIRTHS

Teen births are defined as the rate of births to mothers ages fifteen to nineteen per 100 live births, according to 2018 birth certificate data from DHSS, as a rate per 100 live births. Teen mothers are less likely to graduate from high school and are more likely to live in poverty and apply for public assistance.[48] Their children are more likely to have lower academic achievement, are more likely to enter the child welfare or correctional systems, as well as other challenges.[49] Teenage pregnancy has been on the decline in the United States since 1960.[50]

Nationwide, the percentage of children born to teenage mothers is 1.9%.[51] However, in Missouri, that percentage is 5.6%, approximately three times higher than the national rate.

The five Missouri counties with the highest rate of teenage pregnancies include Dunklin, Iron, Reynolds, Butler, and Howard. With the exception of Howard County, these counties are in the southeastern part of the state. The five Missouri counties with the lowest rate are Atchison, Holt, St. Charles, Nodaway, and Platte. With the exception of St. Charles County, these counties are located in northeastern Missouri.

TEEN BIRTHS, AGES 10–19



LOW	RATE	HIGH	RATE
Atchison	0	Dunklin	14.7
Holt	0	Iron	12.9
St. Charles	2.2	Reynolds	12.3
Nodaway	2.4	Butler	12.2
Platte	2.6	Howard	12
Clay	3.3	Carter	11.5
Montgomery	3.4	Benton	10.9
Boone	3.6	Scott	10.6
Andrew	3.7	McDonald	10.4
Linn	3.8	Wright	10

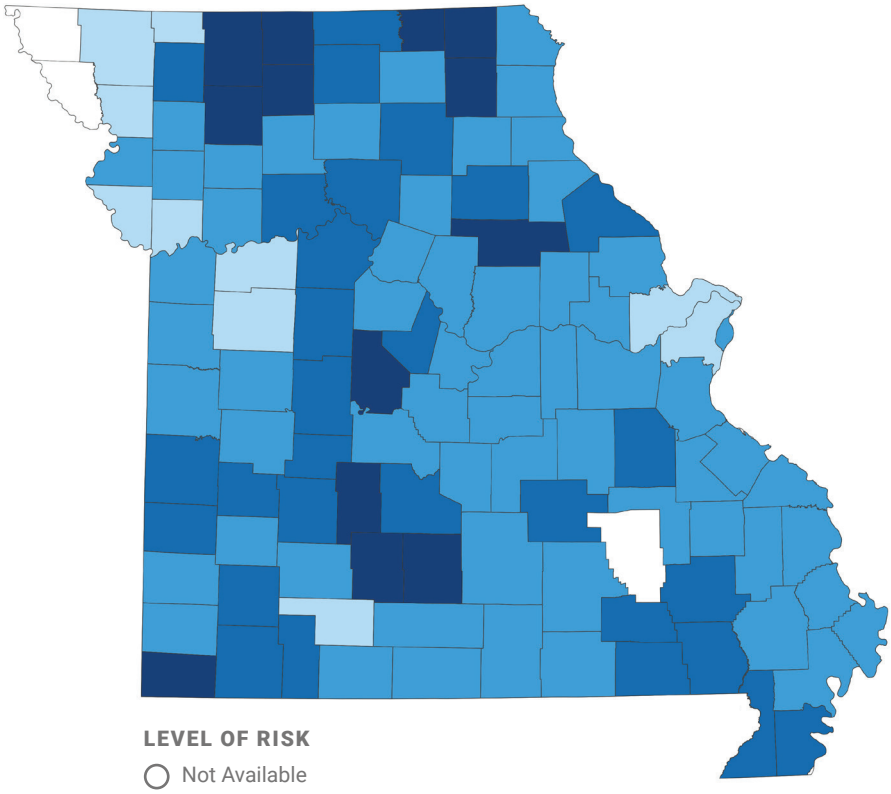
RISK | LOW MATERNAL EDUCATION AT BIRTH

This indicator summarizes the percentage of mothers who did not report obtaining at least a high school diploma at the time that their children were born, according to 2018 birth certificate data from DHSS, as a rate per 100 live births. Children born to mothers without high school degrees often face significant disadvantages when compared to children born to mothers with post-secondary education. These disadvantages include but are not limited to: an increased poverty rate, diminished learning outcomes, diminished educational completion, and worse health.[52]

Parents who have children during high school are especially unlikely to complete their high school education.[53] Nevertheless, the proportion of mothers who complete education after having it interrupted by parenthood has been increasing over the past twenty years.[54]

The five Missouri counties with the lowest rates of mothers not completing high school were Worth, Platte, St. Charles, Clay and Nodaway counties. The Missouri counties with the highest rate of mothers not completing high school are Scotland, Morgan, Knox, Webster and Daviess counties.

MOTHERS WITH LESS THAN HIGH SCHOOL EDUCATION



LOW	RATE	HIGH	RATE
Worth	0	Scotland	66.2
Platte	3.9	Morgan	40.8
St. Charles	4.2	Knox	37.9
Clay	5.8	Webster	36.3
Nodaway	5.9	Daviess	34.9
Christian	6.3	Schuyler	33.8
Johnson	6.9	Harrison	32
Andrew	7	Mercer	30.2
Lafayette	7.3	Audrain	29.7
St. Louis	7.3	McDonald	28.8

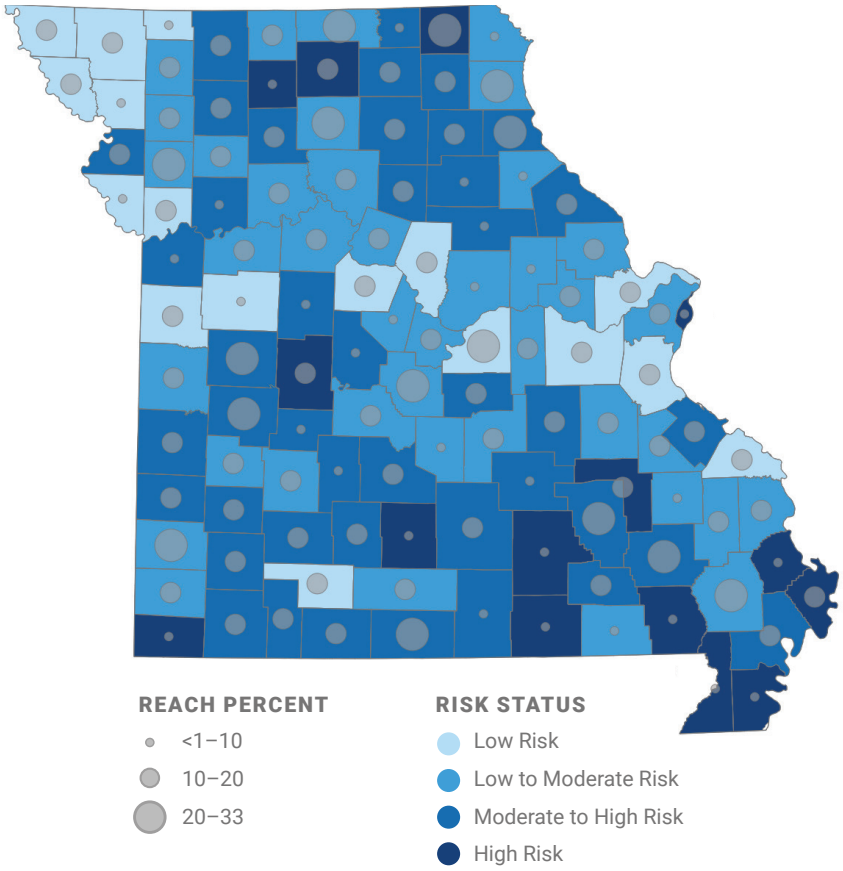
REACH | PARENTS AS TEACHERS PARTICIPATION

Evidence-based home visiting programs are shown to support child development, improve maternal health, reduce child maltreatment, and increase family stability, among other positive outcomes.[55] Currently, home visiting services are offered through the Missouri Departments of Elementary and Secondary Education, Health and Senior Services, and Social Services. There are also multiple home visiting programs funded through public and private sources, outside of state agencies. The Parents As Teachers (PAT) program began in Missouri back in the 1970's, built on a strong evidence base of research. By 1985, PAT had secured state funding to provide their services in every county in Missouri.[56] PAT partners with local school districts in Missouri to provide their services to children.

Data obtained from DESE provided the number of children ages birth to five receiving PAT services during the school year 2018–2019. Population-adjusted percentages for each county were computed using U.S. Census population data from the American Community Survey (2013–2017).

The five Missouri counties with the lowest PAT participation are Ralls, St. Louis City, Ripley, Shannon and McDonald counties. Those counties are geographically dispersed throughout the state. The five Missouri counties with the highest PAT participation are Ozark, Marion, Putnam, Jasper and St. Clair counties. Neither the highest or lowest participating counties demonstrate any particular geographical clustering.

PARENTS AS TEACHERS PROGRAM FOR CHILDREN AGES BIRTH TO 5, BY COUNTY



Notes: Data were obtained from Missouri Department of Elementary and Secondary Education with total counts for high need and non-high need children served combined. The final population-adjusted rate children served by PAT was developed using the number of children age 0-5 in the total population for each county, according to the U.S. Census.

LOW	RATE	HIGH	RATE
Ralls	0.0	Ozark	33.2
St. Louis City	0.7	Marion	32.8
Ripley	3.2	Putnam	31.1
Shannon	3.3	Jasper	30.0
McDonald	3.7	St. Clair	29.2
Madison	3.9	Lewis	27.8
Clark	4.0	Clinton	26.5
Audrain	4.4	Wayne	25.9
Moniteau	4.6	Miller	25.3
Howell	5.2	Scotland	25.0

REACH | COMPOSITE SUPPORT PROGRAMS

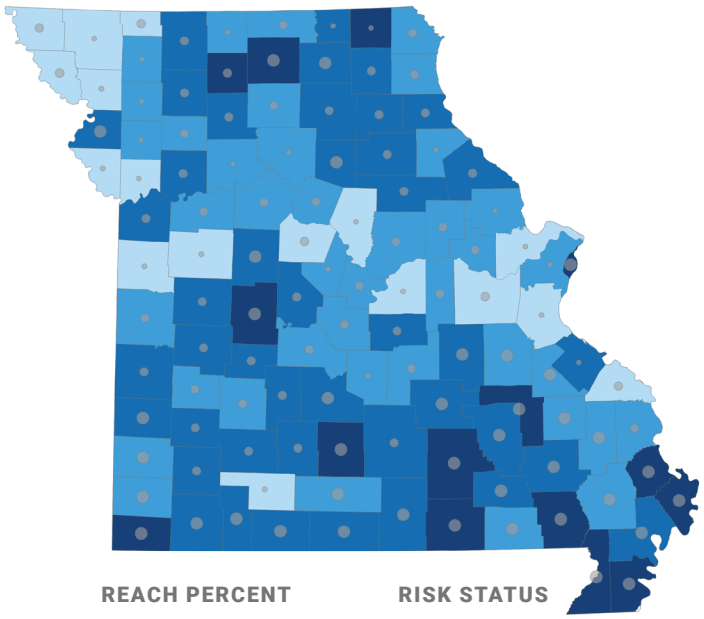
Data for this indicator represents a combination of child's enrollment in one or more of the following programs: Supplemental Nutrition Assistance Program (SNAP), formerly known as food stamps, Temporary Assistance for Needy Families (TANF) and/or Medicaid during the 2018 calendar year. Data were obtained from DSS. Population-adjusted percentages for each county were computed using U.S. Census population data from the American Community Survey (2013–2017). It should be noted that due to slight discrepancies in the population for this indicator, some counties had percentages above 100 and are simply represented here by that value. More detail on child enrollment in Medicaid is provided in the following section.

Children living in households where access to healthy, nutritious foods was inadequate are predisposed to experience poor health, behavioral issues, and deficits in cognitive development.[57] Research also demonstrates that being enrolled in the Supplemental Nutrition Assistance Program (SNAP), formerly known as food stamps, has the potential benefits of improving children's health and school performance and lowers their risk of developmental delays, therefore increasing their possibilities of graduating high school.[58] In Missouri, a family of four qualifies for up to $640 in SNAP benefits a month if their monthly household income is at or below $2,665 a month.[59] Applicants must meet federal regulations regarding gross and net income limits for all household members.

Nationally, less assistance is reaching families in need: there was a decline in TANF from 14% in the early 1990s to 3% in 2017.[60] In Missouri, the food insecurity rate for children under the age of six was close to 17%, significantly higher than the national average of 13%.[61]

The overall percentage of Missouri children enrolled in either Food Stamps, TANF or Medicaid is 63.7%. A total of 7 counties have enrollment at or near 100%, including Reynolds, Ozark, Dunklin and Pemiscot. Counties with the lowest utilization start with St. Charles and include Scotland, Osage and Platte.

CHILDREN AGES BIRTH TO 5 UTILIZING FOOD STAMPS, TANF AND/OR MEDICAID, BY COUNTY



Utilization data for Food Stamps, TANF and/or Medicaid Utilization were obtained from the Missouri Department of Social Services for children ages birth to 5 for 2018. A population percent of utilization was computed using the number of children age birth to 5 in total population for each county, according to the U.S. Census. The underlying shaded choropleth layer represents the composite risk by county. Due to slight differences in population estimates some counties had percentages greater than 100.

LOW	RATE
St. Charles	29.1
Scotland	32.8
Osage	32.9
Platte	36.3
Mercer	39.2
Johnson	43.5
Andrew	44.7
Clay	45.6
Nodaway	49.2
Chariton	49.6

HIGH	RATE
Reynolds	100
Ozark	100
Pemiscot	100
Dunklin	100
Mississippi	100
Oregon	100
Shannon	100
Ripley	97.9
Butler	94.7
Howell	92.7

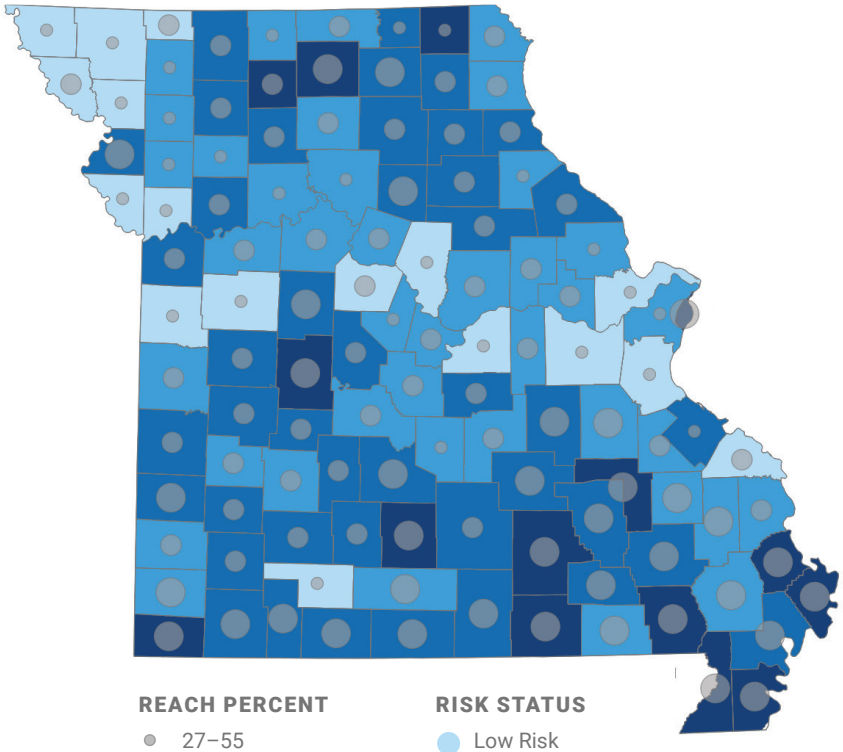
REACH | MEDICAID UTILIZATION

Medicaid provides health coverage for millions of children across the country, which, particularly for low-income children, can have many benefits. One of these is higher educational attainment: data shows that an increase in average Medicaid eligibility for children and teens can lead to a decrease in the high-school dropout rate and an increase in four-year college degrees earned.[62]

Medicaid is the largest single source of health coverage nationally, with more than 17.5% of people in the U.S. covered by at least one Medicaid program. Nearly 40% of those recipients are children.[63] In Missouri overall, 60.6% of births are to mothers utilizing Medicaid. For this analysis, data were obtained from DSS on the number of children ages birth to five enrolled in Medicaid at any time during the 2018 calendar year. Population-adjusted percentages for each county were computed using U.S. Census population data from the American Community Survey (2013–2017). It should be noted that due to slight discrepancies in the population for this indicator, some counties had percentages above 100 and are simply represented here by that value.

The project team also obtained recent data on children enrolled in Medicaid as of September 2019. Several local and national media outlets have reported on the drop in Missouri Medicaid enrollment from 2018 to 2019. Missouri's children were particularly impacted, with counties showing a drop in coverage for children under five from 2018 to 2019 ranging from 24% (Reynolds County) up to nearly 50% in DeKalb, Holt and Putnam Counties. Data for each county can be found in the appendix.

MEDICAID ENROLLMENT FOR CHILDREN AGES BIRTH TO 5, BY COUNTY



Notes: Medicaid enrollment data were obtained from the Missouri Department of Social Services for children ages birth to 5 for 2018. A population percent of utilization was computed using the number of children age birth to 5 in the total population for each county, according to the U.S. Census. The underlying shaded choropleth layer represents the composite risk by county. Due to slight differences in population estimates some counties show percentages greater than 100.

LOW	RATE	HIGH	RATE
St. Charles	27.1	Ozark	100
Osage	30.2	Reynolds	100
Platte	33.0	Mississippi	100
Scotland	34.5	Pemiscot	99.3
Mercer	37.1	Oregon	98.7
Johnson	41.3	Shannon	97.7
Clay	41.6	Dunklin	97.1
Andrew	41.9	Ripley	90.7
Pulaski	45.5	Butler	88.4
Nodaway	45.6	Howell	88.4

REACH | WIC UTILIZATION AT BIRTH

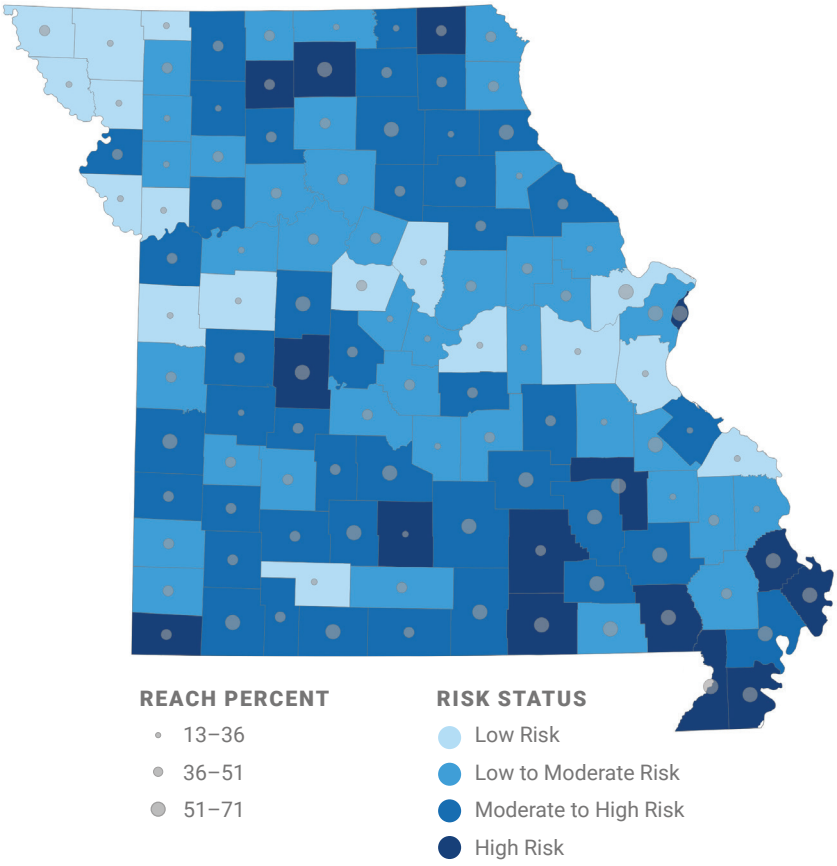
One of the primary purposes of the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) is to mitigate nutritional risks to young children by providing educational resources, supplemental foods, and necessary referrals to healthcare. Food insecurity is associated with lower levels of school readiness for young children.[64]

Research has shown prenatal and early childhood use of the WIC system is positively related to short-term outcomes such as improved birth weight and cognitive development as well as longer-term outcomes including academic achievement once those children start school,[65] suggesting that WIC may be effective in mitigating some of the problems it aims to address. WIC participation has been correlated with a reduction in infant mortality rates, particularly among Black/African American populations.[66]

Nationwide in 2017 during an average month, the percent of eligible women, infants, and children receiving WIC benefits stood at 51.1%. Within WIC subgroups, participation ranged from 42% for children, to infants 79% in infants and 96% in postpartum mothers.[67] In Missouri, the average rate of participation per 100 people is 36.2%. In Missouri, WIC participation for all eligible participants has steadily decreased since FY2015.[68] Data were obtained from DSS provided the rate of WIC utilization at birth per 100 live births.

The five Missouri counties with the highest WIC utilization rate are New Madrid, Iron, Butler, Mississippi, and Webster. These counties are all located in southern Missouri, with three of the five located in the Bootheel. The five counties with the lowest WIC utilization rate are Holt, Lincoln, Clay, Platte, and Schulyer counties.

WIC UTILIZATION AT BIRTH, BY COUNTY



Utilization data at birth for the WIC program were obtained from the Missouri Department of Social Services for children ages birth to 5 for 2018. Data were provided as rate per 100 live births. The underlying shaded choropleth layer represents the composite risk by county.

LOW	RATE	HIGH	RATE
Schuyler	12.9	Webster	70.8
Platte	19.2	Mississippi	70.7
Clay	21.1	Butler	70.3
Lincoln	23.1	Iron	69.1
Holt	24.0	New Madrid	68.4
Nodaway	24.1	Pemiscot	65.5
Osage	24.7	Dunklin	65.2
Andrew	25.8	Oregon	65.1
Cass	26.3	Macon	64.4
Boone	26.4	Wayne	64.3

Risk and Reach: Child Development Indicators

Identifying measurable indicators related to Child Development, particularly in the areas of health, mental health, and learning, are areas of focus for other states that have previously been awarded federal grants that focus on improving the ECCE system. The following indicators are tied to healthy child development and focus particularly on physical health and enrollment in child care programs. As future researchers consider expanding upon this analysis, the project team encourages them to explore emerging indicators related to mental health and positive relational experiences.

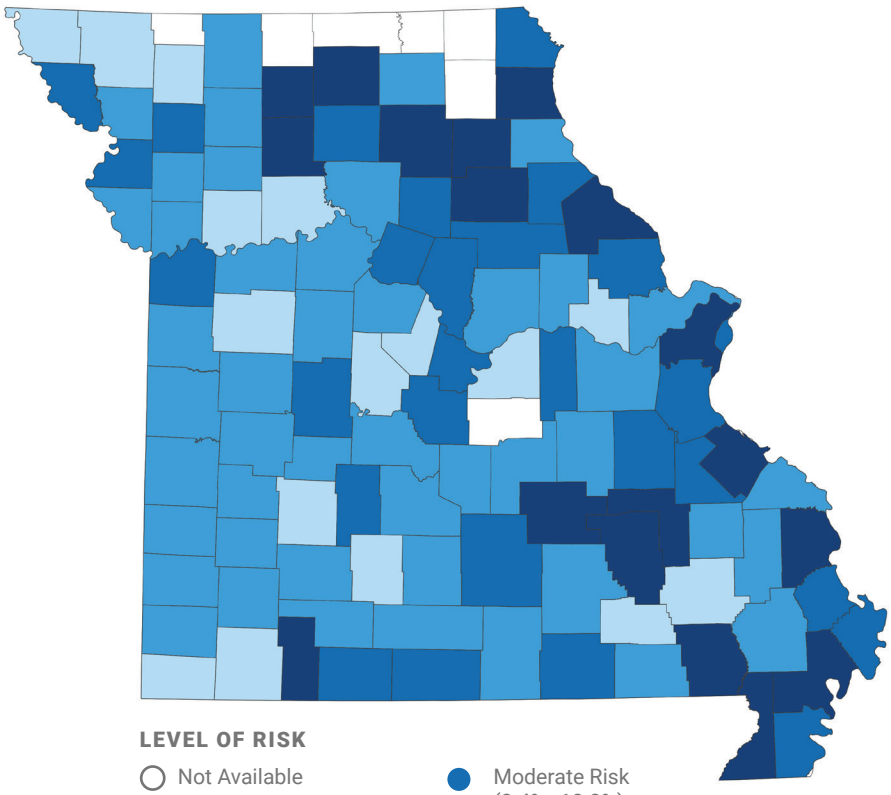
RISK | LOW BIRTH WEIGHT BIRTHS

This indicator measures the rate of low birth weight per 100 live births, with low birth weight being defined as less than 2,500 grams (about five and a half pounds) and includes infants born at a very low weight (less than 1,500 grams or 3.3 pounds). Data were obtained from DHSS. Low birth weight can be caused by a variety of factors, including smoking or drinking during pregnancy, insufficient nutrition during pregnancy, negative socio-economic conditions such as poverty and stress, and exposure to an unhealthy environment during pregnancy.[69] Infants born with a low birth weight are at a higher risk of developing health issues in their youth and of having delayed motor and social development.[70] Infants born with very low birth rate are also at a higher risk of developing social, emotional, and behavior problems later in life compared to children born at a normal birth weight.[71]

In the state of Missouri, 8.8 children per 100 births are born at a low birth weight, which is slightly higher than the national rate of 8.3 low weight births per 100 births.[72] Low and very low birth weight is an especially prevalent problem in Black/African American communities where persistent disparities in statewide rates for Black/African American and White children exist at 14.7% and 7.2% respectively."[73]

The five Missouri counties with the highest incidence of low birth weight are Reynolds, St. Louis County, Dent, Dunklin, and Butler. Apart from St. Louis County, these counties are clustered in the south-eastern area of Missouri. The five counties with the lowest incidence of low birth weight births are Atchison, Johnson, Osage, Barry, and McDonald, which are clustered in the western part of the state.

LOW BIRTH WEIGHT BIRTHS



LOW	RATE
Atchison	0
Johnson	4.9
Osage	4.9
Barry	5.2
McDonald	5.5
Carroll	5.6
Morgan	5.6
Carter	5.7
Gentry	5.7
Moniteau	5.7

HIGH	RATE
Reynolds	13.7
St. Louis	13
Dent	12.4
Dunklin	12.3
Butler	12.2
Sullivan	12.2
Iron	12
Livingston	11.9
New Madrid	11.9
Stone	11.7

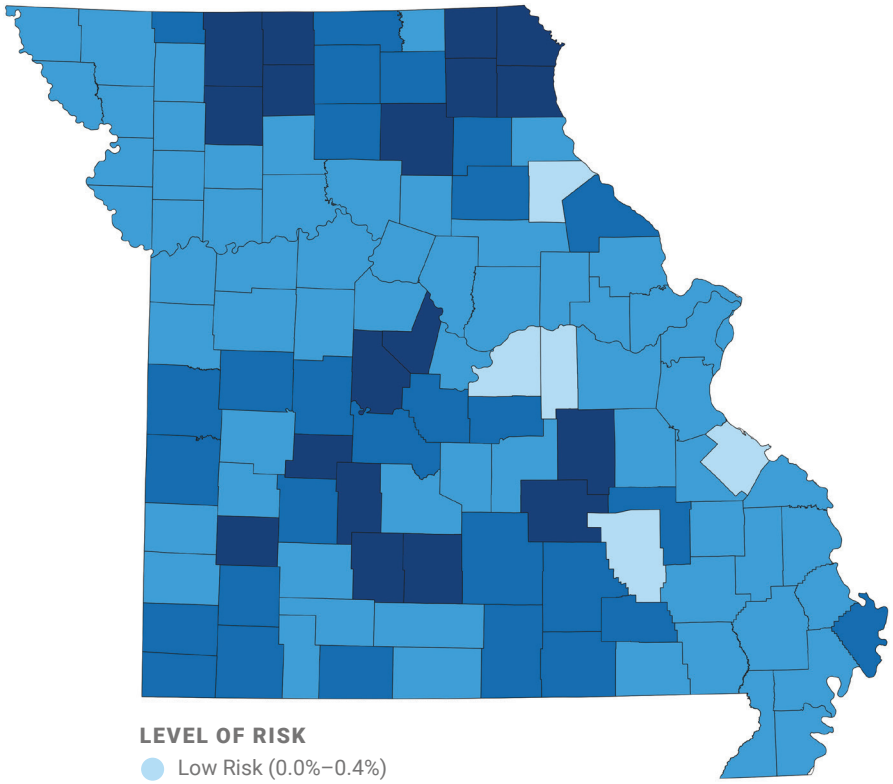
RISK | CHILDREN UNDER 6: NO HEALTH INSURANCE

Having health insurance coverage increases both quantity and quality of health outcomes for all children;[74] a child's health is directly associated with their ability to grow and learn.[75] Research also shows that children without health insurance are less likely to access basic health care services, which can lead to untreated chronic and recurrent illnesses, consequently affecting their ability to grow and learn.[76] As a result, their academic performance suffers, and they are more likely to have emergency room visits and hospitalizations, spend less time in the classroom, and are less likely to graduate from high school and pursue a higher degree.[77]

Health insurance and population data were obtained from the U.S. Census American Community Survey (2013–2017). In Missouri, two out of every five Missouri children are covered under MO HealthNet (Missouri's Medicaid Program) and the Children's Health Insurance Program (CHIP), and approximately two-thirds of the total population enrolled in MO HealthNet were children.[78] The percentage of children under six without health insurance across the state is 5.5%, which is higher than the national average, 4.5%.

The Missouri county with the highest rate of uninsured children is Scotland, at 43%. Dallas, Morgan, Daviess, and Lewis counties are among other counties with the high rates levels of uninsured children. The counties with the lowest levels of uninsured children are Osage, Ralls, Reynolds, Ste. Genevieve, and Gasconade, all with a rate of less than 1%. The northern and northeastern regions of Missouri, as well as the south-central and southern regions, show the highest levels of children without health insurance.

CHILDREN UNDER 6 YEARS WITH NO HEALTHCARE COVERAGE



LOW	RATE	HIGH	RATE
Ralls	0	Scotland	42.9
Osage	0	Dallas	33.8
Reynolds	0	Morgan	26.6
Gasconade	0.4	Daviess	25.3
Ste. Genevieve	0.4	Lewis	21.1
Douglas	0.9	Dent	20.8
Washington	1.4	Hickory	20.7
Chariton	1.4	Moniteau	19.8
Ozark	1.5	Knox	18.8
Scott	1.5	Mercer	18.7

RISK | INADEQUATE PRENATAL CARE

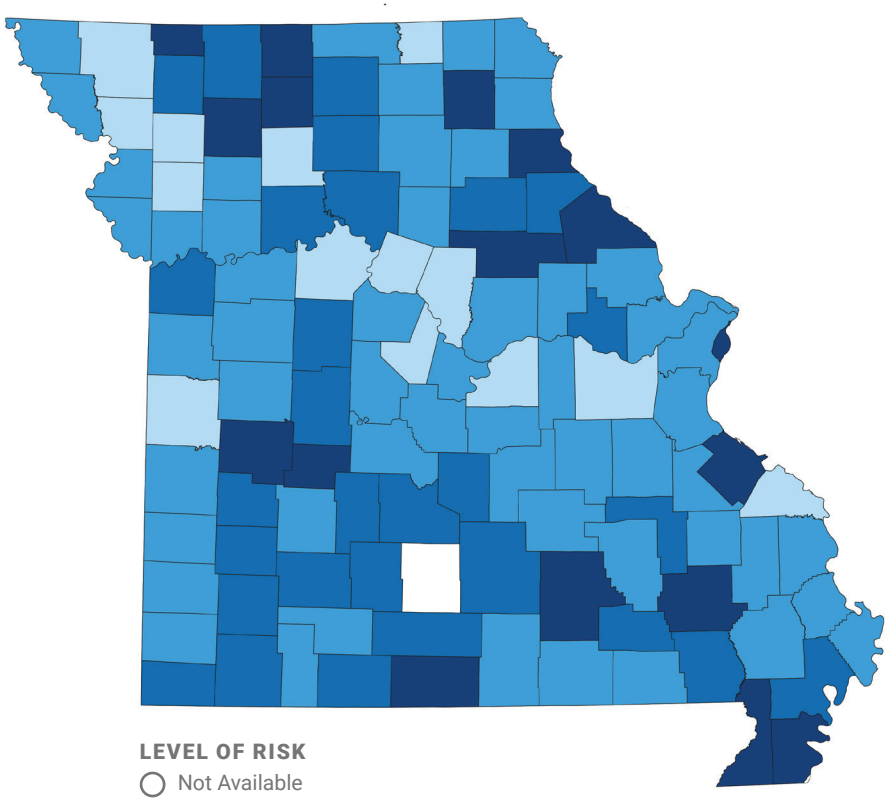
Research shows a connection between receiving inadequate prenatal care and negative birth outcomes, particularly low birth weight and preterm infants.[79] Low birth weight is associated with negative academic outcomes, such as grade retention due to low performance.[80] Late-preterm birth[81] (between 34 and 37 weeks gestation) is associated with a higher likelihood of lower cognitive and motor index scores at two years old compared to full term infants.[82]

Data were obtained from DHSS, computed as a rate per 100 live births. Overall, 21% of births in Missouri occur with inadequate prenatal care.

The five highest risk counties are Ste. Genevieve, Worth, Mercer, Knox, and Daviess counties. All these counties, with the exception of Ste. Genevieve, are located in northern Missouri. The five counties with the lowest risk are Clinton, Franklin, Schuyler, DeKalb, and Andrew.

Note: The adequacy of prenatal care is calculated using the Kotelchuck Index, which stipulates an expected number of prenatal visits based on the American College of Obstetrics and Gynecology (ACOG) guide-lines.[83] Specifically, births that have fewer than five prenatal care visits for pregnancies with less than 37 weeks' gestation, fewer than eight visits for pregnancies with 37 or more weeks, or where prenatal care began only after the first four months of pregnancy are considered to have had inadequate prenatal care.[84] Inadequate care is classified as utilizing less than 50% of expected visits.

INADEQUATE PRENATAL CARE



LOW	RATE	HIGH	RATE
Andrew	8.7	Ste. Genevieve	46.6
DeKalb	10.3	Worth	40.7
Schuyler	10.9	Mercer	38.5
Franklin	11.4	Knox	37.9
Clinton	11.7	Daviess	37.6
Boone	12.8	Ozark	36.4
Howard	12.9	St. Louis City	35.3
Nodaway	13.1	Shannon	35.1
Moniteau	13.3	St. Clair	34.4
Saline	13.4	Audrain	34.2

REACH | HEAD START ENROLLMENT

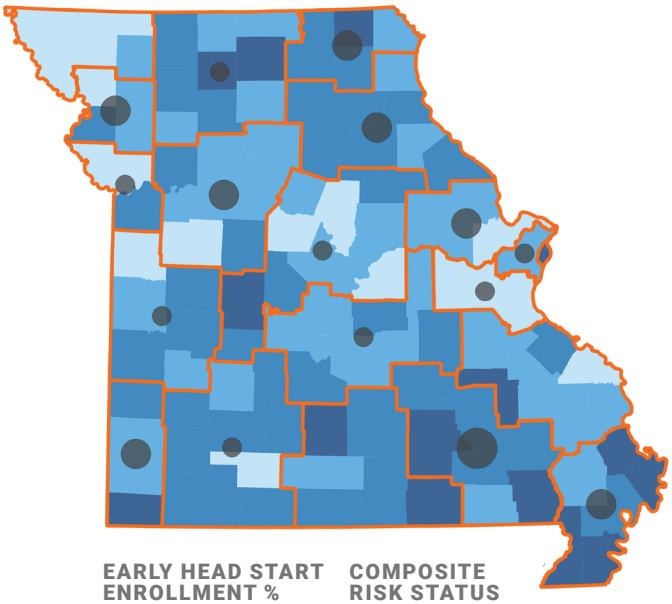
The Head Start program provides federally funded ECCE services for children in low-income families. Head Start programs provide services to children ages birth through five and are often based in ECCE centers or at schools. Nationally, the majority of children participating in Head Start are three- and four-year olds (80%). Early Head Start program service the remaining 20%, made up of infants, toddlers, and pregnant women.[85]

At this time this report was published, researchers only had access to Head Start enrollment data by region, not by county. As such, the maps below outlines in orange the regions that Head Start uses to define the grantee service regions, with Reach circles over each region. A map and table indicating the regions for Missouri Head Start can be found in the Appendix. The Head Start data for this report were obtained directly from the Office of Head Start federal website, specifically the annual Program Information Reports (PIR).[86] The researchers sought guidance and feedback from the Missouri Head Start Collaboration Office and are grateful for their assistance on this report. Population-adjusted enrollment percentages for each region were computed using U.S. Census population data from the American Community Survey (2013-2017).

In Missouri, twenty-three agencies receive funds to provide Head Start or Early Head Start services from federal and/or state funding sources. According to 2019 PIR data, the total funded enrollment was 15,802 statewide, including federal ACF, Missouri DSS, and federal MIECHV funds. The total cumulative enrollment in Head Start and Early Head Start was 19,442 (including 486 pregnant women). The total number of homeless children reported as served statewide was 1,277.

Early Head Start provider South Central Missouri Community Action Agency had high enrollment relative to the other EHS service areas. Head Start services areas with high enrollment included Community Services, Inc. in the northwest corner, Northeast Missouri Community Action Agency along with Ozark Action, Inc., South Central Missouri Community Action Agency and Delta Area Economic Opportunity Corporation in the southern area of the state.

EARLY HEAD START ENROLLMENT FOR CHILDREN AGES BIRTH TO 3

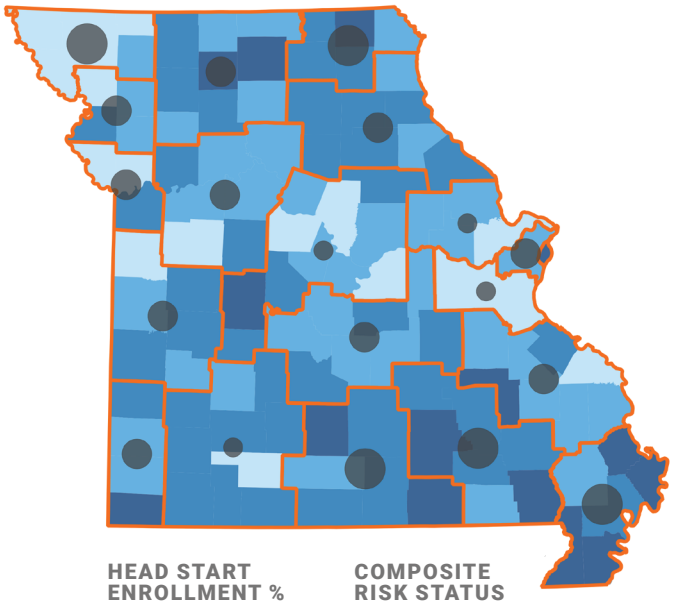


EARLY HEAD START ENROLLMENT %
- 0.5–1.6
- 1.6–5.6
- 5.6–11.9

COMPOSITE RISK STATUS
- Low Risk
- Low to Moderate Risk
- Moderate to High Risk
- High Risk
- Head Start Service Areas

Notes: Proportional circles representing percent enrollment were placed over the approximate center of each Head Start Service area and the location is intended for visual display purposes only. Head Start service areas lacking a circle do not offer Early Head Start services. Count data were obtained from the U.S Dept of Health & Human Services, Head Start Grantee Service Profile, Program Information Report for children enrolled in Head Start during 2019 as of 12/1/2019. Count data were then converted to a percent using U.S. Census population data for children ages birth to 3, by county.

HEAD START ENROLLMENT FOR CHILDREN AGES 3 TO 5



HEAD START ENROLLMENT %
- 1.7–3.4
- 3.4–8.0
- 8.0–16.6

COMPOSITE RISK STATUS
- Low Risk
- Low to Moderate Risk
- Moderate to High Risk
- High Risk
- Head Start Service Areas

Notes: Proportional circles representing percent enrollment were placed over the approximate center of each Head Start Service area and the location is intended for visual display purposes only. Count data were obtained from the U.S Dept of Health & Human Services, Head Start Grantee Service Profile, Program Information Report for children enrolled in Head Start during 2019 as of 12/1/2019. Count data were then converted to a percent using U.S. Census population data for children ages 3 to 5, by county.

REACH | EARLY CHILDHOOD SPECIAL EDUCATION (BIRTH TO TWO)

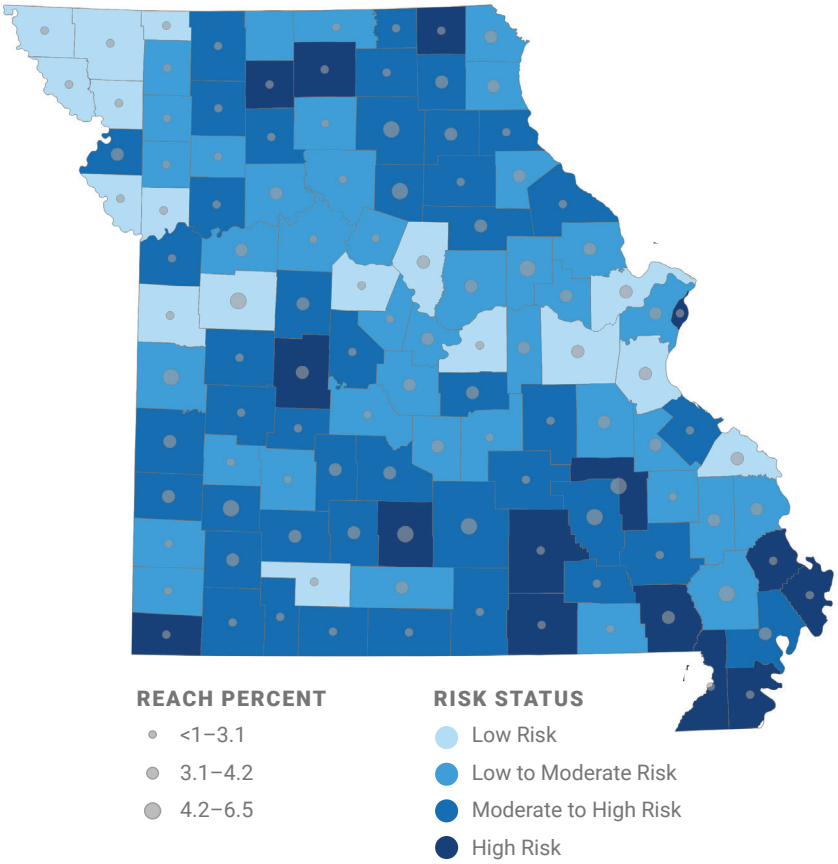
Missouri serves young children with disabilities and special needs through as mandated by the federal Individuals with Disabilities Act (IDEA) Part C early intervention (called First Steps) and Part B Section 619 early childhood special education (ECSE) programs. In Missouri, First Steps typically provides early intervention services to children ages birth through two years in a natural environment such as their home or community settings.[87]

Data were obtained for children ages birth to two receiving special education services directly from the federal IDEA website for the school year 2017–2018.[88] Population-adjusted percentages for children ages birth to two for each county were computed using population estimates also found on the IDEA website.

During the 2017–18 school year, 3.0% of children in Missouri ages birth to two received early intervention services, which falls roughly in the middle as compared to other states and territories (24th out of 52 that reported), whose overall percentage of children receiving early intervention service ranges from 0.8% to 9.5% nationally.[89]

Missouri counties with the highest percent of children ages birth to two receiving ECSE services are Wright, Macon, Dade, Randolph, and Montgomery. The bottom five counties are Mercer, DeKalb, Scotland, Wayne, and St. Clair. There is a pocket in Missouri's northwest, as well as a belt through the center of the state where both the Risk and Reach statuses are low. A concentration of high risk counties with mostly low reach can be found in the southeastern portion of the state.

CHILDREN BIRTH TO TWO RECEIVING SPECIAL EDUCATION SERVICES



Notes: Data were obtained from the Missouri Department of Elementary and Secondary Education with totals for children in school year 2018–19 receiving special education services. The final population-adjusted rate of children served in special education was developed using the number of children ages birth to 2 in the total population for each county obtained from the Missouri Department of Elementary and Secondary Education.

LOW	RATE
Mercer	0
DeKalb	0.8
Scotland	1.1
Wayne	1.1
St. Clair	1.3
Atchison	1.3
Ozark	1.4
Mississippi	1.4
Chariton	1.5
Daviess	1.6

HIGH	RATE
Wright	6.5
Macon	5.7
Dade	5.4
Montgomery	5.2
Randolph	5.2
Johnson	4.9
Texas	4.9
Bates	4.6
Iron	4.5
Stoddard	4.5

REACH | EARLY CHILDHOOD SPECIAL EDUCATION (AGES THREE TO FIVE)

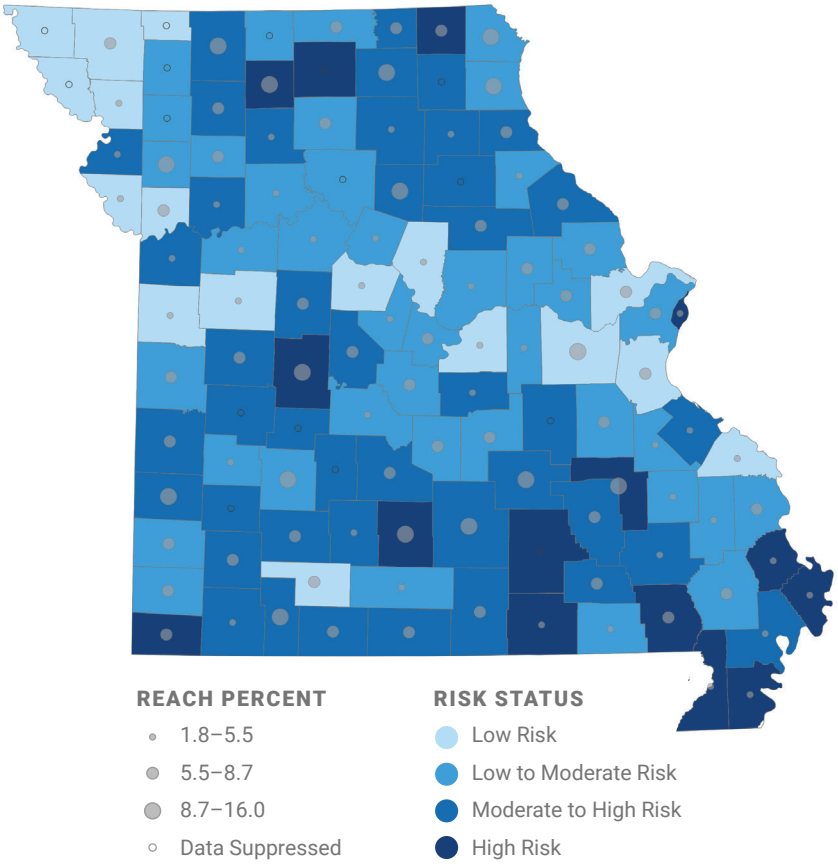
Missouri serves children ages three to five with disabilities and special needs through Part B Section 619 early childhood special education (ECSE) programs. Children typically receive ECSE in a range of group settings, including child care facilities, Head Start, and school district preschool programs.

Data were obtained for children ages three to five receiving special education services from the DESE website for the school year 2018–2019.[90] Population-adjusted percentages for each county were computed using U.S. Census population data from the American Community Survey (2013–2017). It should be noted that data for 16 counties were suppressed due to small population counts and thus could not be included in this analysis. As a result, the 2017–18 school year data is used below to provide statewide overall statistics.

In the 2017-18 school year, 8.1% of Missouri children ages three to five received ECSE services, which is higher than about 75% than other states and territories (38th out of 50 that reported), whose overall percentage of children receiving ECSE ranges from 4.1% to 15.4% nationally.[91]

Missouri counties with the highest percent of children ages three to five receiving ECSE services are Stone, Polk, Adair, Texas, and Barton. St. Louis City together with Perry, Ripley, Gasconade, and Mississippi counties have the lowest percent of children receiving ECSE services. Similar to the geographic distribution for birth to two intervention services, there is a pocket in Missouri's northwest, as well as a belt through the center of the state where both the Risk and Reach statuses of ESCE services are low (with the exception of Franklin county) along with a concentration of high risk counties with low reach in the southeastern portion of the state.

CHILDREN AGES 3 TO 5 RECEIVING SPECIAL EDUCATION SERVICES



Notes: Data were obtained from the Missouri Department of Elementary and Secondary Education with totals for children ages 3–5 in school year 2018–19 receiving special education services. The final population-adjusted rate of children served in special education was developed using the number of children ages 3 to 5 in the total population for each county, according to the U.S. Census.

LOW	RATE	HIGH	RATE
St. Louis City	1.8	Stone	15.6
Perry	2.5	Polk	15.4
Ripley	2.7	Adair	13.0
Gasconade	2.7	Texas	12.5
Mississippi	2.8	Barton	11.8
Macon	3.3	Grundy	11.4
Cedar	3.4	Dent	11.0
Ralls	3.5	Benton	10.7
Webster	3.6	Randolph	10.5
Carroll	3.9	Clinton	9.8

REACH | CHILD CARE SUBSIDY UTILIZATION BIRTH TO FIVE

The Child Care Subsidy Program is funded through the federal Child Care Development Block Grant (CCDBG) and includes financial support to low-income families who meet certain criteria set by DSS in order to offset the cost of child care. Subsidies are paid directly to eligible child care facilities and, except in cases of special needs or protective care services, families may be responsible for a sliding scale fee or a co-payment.

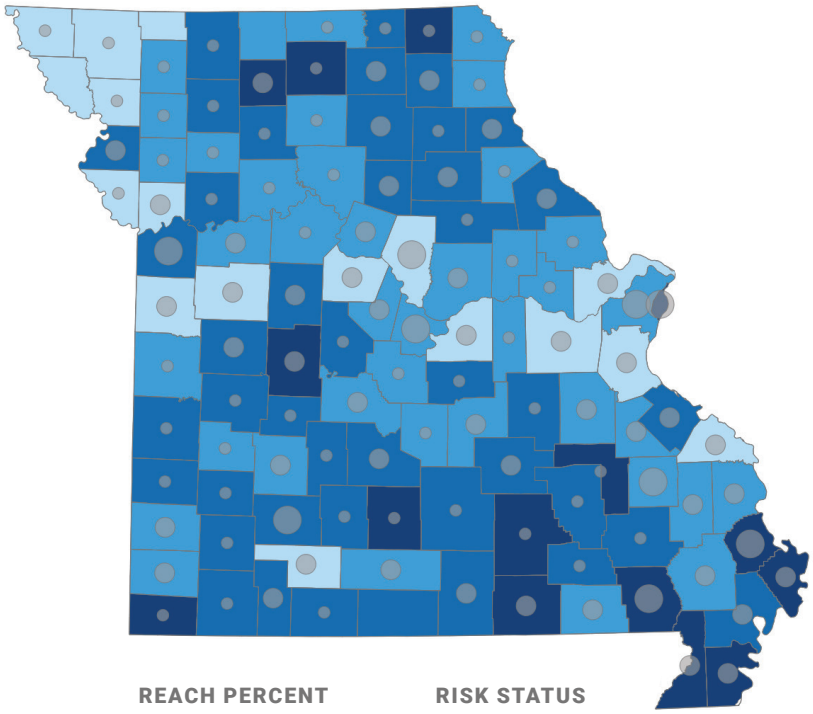
According to the Child Care Working Group report (2019), DSS serves approximately 32,000 children monthly through the Child Care Subsidy Program, of whom 52.5% are Black/ African American, 42.7% are White, and 4.8% are categorized under another racial group.[92]

For this analysis, data were obtained from DSS on the number of children ages birth to five receiving child care subsidy during the calendar year 2018. Population-adjusted percentages for each county were computed using U.S. Census population data from the American Community Survey (2013–2017).

Missouri counties with the highest percentage of subsidy utilization are St. Louis City and County, Cole, Madison, and Scott counties. St. Louis City has twice the subsidy utilization percentage than St. Louis County (36.9% and 18.4% respectively). The five Missouri counties with the lowest child care subsidy utilization are Warren, Dade, Atchison, Lewis, and Schuyler.

Missouri bootheel counties have high both Risk and Reach levels, while the belt of counties in the middle of the state has low risk level and moderate or high reach level.

CHILD CARE SUBSIDY UTILIZATION FOR CHILDREN AGES BIRTH TO 5, BY COUNTY



Notes: Child care subsidy utilization count data were obtained from the Missouri Department of Social Services for children ages birth to 5 for 2018. A population-adjusted percent of utilization was computed using the number of children age birth to 5 in the total population for each county, according to the U.S. Census. The underlying shaded choropleth layer represents the composite risk by county.

LOW	RATE	HIGH	RATE
Warren	0.2	St. Louis City	36.9
Dade	0.2	St. Louis	18.4
Atchison	0.3	Cole	18.3
Lewis	0.4	Madison	18.2
Schuyler	0.5	Scott	17.1
Maries	0.8	Jackson	16.0
Nodaway	0.9	Boone	12.6
Reynolds	0.9	Greene	12.4
Sullivan	1.0	Butler	12.2
Carter	1.0	Benton	11.5

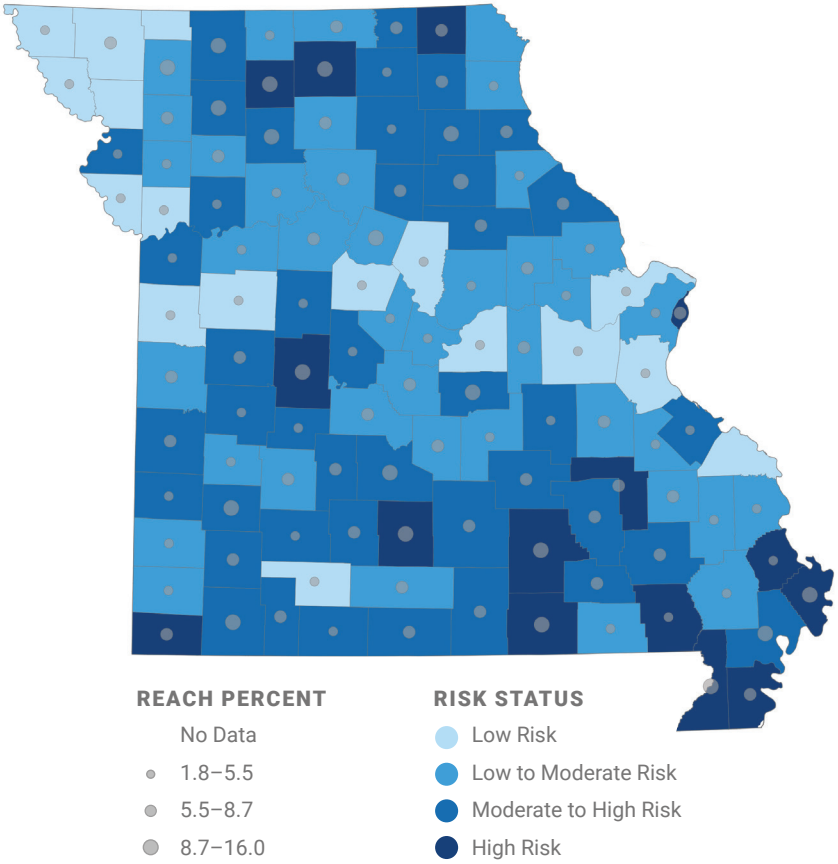
REACH | TITLE I ENROLLMENT

Title I funds can provide support for preschool programs at the school or district level that serve a student population that is at least 40% low-income, or for coordination with other preschool programs, such as Head Start.[93] It should be noted that Title I funding can be allocated for use in eligible student populations ranging from Kindergarten through 12th grade. In Missouri, for the 2018–2019 school year, Title I funding was spent in a variety of areas including improvement of school facilities and programs, intervention programs for at-risk youth and migrant education programs.[94]

For this analysis, Title I data were obtained for children ages 3 to 5 receiving preschool services from the DESE website for the school year 2018–2019.[95] Population-adjusted percentages for each county were computed using U.S. Census population data from the American Community Survey (2013–2017).

Missouri counties with the highest Title I enrollment are Atchison, Shannon, Harrison, and Maries. Atchison county has a significantly higher enrollment than other counties. Missouri counties with the lowest percent of Title I enrollment are Cole, St. Louis, Audrain, St. Charles, and Jefferson. The middle belt counties have both low risk and low reach levels, while the bootheel counties have high risk and low reach levels. Northwestern counties have low risk and mostly low reach; the southern Christian county has low risk and low reach levels.

CHILDREN AGES THREE TO FIVE ENROLLED IN TITLE 1 PROGRAMS



Notes: Data were obtained from the Missouri Department of Elementary and Secondary Education with totals for enrollment. The final population-adjusted percent was developed using the number of children ages 3 to 5 in the total population for each county, according to the U.S. Census.

LOW	RATE	HIGH	RATE
Cole	0.8	Atchison	100[i]
St. Louis	1.4	Shannon	37.2
Audrain	2.1	Harrison	34.7
St. Charles	2.1	Maries	34.6
Jefferson	2.2	Grundy	33.8
Platte	2.2	Dade	33.6
Adair	2.9	New Madrid	32.0
Boone	4.1	Wright	31.8
Butler	5.0	Daviess	30.9

[i]Actual value was 134.8% due to inconsistencies in the data; researchers capped possible percentages at 100%.

DESE FUNDED PROGRAMS

The following two programs are funded by DESE, though are not widespread throughout the state. As such, these programs are not treated as full Reach indicators for this analysis.

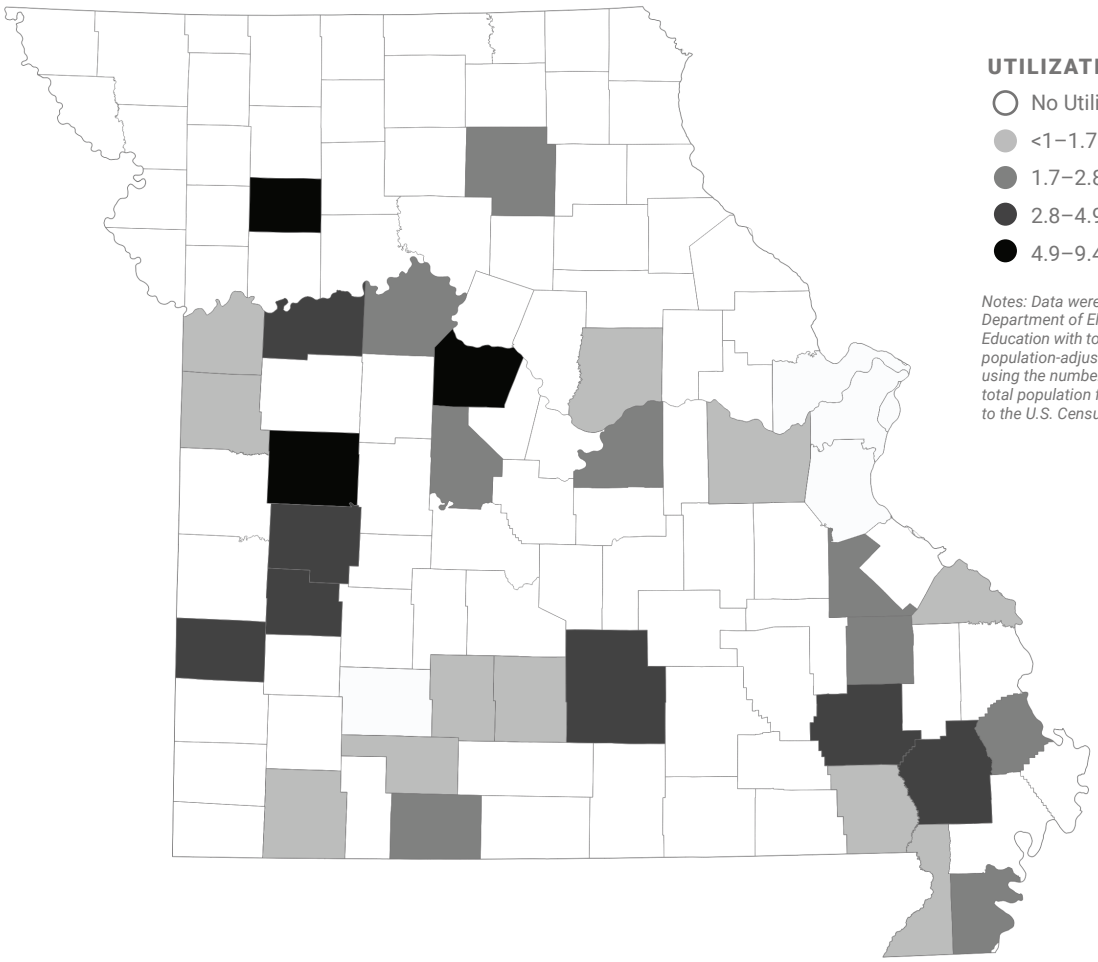
The following grayscale maps illustrate the counties that are reached by these programs and the percent of children served. Researchers had hoped to also include enrollment in child care programs funded by the Foundation Formula but were unable to analyze that data for this analysis.

Missouri Preschool Program

The Missouri Preschool Program (MPP) provides short-term funding to public school districts, private child care centers, and nonprofit ECCE facilities to support quality improvement in ECCE for children who are one or two years from entering Kindergarten.[96]

Data show the St. Louis Metro area and northern Missouri are not currently utilizing the MPP program, with exception of Calswell and Macon counties. The highest concentration of counties with the highest utilization of MPP funding are located in the central-western part of Missouri — Henry, Cooper, St. Clair, Cedar, Barton, and Lafayette counties. Counties in the southeast of Missouri have a moderate level of MPP utilization, especially Wayne and Stoddard counties.

CHILDREN AGES 3 TO 5 UTILIZING THE MISSOURI PRESCHOOL PROGRAM



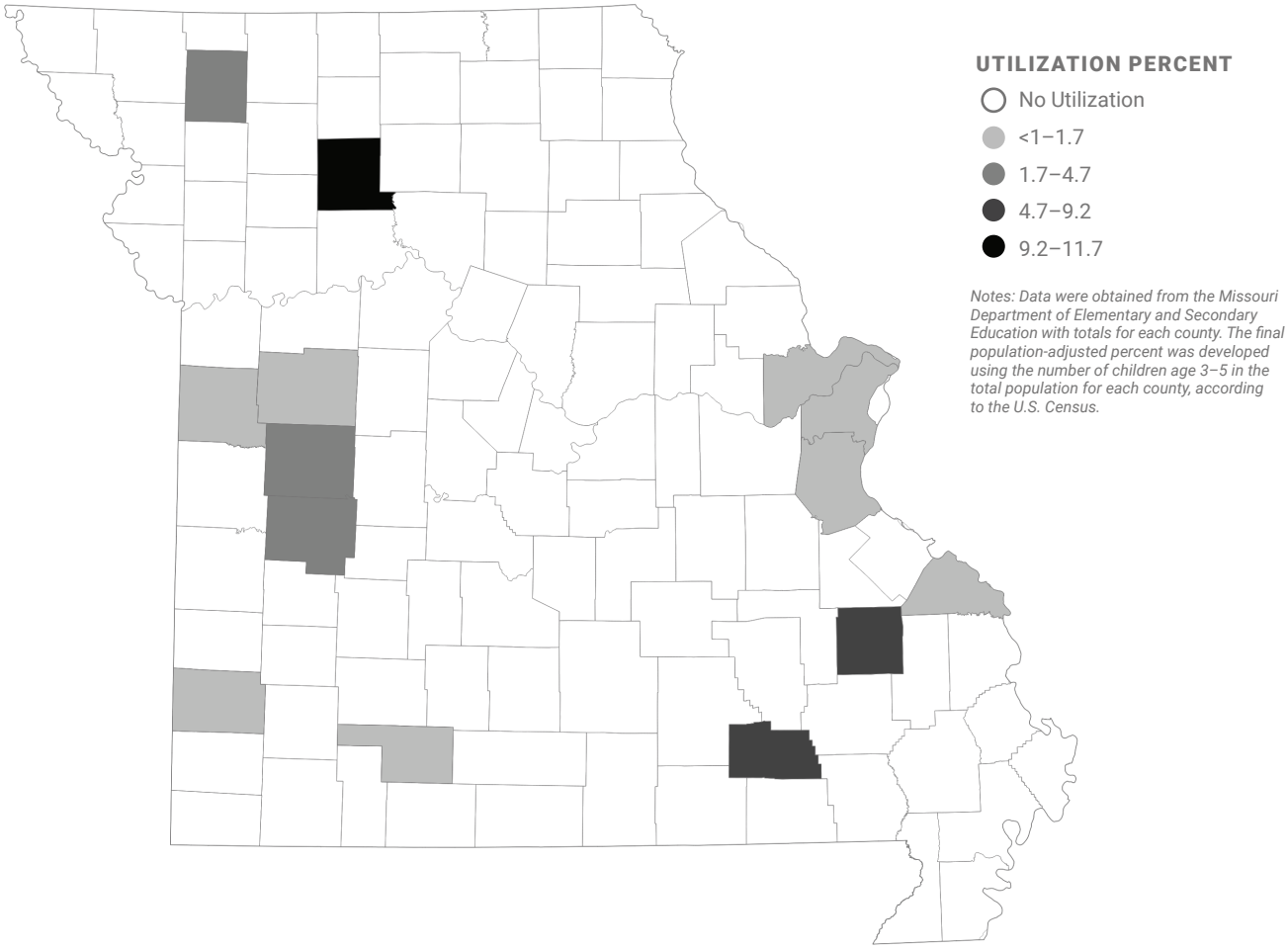
Notes: Data were obtained from the Missouri Department of Elementary and Secondary Education with totals for each county. The final population-adjusted percent was developed using the number of children age 3–5 in the total population for each county, according to the U.S. Census.

DESE CCDF Grants

In Missouri, DSS is the recipient of the federal Child Care Development Fund. A portion of this federal grant is allocated to DESE to support a competitive opportunity for public schools and colleges/universities to increase availability and quality of early childhood programs. These programs are intended to meet the needs of working parents through extended hours, five days a week, and are typically open year-round.[97]

As noted previously, the majority of counties in Missouri do not utilize DESE CCDF Grant. Moderate or low utilization pockets are found below Kansas City in the west (Cass, Johnson, Henry, and St. Clair counties) and the St. Louis metro area in the east (St. Charles, St. Louis, Jefferson counties with the exception of St. Louis City). Moderate and high utilization counties are Carter and Madison in the south and counties of Gentry and Livingston in the north.

CHILDREN AGES 3 TO 5 UTILIZING THE DESE CHILD CARE DEVELOPMENT FUND



Notes: Data were obtained from the Missouri Department of Elementary and Secondary Education with totals for each county. The final population-adjusted percent was developed using the number of children age 3–5 in the total population for each county, according to the U.S. Census.

RISK AND REACH SUMMARY

The Risk and Reach indicators examined in this analysis do not necessarily carry equal weight or importance, and many indicators likely impact overlapping populations. However, they offer a starting point for conversation as the state seeks to improve its service systems and support the most vulnerable and underserved populations.

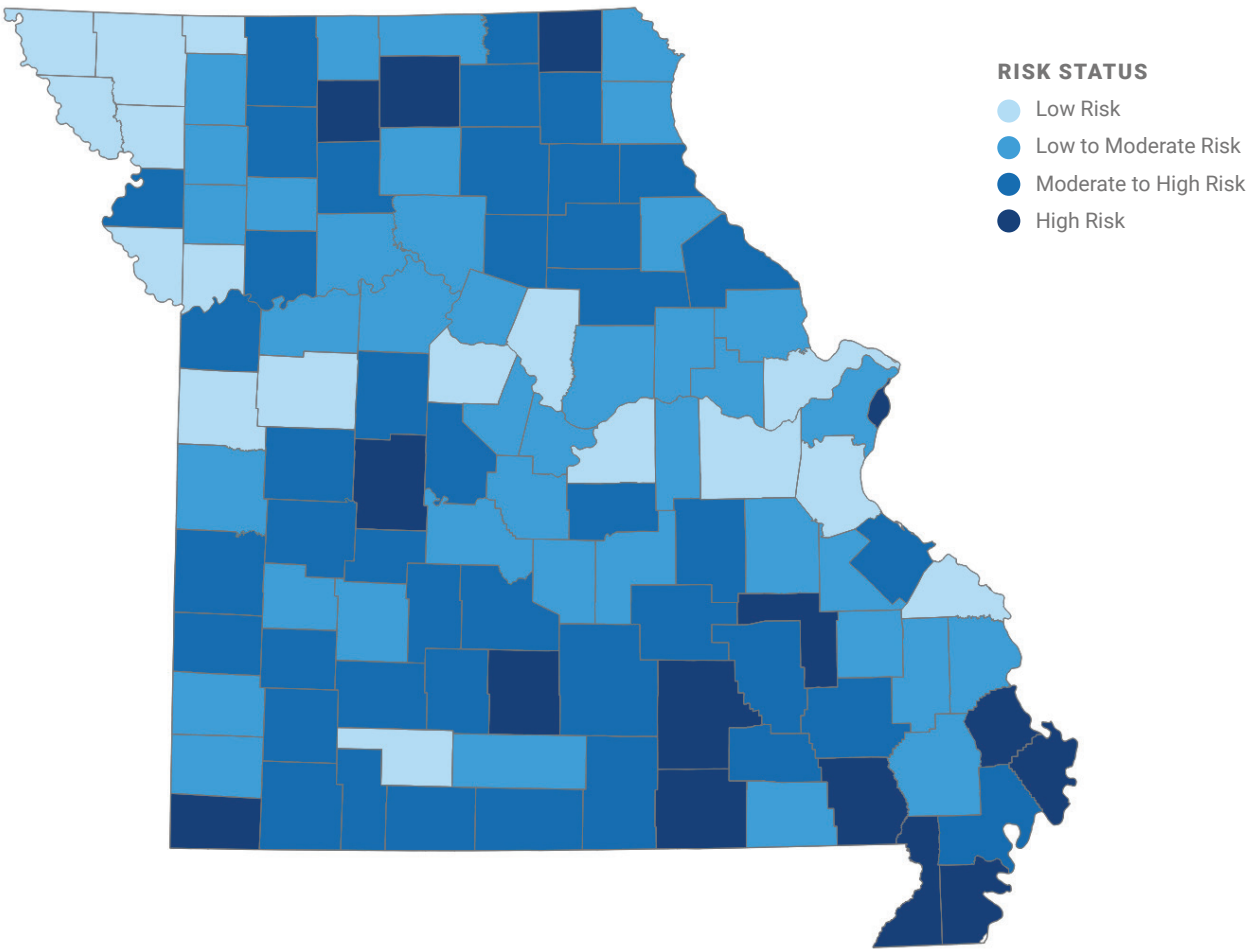
In order to offer a broader view of risk for counties and the state overall, each county's risk indicator levels were combined into one composite risk indicator, by taking the average across all risk indicators.

Counties with the highest average risk included Grundy, Wright, Pemiscot and Shannon. All but Grundy are located in the southern part of the state. Counties with the lowest composite risk included Osage, Cooper and Clay, located across the middle section of the state.

Counties with the highest average reach scores included Marion, Knox and Mercer, located primarily in the northern half of the state, while those with the lowest average reach scores where DeKalb, Franklin, and Boone counties.

While these composite indicators may not strictly indicate where policymakers should focus resources or interventions, the project team hopes that these results will prompt additional conversation about risk conditions based on geography, and inequities of resource utilization or availability across the state. In future iterations of this analysis, the project team encourages further analysis of Risk and Reach indicators by race, ethnicity, and special populations at greater geographic detail. Missing or emerging indicators for which Missouri does not yet have a way of measuring should also be added to provide an increasingly accurate picture of where the greatest risk exists and the extent to which current services are reaching those who need them.

CHILDREN AGES 3 TO 5 UTILIZING THE DESE CHILD CARE DEVELOPMENT FUND



SECTION 4:

Child Care Capacity Analysis

In Missouri, as in other states, regulatory types and varieties of group child care settings are complex. DHSS is the state entity responsible for regulation of Missouri's early childhood care and education facilities. DHSS uses the following categories to describe the regulations that apply to different types of child care settings in the state: Licensed, License-Exempt, and Exempt. All types of group child care settings fit into one of these categories.

However, enrollment data is not made available by these categories, and different types of child care facilities report their enrollment or participation in different ways — and some are not required to report their enrollment at all. Where possible, data about actual enrollment or participation in particular types of child care programs are included as Reach indicators in the Risk and Reach Analysis, but these programs only represent a portion of the child care landscape in Missouri.

In order to illustrate Missouri's child care availability the most complete way possible, the following analysis uses the *capacity* (not the enrollment) of child care facilities that are licensed or licensed-exempt. Information about the capacity of child care facilities that are 'exempt' is very limited, despite the reality that exempt child care settings are likely a significant part of the child care landscape across the state.

These categories are described in more depth in the following sections.

Regulation by DHSS

REGULATED CHILD CARE

Licensed Child Care Facilities

Licensed child care facilities must meet standards and follow specific regulations outlined by DHSS, including requirements for health and safety, staff:child ratio, facilities (square footage of the center, lighting, bathrooms, flooring materials, access to outside windows for emergency evacuation, size of outdoor spaces, etc.), staff training, meal schedules, and others.[98] Types of licensed child care facilities include the following:

- **Centers** serving more than 20 children, including *group settings* such as Head Start centers, community-based / private centers, and other center-based programs;
- **Group Homes** which are small centers serving 11–20 children;
- **Family Child Care Homes** that serve more than six and no more than 10 children; and
- **Other facilities that are not required to be licensed** but choose to fulfill the requirements to be licensed; these facilities often do so in order to become eligible for particular funds, or for other reasons.

License-Exempt Child Care Facilities

License-exempt child care facilities must follow health and safety requirements outlined by DHSS but are not bound by the other licensing requirements (e.g., staff training, staff:child ratios).[98]

Types of license-exempt child care facilities include the following:

- **Center-based child care programs** operated under the exclusive control of a religious organization, and
- **Nursery schools** (programs operating for fewer than four hours per day per child).

UNREGULATED CHILD CARE

Exempt Child Care Facilities

Exempt child care facilities are not regulated by DHSS and include the following:

- **Public school districts** operating pre-K programs. Public school districts in Missouri are overseen by DESE.
- **Family child care homes** that serve six or fewer children (not including any school-age children who reside in the home) of whom a maximum of three children may be under the age of 2.[100] These facilities do not have to report that they are providing child care and are commonly referred to as family, friend and neighbor care (FFN). Because FFN settings are not required to report their status as a child care setting to DHSS, it is very difficult to quantify the number of FFN child care settings in Missouri.

NATHAN'S LAW

Until 2019, exempt family child care homes were referred to as FOL (Four Or Less) facilities, because family homes serving fewer than four children were exempt from regulation. Under that policy, additional children who were related to the family home provider were not included in the number of children in care.

A recent change, called Nathan's Law, increases the maximum number of children that can be served in an unlicensed family home setting from four to six children, and now requires that any related children must also be included in the total count of children served. The specific impact of Nathan's Law on overall capacity in child care facilities remains to be seen.

Understanding Accreditation

While regulations set by DHSS provide baseline health and safety standards, accreditation represents an identifier for program quality in child care settings. Accredited programs meet standards set by external and independent accrediting bodies, such as those listed below, and undergo monitoring and evaluation in order to be recognized as such. For example, Missouri Accreditation (MOA) validates that programs meet criteria in the areas of children's relationships and interactions, physical environment, programming and curriculum, family and program connections, administration, as well as health, safety, and nutrition.[101]

Facilities that have earned accreditation by one of the following six accrediting bodies and as reported by Child Care Aware® of Missouri (CCAMO) are included in this analysis. AdvancED is a seventh accrediting body listed on CCAMO's website; AdvancED serves primarily elementary and secondary schools, and is therefore excluded from this analysis.[102]

- Missouri Accreditation of Programs for Child and Youth (MOA)
- National Association for the Education of Young Children (NAEYC)
- National Association for Family Child Care (NAFCC)
- National Early Childhood Program Accreditation (NECPA)
- Commission on Accreditation of Rehabilitation Facilities (CARF International)
- Council on Accreditation (COA)

Currently, accreditation is the only formal means of measuring program quality in ECCE across Missouri. Licensure was only ever intended as a health and safety baseline, though is sometimes used as a proxy for basic program quality in the absence of a quality rating and improvement system. In the vast majority of cases, accredited facilities are also licensed; in a small number of cases, license-exempt or exempt facilities have applied for and achieved accreditation. In the cases of license-exempt settings (e.g., religious programs or nursery schools) or exempt settings (e.g., unlicensed pre-K programs at public schools or small, home-based FFN programs), parents and policymakers are left without even a proxy measure assessing basic program quality. The exception to this rule is if license-exempt or exempt ECCE facilities have applied for and earned accreditation, though this accounts for only about 0.25% of accredited child care centers in Missouri.

Measuring Quality in Missouri's Early Childhood Care and Education System

Missouri does not currently have a statewide mechanism for measuring quality of ECCE programs. Quality measurement efforts in Missouri were set back by a 2012 to 2016 legislative ban on quality rating and improvement systems for early childhood settings.

In 2017, legislation was passed that removed the ban and allowed for a three-year pilot of a quality assurance report (QAR) that is underway in over 19 ECCE centers across the state. The DESE website states that the "goal [of the QAR] is to provide a continuous quality improvement process for early learning programs and to provide families with consumer education about the quality of early learning programs."[103] According to the Center for American Progress, 41 of the 50 states had either a statewide or local/regional QRIS as of 2017, although the rates of participation among child care programs varied by state and could be quite low. Missouri and seven other states were considered to be in the planning or piloting process.[104]

Without effective mechanisms for defining and measuring quality across child care settings, policymakers are severely limited in their ability to comprehensively analyze the reach and quality of early childhood care and education in the state, and parents or caregivers must rely only on word of mouth and first-hand experience to find high-quality programs for their children.

Child Care Capacity in Missouri

DEFINING CHILD CARE CAPACITY

Licensed child care capacity refers to the number of slots for children in a licensed care setting at any time and is not equal to the number of children enrolled in child care programs. One slot could be shared by multiple children throughout the day or week (e.g., one slot may serve two children, where one attends on Mondays and Tuesdays and the other attends on Wednesdays through Fridays), and a single child might utilize multiple slots (e.g., a child might utilize slots in multiple part-time programs in order to achieve the level of care needed by the family).

A licensed child care slot may also remain unfilled, though that vacant slot is still included in the child care capacity of a given area. Reasons for an unused slot include:

- There is not a need for that type of care in that area and/or the need has been met through other resources.
- The care that is available is undesirable or inaccessible. The presence of licensed capacity does not indicate whether that care is high quality, affordable, or otherwise accessible to families who need or want services.
- A facility may choose to serve fewer children than licensed to serve, in order to support staff:child ratios or group sizes that are smaller than the maximum allowed by licensing regulations.

It is clear that licensed child care capacity is not a precise representation of the unduplicated number of children enrolled in child care. However, the state of Missouri does not have consistent and comprehensive enrollment data. Therefore, it is impossible to gain a precise understanding of enrollment in child care settings across the state, let alone to determine the quality of those settings.

Given the information currently available, this analysis uses the licensed capacity of child care settings in Missouri as a best estimate of a) child care enrollment across the state and b) child care that is known to meet a minimum level of health and safety quality.

CHILD CARE CAPACITY ANALYSIS

Child care deserts refer to areas with fewer than one licensed child care slot for every three young children.[105] This nationally recognized definition of the term 'child care deserts' was created in alignment with U.S. Census statistics that roughly one-third of all young children are "regularly in the care of someone who is not a relative."[106] In its 2017 report titled "Mapping America's Child Care Deserts," the Center for American Progress (CAP) reports that 54% of Missouri's population lives in child care deserts;[107] data collected for this needs assessments indicates that this percentage is even higher (82.2%) when looking specifically at the state's population of children ages birth to five.

Child Care Capacity in Licensed and/or Accredited Facilities

According to September 2019 data from Child Care Aware® of Missouri, the state has approximately 2,450 licensed ECCE facilities that serve children under five years old, with a total licensed capacity at those facilities approaching 113,500 slots for children in care at a given time; 58% of licensed facilities are child care centers, 37% are family homes, and 5% are group homes.[ii]

The vast majority of Missouri's counties (104 of 115) qualify as child care deserts by the CAP's definition, accounting for 82.2% of Missouri's children ages birth through five. Some of Missouri's most populous counties qualify as child care deserts, including St. Louis County, Jackson County, Greene County, Clay County, Jefferson County, and Jasper County, while there are other populous counties that do not qualify as child care deserts (including St. Louis City, St. Charles County, and Boone County).

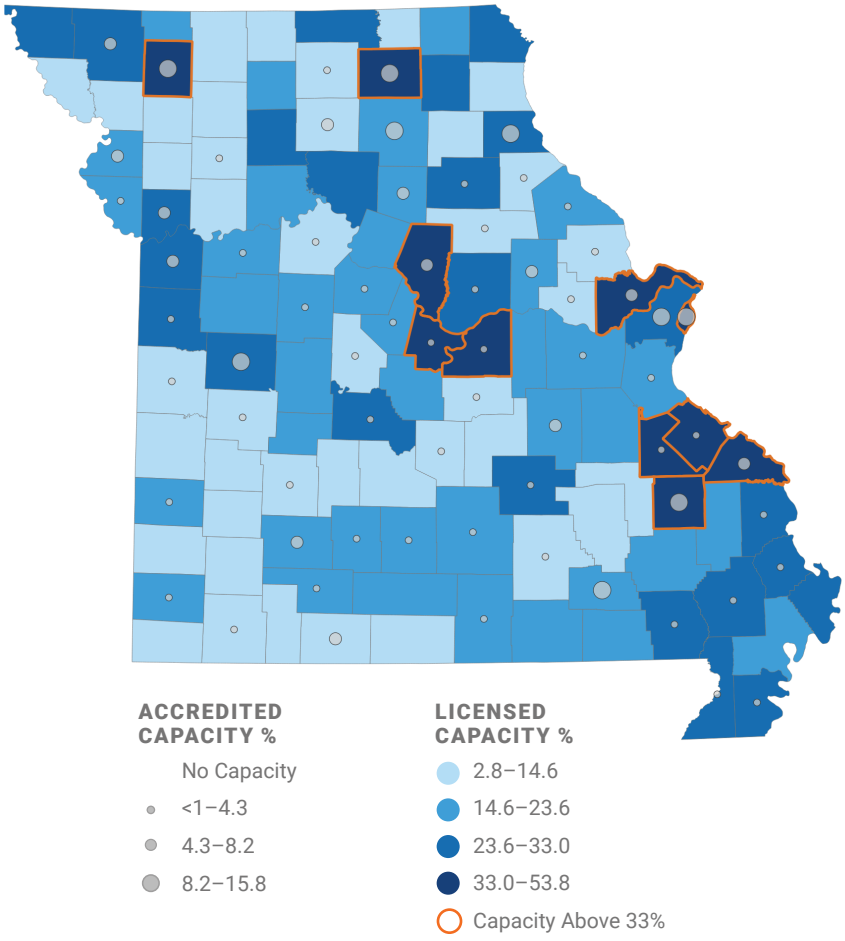
However, it is important to remember that the existence of slots at licensed facilities does not indicate whether those facilities have high-quality programs. Counties that do not meet the threshold of being a child care desert based on the number of licensed slots may still have too few slots at high-quality ECCE facilities to meet the needs of families. On the flip side, license-exempt or exempt ECCE settings may have high-quality programs, but are not included in the 'child care desert calculation' due to their lack of licensure.

[ii]It should be noted that the Child Care Aware® of Missouri database aims to cover the entire age spectrum for children that licensing standards or child care programs include from birth to age 18. In preparation for this analysis, facilities that serve only school-age children were removed from the data analyzed. Additionally, licensing specifies both the youngest age for which a facility can accept children and the oldest age (in years). Facilities who list a start age of 5 years or older were also removed from this analysis, as those centers typically focus on school-age children.

Accreditation remains the only formal mechanism for indicating program quality, and the number of accredited facilities in Missouri is small. There are about 270 accredited child care facilities in Missouri with 23,370 slots, which amounts to enough slots to serve approximately 5% of Missouri's population of children, age birth through five. These accredited facilities are spread across 67 counties; 48 counties have no accredited facilities for young children.

Using data from Child Care Aware® of Missouri, Figure 5 illustrates the licensed capacity in Missouri counties by comparing the availability of licensed child care slots with the number of children ages birth through five years old in each county. Additionally, Figure 5 indicates the percentage of those licensed slots that are located in accredited ECCE facilities (called "accredited capacity") through circles overlaid on each county. Counties that do not qualify as child care deserts (and therefore have more than one licensed slot for every three children) are outlined in orange; all other counties qualify as child care deserts.

FIGURE 5: **LICENSED CHILD CARE CAPACITY FOR CHILDREN AGES BIRTH TO FIVE**



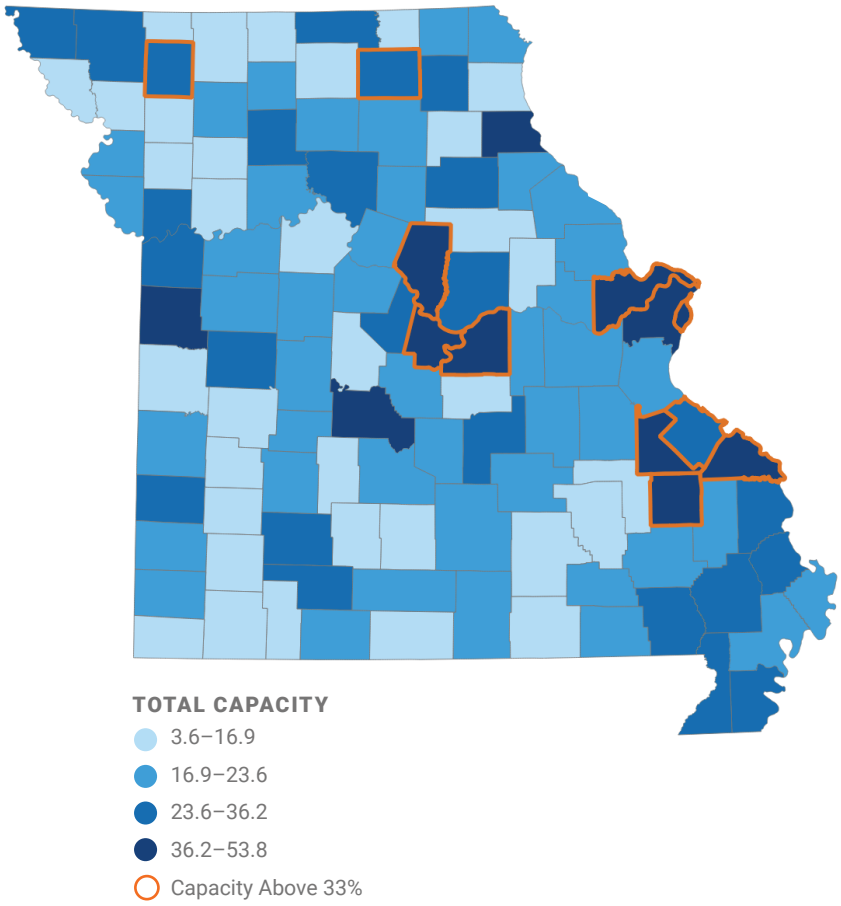
Notes: The percent here represents the number of licensed child care slots divided by the number of children age 0–5 in the total population for each county, according to the U.S. Census. Data Sources: Child Care Aware® of Missouri, 2019, & U.S. Census ACS 2013–2017 Estimates.

Child Care Capacity in All DHSS-Regulated Facilities (Licensed and License-Exempt)

Traditional child care desert analyses typically include only slots at licensed child care facilities. Modifying this analysis to also include slots at license-exempt facilities (which are also regulated by DHSS) can appear to minimize the areas of the state that qualify as child care deserts; however, this effect is minimal in Missouri.

Of the almost 2,900 facilities regulated by DHSS in Missouri (licensed and license-exempt), the total capacity to serve children at any time just exceeds 143,000. With this modified analysis, the same 104 of Missouri's 115 counties remain child care deserts. And, many of these additional license-exempt slots provide part-child care only and therefore may or may not help parents participate in the workforce.

FIGURE 6: **LICENSED AND LICENSE-EXEMPT CHILD CARE CAPACITY FOR CHILDREN AGES BIRTH TO FIVE**



Notes: The percent here represents the number child care slots divided by the number of children age 0–5 in the total population for each county, according to the U.S. Census. Data Sources: Child Care Aware® of Missouri, 2019, & U.S. Census ACS 2013–2017 Estimates.

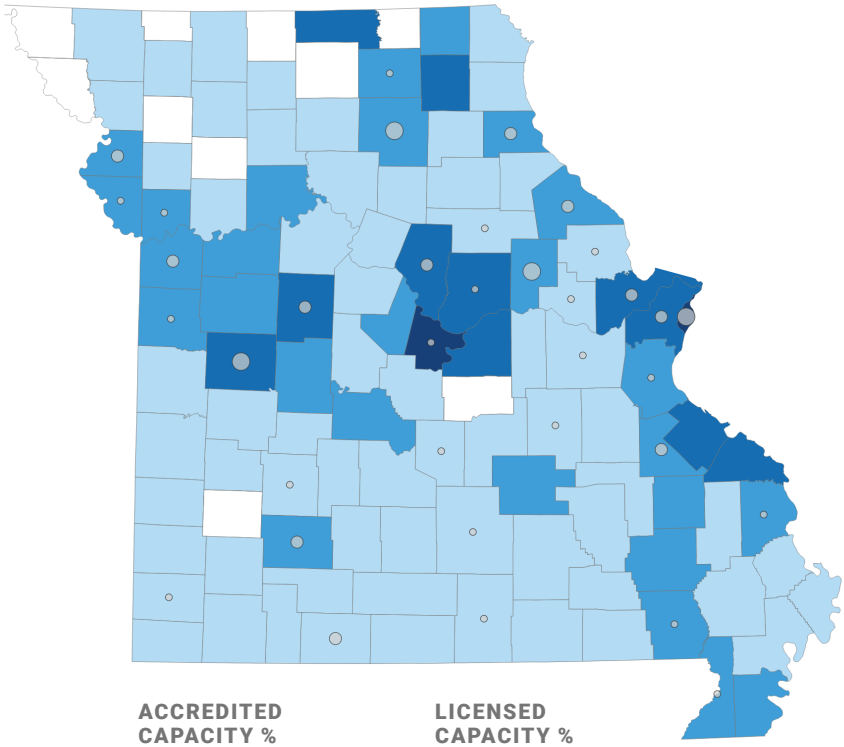
Child Care Capacity in Licensed Facilities for Children Under Age Two

DHSS regulations for children under age two (0–24 months) require smaller group sizes and lower staff:child ratios than is required for serving children ages two and older. As a result, child care for this younger age group is generally more costly for facilities to provide and for families to afford.

An analysis of the statewide capacity for licensed child care slots for children under age two revealed that all counties in Missouri are child care deserts for this age group, and ten counties do not have any licensed child care slots for children under age two.

As noted earlier, the presence of licensed slots is not necessarily equal to the number of children served. A facility's licensed capacity does it mean that those slots are filled or that the center intends to fill those slots. Instead, licensed slots are the maximum number of children that the center is allowed to serve, and centers may choose not to serve a particular age group even if they are licensed to do so. Based on qualitative data from with child care professionals, the project team believes it possible that this is true for child care facilities that are licensed to provide services for children under age two, given the higher cost to facilities to provide those slots. These more expensive child care slots generate less revenue for the facilities and, as a result, ECCE facilities may choose to serve fewer or no children under the age of two even if they are licensed to do so, particularly if facilities struggle to generate sufficient revenue to cover their costs of operations. However, without actual enrollment data for licensed facilities broken out by age, it is not possible to confirm whether this is the case.

FIGURE 7: **LICENSED CHILD CARE CAPACITY FOR CHILDREN AGES BIRTH TO TWO**



Notes: The percent here represents the number child care slots divided by the number of children age 0–2 in the total population for each county, according to the U.S. Census. Data Sources: Child Care Aware® of Missouri, 2019, & U.S. Census ACS 2013–2017 Estimates.

Child Care Capacity at Publicly Funded ECCE Facilities

As stated earlier, all types of child care settings are either licensed, license-exempt, or exempt. Within these categories are several different types of publicly funded ECCE programs, some of which are represented through the licensed or license-exempt slots represented in Figure 5, Figure 6, and Figure 7.

Several of the publicly funded programs for which the project team had access to enrollment or participation data are included as reach indicators in the Risk and Reach Analysis, including usage of the child care subsidy (funded by CCDF through DSS), Head Start and Early Head Start enrollment, the Missouri Preschool Project (MPP), and several programs administered by public school districts (including programs funded through Title I funds, or Foundation Formula funds, or DESE CCDF grants).

In Missouri, twenty-three agencies receive funds to provide Head Start or Early Head Start services from federal and/or state funding sources; all Head Start programs are required to be licensed and are therefore included in the licensed capacity illustrated in Figure 5, Figure 6, and Figure 7.

September 2019 data from Child Care Aware® of Missouri shows that approximately one-fifth of Missouri's licensed facilities are contracted with DSS to accept CCDF subsidy payments for child care. This equates to approximately 630 licensed facilities located in 104 of the 115 counties in the state.[108] According to the Child Care Working Group report (2019), 81% of children supported by the child care subsidy program are served by these licensed facilities.[109] The remaining 19% of children supported by subsidy payments are served either by license-exempt facilities or by registered facilities. Registered facilities are those who are registered with the Missouri DSS to accept subsidy payments for child care, but are exempt from licensure by DHSS.

However, it is important to note that simply because an ECCE facility is contracted to accept subsidy payments from the state does not mean that all of its slots are available or reserved for families in need of subsidized care. Each facility makes its own decisions about the number of slots to provide for children receiving subsidy. As such, the existence of facilities that are contracted to accept subsidy payments does not mean that sufficient subsidized care is available to families who need it.

At the time that this report was published, researchers did not have information regarding the total number of licensed slots provided by public school districts. In general, public school districts are exempt from licensing requirements, though they may seek licensure if they desire. However, some publicly funded programs, like MPP and DESE CCDF grants, require that programs be licensed in order to receive funds.

Home Visiting Programs

Evidence-based home visiting programs are shown to support child development, improve maternal health, reduce child maltreatment, and increase family stability, among other positive outcomes.[110] Currently, home visiting services are offered through the Missouri Departments of Elementary and Secondary Education, Health and Senior Services, and Social Services. There are also multiple home visiting programs funded through public and private sources, outside of state agencies. Additionally, there are a number of smaller homegrown and/or faith-based home visiting programs not accounted for in this analysis. The Parents as Teachers program is the largest home visiting program in Missouri, and its statewide participation data across is included as a *reach* indicator in the Risk and Reach Analysis.

Due to the variety of programs and the lack of a coordinated data system, there is no way to readily understand the reach of home visiting services and no guarantee of an unduplicated count of children and families served. Some programs count children while others count families served. Others count the number of visits; some programs report their data by regions, and others report at the county level. Currently, there is no central system that provides an accurate picture of home visiting participation across the state.

Similarly, the funding that supports Missouri home visiting programs is varied and uncoordinated with a mixture of federal, state, and local funds supporting the variety of programs. Some sources are relatively stable (e.g., Maternal and Child Health (MCH) Title V, Maternal, Infant, and Early Childhood Home Visiting Program (MIECHV), Office of Head Start) while other sources are less consistent (e.g., ECDEC, state general revenue, and private funding). Different standards of quality are tied to the various funding streams, and outcomes reporting is inconsistent across programs and funding sources.

Parents As Teachers (PAT)

In 1985, the Missouri legislature provided funding for the newly emerging Parents as Teachers (PAT) program to be implemented through school districts statewide. As a universal access program, any family with a child not yet in kindergarten could enroll and receive parent education through home visits. As illustrated in Table 5, the landscape of home visiting in Missouri has grown more complex over time with a wide array of additional home visiting options.

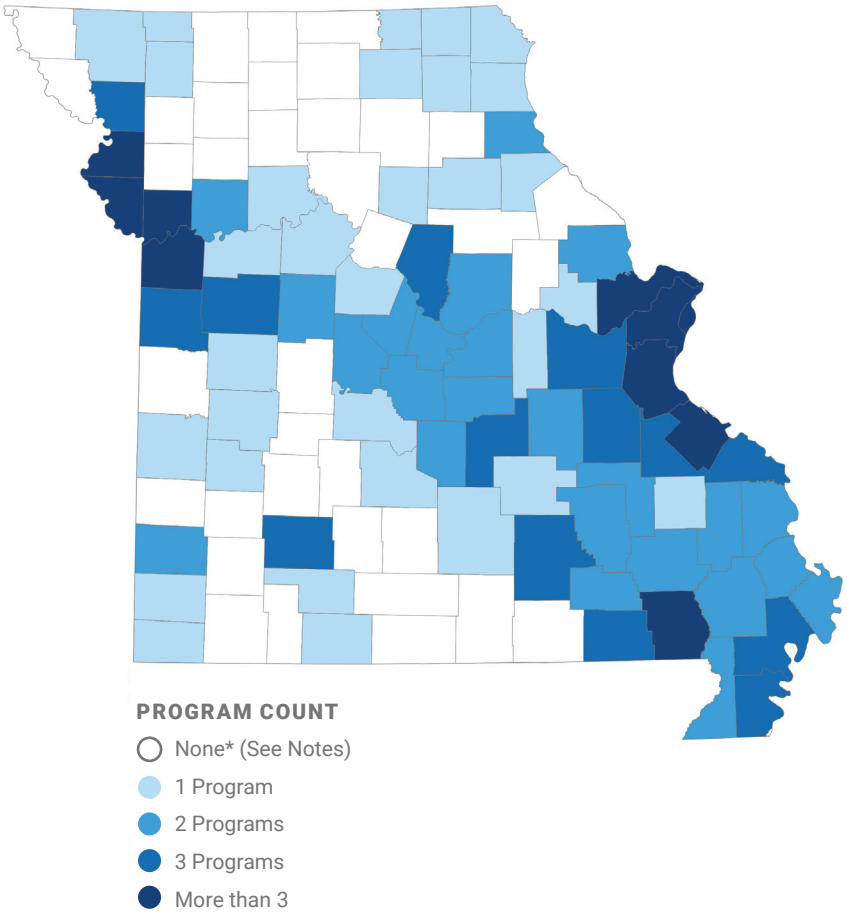
Although the name Parents as Teachers applies to home visiting programs in all 115 counties in Missouri, there is a distinction between those that are affiliated with the Parents as Teachers National Center (PATNC) and those are separately designated as Missouri PAT Programs. This distinction evolved when the PATNC developed a PAT affiliate program to strengthen the base of evidence for the model and establish assurances of fidelity to the essential program requirements. Missouri school districts are required to be trained and use the PAT curriculum, implement the program based on the Early Childhood Development Act Administrative Manual (which incorporates several of the PATNC essential requirements) and may design their program to meet the PATNC affiliation standards. Currently, 77 programs in 41 Missouri counties are implementing PAT programs affiliated with the PATNC.

Other Home Visiting Programs

In addition to PAT services, many counties in Missouri's larger metropolitan areas have four or five different home visiting programs providing services, though the extent to which services are coordinated is unknown.[111]

More than 30 counties have no known home visiting option beyond PAT and 31 counties have only one additional home visiting option, with numbers served ranging from 1 to 409. The availability of known home visiting options, not including Parents as Teachers or First Steps (which are available in every county), is shown graphically in Figure 8.

FIGURE 8: **HOME VISITING PROGRAMS STATEWIDE DISTRIBUTION, EXCLUDING PARENTS AS TEACHERS**



**Notes: The count data above does not include the Parents As Teachers and First Steps program, which are offered in every county. This map depicts a count of the number of other home visiting programs offered through various agencies and funding mechanisms in the state.*

TABLE 5: **OVERVIEW OF MAJOR HOME VISITING PROGRAMS IN MISSOURI**

PROGRAM	MO STATE DEPT.	PRIMARY FUNDING	# OF COUNTIES REACHED	AGES SERVED	# SERVED
Parents as Teachers[112]	DESE	Early Childhood Development, Education, and Care Fund (ECDEC) and General Revenue (GR)	115	Prenatal to Kindergarten entry	58,168 children 1,856 families (2018–19 data)
First Steps – Part C of IDEA*	DESE	State and federal, Medicaid, private insurance	115	Birth to age 3	8,251 children (Dec. 2018 child count)
Early Head Start Home-Based[113]	NA	Office of Head Start	18	Birth to age 3	1,239 children (2019 data)
MIECHV[114]	DHSS	HRSA-MCH	5	Prenatal to age 3	930 children (2018 data)
Building Blocks – NFP[115]	DHSS	MCH Title V	17	Prenatal to age 3	
Healthy Families Missouri[116]	DHSS	MCH Title V	5	Prenatal to age 5	
Home Visiting Program[117]	DSS	GR and Temporary Assistance for Needy Families (TANF)	57	Prenatal to age 3	1,971 children 1,599 families
Nurses for Newborns[118]		Data not available	16	Prenatal to age 2	14,763 visits 2614 families (2016 data)
Promise 1000 Home Visiting[119]		Public and private foundation funds	7 (Kansas City area)	Primarily birth to age 3, with some programs serving up to age 5	650+ in the past year
Children's Trust Fund (CTF) Home Visiting Grants[120]		Federal Community-Based Child Abuse Prevention & CTF Funds	44	A variety of programs are funded serving different age groups	Data not available
Head Start, Home Based[121]	NA	Office of Head Start	9	Ages 3–5	442

**As a Part C program for infants and toddlers with disabilities, First Steps has a singular focus on children with disabilities, is regulated by federal and state regulations that set it apart from other home visiting programs. However, First Steps services are delivered in the home, therefore it is included in this table.*

CHILD CARE CAPACITY SUMMARY

Within Missouri's mixed-delivery system, child care settings and home visiting programs are regulated and funded by a variety of sources, but lack a means of measuring quality across service types. As such, it is impossible to determine whether Missouri's families have access to quality ECCE options across the state.

Using licensed child care capacity as a proxy for a baseline level of child care quality, 82.2% of Missouri's children ages birth through five live in counties that are 'child care deserts,' with fewer than one licensed child care slot for every three children. The reality for families may be even more challenging that this county-level analysis suggests, given the local nature of child care usage[122]: while a given county may have sufficient child care to meet its population's needs, that care may not be located within a reasonable distance from individual families' homes or workplaces.

Missouri's home visiting landscape also lacks a uniform means of evaluating quality and capacity. While Parents as Teachers and First Steps home visiting programs are statewide, more than 30 counties do not have access to any other known home visiting options, all of which are also considered child care deserts.

82.2% of Missouri's children ages birth through five live in counties that are 'child care deserts,' with fewer than one licensed child care slot for every three children

More than 30 counties do not have access to any other known home visiting options, all of which are also considered child care deserts

SECTION 5:

Key Issues in Access and Quality

The following sections explore key access and quality issues facing the ECCE system in Missouri, that present challenges to both families seeking high-quality care for their children and to professionals providing ECCE services to families. In many cases, issues of access to ECCE and issues of ECCE program quality are interwoven. As articulated in the definitions set out at the beginning of this needs assessment, families can only be said to have access to ECCE services if those services meet the needs of families, which includes programs of a quality that the family desires. Missouri lacks a definition of quality ECCE, as well as a comprehensive means by which to measure it across its mixed-delivery system.

While such a quality measurement system is needed to provide critical information for improving Missouri's ECCE system, the lived experiences of families of young children and ECCE professionals provide deep and important insights into the ways in which the system works, and the specific areas in need of improvement.

The following sections describe many of the central themes and issues articulated by families, ECCE professionals, and systems-level stakeholders through qualitative listening sessions, key informant interviews, and surveys.

Affordability of ECCE Services

One of the main challenges voiced by families around the state pertained to the high cost of child care across all provider types. This issue is exacerbated for infant and toddler care, which is typically more costly due to lower staff-to-child ratios and smaller group sizes as required by licensing and accreditation standards. In particular, low-income families struggle with the high cost of child care, despite access to subsidy programs that aim to offset the cost of care.

The high cost of child care has implications for Missouri's economy. Families with working parents (70% of Missouri's families[123]) spend large proportions of their annual income on child care, have less disposable income for other expenses, and are sometimes forced to opt out of the workforce due to a lack of affordable care options.

HIGH COST OF CARE

The average annual cost of center-based infant care in Missouri is $9,880, and the annual cost for home-based infant care is $5,720.[124] According to a 2019 policy report from the Clark-Fox Policy Institute, a family with two parents working full-time at minimum wage jobs will spend $16,016 on child care for two children (one infant and one 4-year old); after deducting costs of rent (an average of $8,952 per year), the family would have only $7,688 left to cover all of their other expenses.[125]

The United States Department of Health and Human Services recommends that families spend no more than 7% of their annual income on child care, especially low-income families[126] — by this standard, the Economic Policy Institute calculates that only 10.6% of Missouri families can afford child care.[127]

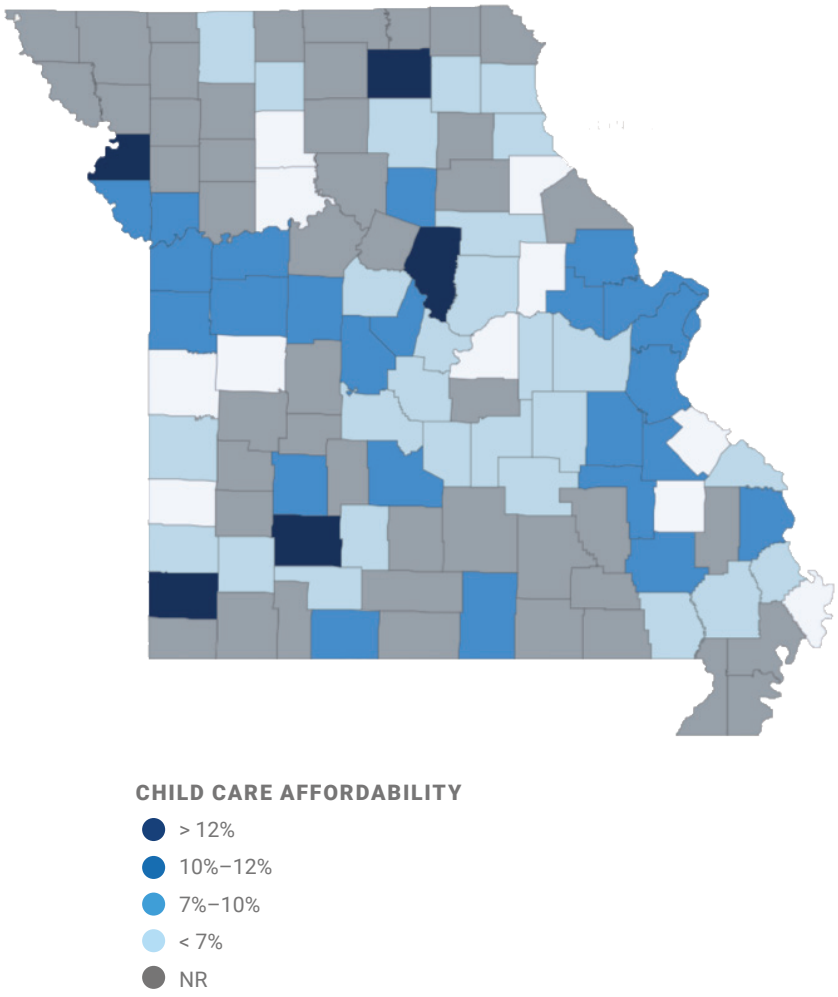
"Unfortunately, affordability has to play a huge role in it because you can only afford what you can afford. I work a full time job, plus two other side jobs and we scrape by. And I think out there's probably the majority of people in this community are kind of in some sort of the same boat where you're stuck with the choice of either we continue working our tails off and being a hamster on a wheel, or you don't work at all because there's no in between because once you make like a certain amount of money, there's just _____ no help for anything at all. So, but yeah, so affordability has to play a big role in that. I think we would all love to be able to pay for like the best of the best for our kids all the time. It's just not — not a reality for most of us."

— LISTENING SESSION PARTICIPANT

An analysis from Child Care Aware® of America (2019) shows that Missouri families comprised of married couples using on center-based infant child care spend an average of 11.6% of the median income on child care costs.[128] This percentage is even higher for millennial parents, who account for 82% of all U.S. births in 2016;[129] Child Care Aware® found that the average cost of child care in Missouri amounts to 25% to 35% of average income earned by millennials in Missouri.[130] As family circumstances vary (e.g., single-parent households or multiple children in the ECCE system), the percentage of annual income spent on child care can be upwards of 60%, according to different estimates.[131]

Child Care Aware® of America conducted a county-level analysis of child care affordability across the nation, comparing the average annual price of center-based child care for infants to median household income in each county for which data was available,[132] as shown in Figure 9. Based on this analysis, the counties that are least affordable for center-based infant care are Boone, Greene, Newton, Buchanan, Adair counties. For home-based infant care, the least affordable counties are Jasper, Newton, Buchanan, Wright, and Howell.[133]

FIGURE 9: **CHILD CARE AFFORDABILITY IN MISSOURI, AVERAGE CHILD CARE PRICE, AS A PERCENTAGE OF MEDIAN INCOME**



Map Source: Child Care Aware® of America, The U.S. and the High Price of Child Care: An Examination of a Broken System[134]

"... As a single mother trying to — I mean just mostly finding something that's safe and that's learning, or — I mean I had this home daycare they wanted $270 a week."

— LISTENING SESSION PARTICIPANT

"... We essentially pay one of our salaries to put two kids into daycare, which is amazing. I mean it's just obscene how much it costs."

— LISTENING SESSION PARTICIPANT

ECONOMIC IMPACT

The proportion of a household budget dedicated to child care is a significant challenge for families, but it also has an impact on Missouri's economy. When families are spending such a large portion of their household income on child care, they have less to spend on basic needs costs and are choosing not to enter the workforce.[135] The Economic Policy Institute estimates that if child care costs were capped at 7% of a family's income, 27,931 more parents would enter the workforce and the Missouri economy would grow by $2.8 billion as a result of increased spending and workforce participation.[136]

WORKING FAMILIES

The lack of affordable child care is particularly challenging for families in which all parents are working (one parent in a single-parent household, or both parents in a two-parent household). In Missouri, this represents 70% of families with children under the age of 6.[137] Again, this issue has particular relevance for the millennials who make up 35% of the workforce, making them the largest generational group in the American workforce.[138]

Qualitative data from statewide listening sessions clearly emphasizes the lack of affordable child care in Missouri. Listening session participants compared child care costs to that of college tuition and equated the cost of care to the salary earned by a working parent.[139]

SUBSIDY THRESHOLDS

Listening session participants also discussed problems with income thresholds to access subsidies that are intended to offset child care costs for low-income families, primarily indicating that the income thresholds are too low and that families that are above that threshold, but still low-income, are unable to afford child care. One family member described that their family's income was four dollars over the threshold for obtaining child care subsidy and, as a result, the family was unable to access the subsidy support for ECCE care.[140] Issues related to subsidy thresholds and the way in which the ECCE system is financed in Missouri are discussed in more depth in the *Strategic Financing of ECCE in Missouri* section of this needs assessment.

> **"The only thing that I can think of is — for people that work, like me, my son is almost ten months old, and I have to use family for babysitters because there's no way I can afford child care."**
>
> **— LISTENING SESSION PARTICIPANT**

Culturally and Linguistically Appropriate ECCE

Missouri's ECCE system serves a diverse population. The U.S. Census Bureau's 2018 population estimates indicate that 6% of Missourians speak a language other than English at home[141] and that 11.8% of Missouri's population is Black/African American, 4.3% is Hispanic or Latino, 2.3% is of mixed race, 2.1% is Asian, 0.6% is American Indian and Alaska Native, and 0.2% is Native Hawaiian and other Pacific Islander.[142]

Listening session participants called for more culturally competent ECCE services and information in both urban and rural areas, stating that culturally competent child care and curriculum is necessary to reflect the needs of diverse children, to increase their engagement in the classroom, and prepare them for continued school success.[143] This call echoes findings from a review of existing needs assessments, which note the need for culturally and linguistically responsive ECCE services and access to information across the state, and particularly in the St. Louis area where 9.1% of St. Louis City and 8.7% of St. Louis County residents are estimated to speak a language other than English at home.[144]

Families can only be said to have access to quality ECCE services if a) they can reasonably enroll children into a program that meets their families' needs, including the cultural and linguistic characteristics of families (a component of access);[145] and b) if ECCE program staff use teaching practices that are culturally and linguistically appropriate and maintain collaborative relationships with families that are sensitive to family composition, language, and culture (components of quality).[146]

To ensure all children have equitable access to quality ECCE and its long-term benefits, policymakers must be attentive to the cultural and linguistic diversity of Missourians across the state. This is particularly important in the context of decades of social and economic policy that favored White families over other demographic groups.[147]

CULTURALLY APPROPRIATE ECCE

Qualitative data collected for this needs assessment suggests that there is a need to improve cultural competence in Missouri's ECCE settings. One listening session participant described the problem: "If you walk in an early childhood center, you can see the disengagement. [The staff are] not … reacting to what the kids need. We need a more culturally competent [approach] especially for our area."[148] Another participant called for community engagement to establish a culturally competent committee, through which community members could provide input on how early childhood should look in their communities. Conversations in listening sessions also connected cultural competence with the extent to which staff are or are not using trauma-informed practices, to respond to the lived experiences of children and families.[149]

Listening session participants also clearly communicated a need for better and more coordinated access to information relating to many different aspects of child care, education, and family support services.[150] To provide information in ways that are accessible to all families, both ECCE programs and state-level systems need to take a culturally and linguistically responsive approach to information sharing, in addition to applying this lens to program delivery.

> **"So to me, [cultural competence] means a child care center that understands the kids that are in the child care center, and not the same curriculum as other areas. It's different, and it needs to be different. It needs to be — like we have issues going on in our city that we need to address. We need to address trauma, because things are happening in our city that we need to address."**
>
> **— LISTENING SESSION PARTICIPANT**

While racial differences are not synonymous with cultural differences, racial differences offer a starting point for a discussion about the need for cultural competence in service delivery and access to information. As discussed in the Focal Populations section of this report, the two largest non-White racial groups in Missouri are made up of people who identify as Black/African American and people who identify as Hispanic. According to 2010 data, both groups are geographically dispersed across the state, though nearly 78% of the state's Black/African American population lives in three urban counties (St. Louis City, St. Louis County, and Jackson County in the Kansas City metro area),[151] whereas Missouri's Hispanic population is more likely to live in rural areas.[152] Population trends also suggest an increasing need for culturally responsive ECCE across the state: between 2000 and 2010, both rural and urban parts of Missouri saw increases in Hispanic and Black/African American populations.[153]

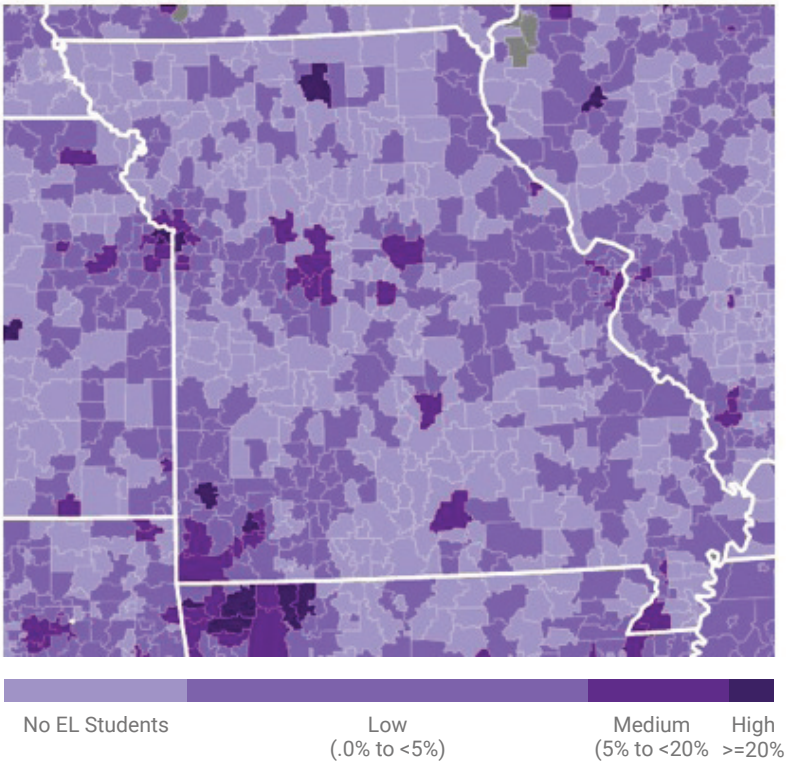
LINGUISTICALLY APPROPRIATE ECCE

According to the Office of Head Start, children who are Dual Language Learners (DLLs) are the fastest-growing population of young children in the United States, and of the children served nationally by Head Start and Early Head Start, at least one-third primarily speak a language other than English at home.[154] Data from Child Trends shows that academic achievement among DLL school-age children lags behind their peers whose only home language is English.[155] While trends in academic achievement among DLL students may be due to a variety of reasons,[156] access to supportive, linguistically and culturally appropriate ECCE programs represents an important opportunity to support DLL children and promote equitable outcomes.

Demographic data suggests that linguistically appropriate ECCE may also be a growing need in Missouri. U.S. Department of Education data on school-age children who are English Learners (ELs) in K–12 education systems can offer an indication of where younger children who are learning English might reside across the state. While not specific to children ages birth to 5, this information can help focus strategic efforts to plan and implement cultural and linguistic supports for children and families who are learning English.

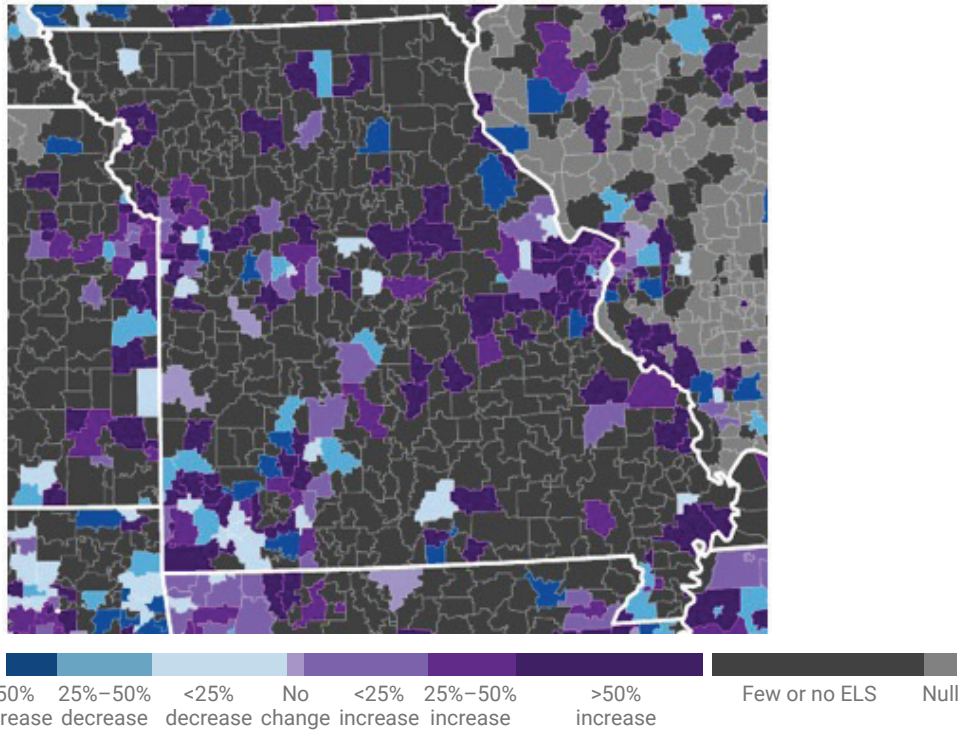
Figure 10 shows the percentage of school-age children who are English Learners during the 2014–15 school year, and Figure 11 shows the percentage change in the number of English Learners enrolled in an English language instruction educational program from 2009–10 to 2014–15.[157]

FIGURE 10: **PERCENTAGE OF STUDENTS WHO ARE ENGLISH LEARNERS, 2014–15**



Map Source: Our Nation's English Learners, U.S. Department of Education, 2019.

FIGURE 11: **PERCENTAGE CHANGE IN THE NUMBER OF ELS ENROLLED IN AN ENGLISH LANGUAGE INSTRUCTION EDUCATIONAL PROGRAM, 2009–10 TO 2014–15**



Map Source: Our Nation's English Learners, U.S. Department of Education, 2019.

At the time this report was published, researchers were not able to analyze Missouri Registry Data related to languages spoken by ECCE providers, though this is a recommended area for follow-up. Nationwide, ECCE providers struggle to hire staff who speak the language of children enrolled in the program;[158] as such, this is likely a challenge experienced by Missouri's ECCE providers as well.

The Office of Head Start seeks to address the needs of children who are dual language learners in its programs by employing bilingual staff, recognizing bilingualism as a strength, identifying volunteers who speak a child's home language, and seeking to institute culturally responsive practices in their centers. The Head Start Program Performance Standards may be a useful model, as the Missouri ECCE system seeks to establish more culturally and linguistically responsive practices.[159]

To achieve equitable access to quality ECCE, child care programs must evaluate and adjust their program and staffing models to be responsive to the needs of children from all cultural and linguistic backgrounds. Data from the upcoming 2020 Census will provide a more current picture of recent population change and trends and it is recommended for further analysis to inform both policymaking at the state level, and individual communities in Missouri as they tailor their ECCE services and resources to the cultural and linguistic landscape in each community.

Accessing Infant and Toddler Care

Nationally, the availability of infant/toddler care (ages 0–2) is significantly less than that of programs for preschoolers ages three through five. In a March 2019 report, the Center for American Progress found that 48% of parents of infants and toddlers had difficulty finding care, while only 38% of parents of preschoolers reported difficulty in their search.[160] Infant/toddler care is more expensive than preschool age care, primarily due to licensing and accreditation rules that recognize the need for lower staff:child ratios for the youngest children, as well as smaller group sizes.

In Missouri center-based ECCE settings, children up to 24 months must have a ratio of one adult to four children (1:4), with a maximum group size of eight; children from 12 to 24 months have a ratio of 1:8, with a maximum of sixteen in a group; and children from 36 to 60 months have a ratio of 1:10. Similar restrictions for infants and toddlers are defined in rules for family child care, as well. In accredited programs, ratios are even more restrictive for some age groups; for example, NAEYC requiring an even lower ratio of 1:6 for toddlers and two-year-olds. Given these lower staff:child ratio restrictions for younger children, an ECCE center-based program or family child care home in Missouri that is licensed to serve children birth through age five, can choose to serve more preschool-aged children than infants or toddlers with the same number of staff, resulting in cost efficiencies for facility program budgets, but fewer slots available for infants and toddlers.

The lived experiences of stakeholders who participated in listening sessions and interviews confirm this, describing infant care as "very scarce" and "much harder to find." One listening session participant reported that some families are facing greater challenges in finding infant care recently, and are attributing this increased scarcity to the passage of Nathan's Law in 2019,[161] despite the intent of the law to increase the safety of child care settings.

> **"We talked through everything and she seemed to understand it … but she's frustrated because she has a one-year-old that has been in an unlicensed home with three other babies … which this person should never have had. Now that Nathan's Law is [in place], her provider said, 'Well, I can only take three babies now, so your baby can't come here anymore.'"**
>
> **— LISTENING SESSION PARTICIPANT**

Throughout the statewide listening sessions, as well as in the review of existing needs assessments (particularly the 2017 and 2018 Cradle to Career Kindergarten Readiness reports out of mid-Missouri[162]), researchers repeatedly heard that quality care for all children is hard to find, but that particular challenges emerge when seeking child care in rural areas, and when seeking care for infants and toddlers.[163]

Supportive Transitions to School Entry

Research shows that a successful transition from ECCE programs to school entry is important for a child's later success in school. An unsuccessful transition can be stressful for the child, resulting in negative academic, social, and emotional effects that can persist for years.[164]

The lived experiences of Missouri families and ECCE providers confirms the research: ECCE providers and parents who worked to coordinate with school staff found the transition from ECCE to school to be "more comfortable and successful for their children," and found these coordination efforts to be an important "opportunity for relationship-building" between families, and ECCE providers, and classroom teachers.[165]

Given the wide range of ECCE program types and models in Missouri, the landscape of transition supports for children entering school is difficult to parse and is complicated further by the fact that mandatory school attendance does not begin until age seven (most states have a compulsory school age of six),[166] making kindergarten not required in Missouri.

The school-entry transition supports that are available for families are generally a function of the type of ECCE program in which they are enrolled. A small number of program types require transition supports to be provided, but transition supports at most other ECCE programs are inconsistent and highly variable depending on the specific program.

Families with young children may not only benefit from support in preparing for the transition to school entry, but also for transitions between ECCE programs. Some programs only serve infants and toddlers, which means that when children age out of these programs but are too young for school entry, families must prepare to transition to another ECCE program. Other issues, such as child mobility, expulsion, changes in family financial situations, and other factors can also result in transitions among ECCE programs.

The only types of ECCE programs that are required to have transition supports in place are Head Start programs and special education programs. Children attending ECCE programs housed at school districts may have increased access to transition supports; and home visiting programs (e.g., Parents as Teachers) may help families plan for and navigate a successful transition between ECCE programs and into kindergarten or first grade.

However, in general, most families likely have insufficient access to formal transition supports as they prepare their children for school entry, and there is no common system for supporting transitions across types of ECCE settings. DESE provides a handout that advises families and ECCE programs on best practices for managing the transition to school,[167] though the implementation of these practices is left to each ECCE program's interpretation, capacity, ability, and discretion.

The topic of transitioning from ECCE to school settings is closely related to an overall desire for better coordination for ECCE services, both among programs and among programs and state agencies. This desire for increased coordination and the sentiment that current levels of coordination are insufficient was a strong theme expressed by families and ECCE providers in both listening sessions and surveys. Interviews with system-level stakeholders revealed the same sentiments.[168]

The specific types of programs that do provide transition supports for families are discussed on the next page.

EXISTING SUPPORTS FOR TRANSITION COORDINATION AND SUPPORTS

Head Start and Early Head Start Programs

Head Start programs are federally funded services for children in low-income families. Head Start programs are legally required to work together with local education agencies to support successful transitions for children who are transitioning from Early Head Start and Head Start.[169]

Planning efforts for a child's transition out of Early Head Start begin at least six months prior to a child's third birthday, as both the program staff and the family plan the transition to the most appropriate early care and education program (which may include a Head Start program or another ECCE program that meets the needs of the family). Additional transition services are provided for families with children who have an Individual Family Service Plan (IFSP).[170]

Planning efforts for a child's transition from Head Start to school entry is also meant to be a collaborative approach, emphasizing connections between teachers, families, peers, and the community,[171] and requiring support from Head Start in coordinating record transfers, communicating with school staff to ensure continuity with learning and development for children, and familiarizing children with school settings and help them feel confident as they prepare to transition. Similar to Early Head Start, families with children who have Individualized Education Program (IEPs) are provided additional transition support for school entry.[172]

Early Childhood Special Education Programs

Early Childhood Special Education programs in Missouri have detailed transition plans and support, as dictated by Part C of the Individuals with Disabilities Education Act (IDEA) which pertains to infants and toddlers with disabilities.[173] First Steps, Missouri's special education program for children birth through age 3, begins planning for the transition out of First Steps around the age of 2. At this time, parents of children with special needs are given information about early learning programs available including in-home child care, Head Start, community-based programs, and Early Childhood Special Education programs housed at school districts.[174] A formal transition planning meeting is meant to take place well before the child's third birthday to ensure a smooth transition.

However, qualitative data collected shows that some families of children with special needs struggle when transitioning from First Steps. Families reported a lack of awareness of what programs were available for 3- to 5-year olds with special needs, and reported a service gap for children who were transitioning out of First Steps. Families expressed confusion about what the IEP process is for this age group and felt an expectation that a child's IEP already be in place when a child enters school, despite uncertainty about the IEP process for this age group. Additionally, families whose children showed signs of developmental delay but who did not meet the threshold of a diagnosis voiced particular concern regarding identifying services for their children.[175]

Children ages three to five whose diagnoses do make them eligible for Early Childhood Special Education (ECSE) services offered through Missouri school districts may experience a more structured transition from ESCE to kindergarten, given that these ECSE services likely take place in a school setting and children may not have to transition physical buildings when entering kindergarten or first grade. In these cases, transition supports may include visits to classrooms, record sharing, and invitations to families to attend open houses and orientations.

Public Pre-K Programs

Like children who are enrolled in ECSE, children who attend a public pre-K program run by a school district are likely familiar with a school setting and may be preparing to transition to kindergarten or first grade within the same building as their pre-K experience. In these cases, transition supports may include visits to classrooms, record sharing, and invitations to families to attend open houses and orientations.

Home Visiting Programs

One aspect of the Parents as Teachers home visiting program is to support family and child in transitioning successfully into school settings, by building early relationships with schools, assisting with record transfers, and other supports. However, the degree of transition support that families received from other home visiting programs is unknown.

ECCE for Children with Special Needs

Missouri serves children with disabilities and special needs through IDEA-mandated Part C early intervention (called First Steps) and Part B Section 619 early childhood special education (ECSE) programs. First Steps typically provides early intervention services to children ages birth through two years in a natural environment such as their home or community settings,[176] whereas children ages three through five years receive ECSE in a range of group settings, including child care facilities, Head Start, and school district preschool programs.

To access early intervention services and early childhood special education, children undergo developmental screenings to monitor a child's development and to identify the need for further evaluations if a child begins to demonstrate a developmental lag. With permission of families, children whose screens indicate some area of development as potentially delayed are referred to special education services for further assessment or evaluation to determine their eligibility for the First Steps or ECSE programs.

Some ECCE programs in Missouri complete developmental screenings on all children as a matter of program standards and requirements, such as Head Start and Early Head Start programs, the Missouri Preschool Project, and all state and federally funded home visiting programs. An overall count of children screened each year by all programs is not available; however, data from DESE for the 2018-2019 school year showed a total of 30,761 infants and toddlers screened through Parents as Teachers, with approximately 6,448 (21%) indicating a delay in one or more areas of development; and a total of 58,524 preschoolers screened, with 16,485 (28%) with an indicated delay. The demographic breakdown of children screened, indicating delay, and ultimately receiving services is not included in

> **"We were absolutely lucky. Our son was very delayed, and we were just really lucky that one of the people at our church happened to know about the First Steps program and told us about that. … Otherwise, we wouldn't have known at all, and would have just held him at daycare until he finally went to school and had all these issues that we wouldn't have been able to rectify."**
>
> **— LISTENING SESSION PARTICIPANT**

this analysis, but is recommended for future analysis in order to ensure equity in accessing services for children with special needs. For more information on the number of children served by First Steps or ECSE, see the Risk and Reach Analysis included in this report.

Despite fairly typical rates of service delivery for children with special needs, listening session participants reported meaningful challenges in adequately supporting children with special needs, which are summarized in the next section. In several instances, these challenges align closely with those experienced nationwide.

An additional area of future investigation that is not addressed in the following sections is the extent to which families of children with special needs are able to afford the specific care that they need. According to research from Child Care Aware, national data shows that the families of children with special needs are more likely to live in low-income households, but are less likely to access child care subsidies than families whose children do not have special needs.[177]

THRESHOLD TO ACCESS SERVICES

Both ECCE professionals and families stressed the importance of intervening early because intervention later in life tends to be more costly and less effective. ECCE professionals expressed that it is likely that special needs in very young children may be under-identified, because their symptoms or related behaviors may not present severely enough to result in diagnosis. As a result, some ECCE professionals suggested changing/lowering Missouri's eligibility criteria for early intervention to allow more children to access special needs services.[178]

> **"We used First Steps also. I found out about it trying to join Families as Teachers. My son was delayed in speech. I think all the services are really good, but … we had a hard time finding them."**
>
> **— LISTENING SESSION PARTICIPANT**

ACCESS TO INFORMATION REGARDING SERVICES

Families that participated in listening sessions expressed concern about the lack of information about available services for children with special needs, especially those with autism. Some families noted that they felt lucky to have encountered the First Steps program through word-of-mouth, but fear that they otherwise might not have known about the program. Families also expressed uncertainty regarding the different processes required to access services for children with special needs, including how to get their child diagnosed, how much time would be required to navigate the process to getting services, and how to access the Individualized Education Program (IEP), 504 Plans, and Individualized Family Service Plans (IFSPs).[179]

DHSS funds a program administered by United 4 Children, in which six Inclusion Specialists throughout the state to help families of children with disabilities find and keep child care that meets their needs.

SERVICES FOR CHILDREN AGES THREE THROUGH FIVE WITH SPECIAL NEEDS

Nationally, families report "a lack of coordination between early intervention, preschool special education, and child care services", as well as "difficult transitions" between First Steps (Part B) and ESCE (Part C).[180]

In Missouri, some families with young children ages birth through two who utilize programs such as First Steps shared that they were unaware of services for children ages three through five. Families also reported uncertainty regarding what the IEP process entailed, and felt that elementary schools expected their children to have an IEP already in place if one was needed.[181]

According to 2016 estimates, approximately 65% to 75% of children participating in First Steps transition to ECSE each year in Missouri.[182] There are specific programmatic guidelines for ECCE programs to follow when transitioning children from early intervention to ECSE, although it is not clear how closely these guidelines are followed in practice. Based on the perspectives shared in listening sessions, additional navigation and transition support is needed to ensure that all families can access the services they need.

ACCESSING SERVICES IN RURAL AREAS

In rural listening sessions, families noted that there are fewer ECCE professionals available to do special education assessments in rural areas, and that they have to drive to the nearest urban area in order to have their children assessed for special education. To make this trip, families reported having to arrange time off work, which often results in a delay in accessing the needed services.

These challenges were echoed in the statewide stakeholder survey. One parent expressed that to access to special education services, "You need to live in or near a metropolitan area, be it Springfield or Kansas City or St. Louis. If you have a child with special needs and you're not in that area you have access to few, if any, services." Another parent noted a "lack of consistency between what is available in the rural counties," saying, "sometimes these rural counties are not the best counties for your child that has a lot of special needs."[183]

> **"Why don't they have things about, hey, do you need access to services? Do you have a kid that has some type of disability? Or do you have an IEP? Do you know what an IEP is? Just like a flyer on it. Here's who you contact for assistance in this. Or if you're looking for assistance for any type of need here's who you can call. Why don't we have those types of pamphlets like at our WIC offices, that are handed out by Parents as Teachers, on the counters at our libraries, just so people have hey, this is a thing?"**
>
> — LISTENING SESSION PARTICIPANT

INCREASED PROFESSIONAL DEVELOPMENT TO SUPPORT CHILDREN

Nationally, the "lack of staffing, training, and expertise of the early childhood workforce" is cited as a barrier to inclusion in early childhood programs.[184] Missouri participants in the listening sessions echoed this national trend, stating that ECCE professionals needed professional development regarding how to best care for children with special needs.[185]

Both families and ECCE professionals felt there were too few qualified adults in child care settings with the capacity to observe, diagnose, and intervene appropriately to support the learning needs of students with developmental, behavioral, or physical delays.[186] As an effort to help meet this need, the DHSS offers technical assistance to ECCE professionals who care for children with special needs at no charge to the provider or the family. At the time this needs assessment was published, the extent to which this technical assistance is utilized is unknown.

Some specific professional development needs depended on geography. Families and ECCE professionals in rural areas wanted ECCE professionals to have more training in caring for children with developmental issues due to drug use and addiction. Families and ECCE professionals in urban areas prioritized trauma-informed care and having ECCE professionals who were able to help children cope with the effects of trauma experienced outside of child care settings, which is discussed further in the next section on Mental Health Supports.[187]

Mental Health Supports

Mental health among young children is also very closely tied with healthy social and emotional development and is significantly impacted by the degree to which children have a secure and responsive relationship with their primary caregivers, including both family members and ECCE professionals.[188]

Missouri's ECCE professionals and families have called for additional support related to infant and early childhood social and emotional development, mental health, and trauma-informed care.[189] This call for support is in keeping with increased awareness of the negative impact of adverse childhood experiences and toxic stress on the brain development of young children, and the long-term effects on their later life experiences — as well as the power of protective factors and positive experiences to protect against negative outcomes later in life.[190]

Adverse childhood experiences, also called ACEs, include frequent economic hardship, abuse and neglect, exposure to neighborhood violence, racial or ethnic discrimination, the death of a parent, and other traumatic experiences.[191] Protective factors that can build a child's resilience to ACEs include nurturing and stable relationships with caring adults and competent caregivers, social and emotional health, strong social connections, parent resilience, concrete socio-economic advantages, among other factors.[192]

Nationally, children who are from low-income families are more likely to experience adverse childhood experiences than their wealthier peers; and, children who are non-Hispanic Black/African American are more likely to experience adverse childhood experiences than their White and Hispanic counterparts.[193] As Missouri works to build an ECCE system that supports all children, policymakers must adopt an equity lens as they work to design systems that prevent ACEs, build protective factors, and address the social and economic policies that have resulted in increased ACEs exposure for low-income children and Black/African American children.

> **"We now understand that what happens in the first five years determines the rest of a child's life, especially with trauma. … We know that trauma matters."**
>
> **— LISTENING SESSION PARTICIPANT**

PROFESSIONAL DEVELOPMENT

To assist ECCE professionals be better prepared to support children exposed to trauma and in responding appropriately to challenging behaviors, DSS included the implementation of Trauma Smart professional development in its 2019–2021 Child Care Development Fund (CCDF) plan.[194] The purpose of the Trauma Smart program is to address the negative impact of violence and trauma on children by training the adults who care for them. The program is recognized by the U.S. Department of Health and Human Services (HHS) and the National Child Traumatic Stress Network.[195]

In the 2018 fiscal year, all providers receiving subsidy funds through the CCDF were required to participate in a social-emotional development training, which continues to be available on the Missouri Workshop calendar, as well as trauma-specific and Conscious Discipline trainings.[196]

Listening session participants spoke clearly to the need for these opportunities. A parent participant noted that, "We need opportunities to learn about behavior and behavior management like Conscious Discipline or … Trauma Smart … parents can come in and learn that [a child's behavior] is okay, and here's where we go from here; to see that there is a future in where their child is now." ECCE professionals specifically mentioned trauma-related professional development sessions as well: "We are just getting started into trauma-informed care. It's still very new."[197]

MENTAL HEALTH CONSULTATION

Mental health consultation is among the programs the Missouri DSS has identified to fund at the state level with increased federal CCDBG funds beginning with a pilot program. Mental health consultation is "a prevention-based approach that pairs a mental health consultant with adults who work with infants and young children in the different settings where they learn and grow, such as child care, preschool, home visiting, early intervention and their home… mental health consultation equips caregivers to facilitate children's healthy social and emotional development."[198] The expected outcomes of mental health consultation include improved social and emotional development among children, reduction in challenging behaviors, reduction in isolation practices such as suspensions and expulsions. In addition to these child-based outcomes, mental health consultation is expected to reduce stress among ECCE professionals and reduce staff burnout and turnover.[199]

At the time this needs assessment was published, DSS was in the initial planning stages for a mental health consultation pilot program. The pilot program will focus on families and staff at child care facilities that accept subsidy payments in locations that DSS has identified as being high need areas. This pilot program is in alignment with needs expressed during listening sessions, where one ECCE professional stated that "Every center should have access to an early childhood mental health consultant;" another responded that, "I would make sure there was a trauma-informed quality center in every community, rural, inner city, so that everybody had access," suggesting that this type of support needs to be provided across the state in all types of ECCE settings.[200]

Some programs with elements of mental health consultation models exist throughout the state, such as SOAR in Mid-Missouri, LUME Institute's professional development program in the St. Louis region, United 4 Children's DHSS funded Inclusion program, as well as the Head Start and Early Head Start mental health consultation services throughout the state. Coordination among agencies for this statewide pilot has begun with a small workgroup with representatives from each of the relevant state departments and programs. Such coordinated efforts could ensure expanded, supported efforts to improve mental health promotion, risk prevention and targeted mental health interventions.

DEPARTMENT OF MENTAL HEALTH SUPPORTS

While the Missouri Department of Mental Health (DMH) does not provide direct ECCE services, it does provide essential supports related to early childhood mental health and efforts such as a System of Care federal grant. DMH employs a part-time Early Childhood Wellness Expert to support the prioritization of early childhood mental health. DMH also maintains the www.Healthykids.mo.gov website developed through a previous federal grant called Project LAUNCH. The website provides information and resources on social and emotional development.

According to the Rural Health Information Hub, every county in Missouri has a shortage of mental health professionals, with the exception of St. Louis County and St. Louis City (of which portions qualify as shortage areas).[201]

Missouri's ECCE Workforce

The ways in which the ECCE workforce is supported, or is not supported, has significant implications for the positive development of Missouri's children. Both qualitative and quantitative data suggest that Missouri's ECCE workforce is strained. Missouri's predominantly female child care workforce is paid low wages, has insufficient access to benefits, and struggles to maintain their own well-being, financial stability, and morale. ECCE professionals desire additional professional development, but feel limited in their ability to access it. And, high-staff turnover negatively impacts children and creates operational challenges for ECCE owners.

Currently, there are nearly 19,000 ECCE professionals in Missouri's workforce.[202] According to 2017 data from the optional OPEN Workforce Registry, almost all ECCE professionals in Missouri who participated in the registry identified as female (96.3%) and are spread across a range of age groups, the largest of which is professionals ages 35 to 54 (see Table 6).[203]

As shown in Table 7, over two-thirds (67.5%) of all ECCE professionals identify as White; this majority is even larger when looking only at center-based programs, where 71.6% of professionals identify at White. In family child care settings, the workforce is almost evenly split between professionals who identify as Black/African American (48.9%) and those who identify as White (48.5%).[205] In both center-based programs and family child care settings, the representation of other racial/ethnic groups for ECCE professionals was relatively low.

TABLE 6: **AGE GROUPS OF MISSOURI'S ECCE PROFESSIONALS (OPEN REGISTRY)**

AGE RANGE	PERCENTAGE OF WORKFORCE[204]
Under Age 35	31.9%
Ages 35–54	44.3%
Age 55 and Older	23.9%

TABLE 7: **RACE/ETHNICITY OF ECCE PROFESSIONALS BY CARE SETTING (OPEN REGISTRY)**

RACE/ETHNICITY	CENTER-BASED PROGRAMS	FAMILY CHILD CARE	OVERALL
Asian/Pacific Islander	0.9%	0.3%	0.8%
Black/African American	23.4%	48.9%	27.9%
Hispanic/Latinx	1.3%	0.3%	1.1%
Native American	0.4%	0.4%	0.4%
White	71.6%	48.5%	67.5%
Another race/ethnicity	0.7%	0.8%	0.7%
Two or more races	1.8%	0.9%	1.6%

WAGES AND EDUCATIONAL ATTAINMENT

As is the case nationwide, ECCE professionals in Missouri earn very low wages.[207] According to the Occupational Employment Statistics survey for Missouri (2017), the median hourly wage for a child care worker in Missouri was $9.96 per hour,[208] which is only slightly above the 2019 minimum wage in Missouri ($8.60)[209] and is significantly less than the median hourly wage for a kindergarten teacher ($28.25), as shown in Table 8. Table 9 shows median wage data based on a different database, Missouri's optional OPEN Registry, for its early childhood and school-age workforce[210] which reports even lower median wages for similar positions in 2017.[211] Although the occupation categories differ between the two tables, it is clear that early childhood professionals, no matter their particular classification, earn significantly less than public school kindergarten teachers do.

Qualitative data collected from both ECCE providers and families confirmed that low wages are a significant issue for ECCE professionals. In listening sessions across the state, both families and ECCE professionals stressed that ECCE staff need access to better compensation, as well as access to benefits such as health insurance and child care for their own families. Listening session participants noted that due to low pay, ECCE professionals are frequently spread thin across multiple jobs, impacting their well-being and therefore their ability to best support the children in their care.[212]

TABLE 8: **MEDIAN WAGES FOR MISSOURI EARLY CHILDHOOD OCCUPATIONS (OCCUPATIONAL EMPLOYMENT STATISTICS, BUREAU OF LABOR STATISTICS, 2017)**

OCCUPATION	MEDIAN WAGE
Child care worker	$9.96
Preschool teacher	$12.03
Center director	$20.69
Kindergarten teacher	$28.25

TABLE 9: **MEDIAN WAGES FOR MISSOURI EARLY CHILDHOOD OCCUPATIONS (OPEN REGISTRY)**

OCCUPATION	MEDIAN WAGE
Center assistant teacher	$9.75
Center lead teacher	$10.67
Center director	$13.87

"We pay them so little that a lot of folks get out of this business. So, raising wages, I think, is a really big issue."

— LISTENING SESSION PARTICIPANT

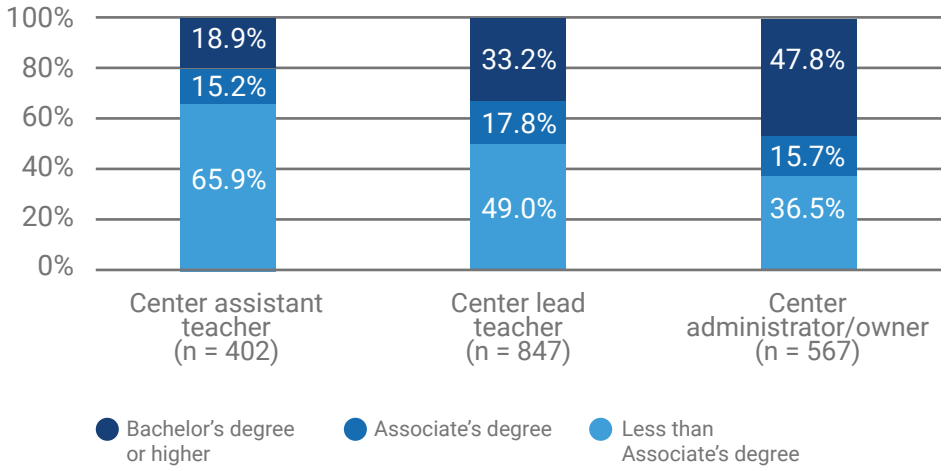
"I think other things would be more sustainable, like creating more living wages, easier opportunities to access health insurance so that people who are in this field can feed their family, they can go on a summer vacation occasionally, that they can have full lives."

— LISTENING SESSION PARTICIPANT

One reason for low wages may be related to the relatively low education levels typically achieved by ECCE professionals and the low education requirements to enter the ECCE field. According to the Early Childhood Workforce Index (2018), neither licensed centers nor licensed home ECCE settings require that lead teachers have a bachelor's degree or that assistant teachers have a Child Development Associates (CDA) Credential or equivalent certification.[213] As shown in Figure 12, nearly two-thirds of Missouri's ECCE center assistant teachers and nearly half of center lead teachers lack a formal degree.[214]

According to the Early Childhood Workforce Index, there are scholarships available to support Missouri ECCE professionals in pursuit of associate and bachelor's degrees.[215] One such opportunity is the T.E.A.C.H. MISSOURI program, which offers scholarships for Child Development Associate (CDA) credentialing programs, as well as associate and bachelor's degrees. The 2016 Annual Report from T.E.A.C.H. Missouri reported that 327 scholarships awarded in that year resulted in 4032 college credit hours earned,[216] though fewer than 5% of licensed Missouri ECCE facilities serve as sponsors for their teachers to participate in this quality improvement program.[217] Even with these programs, some ECCE professionals still feel that professional development and certifications are out of reach (though community college programs were noted as a strong partner in this respect).[218] Whether this a challenge of insufficient program awareness, geographic reach, professional relevance of sessions, or other barriers, is a topic for further investigation.

FIGURE 12: **HIGHEST EDUCATION LEVEL BY OCCUPATION (OPEN INITIATIVE, MISSOURI REGISTRY DATA, 2017)**



> **"The workforce is underpaid. The workforce is, for the most part, undereducated, which is part of the reason they're underpaid. But part of the reason they're underpaid is because of the payment system to the programs that then pays the employees because the families are already paying probably more than they'd like and definitely upper limits of what they can in many situations. I think we need to think about how we actually pay for the services that would lead to the workforce [that we want]."**
>
> — KEY INFORMANT INTERVIEW

> **"I think it's good to hear early childhood providers in any realm advocating for what needs to change or what — what they really do all day. They do not babysit. And when they can speak it and say it with authority and confidence, it starts to change things a little bit. So yeah, I just wanted to say I think the — I think it's still a career, and when people who are working in the field begin to see it that way, they change the people around them."**
>
> **— LISTENING SESSION PARTICIPANT**

It is unlikely that low educational attainment of ECCE professionals is the only factor resulting in their low wages. Qualitative data clearly demonstrated a general lack of public respect for the field of ECCE work, with both families and ECCE professionals citing a stigma that associates ECCE work with daycare and low-skill babysitting, rather than viewing ECCE as the critical field of early childhood development and education with which many ECCE professionals identify. As one listening session participant noted, "If you position the job as something that requires some background and that you have to have accomplished some things in order to be able to successfully do this job to the level that it needs to be done — we have to value what this work is and the place that this work holds in society. And if we are saying anybody who's achieved the ripe old age of 18 and hasn't been put in jail yet is qualified to do this, nobody's gonna respect this position."[219]

Many participants called for a change in perspective in how the ECCE field is viewed, and, in some cases, increased qualifications or experience requirements in order to work in the ECCE field.

Economic factors related to the way in which ECCE is financed are also a significant factor in perpetuating low wages for professionals. Low subsidy reimbursement rates, and the tendency for ECCE centers to set their prices at a level that they believe families can afford rather than the true cost of providing care, results in low wages for ECCE professionals;[220] this is discussed in more depth in the section on Strategic Financing.

PROFESSIONAL DEVELOPMENT

Ongoing professional development is an important factor for increasing and maintaining the quality of ECCE services in Missouri and for ensuring positive outcomes for children. In particular, the Institute of Medicine and the National Research Council (2012) points to the importance of professional development opportunities that focus on implementing defined evidence-based curricula, developing supportive teacher-child relationships, and providing appropriate child development knowledge.[221]

Qualitative data revealed a strong desire among ECCE professionals for increased access to high-quality professional development, citing concerns that available professional development tends to be repetitive or low quality and that funding resources to pay for trainings and certifications are not readily available,[222] despite degree scholarship opportunities noted above.

Listening session participants identified particular topics that they feel are needed to support their work, including additional training related to early recognition of and support for children with special needs, professional development related to cultural competency, and first-aid training.[223] One listening session noted concerns about training specific to working with children ages birth to three.[224]

Some professional development needs differed based on urban and rural parts of the state. Families and ECCE professionals in rural areas of Missouri expressed a need for topics relating to care for children with developmental issues due to drug use and addiction. Families and ECCE professionals in urban areas emphasized the need for topics relating to trauma-centered care to ensure that staff can support children and families struggling with the effects of family or community trauma experienced outside of child care centers.[225]

> **"If we're going to talk about this [ECCE] workforce being teachers, and really affecting brains and brain development [of children], which is exactly what they're doing every day, then we need to get some clear pathways for them to get that background knowledge that they need to support the children."**
>
> **— LISTENING SESSION PARTICIPANT**

> **"We need a good, comprehensive, and accessible system of professional development for all segments and not just child care but also home visiting. With online [opportunities] now, there's just no reason to wait."**
>
> **— LISTENING SESSION PARTICIPANT**

> **"I mean, who is going to take pride in their work if society tells you you're not worth getting benefits?"**
>
> **— LISTENING SESSION PARTICIPANT**

> **"It's not just wages; it's [a need for] benefits and job satisfaction."**
>
> **— LISTENING SESSION PARTICIPANT**

> **"And so when you think about how hard this work is, [ECCE] teachers need mental health access more than anybody else."**
>
> **— LISTENING SESSION PARTICIPANT**

ECCE STAFF WELL-BEING

In addition to being poorly compensated, many of ECCE professionals receive no other benefits such as health insurance or family leave options.[226] According to the Early Childhood Workforce Index (2018), there are no workforce policies for Missouri ECCE professionals to be provided with paid sick days, or family leave.[227] The Early Childhood Workforce Index also notes that a consequence of the low wages earned by ECCE professionals is that the educators and their families are more than twice as likely to participate in public income support programs than those in other fields.[228] Nationally, more than half of child care professionals were part of families receiving at least one of the following programs: the Federal Earned Income Tax Credit; Medicaid, Supplemental Nutrition Assistance Program, and Temporary Assistance for Needy Families,[229] and members of the child care workforce are more than twice as likely to live below the poverty line as workers in other industries (14.7% compared to 6.7%).[230] A 2018 report by the National Academies of Science, Engineering, and Medicine describes the situation of ECCE professionals as often being in *extreme economic distress*.[231]

Families that participated in qualitative listening sessions expressed concern that ECCE professionals were not receiving the resources that they need to ensure their own well-being, and that this has a negative impact on their ability to best serve children.[232] These concerns are echoed by research that shows "lead teachers' personal stress increased the likelihood of child's anger-aggression, lead teachers' work stress increased the likelihood of child's anxiety-withdrawal, and assistant teachers' work stress was associated with child's social competence"[233] and that "teachers who underutilize available SEL [social and emotional learning] supports are more likely to expel children."[234] The flip-side is also supported by research: caregivers' ability to provide emotional support and responsiveness to the children in their care is positively associated with children's language and cognitive development, as well as teacher-reported child cooperation.[235]

WORKFORCE TURNOVER

ECCE workforce turnover — and the related disruption to adult-child relationships — is linked with lower quality care and negatively impacts children's social, emotional, and language development.[236] Nationwide, workforce turnover in the ECCE field is generally understood to be high, with some sources citing 30% turnover as typical for the child care field.[237] Evidence suggests that turnover rates are highest for ECCE programs serving infants and toddlers and families utilizing subsides,[238] which creates a particular concern for the quality of care that is provided to Missouri's youngest children and to those who are from low-income families.

Qualitative data confirms that high turnover among ECCE professionals is a significant problem in Missouri, as well,[239] with one listening session participant calling the ECCE staff turnover rates "atrocious."[240]

Listening session participants credited high turnover to teacher burn-out, low pay, and lack of benefits provided to ECCE professionals.[241] The 2018 needs assessment from the Missouri Head Start Collaboration Office echoes these observations, noting that primary reasons for Head Start worker turnover are related to "school district competition for teaching staff, low wages, stress at work, lack of advancement and other advancement opportunities, [and a] lack of a formalized career plan."[242] High-turnover rates also strain the operations of ECCE sites, which then have to find staff to fill vacant positions and spend time to orient new staff.

Listening session participants expressed concern about the effects of low pay and high-staff turnover on young children, particularly related to children's social and emotional development, stress levels, and their sense of stability,[243] which is consistent with research findings.[244] Taking a more positive approach, one listening session participant noted the power of stable staffing in ECCE programs, calling it " a blessing" to have teachers who "been [at a center] for 30 something years" and describing the "warm" and "welcoming" environment and the "attachment between the kids and teachers."[245]

The underlying causes credited with high ECCE workforce turnover summarize many of the broader workforce challenges voiced in listening sessions across the state and represent several of the areas that Missouri's ECCE system must work to improve: low wages, inadequate worker benefits, and access to quality professional development opportunities that are specific to early childhood care and education.

> **"If teachers were being compensat[ed], especially money-wise, for what we do all day long, then there might not be such a [staff] turnover rate. And I think that turnover rate directly affects the care that we provide, because those transitions — cause behaviors, and family stress, and sometimes we're the only stable person that the child has. And if there's the [staff] turnover in the classroom, it just causes more — Well, and there's not stability in the classroom with turnover."**
>
> **— LISTENING SESSION PARTICIPANT**

Transportation

Many listening session participants identified transportation as a barrier to accessing ECCE services — and several identified transportation issues as the problem they would solve if they had $1 billion dollars to invest in the ECCE system.[246]

Many ECCE programs do not provide transportation for children and, as a result, many families reported challenges in getting their children to and from ECCE programs, sometimes having to choose for a child to not participate in an ECCE program despite their desire to do so, due to transportation challenges. Some families struggle to pay public transportation fees when taking their children to and from ECCE facilities, and others report car maintenance issues (e.g., flat tires and dead batteries) as barriers.[247]

Several families emphasized the challenge of managing transportation for multiple children of different ages, with varying school or program pick-up times. Part-day ECCE programs present a particular challenge for working parents, who then must leave work in order to pick up a child in the middle of the day.[248] For rural families, many of these issues are exacerbated by needing to travel further distances in order to reach ECCE facilities.[249]

"And it's like, well, you don't simply have like the ability to get them to the school, it sucks. So I felt bad that I had one that was able to go ahead and go to the school, and I just — I couldn't make a way for the other one. So I think they need to make efforts to like — I don't know, figure out like transportation, or if you're going to allow them to come to school, help me get them there, because I am willing to participate with the teacher and give them what they need. But I just — taking one kid to school over here and then dropping another two off over here, and then here — it just — it didn't work out. So I think that should really be taken into account."

— FAMILY MEMBER, LISTENING SESSION PARTICIPANT

Inter-Agency Collaboration for Wrap-Around Supports

There are a number of services and supports that supplement the effectiveness of traditional ECCE delivery options and support healthy child development. These wrap-around services include mental health supports, developmental screenings, home visiting program, special needs support, and basic needs support services like the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), Medicaid, Supplemental Nutrition Assistance Program (SNAP), and others.

Accessing these services typically means interacting with multiple agencies and service systems. In listening sessions, family members expressed that the current system of inter-agency collaboration is one of "managed chaos" — duplicated efforts, confusion, missed service opportunities, poor collaboration between agencies involving long waiting times, being transferred to several different people, and families not getting clear answers on what they needed to do next. Both families and ECCE professionals expressed a desire for a centralized system that would allow agencies to share information and, as a result, provide better service; other ideas included having school-based advocates and more teacher home visits as a means to help navigate various support systems.[250]

System-level interviewees stated that families miss opportunities to receive needed services because they are unaware of them, and that all families should have an avenue to get help and find resources to support their child. Interviewees observed confusion experienced by families who must access services through multiple agencies and felt that could be alleviated through better coordination and uniform service provision to families across the state. Interviewees acknowledged the need for a higher level of public awareness and the need for initiatives to identify and disseminate information regarding available resources at local and state levels.[251]

> **"Once you're involved it's absolutely great. But getting to that point it's like calling this person, this person. Like I don't know. You're getting tossed around left and right. Getting to that right person, it takes some time and it's so frustrating. Some parents probably would give up. So, but it is — having that out there, that information out there available right away what you need, that's key. And a lot of centers, a lot of people don't know where to go. Like they know, 'Oh this would be good for you.' But to get those, to connect the dots and start from number one, that's very hard."**
>
> **— LISTENING SESSION PARTICIPANT**

Access to Resources and Information for Families

Qualitative information gathered from across Missouri pointed to the need for a system that provides a centralized information hub to improve coordination among families, ECCE providers, school systems, and other stakeholders and entities involved in the ECCE system. Families who participated in listening sessions noted a few existing resources, but they felt that there were limitations, such as lacking information on local services (as opposed to state-level or national programs) and an inconsistent dissemination of the information.

In the absence of such a comprehensive system for accessing both ECCE and other support systems, families often rely on word-of-mouth to find out information on programs and services for their children and must navigate a complex service provision system that families, ECCE professionals, and system-level stakeholders all describe as being confusing and uncoordinated.[252]

Some resources exist to support parent access to information, but may need to be improved in order to meet parent and caregiver needs as they navigate multiple service systems.

One such resource that is available to families in Missouri is ParentLink. Housed at the University of Missouri, ParentLink offers an array of services designed to offer parenting information and support across the state. Services range from developmental screenings to services for incarcerated parents to support for grandparents raising grandchildren. In addition, ParentLink's WarmLine provides a phone, text, or email connection with Family Support Specialists who can help families think through solutions to parenting concerns.[253] The WarmLine can also link families to local services and resources or provide access to print resources or the ParentLink loan library.

> **"It would be nice to have a family resource center where we could go, and the resources are in one centralized location, the special education resources are there, mental health resources are there, development disability resources are there. So, I think — I looked at some other states, and they had family resource centers where you can go in, here are the resources, here's how you access — because it is a lot of information. It's overwhelming. So definitely, if we can roll that into the state family resource center."**
>
> — LISTENING SESSION PARTICIPANT

Child Care Aware® of Missouri has an online referral database for families to identify licensed early childhood care and education facilities. The database is searchable by type of care, location, age of children, and days/hours needed for care, and search results can then be filtered by accreditation, regulation type, payment assistance, transportation, and other search parameters.[254] United 4 Children specifically offers referral services for children with special needs seeking inclusion settings in coordination with Child Care Aware® of Missouri.[255]

DSS, DHSS, and the Office of Administration have been working to expand the existing Show-Me Child Care Provider Search portal, where families can access records of inspection reports, complaints, and violations for license-exempt and exempt ECCE facilities, in addition to the licensed ECCE facilities that populated the original search portal. As of November 2019, the portal features information on licensed group homes, registered and licensed family homes, licensed child care centers, license-exempt programs (nursery schools, programs operated by religious organizations), and registered school-based before/after care; no records are available for registered summer camps.[256]

Safety

In March of 2019, the Missouri Governor's Office established the Child Care Working Group to develop recommendations to improve the safety and quality of child care in Missouri. The working group was comprised of representatives from government agencies and state departments, including the departments of Health and Senior Services, Social Services, Public Safety, and Elementary and Secondary Education, as well as the Attorney General's Office. The working group published a report in June of 2019 outlining existing safety and quality initiatives and recommendations, in response to safety concerns voiced in a public hearing on May 1, 2019.

The primary safety-related concerns that emerged out of the public hearing included the lack of funding to meet and maintain safety requirements, especially state financing of the now mandatory background check screening cost (currently, employers or employees are responsible for the costs associated with mandatory background checks). Other safety concerns shared at the hearing included inconsistent safety-related inspections and the need to expand the current emergency preparedness program.[257]

Several of these concerns were echoed by ECCE professionals in statewide listening sessions, particularly related to inconsistent safety regulations and enforcement, the high cost of facility maintenance with insufficient funding support to offset costs, and the need for more specialized safety training (e.g., training for bus drivers).[258]

Other safety-related issues that emerged from listening sessions included having access to safe play areas for children (both indoors and outdoors); access to nutritious food; providing adequate security for child care centers; and ensuring that ECCE facilities are spaces where children feel safe, comfortable, welcomed, and nurtured.[259]

Listening session participants also noted a generally slim pool of facilities that would be eligible for licensure, due to both strict facility regulations and the realities of older buildings. One participant spoke about outdated facilities and the lack of resources to update them, noting that "There should be something when your facility is of a certain age where you immediately have access to some capital to help you fix your facility because it's not good for kids. It's more than 25 years old now and it hasn't been rehabbed in 25 years." Other participants mentioned facilities where the water heater wasn't functioning, the sprinkler system needed fixing, and the water fountains for children on the playgrounds were out of order.[260]

Rural families noted the number of unlicensed facilities in rural areas and expressed particular concern about facilities complying with safety requirements, such as adequate staff:child ratios.[261]

Several efforts are currently underway to improve safety in ECCE settings. According to the Child Care Working Group 2019 report, recent efforts focused on safety include the passage of Nathan's Law, establishing comprehensive background check requirements for ECCE facilities, proposed updates to the DHSS licensing rules (some of which have not been updated since the 1990s[262]), ongoing monitoring of license-exempt facilities to ensure health and safety requirements are met, as well as offering free CPR and first aid training to the staff of ECCE programs that receive subsidies from DSS. In 2019, DSS began to promote a new initiative funded through the state's Child Care Development Fund (CCDF) where grants of up to $5,000 would be available to support child care facilities seeking accreditation.[263]

Barriers to Achieving Accreditation

Few ECCE facilities go through the accreditation process due to the inherent challenge of meeting high standards in a range of quality domains, as well logistical and financial barriers. In a listening session, an ECCE professional described difficulty meeting the range of regulations set by different oversight entities, saying, "All these entities, fire and licensing and accreditation, there's such a disconnect on regulations." Another respondent described similar challenges with achieving licensing standards, explaining, "We do not have registered licensed daycare providers. We will pay for it. We just don't have them. And when we ask them to [go through the process of becoming licensed], the process is so tedious, so overwhelming … We need almost a one-on-one person that can come in and say if you're willing, we're here. Let us walk you through this … Instead of 'It's online. Apply.' Because that doesn't work."[264]

Another ECCE professional explained that the costs of meeting regulations, either for licensure or accreditation, are too high:

> "For daycares … they've added so much stuff that you've got to do like for the fire marshal, you have to pay to get a fire door. And a lot of times you don't have daycares because they don't want to put out the expense to start them. The cost to start up is really expensive. And plus, now we have to have background checks that — or not just background checks but fingerprint checks that we have to pay for. The startup costs are starting to add up."[265]

That ECCE professional followed up with suggestion: "What about a grant program to assist with that initial placement of the provider, some kind of program that can assist with that beginning payment?"[266]

As mentioned earlier in the previous section, DSS has a new initiative funded through the state's CCDF, where grants of up to $5,000 would be available to support child care facilities seeking accreditation.[267] At the time of publishing this report, the usage of these CCDF grant opportunities was unknown.

SECTION 6:

Systems-Level Challenges and Opportunities

Strategic Financing for ECCE in Missouri

The funding structure for the ECCE system in Missouri is a complex, challenging system for both families and ECCE professionals to navigate, and has a particular negative impact on low-income families. Other sections of this report detail affordability challenges faced by families and ECCE facilities, and many of these challenges are tied to systemic issues in how ECCE is funded in Missouri.

According to a recent survey, stakeholders across the state said that developing a strategic, stable approach to financing ECCE is a high priority and one that many stakeholders (34%) do not feel that the state has yet begun to address.[268] In order to create positive, sustainable, ECCE systems change, stakeholders noted in particular that ECCE funding levels need to be increased, not just more efficiently deployed.[269] The inefficiency and complexity of the current system is a consistent theme throughout the qualitative data collected for this needs assessment and suggests that Missouri's ECCE system would benefit from a simplified, more integrated approach to providing a mixed-delivery system.

The following sections outline key systems-level challenges and opportunities that were articulated by families, ECCE professionals, and system-level stakeholders related to strategically financing the ECCE system in Missouri.

CHALLENGES

Challenge: Complex System of Public Support

As shown in the graphic that introduces this needs assessment (Figure 1: The ECCE Landscape in Missouri), the current ECCE mixed-delivery system and related supports are composed of many different programs, some of which are funded with public funds from various state departments; others are funded by the federal government; others are paid for by families; and still others are supported by private philanthropic institutions or tax-supported county mental health or children's services funds. Many of these categories are overlapping, both for families and ECCE professionals: a given ECCE facility may facilitate the provision of multiple types of services, each with different funding sources; and, a given family may rely on several different services to meet their child care needs, each with different eligibility thresholds, requirements, administrative steps, and costs.

One family member who participated in a listening session described some of the complexity experienced by families as they navigate different support programs and sliding scale fees that may exceed a working family's ability to pay:

> "And you know what's rough? When you have more than one child and you're a single parent and you watch them struggle because it's $75.00 a week per child. And if they have more than one child and they have to have a job to pay their bills to make sure they've got food and electricity; they can't afford $150.00 a week for their children to go. And it's the same thing at schools, like with the lunch programs. Because if your kids receive Medicaid, they automatically qualify for the free lunch program. But Susy Q over here doesn't receive Medicaid. Her mom is a single mom working five jobs trying to get the bills paid. And because she makes $100.00 more than she should, she has to struggle to figure out how she's going to pay for her kid to eat at school and not have to sit there and watch somebody else eat beside of her. It's not just in daycare. It's everywhere."[270]

"… Her mom is a single mom working five jobs trying to get the bills paid. And because she makes $100.00 more than she should, she has to struggle to figure out how she's going to pay for her kid to eat at school and not have to sit there and watch somebody else eat beside of her. It's not just in daycare. It's everywhere."

— LISTENING SESSION PARTICIPANT

Another listening session participant, a grandparent raising a grandson, described the tensions at play as he tries to navigate various support systems:

> "… If I work I lose the income that I have because I draw Social Security. So I volunteer and to get out of the house because I — there are situations that I just can't be in the house and stay there and — but I can't get child care because I volunteer [and there are work requirements associated with the child care subsidy]. I chose to keep my grandson out of the system…But to get limited three day a week child care, two day a week child care. I don't meet those guidelines because I don't work."[271]

Families experience these complex support systems as being disconnected and difficult to navigate. These challenges are further exacerbated by the income thresholds to be eligible for these supports, as described in the next section.

Challenge: Eligibility Thresholds Negatively Impact Low-Income Families

The current ECCE service system negatively impacts low-income families through abrupt eligibility cut-offs that render families ineligible for services. The Cradle to Career Alliance (2018) in Boone County, Missouri developed Figure 13: Eligibility Thresholds in Missouri to illustrate the various income thresholds for several government funded support systems that impact young children, based on a percentage of the federal poverty level.[272] These various eligibility thresholds result in abrupt service ineligibility if families earn more than the maximum percentage of the federal poverty level (133% to 185%, depending on the program), despite still being considered very low-income families.[273] The Urban Institute has adopted the term *the cliff effect* to describe this abrupt end in eligibility due to a small income increase.[274]

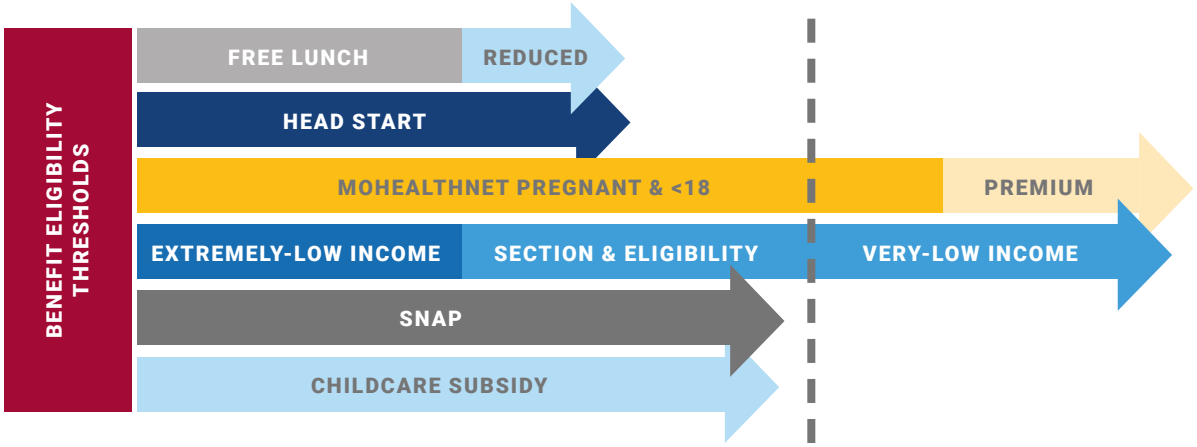
One of the public support systems that is prone to the cliff effect is child care subsidy. Qualitative data from listening session conversations confirms that this is a problem in Missouri: low-income families reported sudden ineligibility for child care subsidy support, despite not having enough resources to pay for child care out-of-pocket.[276] One family member described the very essence of the cliff effect: "It's just like it seems like a small ten cent an hour raise can set you back so much as far as having to get any kind of assistance, whether it be child care or your TANF or your food stamps or whatever it is."[277]

More of Missouri's families may experience this cliff effect in the coming years. In 2018, Missouri voters passed a referendum to increase the minimum wage to $12/hour by 2023.[278] As wages increase for an estimated 44,000 Missourians in the workforce, the majority of whom are women with children, more families will become ineligible for child care subsidy across the state[279] or will see their sliding scale fees increase. An ECCE professional described this precise problem in a listening session:

> "It has a domino effect when that minimum wage went up. So, you're my teacher or you're my parent, and you're on subsidy, and you would — your rate went up. My sliding fee went up. I have four children — this is a true story when I had four children [in my care]. The sliding fee went up; [the parent] had to pay the maximum of $5.00 per day per child, $100.00 a week. She's like, 'I can't even bring my children to you because I can't afford gas.'"[280]

Missouri's eligibility thresholds are also lower than that of most other states; according to ECCE experts, this is a policy that Missouri maintains in order to eliminate or minimize wait lists for subsidies. As illustrated in Figure 13, a parent or guardian seeking to utilize the subsidy can earn a maximum of 138% of the federal poverty level in order to qualify (138% of the FPL amounts to just under $30,000 annually for a family of three).[281] Across the country, the average eligibility threshold for child care subsidy across the U.S. is 180% of the federal poverty level.[282]

FIGURE 13: **ELIGIBILITY THRESHOLDS IN MISSOURI**



HOUSEHOLD	50%	100%	133%	138%	185%	200%
1	$505.84	$1,011.67	$1,345.50	$1,871.50	$1,871.50	$2,023.33
2	$685.84	$1,371.67	$1,824.33	$2,517.50	$2,537.50	$2,743.33
3	$865.84	$1,731,67	$2,303.08	$3,178.25	$3,203.50	$3,463.33
4	$1,045.8	$2,091.67	$2,781.92	$3,839.04	$3,869.50	$4,183.33

Graphic from the Boone County Cradle to Career Alliance 2018 Kindergarten Readiness Report, reproduced with permission.[275]

Missouri's lower than average income eligibility rates means fewer families than have need are eligible for assistance. In 2019, it is estimated that 36,500 Missouri children will utilize child care subsidy each month.[283] According to a report the Urban Institute, an additional 44,600 children could receive assistance on average per month if the eligibility threshold was raised to 150% of the federal poverty level[284] — still 30% lower than the national average for the subsidy eligibility threshold, which is 180%.

Between 2009 and 2016, the DSS established and refined the Transitional Child Care (TCC) program, which seeks to address the cliff effect for families receiving child care subsidy. The TCC program gradually decreases the subsidy benefits available to families as their incomes increase, up to 215% of the federal poverty level (see Table 10). This transitional benefit is only available to families who were enrolled in the traditional child care subsidy program (and therefore had incomes at or below 138% at some point), and whose parents work, attend job training, or participate in education programs.[285]

However, according to the DSS Children's Division's 2020 Budget, an average of only 1,162 children received transitional child care per month through the TCC program in the 2018 school year, a small fraction of the 44,600 additional children that the Urban Institute estimated could receive assistance if Missouri's subsidy eligibility threshold was raised to 150% of the federal poverty level.[286] Given these low usage numbers of the TCC program, and given families' continued experience of the cliff effect, policymakers will want to investigate solutions for expanded usage of the TCC program, as well as other means of supporting low-income families who earn more than the 138% eligibility cut-off.

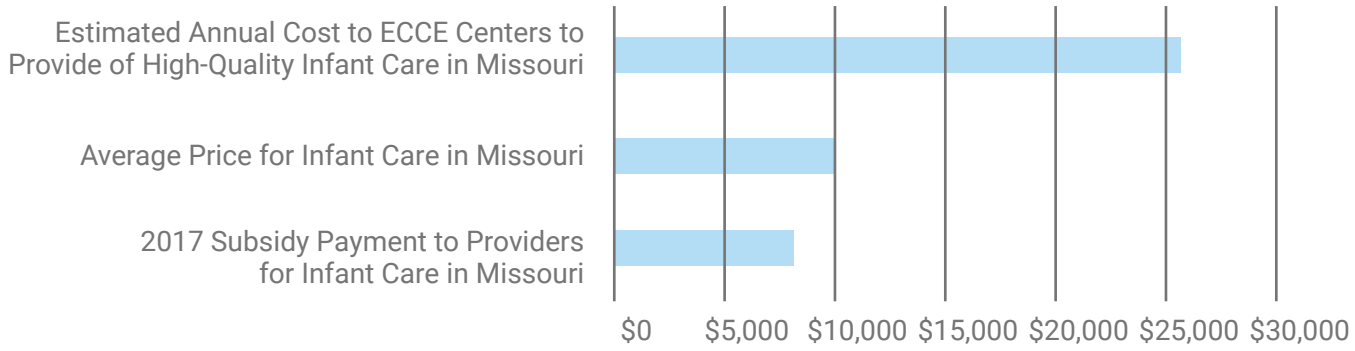
TABLE 10: **ELIGIBILITY THRESHOLDS FOR THE MISSOURI TRANSITIONAL CHILD CARE PROGRAM**

PERCENTAGE OF FEDERAL POVERTY LEVEL (FPL)	PERCENTAGE OF CHILD CARE SUBSIDY PROVIDED
138% of FPL or below	100%
Greater than 138% and up to 165% of FPL	75%
Greater than 165% and up to 190% of FPL	50%
Greater than 190% and up to 215% of FPL	25%

"We need better compensation. Facility workers are very worried about the raise [in] the minimum wage coming in January. There has to be some kind of a shift in funding, because it can't continue to be paid by the private sector. What you have is the private sector and then child care subsidy. And it just isn't sufficient to fund quality."

— KEY INFORMANT INTERVIEW

FIGURE 14: **PAYING FOR INFANT CARE IN MISSOURI**



2017 Subsidy Payment to Facilities for Infant Care in Missouri	$8,340[292]
Average Price for Infant Care in Missouri	$9,880[293]
Estimated Annual Cost to ECCE Centers to Provide of High Quality Infant Care in Missouri	$25,900[294]

Quality ECCE Surpasses Affordability

In 2018, the Center for American Progress (CAP) released a report titled *Where Does Your Child Care Dollar Go?* and created an interactive tool to estimate the true operating cost of high-quality child care in all 50 states by combining state data with national averages.[287]

According to CAP's interactive tool, the true operating cost of high-quality infant care in Missouri was estimated at $25,900 per year; infant care that meets only basic state standards is estimated at an operating cost of $14,600 per year.[288] These figures compare sharply to estimates from Child Care Aware® of America (2019), which estimates the annual price paid for center-based infant care in Missouri is $9,880[289]—less than half of what CAP estimates to be the operating cost of providing high-quality infant care. According to 2017 data analyzed by CAP, the child care subsidy for infant care in Missouri is $8,340, which is less than one-third of what it costs to provide high-quality care.[290] Qualitative data from listening sessions across the state confirms that many ECCE facilities find both subsidy reimbursement rates and private pay to be too low to cover operating costs for their programs.[291]

Even while the average price paid for child care ($9,880) falls far short of what it costs for an ECCE center to provide high-quality infant care, it is still more expensive than the average Missouri family can afford. Depending on family characteristics (income levels, single-parent households or families with multiple young children), the percentage of annual income spent on child care can be upwards of 60%, according to different estimates,[295] far exceeding the federally recommended benchmark for a maximum of 7% of a family's median annual income to be spent on child care each year.[296]

CAP's analysis of ECCE program budgets shows that the largest expense category for ECCE facilities is also one of the key factors in the quality of an ECCE program: child care staffing, which accounts for 60% to 80% of program expenses.[297] Staffing costs are "a significant driver of the cost of child care," despite the fact that compensation levels for ECCE staff are notoriously low.[298] Missouri's ECCE facilities may face an additional strain in the coming years, as the minimum wage in Missouri incrementally increases to $12/hour by 2023. Without adjustments to the ways in which ECCE services are funded, ECCE facilities will struggle to provide quality care.

CAP aptly summarizes the result of this fundamental tension: "In most cases, families are only able to afford child care because teacher pay is so low, meaning that the current child care industry relies on child care workers being poorly compensated."[299] Families can't afford to access quality care, and ECCE facilities can't afford to provide it.

OPPORTUNITIES

Opportunity: Adjust Eligibility and Reimbursement Rates for Public Support Programs

States have the ability to tailor child care subsidy rates around different income levels,[300] and governors across the country have meaningful discretion on how states disperse funds dedicated to the ECCE system.[301] In 2019, there was a large influx of federal dollars to state budgets, as part of the Child Care Development Block Grant (CCDBG).[302] As a result, Missouri received nearly $151 million from that CCDBG allocation (a nearly $40 million increase from 2017 allocation levels).[303]

According to qualitative data collected for this needs assessment, families generally highlighted the need for higher income eligibility thresholds for child care subsidies.[304] Boone County's Cradle to Career Alliance report recommends a gradual decrease in the amount of public support for which families are eligible as their annual income increases as an alternative to abrupt program eligibility cut-offs[305] — this is the approach taken by the underutilized Transitional Child Care program.

Missouri policymakers may want to consider a combination of both raising the minimum threshold for eligibility and increasing utilization of gradual transitional subsidy support. Policymakers may also want to consider extending the length of time a family can receive support after surpassing an eligibility threshold as a way to increase stability and support the continuity of care for children.

Additionally, Missouri policymakers may want to consider increasing the child care reimbursement rate for ECCE facilities providing subsidized care. Missouri has already made efforts in this direction: the majority of Missouri's FY20 CCDF funds went to increase the child care reimbursement rate for child care facilities, an increase of $20 million from FY19 to FY20.[306] Despite this reimbursement rate increase, qualitative data findings suggest that rates are still too low to cover program costs.[307] Unless reimbursement rates are adjusted to be in closer alignment with the actual costs of providing care, ECCE facilities will continue to be dis-incentivized to accept children and families who are eligible for and rely on child care subsidies.

Opportunity: Fiscal Map to Better Understand ECCE Funding in Missouri

Figure 1, the ECCE Landscape in Missouri, only illustrates a portion of the ECCE system that is funded through government funds. At the time that this needs assessment was published, no comprehensive fiscal map exists to illustrate how various public and private funding streams come together to impact the lives of families with young children, identifying where inefficiencies exist, and where resources may be going untapped. In order to build an effective mixed-delivery system for ECCE in Missouri, its funding sources must be clearly understood by policymakers, ECCE professionals, and families.

The Education Policy Committee of the Missouri Commissioner of Education seeks to address these inefficiencies in key education policy committee recommendations, where the committee notes a need to "explore options for creating a cohesive statewide early childhood system." The committee's recommendations call for collaboration and consolidation of the administration of funds as ways to create aligned governance structures between departments, and to streamline systems and funds.[308]

A proposed next step for improving the ECCE system in Missouri is to develop a comprehensive fiscal map of how ECCE services are funded, including who is eligible for those services and who is not. A fiscal map that accomplishes these purposes would serve as a starting place to consolidate funding and coordinate the provision of mixed-delivery services through streamlined eligibility, processes, and communications with families utilizing multiple supports and programs.

> **"We did get major increases in CCDBG this year and there were increases in subsidy payments, but we're still far below where we need to be."**
>
> **— KEY INFORMANT INTERVIEW**

Opportunity: Public-Private Partnerships

A clear picture of current funding streams would also lay the groundwork for expanded public-private partnerships. Other states have utilized public-private partnerships to leverage public funds, fund innovative pilot programs, scale programs that have proven to be successful, and support systems-level change efforts.[309]

As Missouri works to improve its ECCE system, there may be opportunities to leverage funds across state departments and private funders in order to pilot or expand programmatic solutions that can promote quality in ECCE settings, support facilities improvements, and prompt systems-level changes, following in the steps of other states.[310] For example, the Governor of Nebraska signed 2006 legislation to form a birth to three early education endowment, Nebraska Early Childhood Education Endowment Fund Sixpence Program, through which $40 million in public dollars were set aside and matched by $20 million from private philanthropic institutions to support at-risk children from birth to age 3.[311]

Overall, from families' and professionals' perspectives, Missouri's complex funding system in ECCE lacks strategic alignment among various state departments, negatively impacts low-income families, perpetuates a service system that is unaffordable for many of Missouri's families, renders high-quality services unaffordable to ECCE service facilities, and is not conducive to building a high-functioning mixed-delivery system for ECCE services.

System Coordination

Coordination and collaboration around ECCE systems has been one of the challenges Missouri faces. A 2019 survey of Missouri ECCE stakeholders revealed that "a lack of communication and coordination between programs in the state and a limitation on program resources" lead to children and families that "fall through the cracks" for beneficial and essential services. Fifteen percent of the respondents identified the statement "state supports connections between state and local system-building efforts" as an effort that Missouri has not yet begun to address.[312]

While several coordinating bodies exist to support a strong system across different types of ECCE programs, stakeholders would like to see improved system-wide coordination. Several of these existing statewide coordinating bodies are described next section, as well as local and regional efforts to coordinate ECCE services.

EXISTING STATEWIDE COORDINATION EFFORTS

Child Care Working Group

In March 2019, Governor Mike Parson established a temporary Child Care Working Group comprised of a variety of statewide leaders and stakeholders. The working group's charge was to generate recommendations to the Governor "to better ensure safe, quality child care to support Missouri's workforce. The report detailing their recommendations was published in June of 2019, and emphasizes the importance of "a well-coordinated, aligned and data-focused early childhood care and education system that ensures quality, access, and efficiency."[313]

Coordinating Board for Early Childhood (CBEC)

Through the 2007 Improving Head Start for School Readiness Act, Congress required that all states establish State Advisory Councils for the Early Childhood Education and Care (SACs). According to the U.S. HHS,

> "SACs are charged with developing a high-quality, comprehensive system of early childhood development and care. The SACs ensure statewide coordination and collaboration among the wide range of early childhood programs and services in the State, including child care, Head Start, IDEA preschool and infants and families programs, and pre-kindergarten programs and services."[314]

The State Advisory Council in Missouri is the Coordinating Board for Early Childhood (CBEC).[315] CBEC is responsible for the coordination and collaboration of the ECCE system.[316] It is also charged with developing a comprehensive strategic plan for a cohesive ECCE system, conferring with public and private entities, identifying legislative recommendations, promoting research-based approaches to ECCE, and identify service gaps. Its statutory authority does not allow it to make policy for the state; its basic powers are to advise and recommend.

CBEC's membership is required to include representatives from the governor's office, DHSS, DESE, DMH, DSS, the judiciary, the Family and Community Trust Board, Head Start, and nine other representatives from leaders and groups across the state's early childhood community.[317]

Most of the interagency coordination that CBEC facilitates takes place through workgroups where individual board members serve as chair or co-chair of workgroups, pulling in public and private stakeholders to engage in efforts toward system improvements, and reporting back to the full CBEC board. CBEC Workgroups in the past have included Early Care and Education (ECE) Programs, Healthcare, Early Childhood Mental Health (ECMH), Professional Development, and Home Visiting (HV).[318] Some members of CBEC have also participated in the Early Childhood Interagency Team (ECIT) in order to encourage collaboration among ECCE programs, and encourage local partnerships among ECCE programs.[319]

Missouri's first Early Childhood Strategic Plan was developed by CBEC and the Missouri Early Childhood Comprehensive System (ECCS) Steering Committee.

Early Childhood Comprehensive Systems Steering Committee

In September 2003, Missouri was awarded a federal Early Childhood Comprehensive System (ECCS) grant from the U.S. HHS. This statewide effort identified local councils and representatives and includes a state-level steering committee in order to build and implement a statewide early childhood comprehensive system that supports families and communities in their development of children that are healthy and ready to learn at school entry. In 2013, the MIECHV Advisory Committee's function became a part of the ECCS Steering Committee's work. While funding has changed (the work is now funded through the Maternal and Child Health Title V Block Grant), Missouri's ECCS Steering Committee continues to support coordinated efforts "with a focus on access to health care, mental health and social-emotional development, early childhood development, child care, parent education, family support, and reduction in disparate outcomes."[320]

Project LAUNCH

Missouri Project LAUNCH (Linking Actions for Unmet Needs in Children's Health) was originally funded through Substance Abuse and Mental Health Services Administration (SAMHSA) and administered through the DMH in October 1, 2012, through September 30, 2017, with the goal to promote wellness for children from birth to age 8 by enhancing and expanding the services and systems serving young children. The community pilot site in North St. Louis, as well as a Boone County Project LAUNCH site in mid-Missouri (which was funded from 2010 to 2016) worked to implement the program's five shared and core prevention and promotion strategies including screening and assessment, home visiting focused on social and emotional well-being, mental health consultation, strengthening families/parent skills, and integration of behavioral health in primary care settings.

Project LAUNCH's grant will be extended starting in late 2019 under new federal funding from Administration of Children and Families through a five-year regional initiative called Parents and Children Together-St. Louis (PACT-STL). The work will focus on coordination and collaboration across family- and child-serving systems; reducing entry into foster care by intentionally linking families to local community-based resources and services; and the overall well-being outcomes of children and families.

Springfield, Kansas City, Columbia/Boone County, St. Joseph and St. Louis areas (among others) all have designated ECCS local councils

In 2019, St. Louis regional council members discontinued the Regional Early Childhood Council; other St. Louis-based efforts are emerging as new leadership and funders organize around equity-focused, community-driven efforts.

EXISTING REGIONAL AND LOCAL ECCE SYSTEM COORDINATION EFFORTS

Local and regional system coordination efforts have been supported by collective impact efforts, P-20 data efforts, and other efforts in the past. Springfield, Kansas City, Columbia/Boone County, St. Joseph and St. Louis areas (among others) all have designated ECCS local councils and varying degrees of structure and staffing to support the work.

In 2019, St. Louis regional council members discontinued the Regional Early Childhood Council; other St. Louis-based efforts are emerging as new leadership and funders organize around equity-focused, community-driven efforts. In Springfield, Missouri, efforts such as an Early Learning Leadership Academy and One Stop for Early Childhood, "a central referral hub for families looking for service information and to connect them with resources," emerged from a collaborative of more than 15 agencies.[321] In Kansas City, the bi-state nonprofit association Mid-America Regional Council and its partners work to coordinate early learning efforts including Partners In Quality, a collaborative group of more than 60 partners, workforce development initiatives, and as well as other early learning system efforts in its nine surrounding counties.[322]

In addition to those listed here, there are many other regional and local community-based efforts to improve the ECCE system, seeking both to locally improve service delivery coordination and to advocate for changes at the state level.

CHALLENGES

Challenge: Multiple State Departments Impact ECCE Services

As mentioned in other sections of this needs assessment, state-supported activities designed for young children and their families in Missouri are spread across multiple state departments, each with an array of programs that touch the lives of children and families in distinct and important ways.

Departments with primary responsibilities to directly support or implement the majority of these programs include DHSS, DSS, and DESE. While DMH is an integral department in supporting children and families, none of the federal funds housed at the DMH currently have specific, direct services or outcomes highlighting children ages birth through five.

In addition to the state departments directly serving children birth through five, there are statewide entities that also play significant roles in supporting specific elements of the ECCE system, such as the Missouri Head Start State Collaboration Office and Child Care Aware® of Missouri.

And finally, other state agencies administer additional programs that impact children ages birth through five and their families' eligibility for other support services, including the Department of Labor and Industrial Relations, the recently combined Department of Higher Education and Workforce Development, the Department of Transportation, the Department of Corrections, the Department of Public Safety, the Department of Economic Development and others.

These many important state agencies and funders are essential for families to receive the services that they need, and have the potential to be braided together in supporting a high functioning mixed-delivery system. But, these many players also have the potential to create prohibitively confusing systems for families and ECCE facility staff to navigate, resulting in inefficiency and missed service opportunities.

Challenge: Insufficient Cross-Department Coordination and Support at State-Level

As described earlier, Missouri's multi-departmental approach to its ECCE system has the potential to exacerbate the already formidable challenges of coordinating a large mixed-delivery service system. Lack of coordination at the state-level was both a theme that emerged from qualitative research findings from this needs assessment, as well as a theme identified in previous needs assessments of elements of the Missouri ECCE system.

For example, three different state departments (DHSS, DSS, and DESE) and Children's Trust Fund support and implement home visiting programs. There is no single entity that has purview over all home visiting programs in the state. Each program operates independently and often in overlapping geographic areas, with no requirement or support for coordination among programs in order to reduce duplication or to create resource efficiencies. Similar examples exist throughout the ECCE service landscape.

OPPORTUNITIES

Opportunity: Fully Activate the Coordinating Board for Early Childhood (CBEC)

A key action that has the potential to contribute positively to strategically reshaping the ECCE mixed-delivery and support system is to bring CBEC to a full complement of members who understand the ECCE funding and delivery systems, have expertise related to early childhood and early development, and have the authority to influence positive change. A fully staffed CBEC would be well positioned to lead further system-wide improvements.

Opportunity: Engage Families and ECCE Professionals to Identify System Flaws

As CBEC engages in critical discussions and deliberations to improve the ECCE system, there is also potential to engage provider and family stakeholders in policymaking to ensure that any new policies translate well into practice.

A number of families interviewed noted the challenges experienced by families navigating multiple support systems, both formal and informal. Only the families utilizing these multiple system components — and the professionals that provide the direct services — are fully aware of the extent to which service systems are in coordination. Hearing directly from families and ECCE professionals will likely highlight opportunities for improvement in access and outcomes for children ages birth through five, across rural and urban areas of the state.

Opportunity: Examine the Costs and Benefits of Restructuring State-Run ECCE Programs

A significant action that could alleviate many coordination and communication issues in Missouri's ECCE system would be to streamline and potentially consolidate the administration of state-run ECCE programs. In partnership with other stakeholders, CBEC could study what the effects of restructuring might be, by examining the experiences of other states that have undertaken consolidation or streamlining efforts.

Opportunity: Support Coordination Efforts at the State and Local Level

State-level efforts to coordinate across departments and systems have great potential to mitigate the system complexity experienced by families and ECCE professionals.

Additionally, many regions across the state have undertaken their own local efforts to coordinate ECCE services, which can streamline services in ways that meet their communities' specific needs, prevent duplication, and support smooth transitions as families move among different service systems and facilities.

Accountability and Measurement

The extent to which Missouri is able to measure and track the ECCE services that support its youngest citizens is closely related to the state's ability to support those services in achieving a high level of program quality, and ensuring that all families have access. Currently, Missouri's ECCE system relies heavily on licensure as a proxy for program quality (which is only relevant for some types of ECCE programs), and lacks a means of sharing important information across the many different entities and departments that make up Missouri's mixed-delivery system.

CHALLENGES

Challenge: Lack of Quality Rating System

As mentioned earlier in this needs assessment, Missouri lacks a statewide mechanism for defining and measuring quality of programs across its ECCE mixed-delivery system. Without a statewide QRIS — which, from 2012 to 2016, was not allowed by Missouri law — families, policymakers, and advocates are unable to identify, support, track progress, and hold accountable ECCE programs as they work to improve program quality. The lack of a statewide system fails to underscore the critical role of quality in early childhood programming, and leaves families and policymakers without the information they need to make well-informed decisions on behalf of Missouri's youngest citizens.

Without a statewide QRIS — which, from 2012 to 2016, was not allowed by Missouri law — families, policymakers, and advocates are unable to identify, support, track progress, and hold accountable ECCE programs as they work to improve program quality.

Challenge: Data Fragmentation

As described in other sections of this needs assessment, multiple state departments and non-governmental agencies provide ECCE services in Missouri's mixed-delivery system. However, state departments are not required to share administrative data with each other (let alone sharing with non-governmental ECCE facilities), nor are they required to use a common identification system to track service provision at the level of the individual child or family.

Most state departments also lack a comprehensive 'data dictionary' to indicate what types of data are collected and analyzed by each department, which leads to a general lack of awareness regarding what data exist and might be used to inform decision making.

OPPORTUNITIES

Opportunity: Create an Integrated Data System

An integrated data system utilizing a unique ID for each child would allow for countless internal state efficiencies and improvements.[323] Department of Elementary and Secondary Education currently uses a unique identifier system (MOSIS) to track enrollment and program participation data at the individual level; however, other state-level agencies use their own separate data systems and alternative unique identifiers. An integrated data system that uses unique identifiers would allow for policymakers and advocates to identify the true reach of state-run ECCE programs with the ability to identify duplication of services, discover efficiencies and opportunities for collaboration, and focus on populations that are underserved.

During the data collection and analysis for this needs assessment, it also became clear to researchers that data housed in other non-ECCE related state departments (e.g., Department of Higher Education and Workforce Development) could be valuable in understanding the extent to which Missouri's families are getting the services that they need to thrive.

Opportunity: Consolidated Listing of Available ECCE-Related Data

The creation of an integrated ECCE data system is a significant undertaking that takes careful planning and time to implement. An opportunity that can be implemented in the shorter term is to create an online, centralized listing of public data sets that relate to the ECCE system (e.g., Head Start enrollment data, subsidy usage data, home visiting participation data, licensed child care center data), that includes hyperlinks to either the online location of data, or to the appropriate contact person to access the information. Such a centralized listing would significantly facilitate future efforts to study and improve the ECCE system in Missouri.

Opportunity: Statewide QRIS System

The three-year pilot of a Quality Assurance Report (QAR) that is currently underway in over 19 ECCE centers across the state is a positive step towards ensuring quality in Missouri's ECCE settings. However, a statewide QRIS system is necessary for policymakers to assess the effectiveness and reach of the ECCE system, for ECCE facilities to have a framework for improvement, and for families to have the information they need to find the best care and education of their children.

SECTION 7:

Moving Forward

Alongside the many challenges of the current ECCE system in Missouri, many stakeholders also see great potential. Opportunities exist for increased quality of services available to children and families, more comprehensive service provision across the state, and increased coordination among oversight and funding entities. Several key opportunities and potential improvements are summarized in the following pages.

Activate Data to Improve the ECCE System

- Expand upon the risk and reach analysis model to include additional indicators to ensure the needs of young children and families are being met across the state, and that resources are targeted where they are needed most.
- Create a statewide QRIS to measure quality and support improvements across Missouri's mixed-delivery system.
- Create an integrated data system that uses a single unique identifier across ECCE-related departments, to track accurate enrollment and capacity data for various ECCE programs.

Create a Sustainable Financing System for a High-Quality ECCE Mixed-Delivery System

- Develop a fiscal map of ECCE funding sources to serve as a starting place to consolidate funding and coordinate the provision of mixed-delivery services through streamlined eligibility, processes and communications with families utilizing multiple supports and programs.
- Leverage funds across state departments and private funders in order to pilot or expand programmatic solutions that can promote quality in ECCE settings, support facilities improvements, and prompt systems-level changes.
- Ensure affordability for families of all income levels with a particular focus on how funding systems impact low-income families.
- Ensure ECCE facilities have sufficient income to support high-quality programs without creating a disincentive to serve low-income families, or having to resort to paying ECCE professionals low wages.

Increase Access to Quality Care

- Expand affordable, quality care options across the state, particularly for infants and toddlers.
- Consider additional options for supporting low-income families in accessing quality ECCE, including adjustment of subsidy thresholds and expanded usages of the Transitional Child Care Program.
- Increase access to services with special needs for young children. Consider lowering the eligibility threshold for accessing services; provide professional development to support ECCE staff in identifying and supporting children with special needs; increase access to special needs assessments in rural areas.
- Provide consistent access to school-entry transition support, regardless of the type of ECCE experience a family chooses.
- Support ECCE programs in providing culturally and linguistically appropriate services and information, tailored to the unique needs of families they serve. Analyze the languages spoken by ECCE professionals to understand where additional support is needed in order to support dual language learners across the state.
- Improve access to mental health supports. Provide professional development for ECCE staff in supporting children's mental health, and social and emotional development; consider expanding the mental health consultation pilot program.
- Professionalize the field of early childhood care and education by increasing supports for ECCE professionals, including higher wages and benefits, more professional development and training opportunities specific to early childhood, and increasing credentials required to work in the ECCE field.
- Address transportation barriers that prevent families from getting their children to and from ECCE settings, particularly in rural areas.
- Continue efforts to improve safety at ECCE facilities. Consider funding supports for facilities improvements to increase the number of facilities that qualify for licensure.

Create Coordinated and Centralized Systems

- Bring CBEC to a full complement of members who can advise on needed system improvements.
- Provide a central, coordinated system for families to access information about various types of ECCE services, services for children with special needs, as well as other support services.
- Consolidate and streamline the administration of state-funded ECCE programs. Consider centralized systems that allow agencies that serve the same families to share information and resources.
- Support coordination efforts at the state and local level to ensure efficient use of resources, reduce confusion experienced by families and ECCE professionals, and promote high-quality services and continuity of care across all types of ECCE facilities.
- Create a central system for coordinating home visiting programs to prevent duplication and ensure all families have access.
- Engage ECCE professionals and families in policymaking to ensure that any new policies or systems translate well into practice.

SECTION 8:

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SECTION 9:

References

1 U.S. Census Urban and Rural Classification Criteria. Retrieved from: https://www.census.gov/programs-surveys/geography/guidance/geo-areas/urban-rural/2010-urban-rural.html

2 CDC. Early Brain Development and Health. Centers for Disease Control and Prevention. https://www.cdc.gov/ncbddd/childdevelopment/early-brain-development.html. Published February 19, 2019. Accessed December 16, 2019.

3 CDC. Early Childhood Education| Health Impact in 5 Years. cdc.gov. https://www.cdc.gov/policy/hst/hi5/earlychildhoodeducation/index.html. Published 2019. Accessed December 16, 2019.

National Research Council (U.S.). Committee On Early Childhood Pedagogy. *Eager to Learn : Educating Our Preschoolers*. Washington DC: National Academy Press; 2001.

4 CDC. Early Childhood Education| Health Impact in 5 Years. cdc.gov. https://www.cdc.gov/policy/hst/hi5/earlychildhoodeducation/index.html. Published 2019. Accessed December 16, 2019.

Quality: What It Is and Why It Matters in Early Childhood Education Quality.; 2012. https://www.scaany.org/documents/quality_earlyed_scaapolicybrief_sept2012.pdf. Accessed May 30, 2019

5 The Annie E. Casey Foundation. *2019 Kids Count Data Book State Trends In Child Well-Being*.; 2019. https://www.aecf.org/m/resourcedoc/aecf-2019kidscountdatabook-2019.pdf. Accessed December 16, 2019.

6 Sacks V, Murphey D, Moore K. Adverse Childhood Experiences: National and State- Level Prevalence Overview.; 2014. https://www.childtrends.org/wp-content/uploads/2014/07/Brief-adverse-childhood-experiences_FINAL.pdf.

7 Child care costs in the United States. Economic Policy Institute. https://www.epi.org/child-care-costs-in-the-united-states/#/MO. Published 2016. Accessed December 16, 2019.

8 Missouri - Public Policy - Early Learning. Marc.org. https://www.marc.org/Community/Early-Learning/Public-Policy/Missouri. Published 2010. Accessed December 16, 2019.

9 Discrimination Against Minorities in the Federal Housing Programs. Repository.law.indiana.edu. http://www.repository.law.indiana.edu/cgi/viewcontent.cgi?article=2715&context=ilj. Published 1956. Accessed December 4, 2019.

10 Purnell J. FOR THE SAKE OF ALL : A Report on the Health and Well-Being of African Americans in St. Louis and Why It Matters for Everyone.; 2014:27. https://forthesakeofall.files.wordpress.com/2014/05/for-the-sake-of-all-report.pdf. Accessed December 11, 2019.

11 Dss.mo.gov. (2015). Glossary. [online] Available at: https://dss.mo.gov/cbec/pdf/strategic-plan.pdf [Accessed 6 Dec. 2019].

12 Friese S, Lin V, Forry N, Tout K. Preschool Development Grant, Birth through Five NEEDS ASSESSMENT. pg 5. Acf.hhs.gov. https://www.acf.hhs.gov/sites/default/files/opre/cceepra_access_guidebook_final_213_b508.pdf. Published 2019. Accessed October 10, 2019.

13 Naeyc.org. (2019). *The 10 NAEYC Program Standards | NAEYC*. [online] Available at: https://naeyc.org/our-work/families/10-naeyc-program-standards [Accessed 11 Oct. 2019].

14 Schodt S, Parr J, Araujo M, Rubio-Codina M. Measuring The Quality Of Home-Visiting Services: A Review Of The Literature. n.d.: Inter-American Development Bank; 2015.

15 Tools for Social Innovators – Introduction: Taking an Equity Lens. Tools.sparkpolicy.com. http://tools.sparkpolicy.com/introduction-taking-an-equity-lens/. Published 2019. Accessed October 9, 2019.

16 PDG B-5 NEEDS ASSESSMENT GUIDANCE. Childcareta.acf.hhs.gov. https://childcareta.acf.hhs.gov/sites/default/files/public/pdg_b5_needs_assessment_guidance_0.pdf. Published 2019. Accessed October 10, 2019.

17 Child Care Definitions. Health.mo.gov. https://health.mo.gov/safety/childcare/pdf/childcaredefinitions.pdf. Published 2019. Accessed December 6, 2019.

18 Child Care Definitions. Health.mo.gov. https://health.mo.gov/safety/childcare/pdf/childcaredefinitions.pdf. Published 2019. Accessed December 6, 2019.

19 Child Care Definitions. Health.mo.gov. https://health.mo.gov/safety/childcare/pdf/childcaredefinitions.pdf. Published 2019. Accessed December 6, 2019.

20 Preschool Development Grant, Birth through Five NEEDS ASSESSMENT. Vecf.org. http://www.vecf.org/wp-content/uploads/2019/09/Needs_Assessment_with_Appendicesv10.pdf. Published 2019. Accessed October 14, 2019.

21 Bureau U. Urban and Rural. The United States Census Bureau. https://www.census.gov/programs-surveys/geography/guidance/geo-areas/urban-rural.html. Published 2019. Accessed December 6, 2019

22 Meit M, Knudson A, Gilbert T et al. The 2014 Update of the Rural-Urban Chartbook. Cdc.gov. https://www.cdc.gov/nchs/data/data_acces_files/2014-rural-urban-chartbook-update.pdf. Published 2014. Accessed October 10, 2019.

23 Meit M, Knudson A, Gilbert T et al. The 2014 Update of the Rural-Urban Chartbook. Cdc.gov. https://www.cdc.gov/nchs/data/data_acces_files/2014-rural-urban-chartbook-update.pdf. Published 2014. Accessed October 10, 2019.

24 Bureau U. Urban and Rural. The United States Census Bureau. https://www.census.gov/programs-surveys/geography/guidance/geo-areas/urban-rural.html. Published 2019. Accessed December 6, 2019.

25 U.S. Census Urban and Rural Classification Criteria. Retrieved from: https://www.census.gov/programs-surveys/geography/guidance/geo-areas/urban-rural/2010-urban-rural.html

26 Wilder Foundation. (2018). Minnesota Early Childhood Risk, Reach, and Resilience: Key Indicators of Early Childhood Development in Minnesota, County By County. Retrieved from https://www.wilder.org/sites/default/files/imports/MNEarlyChildhoodRiskReachResilience_9-18.pdf

27 Erikson Institute.(2019). Illinois Risk and Reach Report. Spring 2019. Retrieved from https://www.erikson.edu/policy-initiatives/risk-reach/

28 The Foundation for Enhancing Communities. (2016). Early Childhood Needs Assessment Report. November 2016. Retrieved from https://www.tfec.org/wp-content/uploads/TFEC_ECENeedsAssessment.pdf

29 U.S. Department of Justice - FBI.(2018). Crime in the United States. Uniform Crime Report. Retrieved from https://ucr.fbi.gov/crime-in-the-u.s/2018/crime-in-the-u.s.-2018/topic-pages/violent-crime

30 Ibid

31 Moffitt, T. E., & Klaus-Grawe 2012 Think Tank (2013). Childhood exposure to violence and lifelong health: clinical intervention science and stress-biology research join forces. *Development and psychopathology*, 25(4 Pt 2), 1619-1634. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3869039/

Finkelhor, David, et al.(2009). Children's Exposure to Violence: A Comprehensive National Survey.U.S. Department of Justice, Office of Justice Programs. Retrieved from https://www.ncjrs.gov/pdffiles1/ojjdp/227744.pdf

Anda, R.F., Felitti, V.J., Bremner, J.D. et al. Eur Arch Psychiatry Clin Neurosci (2006) 256: 174. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3232061/

32 Child and Adolescent Health Measurement Initiative. (2018). 2017-2018 National Survey of Children's Health. Data Resource Center for Child and Adolescent Health supported by the U.S. Department of Health and Human Services, Health Resources and Services Administration (HRSA), Maternal and Child Health Bureau (MCHB). Retrieved from https://www.childhealthdata.org

33 Ibid

34 Data from the Missouri Highway Patrol on violent crimes for 2018 were obtained and converted into a rate per one thousand people.

35 Center for Disease Control and Prevention. 2019. Preventing Child Abuse & Neglect. Retrieved from https://www.cdc.gov/violenceprevention/childabuseandneglect/fastfact.html.

36 Child Welfare Information Gateway. 2019. Long-Term Consequences of Child Abuse and Neglect. Retrieved from https://www.childwelfare.gov/pubpdfs/long_term_consequences.pdf.

37 Ibid.; Supra. 1.

38 Missouri Department of Social Services. Child Abuse And Neglect Annual Report Fiscal Year 2018, Appendix B. Retrieved from https://dss.mo.gov/re/pdf/can/2018-missouri-child-abuse-neglect-annual-report.pdf

39 Engle, P. L. & Black, M.M. (2008). The Effect of Poverty on Child Development and Educational Outcomes. *The New York Academy of Sciences*. Retrieved from https://nyaspubs.onlinelibrary.wiley.com/doi/full/10.1196/annals.1425.023

Roos, L.L., Wall-Wieler, E., & Lee, J.B. (2019). Poverty and Early Childhood Outcomes. Pediatrics. 2019;143(6):e20183426 retrieved from https://pediatrics.aappublications.org/content/143/6/e20183426

40 Ibid

41 Ibid

42 2018 Missouri Poverty Report (2018). *Missouri Community Action Network*. Retrieved from https://www.communityaction.org/poverty-reports/

43 Ibid

44 Nikolova, Milena and Boris Nikolaev. 2018. Family matters: The effects of parental unemployment in early childhood and adolescence on subjective well-being later in life. *Journal of Economic Behavior and Organization*, online first. Retrieved from https://www.sciencedirect.com/science/article/pii/S0167268118301434.

45 Irons, John. 2011. Young children and unemployment. *The Economic Policy Institute*. Retrieved from https://www.epi.org/blog/kids-recession/.

46 American Community Survey five-year estimate. 2012-2017. Table B23008.

47 *Mobility: Exploring the Impacts of Frequent Moves on Achievement: Summary of a Workshop*. (2010) *National Research Council and Institute of Medicine*. 2010. *Student* Washington, DC: The National Academies Press. Retrieved from: https://doi.org/10.17226/12853.

48 National Conference of State Legislatures. 2018. Teen Pregnancy Prevention. Retrieved from http://www.ncsl.org/research/health/teen-pregnancy-prevention.aspx.

49 Ibid.

50 Hoffman, Saul. 2015. Teen childbearing and economics: A short history of a 25-year research love affair. *Societies*, 5, 646-663.

51 Center for Disease Control and Prevention. 2019. About Teen Pregnancy. Retrieved from https://www.cdc.gov/teenpregnancy/about/index.htm.

52 Hernandez, Donald and Jeffrey S. Napierala. 2014. Mother's education and children's outcomes: How dual-generation programs offer increased opportunities for America's families *Disparities Among America's Children*, 1-23. Retrieved from https://files.eric.ed.gov/fulltext/ED558149.pdf.

National Center for Education Statistics. 2019. Characteristics of children's families. Retrieved from https://nces.ed.gov/programs/coe/indicator_cce.asp.

53 National Conference of State Legislatures. 2013. Postcard: Teen pregnancy affects graduation rates. Retrieved from http://www.ncsl.org/research/health/teen-pregnancy-affects-graduation-rates-postcard.aspx.

54 Augustine, Jennifer. Exploring new life course patterns of mother's continuing secondary and college education. *Population Research and Policy Review*, 35(6), 727-755.

55 Michalopoulos C, Faucetta K, Warren A, Mitchell R. *EVIDENCE ON THE LONG- TERM EFFECTS OF HOME VISITING PROGRAMS: Laying the Groundwork for Long- Term Follow-Up in the Mother and Infant Home Visiting Program Evaluation (MIHOPE).*; 2017. https://www.mdrc.org/sites/default/files/mihope_lt_long_term_evidence_brief_508_compliant-corrected.pdf. Accessed December 6, 2019.

56 Parents As Teachers (2019) "Who We Are…" Retrieved from https://parentsasteachers.org/who-we-are-index

57 SNAP Helps Millions of Children. 2017. Center on Budget and Policy Priorities. Retrieved from https://www.cbpp.org/research/food-assistance/snap-helps-millions-of-children

58 Ibid

59 Missouri Family Support Services. 2019 Income Limits and Food Stamp Benefits. Retrieved from https://mydss.mo.gov/food-assistance/food-stamp-program/income-limits.

60 Child Trends. (2018). Child recipients of welfare. Bethesda, MD. Retrieved from https://www.childtrends.org/indicators/child-recipients-of-welfareafdctanf

61 Ibid

62 Cohodes, S., Grossman, D., Kleiner, S., & Lovenheim, M.F. (2014). The Effect of Child Health Insurance Access on Schooling: Evidence from Public Insurance Expansions. *National Bureau of Economic Research*. Retrieved from: https://www.nber.org/papers/w20178.pdf.

63 Percentage of People Covered by Medicare in the United States from 1990 to 2018. (2019). Statista. Retrieved from: https://www.statista.com/statistics/200960/percentage-of-americans-covered-by-medicaid/

2017 Medicare Enrollment Section. (2019). Centers for Medicare & Medicaid Services. Retrieved from: https://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/CMSProgramStatistics/2017/2017_Enrollment.html.

64 Jackson, M.I. (2015). "Early Childhood WIC Participation, Cognitive Development and Academic Achievement." Social Science & Medicine126:145-153; Nelson, B.B., Dudovitz, R.N., Coker, T.R., Barnet, E.S.; Biely, C.; Li, N.; Szilagyi, P.G.; Larson, K.; Halfon, N.; Zimmerman, F.J.; Chung, P.J. (2016). Predictors of Poor School Readiness in Children Without Developmental Delay at Age 2. Pediatrics138(2): 1-12.

65 Ibid. Jackson, M.I. (2015).

66 Center on Budget and Policy Priorities. WIC Works: Addressing the Nutrition and Health Needs of Low-Income Families for 40 Years. Retrieved from https://www.cbpp.org/research/food-assistance/wic-works-addressing-the-nutrition-and-health-needs-of-low-income-families

67 U.S. Dept of Agriculture. National- and State-Level Estimates of WIC Eligibility and WIC Program Reach in 2017. Retrieved from https://www.fns.usda.gov/wic/national-and-state-level-estimates-wic-eligibility-and-wic-program-reach-2017

68 U.S. Dept of Agriculture. WIC Data Tables. 2019. Retrieved from https://fns-prod.azureedge.net/sites/default/files/resource-files/26wifypart-12.19.pdf

69 Center for Disease Control and Prevention. 2016. Reproductive and birth outcomes. Retrieved from https://ephtracking.cdc.gov/showRbLBWGrowthRetardationEnv.action.

70 Ibid.

71 Hack, Maureen, Hudson Taylor, Mark Schluchter, Laura Andreias, Dennis Drotar, and Nancy Klein. 2009. Behavioral outcomes of extremely low birth weight children at age 8 years. *Journal of Developmental & Behavioral Pediatrics*, 30(2), 122–130.

72 Center for Disease Control and Prevention. 2017. Birthweight and gestation. Retrieved from https://www.cdc.gov/nchs/fastats/birthweight.htm.

73 Missouri Kids Count. 2018. Retrieved from http://www.missourikidscountdata.org/.

74 Fry-Johson, Y.W., Daniels, E.C., Levine, R. & Rust G. (2005). Being uninsured: impact on children's healthcare and health. Current Opinion in Pediatrics: December 2005 - Volume 17 - Issue 6 - p 753–758 doi: 10.1097/01.mop.0000187455.17077.94. General pediatrics. Retrieved from https://journals.lww.com/co-pediatrics/fulltext/2005/12000/Being_uninsured__impact_on_children_s_healthcare.15.aspx

75 Murphey, D. (2017). Health Insurance Coverage Improves Child Well-Being. Child Trends Publication. Retrieved from https://www.childtrends.org/publications/health-insurance-coverage-improves-child-well

76 Fry-Johson, Y.W., Daniels, E.C., Levine, R. & Rust G. (2005). Being uninsured: impact on children's healthcare and health. Current Opinion in Pediatrics: December 2005 - Volume 17 - Issue 6 - p 753-758 doi: 10.1097/01.mop.0000187455.17077.94. General pediatrics. Retrieved from https://journals.lww.com/co-pediatrics/fulltext/2005/12000/Being_uninsured__impact_on_children_s_healthcare.15.aspx

Murphey, D. (2017). Health Insurance Coverage Improves Child Well-Being. Child Trends Publication. Retrieved from https://www.childtrends.org/publications/health-insurance-coverage-improves-child-well

77 Missouri Budget Project. (2017). Medicaid and Children's Health Insurance Program in MO: 2019 Chartbook. Retrieved from https://www.mobudget.org/medicaid-and-childrens-health-insurance-program-in-mo-2019-chartbook/

78 Ibid

79 Heaman, M.I.; Christine V.NC.; Chris G.G.; Lawrence J.E.; & Michael E.H. (2008). Inadequate prenatal care and its association with adverse pregnancy outcomes: A comparison of indices. *BMC Pregnancy Childbirth* 8(15): 1–8; Krueger, P.M. & Scholl, T.O. (2000). Adequacy of Prenatal Care and Pregnancy Outcome. *American Journal of Obstetrics and Gynecology* 187(5): 1254-1257.

80 Temple, J.A., Arthur J.R. & Arteaga, I. (2010). Low Birth Weight, Preschool Education, and School Remediation. *Educ Urban Soc.* 42(6): 7005-729.

81 between 34 and 37 weeks gestation

https://pediatrics.aappublications.org/content/pediatrics/127/3/e622.full.pdf

82 Woythaler, M.A.; Marie C.M.; & Vincent C.S. (2011). Late Preterm Infants Have Worse 24-Month Neurodevelopmental Outcomes Than Term Infants. *Pediatrics* 127(3):e622-e629. Retrieved from: https://pediatrics.aappublications.org/content/pediatrics/127/3/e622.full.pdf.

83 Kotelchuck, M. (1994). Overview of Adequacy of Prenatal Care Utilization Index. Retrieved from: https://www.mchlibrary.org/databases/HSNRCPDFs/Overview_APCUIndex.pdf.

84 Missouri Department of Health and Senior Services. (2019). Prenatal Care Adequacy (Missouri Index): Inadequate. *Birth MICA – Indicators*. Retrieved from https://health.mo.gov/data/documentation/birth/birth-indicators.php.

85 About Head Start. Retrieved from https://www.acf.hhs.gov/ohs/about/head-start

86 Head Start PIR data (2019) Retrieved from https://eclkc.ohs.acf.hhs.gov/data-ongoing-monitoring/article/program-information-report-pir

87 Sec. 303.26 Natural Environments. Individuals with Disabilities Education Act. Retrieved from https://sites.ed.gov/idea/regs/c/a/303.26.

88 Missouri Department of Elementary and Secondary Education. 2019. Retrieved from https://apps.dese.mo.gov/MCDS/home.aspx

89 Number of infants and toddlers ages birth through 2 and 3 and older, and percentage of population, receiving early intervention services under IDEA, Part C, by age and state. on this federal website https://www2.ed.gov/programs/osepidea/618-data/static-tables/index.html#partc-cc

90 Missouri Department of Elementary and Secondary Education. 2019. Retrieved from https://apps.dese.mo.gov/MCDS/home.aspx

91 Children ages 3 through 5 served under IDEA, Part B, as a percentage of population, by disability category and state. Retrieved from https://www2.ed.gov/programs/osepidea/618-data/static-tables/index.html#partb-cc

92 Ensuring Safe and Quality Child Care In Missouri Investing in Child Care Today for a Brighter Future Tomorrow.; 2019. https://health.mo.gov/safety/childcare/pdf/cc-work-group-report.pdf.

This report uses the terms African American and Caucasian; these terms were adjusted to Black/African American and White, respectively, for consistency throughout the report.

93 U.S. Department of Education. 2019. Retrieved from https://www2.ed.gov/programs/titleiparta/index.html

94 Missouri Department of Elementary and Secondary Education. 2019. Retrieved from https://dese.mo.gov/financial-admin-services/esea-finance/2018-2019-federal-programs-allocations

95 Missouri Department of Elementary and Secondary Education. 2019. Retrieved from https://apps.dese.mo.gov/MCDS/home.aspx

96 Missouri Department of Elementary and Secondary Education (2019). Missouri Preschool Project. https://dese.mo.gov/quality-schools/early-learning/missouri-preschool-program

97 Missouri Department of Elementary and Secondary Education (2019). Child Care Development Fund. https://dese.mo.gov/quality-schools/early-learning/child-care-dev-fund-grant

98 Rules of Department of Health and Senior Services. S1.sos.mo.gov. https://s1.sos.mo.gov/cmsimages/adrules/csr/current/19csr/19c30-62.pdf. Published 2019. Accessed October 10, 2019.

99 Child Care Terms - Child Care Aware® of Missouri. Child Care Aware of Missouri. https://www.mo.childcareaware.org/parents-families/child-care-terms/#missouri-licensing-types. Published 2019. Accessed December 6, 2019

Rules of Department of Health and Senior Services. S1.sos.mo.gov. https://s1.sos.mo.gov/cmsimages/adrules/csr/current/19csr/19c30-62.pdf. Published 2019. Accessed October 10, 2019.

100 Laws & Regulations | Child Care | Health & Senior Services. Health.mo.gov. https://health.mo.gov/safety/childcare/lawsregs.php. Published 2019. Accessed December 6, 2019.

101 Missouri Accreditation. Moaccreditation.org. http://www.moaccreditation.org/about.html. Published 2019. Accessed December 6, 2019.

102 Child Care Terms - Child Care Aware® of Missouri. Child Care Aware® of Missouri. https://www.mo.childcareaware.org/parents-families/child-care-terms/#missouri-recognized-accrediting-bodies. Published 2019. Accessed December 6, 2019.

103 Quality Assurance Report. Missouri Department of Elementary and Secondary Education. https://dese.mo.gov/quality-schools/early-learning/quality-assurance-report. Published September 20, 2018. Accessed December 6, 2019.

104 Center for American Progress. Center for American Progress. https://www.americanprogress.org/issues/early-childhood/reports/2017/05/11/432149/qris-101-fact-sheet/. Published May 2017. Accessed December 6, 2019.

105 Center for American Progress. Center for American Progress. https://www.americanprogress.org/issues/early-childhood/reports/2017/08/30/437988/mapping-americas-child-care-deserts/. Published August 2017. Accessed December 6, 2019.

106 Laughlin L. Who's Minding the Kids? Child Care Arrangements: Spring 2011. United States Census Bureau; 2013. https://www.census.gov/prod/2013pubs/p70-135.pdf.

107 Center for American Progress. Center for American Progress. https://www.americanprogress.org/issues/early-childhood/reports/2017/08/30/437988/mapping-americas-child-care-deserts/. Published August 2017. Accessed December 6, 2019.

108 Missouri - Child Care Aware. Child Care Aware. https://www.childcareaware.org/state/missouri/. Published 2016. Accessed December 6, 2019.

109 Missouri Department of Health and Human Services. *Ensuring Safe and Quality Child Care In Missouri Investing in Child Care Today for a Brighter Future Tomorrow.*; 2019. https://health.mo.gov/safety/childcare/pdf/cc-work-group-report.pdf. Accessed December 11, 2019.

Worklifesystems.com. https://stage.worklifesystems.com/. Published 2019. Accessed December 11, 2019.

110 Michalopoulos C, Faucetta K, Warren A, Mitchell R. *EVIDENCE ON THE LONG- TERM EFFECTS OF HOME VISITING PROGRAMS: Laying the Groundwork for Long- Term Follow-Up in the Mother and Infant Home Visiting Program Evaluation (MIHOPE).*; 2017. https://www.mdrc.org/sites/default/files/mihope_lt_long_term_evidence_brief_508_compliant-corrected.pdf. Accessed December 6, 2019.

111 Emily van Schenkhof. Expanding & Enhancing Home Visiting in Missouri - Children's Trust Fund of Missouri. Children's Trust Fund of Missouri. https://ctf4kids.org/2019/04/expanding-enhancing-home-visiting-in-missouri/. Published April 2, 2019. Accessed December 6, 2019.

112 DESE PDG 2017-2018. Personal Communications Data Request. Missouri Department of Elementary and Secondary Education. https://dese.mo.gov/. Published 2017. Accessed September 8, 2019.

113 Program Information Report. Hhs.gov. https://hses.ohs.acf.hhs.gov/pir/downloads. Published 2019. Accessed December 6, 2019.

114 Knox C, Montgomery L, Putnam S, et al. *MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES HOME VISITING PROGRAMS*.; 2019. https://health.mo.gov/living/families/homevisiting/pdf/DHSSHomeVisitingMap9-2019.pdf. Accessed December 6, 2019.

115 Knox C, Montgomery L, Putnam S, et al. *MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES HOME VISITING PROGRAMS*.; 2019. https://health.mo.gov/living/families/homevisiting/pdf/DHSSHomeVisitingMap9-2019.pdf. Accessed December 6, 2019.

116 Knox C, Montgomery L, Putnam S, et al. *MISSOURI DEPARTMENT OF HEALTH AND SENIOR SERVICES HOME VISITING PROGRAMS*.; 2019. https://health.mo.gov/living/families/homevisiting/pdf/DHSSHomeVisitingMap9-2019.pdf. Accessed December 6, 2019.

117 Tara G. Children's Division-Department of Social Services. 2019.

118 2016 Annual Report. Nursesfornewborns.org. http://www.nursesfornewborns.org/ShareSpot/NFNFY16AnnualReport.pdf. Published 2016. Accessed December 6, 2019.

119 Collaborative Home Visiting for Kansas City. promise1000.org. https://www.promise1000.org. Published 2017. Accessed December 6, 2019

120 Home Visiting Grants - Children's Trust Fund of Missouri. www.ctf4kids.org. https://ctf4kids.org/home-visiting-grants/. Published 2019. Accessed December 6, 2019.

121 Program Information Report. Hhs.gov. https://hses.ohs.acf.hhs.gov/pir/downloads. Published 2019. Accessed December 6, 2019.

122 https://www.childtrends.org/publications/incorporating-spatial-analyses-into-early-care-and-education-research

123 U.S. Census Bureau. 2018. Age of Own Children Under 18 Years in Families and Subfamilies by Living Arrangements by Employment Status of Parents. American Community Survey 2013-2017, Table B23008, for Missouri Counties.

124 Prices of Child Care in Missouri. https://info.childcareaware.org/hubfs/2019%20Price%20of%20Care%20State%20Sheets/Missouri.pdf?utm_campaign=2019%20Cost%20of%20Care&utm_source=2019%20COC%20-%20MO. Accessed December 6, 2019.

125 Clark-Fox Policy Institute -. *Strengthening Missouri through Quality Child Care for Working Families*. Clark-Fox Policy Institute - Brown School at Washington University; 2018:7. https://cpb-us-w2.wpmucdn.com/sites.wustl.edu/dist/f/1141/files/2018/02/ClarkFoxPolicyInstitute_MakeWorkWork_Report2018-1urjgqh.pdf. Accessed December 6, 2019.

126 The U.S. and the High Price of Child Care: 2019 - Child Care Aware of America. Child Care Aware of America. https://usa.childcareaware.org/advocacy-public-policy/resources/priceofcare/. Published 2019. Accessed December 6, 2019.

127 Child care costs in the United States. Economic Policy Institute. https://www.epi.org/child-care-costs-in-the-united-states/#/MO. Published 2016. Accessed December 6, 2019.

128 The U.S. and the High Price of Child Care: 2019 - Child Care Aware of America. Child Care Aware of America. https://usa.childcareaware.org/advocacy-public-policy/resources/priceofcare/. Published 2019. Accessed December 6, 2019.

129 Livingston G. More than a million Millennials are becoming moms each year. Pew Research Center. https://www.pewresearch.org/fact-tank/2018/05/04/more-than-a-million-millennials-are-becoming-moms-each-year/. Published May 4, 2018. Accessed December 6, 2019

130 *HIGH PRICE OF CHILD CARE An Examination of a Broken System*.; 2019. https://cdn2.hubspot.net/hubfs/3957809/2019%20Price%20of%20Care%20State%20Sheets/Final-TheU.S.andtheHighPriceofChildCare-AnExaminationofaBrokenSystem.pdf?utm_referrer=https%3A%2F%2Fusa.childcareaware.org%2Fadvocacy-public-policy%2Fresources%2Fpriceofcare%2F. Accessed December 6, 2019.

131 Prices of Child Care in Missouri. https://info.childcareaware.org/hubfs/2019%20Price%20of%20Care%20State%20Sheets/Missouri.pdf?utm_campaign=2019%20Cost%20of%20Care&utm_source=2019%20COC%20-%20MO. Accessed December 6, 2019.

132 Prices of Child Care in Missouri. https://info.childcareaware.org/hubfs/2019%20Price%20of%20Care%20State%20Sheets/Missouri.pdf?utm_campaign=2019%20Cost%20of%20Care&utm_source=2019%20COC%20-%20MO. Accessed December 6, 2019.

133 *Missouri Methodology*. https://info.childcareaware.org/hubfs/2019%20Price%20of%20Care%20State%20Sheets/Missouri%20County.pdf. Accessed December 6, 2019.

134 2019 Price of Child Care by County: Missouri - Child Care Aware of America. Child Care Aware of America. https://usa.childcareaware.org/advocacy-public-policy/resources/countymap-missouri/. Published 2019. Accessed December 6, 2019.

135 Child care costs in the United States. Economic Policy Institute. https://www.epi.org/child-care-costs-in-the-united-states/#/MO. Published 2016. Accessed December 6, 2019.

Survey: Child Care Costs Strain Families | Bipartisan Policy Center. Bipartisanpolicy.org. https://bipartisanpolicy.org/press-release/63557/. Published 2019. Accessed December 6, 2019.

136 Child care costs in the United States. Economic Policy Institute. https://www.epi.org/child-care-costs-in-the-united-states/#/MO. Published 2016. Accessed December 6, 2019.

137 U.S. Census Bureau. Age of own children under 18 years in families and subfamilies by living arrangements by employment status of parents Universe: Own children under 18 years in families and subfamilies more information 2013-2017 American Community Survey 5-Year Estimates. Census.gov. https://www.census.gov/programs-surveys/acs/data.html. Published October 11, 2018. Accessed July 25, 2019.

138 Livingston G. More than a million Millennials are becoming moms each year. Pew Research Center. https://www.pewresearch.org/fact-tank/2018/05/04/more-than-a-million-millennials-are-becoming-moms-each-year/. Published May 4, 2018. Accessed December 6, 2019.

139 Community Innovation and Action Center. Listening Session. 2019.

140 Community Innovation and Action Center. Qualitative Data.; 2019.

141 QuickFacts: Missouri. Census Bureau QuickFacts. https://www.census.gov/quickfacts/MO. Published 2018. Accessed December 6, 2019.

142 QuickFacts: Missouri. Census Bureau QuickFacts. https://www.census.gov/quickfacts/fact/table/MO/PST045218. Published 2018. Accessed December 6, 2019.

143 Community Innovation and Action Center. Listening Session Transcript. 2019

144 Skip NV St. Louis ECCE Listening Sessions. 2019.

Federal Child & Family Services Reveiw (CFSR) | Missouri Department of Social Services. Mo.gov. https://dss.mo.gov/cd/cfsplan/5yr_plan.htm. Published 2010. Accessed December 6, 2019.

U.S. Census Bureau. https://www.census.gov/. Published 2018. Accessed December 6, 2019.

145 Defining and Measuring Access to High- Quality Early Care and Education (ECE): A Guidebook for Policymakers and Researchers CCEEPRA.; 2017:5. https://www.acf.hhs.gov/sites/default/files/opre/cceepra_access_guidebook_final_213_b508.pdf. Accessed December 6, 2019.

146 The 10 NAEYC Program Standards | NAEYC. Naeyc.org. https://www.naeyc.org/our-work/families/10-naeyc-program-standards. Published 2019. Accessed October 11, 2019

147 Discrimination Against Minorities in the Federal Housing Programs. Repository.law.indiana.edu. http://www.repository.law.indiana.edu/cgi/viewcontent.cgi?article=2715&context=ilj. Published 1956. Accessed December 4, 2019.

148 Community Innovation and Action Center. Listening Session Transcript. 2019.

149 Community Innovation and Action Center. Listening Session Transcript. 2019.

150 Community Innovation and Action Center. Qualitative Data.; 2019.

151 Coleman A, ed. *Health Equity Series: African American Health Disparities in Missouri*. Missouri Department of Health and Human Services; 2013. https://mffh.org/wp-content/uploads/2016/04/13AfrAmDisparities.pdf. Accessed December 6, 2019.

152 Coleman A, ed. Health Equity Series: Hispanic Health Disparities in Missouri.; 2013. https://mffh.org/wp-content/uploads/2016/04/13HispanicDisparities.pdf. Accessed December 6, 2019.

153 Coleman A, ed. Health Equity Series: African American Health Disparities in Missouri. Missouri Department of Health and Human Services; 2013. https://mffh.org/wp-content/uploads/2016/04/13AfrAmDisparities.pdf. Accessed December 6, 2019.

Coleman A, ed. Health Equity Series: Hispanic Health Disparities in Missouri.; 2013. https://mffh.org/wp-content/uploads/2016/04/13HispanicDisparities.pdf. Accessed December 6, 2019.

154 Using Data to Support the Full and Effective Participation of Children Who Are Dual Language Learners (DLLs) and Their Families | ECLKC. ECLKC. https://eclkc.ohs.acf.hhs.gov/culture-language/article/using-data-support-full-effective-participation-children-who-are-dual. Published May 29, 2019. Accessed December 6, 2019.

Home Language for Success in School and Life | ECLKC. ECLKC. https://eclkc.ohs.acf.hhs.gov/culture-language/article/home-language-success-school-life. Published August 2, 2018. Accessed December 6, 2019.

155 Dual Language Learners - Child Trends. Child Trends. https://www.childtrends.org/indicators/dual-language-learners. Published 2017.

156 Dual Language Learners - Child Trends. Child Trends. https://www.childtrends.org/indicators/dual-language-learners. Published 2017.

157 Our Nation's English Learners. Ed.gov. https://www2.ed.gov/datastory/el-characteristics/index.html#two. Published 2009. Accessed November 22, 2019.

158 Using Data to Support the Full and Effective Participation of Children Who Are Dual Language Learners (DLLs) and Their Families | ECLKC. ECLKC. https://eclkc.ohs.acf.hhs.gov/culture-language/article/using-data-support-full-effective-participation-children-who-are-dual. Published May 29, 2019. Accessed December 6, 2019.

159 Using Data to Support the Full and Effective Participation of Children Who Are Dual Language Learners (DLLs) and Their Families | ECLKC. ECLKC. https://eclkc.ohs.acf.hhs.gov/culture-language/article/using-data-support-full-effective-participation-children-who-are-dual. Published May 29, 2019. Accessed December 6, 2019.

160 The Child Care Crisis Is Keeping Women out of the Workforce. Center for American Progress. https://www.americanprogress.org/issues/early-childhood/reports/2019/03/28/467488/child-care-crisis-keeping-women-workforce/. Published 2019.

161 Community Innovation and Action Center. Listening Session. 2019.

162 Cradle to Career Alliance.; 2018. http://www.cradletocareeralliance.org/wp-content/uploads/2018/11/FINAL_Cradle-to-Career-2018-Kreadiness-Community-Report.pdf. Accessed December 6, 2019.

163 Community Innovation and Action Center. Qualitative Data.; 2019.

164 Atchison B, Pompelia S. *SPECIAL REPORT Transitions and Alignment FROM PRESCHOOL TO KINDERGARTEN*.; 2018. https://www.ecs.org/wp-content/uploads/Transitions-and-Alignment-From-Preschool-to-Kindergarten.pdf. Accessed December 6, 2019.

165 Community Innovation and Action Center. Qualitative Data.; 2019.

166 Bush M, ed. *Compulsory School Age Requirements*.; 2010. https://www.ncsl.org/documents/educ/ECSCompulsoryAge.pdf. Accessed December 6, 2019

167 *Preparing Kids for School*. https://dese.mo.gov/sites/default/files/Preparing-Kids-For-School.pdf. Accessed December 6, 2019.

168 Community Innovation and Action Center. Qualitative Data.; 2019.

Community Innovation and Action Center. Needs Assessment for Missouri's Early Childhood System Stakeholder Survey. October 2019

169 Transitions from Head Start to kindergarten. | ECLKC. ECLKC. https://eclkc.ohs.acf.hhs.gov/policy/45-cfr-chap-xiii/1302-71-transitions-head-start-kindergarten. Published January 13, 2019. Accessed December 6, 2019.

170 Transitions from Early Head Start. | ECLKC. ECLKC. https://eclkc.ohs.acf.hhs.gov/policy/45-cfr-chap-xiii/1302-70-transitions-early-head-start. Published December 24, 2018. Accessed December 6, 2019.

171 Effective Transitions to Enhance School Readiness | ECLKC. ECLKC. https://eclkc.ohs.acf.hhs.gov/slide-deck/effective-transitions-enhance-school-readiness. Published July 24, 2018. Accessed December 6, 2019.

172 Transitions from Head Start to kindergarten. | ECLKC. ECLKC. https://eclkc.ohs.acf.hhs.gov/policy/45-cfr-chap-xiii/1302-71-transitions-head-start-kindergarten. Published January 13, 2019. Accessed December 6, 2019.

173 Sec. 303.209 (f). Individuals with Disabilities Education Act. https://sites.ed.gov/idea/regs/c/c/303.209/f. Published 2017. Accessed December 6, 2019.

174 A Parent Handbook.; 2016. https://dese.mo.gov/sites/default/files/MPACTtransitionbook0909.pdf. Accessed December 6, 2019.

175 Community Innovation and Action Center. Qualitative Data.; 2019.

176 Sec. 303.26 Natural Environments. Individuals with Disabilities Education Act. https://sites.ed.gov/idea/regs/c/a/303.26. Published 2017. Accessed December 6, 2019.

177 HIGH PRICE OF CHILD CARE An Examination of a Broken System. Child Care Aware; 2019:10. https://info.childcareaware.org/hubfs/2019%20Price%20of%20Care%20State%20Sheets/Final-TheU.S.andtheHighPriceofChildCare-AnExaminationofaBrokenSystem.pdf. Accessed December 6, 2019.

178 Community Innovation and Action Center. Qualitative Data.; 2019.

179 Community Innovation and Action Center. Qualitative Data.; 2019.

180 POLICY STATEMENT ON INCLUSION OF CHILDREN WITH DISABILITIES IN EARLY CHILDHOOD PROGRAMS.; 2015. https://www2.ed.gov/policy/speced/guid/earlylearning/joint-statement-full-text.pdf. Accessed December 6, 2019.

181 Community Innovation and Action Center. Qualitative Data.; 2019.

182 *Transition from First Steps to Early Childhood Special Education (ECSE) State Plans for Parts C and B 2.*; 2016. https://dese.mo.gov/sites/default/files/se-fs-part-c-to-b-transition-three-slides-per-page.pdf. Accessed December 6, 2019.

183 Community Innovation and Action Center. Qualitative Data.; 2019.

184 U.S. Department of Health And Human Services, U.S. Department Of Education. *Policy Statement On Inclusion Of Children With Disabilities In Early Childhood Programs*.; 2015. https://www2.ed.gov/policy/speced/guid/earlylearning/joint-statement-full-text.pdf. Accessed December 6, 2019.

185 Community Innovation and Action Center. Qualitative Data.; 2019.

186 Community Innovation and Action Center. Qualitative Data.; 2019.

187 Community Innovation and Action Center. Qualitative Data.; 2019.

188 The Center on the Social and Emotional Foundations for Early Learning. *Rs Infant Mental Health*. Vanderbilt University http://csefel.vanderbilt.edu/documents/rs_infant_mental_health.pdf. Accessed December 9, 2019.

189 Community Innovation and Action Center. Qualitative Data.; 2019.

190 Centers For Disease Control and Prevention. About Adverse Childhood Experiences. cdc.gov. https://www.cdc.gov/violenceprevention/childabuseandneglect/acestudy/aboutace.html. Published 2019. Accessed December 9, 2019.

191 Center on the Developing Child. What Are ACEs? And How Do They Relate to Toxic Stress? Center on the Developing Child at Harvard University. https://developingchild.harvard.edu/resources/aces-and-toxic-stress-frequently-asked-questions/. Published 2019. Accessed December 9, 2019.

192 Resilience to ACEs - Minnesota Department of Health. State.mn.us. https://www.health.state.mn.us/communities/ace/resilience.html. Accessed December 9, 2019.

193 Adverse Childhood Experiences - Child Trends. Child Trends. https://www.childtrends.org/indicators/adverse-experiences. Published 2017. Accessed December 9, 2019.

194 Child Care Development Fund Plan | Child Care | Missouri Department of Social Services, Children Division. Mo.gov. https://dss.mo.gov/cd/child-care/child-care-development-fund-plan.htm. Published 2019. Accessed December 9, 2019.

195 Trauma Smart. Trauma Smart. Traumasmart.org. http://traumasmart.org/. Published 2015. Accessed December 9, 2019.

196 Missouri Workshop Calendar for Early Childhood and Youth Development Professionals. Moworkshopcalendar.org. https://www.moworkshopcalendar.org. Published 2019. Accessed December 9, 2019.

Child Care Development Fund Plan | Child Care | Missouri Department of Social Services, Children Division. Mo.gov. https://dss.mo.gov/cd/child-care/child-care-development-fund-plan.htm. Published 2019. Accessed December 9, 2019.

197 Community Innovation and Action Center. Listening Session. 2019.

198 The Center of Excellence (CoE) for Infant and Early Childhood Mental Health Consultation (IECMHC) | the Center of Excellence (CoE) for Infant and Early Childhood Mental Health Consultation (IECMHC). Iecmhc.org. https://www.iecmhc.org/. Published 2019. Accessed December 9, 2019.

199 The Center of Excellence (CoE) for Infant and Early Childhood Mental Health Consultation (IECMHC) | the Center of Excellence (CoE) for Infant and Early Childhood Mental Health Consultation (IECMHC). Iecmhc.org. https://www.iecmhc.org/. Published 2019. Accessed December 9, 2019.

200 Community Innovation and Action Center. Listening Session. 2019.

201 Map of Health Professional Shortage Areas: Mental Health, by County, 2019 - Rural Health Information Hub. Ruralhealthinfo.org. https://www.ruralhealthinfo.org/charts/7?state=MO. Published 2019. Accessed December 9, 2019.

data.hrsa.gov Home Page. Hrsa.gov. https://data.hrsa.gov/. Published 2018. Accessed October 22, 2019.

202 Whitebook M, McLean C, J.E. Austin L, Edwards B. *EARLY CHILDHOOD WORKFORCE INDEX* 2018.; 2018. https://cscce.berkeley.edu/files/2018/06/Early-Childhood-Workforce-Index-2018.pdf. Accessed December 9, 2019.

203 MOPD Registry. Openinitiative.org. https://www.openinitiative.org/MOPDRegistry.htm. Published 2019. Accessed December 12, 2019.

204 MOPD Registry. Openinitiative.org. https://www.openinitiative.org/MOPDRegistry.htm. Published 2019. Accessed December 12, 2019.

205 MOPD Registry. Openinitiative.org. https://www.openinitiative.org/MOPDRegistry.htm. Published 2019. Accessed December 12, 2019.

206 MOPD Registry. Openinitiative.org. https://www.openinitiative.org/MOPDRegistry.htm. Published 2019. Accessed December 12, 2019.

207 Center for the Study of Child Care Employment, University of California, Berkeley. *EXECUTIVE SUMMARY 2018 EARLY CHILDHOOD WORKFORCE INDEX*.; 2018. https://cscce.berkeley.edu/files/2018/06/1-Executive-Summary.pdf. Accessed December 9, 2019.

208 Occupational Employment Statistics Home Page. Bls.gov. https://www.bls.gov/oes/. Published March 24, 2008.

209 *Missouri Minimum Wage*.; 2019. https://labor.mo.gov/sites/labor/files/pubs_forms/LS-52-AI.pdf. Accessed December 9, 2019.

210 MOPD Registry. Openinitiative.org. https://www.openinitiative.org/MOPDRegistry.htm. Published 2019. Accessed December 12, 2019.

211 MOPD Registry. Openinitiative.org. https://www.openinitiative.org/MOPDRegistry.htm. Published 2019. Accessed December 12, 2019.

212 Community Innovation and Action Center. Qualitative Data.; 2019

213 Center for the Study of Child Care Employment. *Early Childhood Workforce Index 2018 Earnings by Occupation*.; 2018. https://cscce.berkeley.edu/files/2018/06/2018-Index-Missouri.pdf. Accessed December 9, 2019.

214 MOPD Registry. Openinitiative.org. https://www.openinitiative.org/MOPDRegistry.htm. Published 2019. Accessed December 12, 2019.

215 Center for the Study of Child Care Employment. *Early Childhood Workforce Index 2018 Earnings by Occupation*.; 2018. https://cscce.berkeley.edu/files/2018/06/2018-Index-Missouri.pdf. Accessed December 9, 2019.

216 T.E.A.C.H. Early Childhood Missouri, ed. Annual Report. https://teach-missouri.org/wp-content/uploads/2017/03/2016-annual-report.pdf. Published 2016. Accessed December 9, 2019.

217 Missouri - Child Care Aware. Child Care Aware. https://www.childcareaware.org/state/missouri/. Published 2016. Accessed December 11, 2019.

218 Community Innovation and Action Center. Qualitative Data.; 2019.

219 Community Innovation and Action Center. Listening Session. 2019.

220 Center for American Progress. Center for American Progress. Center for American Progress. https://www.americanprogress.org/issues/early-childhood/reports/2018/02/14/446330/child-care-dollar-go/. Published February 2018. Accessed December 9, 2019.

221 Committee On Early Childhood Care And Education Workforce : A Workshop, Institute Of Medicine, National Research Council, et al. *Early Childhood Care and Education Workforce : Challenges and Opportunities : A Workshop Report*. Washington, D.C.: National Academies Press; 2012.

222 Community Innovation and Action Center. Qualitative Data.; 2019.

223 Community Innovation and Action Center. Qualitative Data.; 2019.

224 Community Innovation and Action Center. Listening Session. 2019.

225 Community Innovation and Action Center. Qualitative Data.; 2019.

226 Whitebook M. The Early Childhood Workforce Index 2018 | Family Support Policies. Berkeley.edu. https://cscce.berkeley.edu/early-childhood-workforce-2018-index/. Published June 27, 2018. Accessed December 9, 2019.

The U.S. and the High Price of Child Care: 2019 - Child Care Aware of America. Child Care Aware of America. https://usa.childcareaware.org/advocacy-public-policy/resources/priceofcare/. Published 2019. Accessed December 6, 2019.

227 Center for the Study of Child Care Employment. *Early Childhood Workforce Index 2018 Earnings by Occupation.*; 2018. https://cscce.berkeley.edu/files/2018/06/2018-Index-Missouri.pdf. Accessed December 9, 2019.

228 Whitebook M, McLean C, J.E. Austin L, Edwards B. *EARLY CHILDHOOD WORKFORCE INDEX 2018.*; 2018. https://cscce.berkeley.edu/files/2018/06/Early-Childhood-Workforce-Index-2018.pdf. Accessed December 9, 2019.

229 Whitebook M, McLean C, J.E. Austin L, Edwards B. *EARLY CHILDHOOD WORKFORCE INDEX 2018.*; 2018. https://cscce.berkeley.edu/files/2018/06/Early-Childhood-Workforce-Index-2018.pdf. Accessed December 9, 2019.

230 The U.S. and the High Price of Child Care: 2019 - Child Care Aware of America. Child Care Aware of America. https://usa.childcareaware.org/advocacy-public-policy/resources/priceofcare/. Published 2019. Accessed December 6, 2019.

231 Allen L, Backes EP, And E, And E, And E, And E. *Transforming the Financing of Early Care and Education.* Washington, DC: The National Academies Press; 2018.

232 Community Innovation and Action Center. Qualitative Data.; 2019.

233 Jeon L, Buettner CK, Grant AA, Lang SN. Early childhood teachers' stress and children's social, emotional, and behavioral functioning. *Journal of Applied Developmental Psychology.* 2019;61:21-32. doi:10.1016/j.appdev.2018.02.002

234 Zinsser KM, Zulauf CA, Nair Das V, Callie Silver H. Utilizing social-emotional learning supports to address teacher stress and preschool expulsion. *Journal of Applied Developmental Psychology.* 2019;61:33-42. doi:10.1016/j.appdev.2017.11.006

235 Belsky J, Vandell DL, Burchinal M, Clarke-Stewart KA, McCartney K, Owen MT. Are There Long-Term Effects of Early Child Care? Child Development. 2007;78(2):78, 681-701. doi:10.1111/j.1467-8624.2007.01021.x

236 Whitebook M, Sakai L. Turnover Begets Turnover: An Examination of Job and Occupational Instability Among Child Care Center Staff. https://cscce.berkeley.edu/files/2003/turnoverchildcare.pdf. Accessed December 11, 2019.

237 Jung C. To Stem Tide of Childcare Staff Turnover, Providers Try Increasing Benefits | Edify. Wbur.org. https://www.wbur.org/edify/2018/09/17/childcare-staff-turnover. Published September 17, 2018. Accessed December 11, 2019.

238 Committee on Early Childhood Care and Education Workforce: A Workshop, Institute of Medicine, National Research Council. How the Workforce Affects Children. Nih.gov. https://www.ncbi.nlm.nih.gov/books/NBK189908/. Published November 15, 2011. Accessed December 11, 2019.

239 Community Innovation and Action Center. Qualitative Data.; 2019.

240 Community Innovation and Action Center. Listening Session. 2019.

241 Community Innovation and Action Center. Qualitative Data.; 2019.

242 L. Fuger K. Missouri Head Start Association - Missouri Head Start State Collaboration Office. Moheadstart.org. http://www.moheadstart.org/Missouri%20Head%20Start%20State%20Collaboration%20Office.aspx. Published 2019. Accessed December 11, 2019.

243 Community Innovation and Action Center. Qualitative Data.; 2019.

244 Whitebook M, Sakai L. Turnover Begets Turnover: An Examination of Job and Occupational Instability Among Child Care Center Staff. https://cscce.berkeley.edu/files/2003/turnoverchildcare.pdf. Accessed December 11, 2019.

245 Community Innovation and Action Center. Listening Session. 2019.

246 Community Innovation and Action Center. Listening Session. 2019.

247 Community Innovation and Action Center. Listening Session. 2019.

248 Community Innovation and Action Center. Listening Session. 2019.

249 Community Innovation and Action Center. Listening Session. 2019.

250 Community Innovation and Action Center. Qualitative Data.; 2019.

251 Community Innovation and Action Center. Qualitative Data.; 2019.

252 Community Innovation and Action Center. Qualitative Data.; 2019.

253 University of Missouri - Department of Education. Providing Parenting Information and Services. Box.com. https://missouri.app.box.com/s/atdrbiwf5wt13s57mgmvji4sj0aqtdij. Published 2018. Accessed December 11, 2019.

254 Missouri Department of Health and Human Services. *Ensuring Safe and Quality Child Care In Missouri Investing in Child Care Today for a Brighter Future Tomorrow.*; 2019. https://health.mo.gov/safety/childcare/pdf/cc-work-group-report.pdf. Accessed December 11, 2019.

Worklifesystems.com. https://stage.worklifesystems.com/. Published 2019. Accessed December 11, 2019.

255 Resource & Referral Services | Child Care | Health & Senior Services. Mo.gov. https://health.mo.gov/safety/childcare/referrals.php. Published 2014. Accessed December 11, 2019.

256 Child Care Search. Mo.gov. https://healthapps.dhss.mo.gov/ChildCareSearch/. Published 2019. Accessed December 11, 2019.

257 Ensuring Safe and Quality Child Care In Missouri Investing in Child Care Today for a Brighter Future Tomorrow. Missouri Department of Health and Senior Services; 2019. https://health.mo.gov/safety/childcare/pdf/cc-work-group-report.pdf. Accessed December 6, 2019.

258 Community Innovation and Action Center. Listening Session. 2019.

259 Community Innovation and Action Center. Listening Session. 2019.

260 Community Innovation and Action Center. Listening Session. 2019.

261 Community Innovation and Action Center. Listening Session. 2019.

262 Laws & Regulations | Child Care | Health & Senior Services. Mo.gov. https://health.mo.gov/safety/childcare/lawsregs.php. Published 2019. Accessed December 11, 2019.

263 Ensuring Safe and Quality Child Care In Missouri Investing in Child Care Today for a Brighter Future Tomorrow. Missouri Department of Health and Senior Services; 2019. https://health.mo.gov/safety/childcare/pdf/cc-work-group-report.pdf. Accessed December 6, 2019.

264 Community Innovation and Action Center. Listening Session. 2019.

265 Community Innovation and Action Center. Listening Session. 2019.

266 Community Innovation and Action Center. Listening Session. 2019.

267 Ensuring Safe and Quality Child Care In Missouri Investing in Child Care Today for a Brighter Future Tomorrow. Missouri Department of Health and Senior Services; 2019. https://health.mo.gov/safety/childcare/pdf/cc-work-group-report.pdf. Accessed December 6, 2019.

268 Community Innovation and Action Center. Needs Assessment for Missouri's Early Childhood System Stakeholder Survey. October 2019.

269 Community Innovation and Action Center. Needs Assessment for Missouri's Early Childhood System Stakeholder Survey. October 2019.

270 Community Innovation and Action Center. Listening Session. 2019.

271 Community Innovation and Action Center. Listening Session. 2019.

272 Cradle to Career Alliance. *Kindergarten Readiness Community Status Report*.; 2018. http://www.cradletocareeralliance.org/wp-content/uploads/2018/11/FINAL_Cradle-to-Career-2018-Kreadiness-Community-Report.pdf. Accessed December 12, 2019.

273 Cradle to Career Alliance. *Kindergarten Readiness Community Status Report*.; 2018. http://www.cradletocareeralliance.org/wp-content/uploads/2018/11/FINAL_Cradle-to-Career-2018-Kreadiness-Community-Report.pdf. Accessed December 12, 2019.

274 Clark-Fox Policy Institute - Brown School at Washington University. Strengthening Missouri through Quality Child Care for Working Families.; 2018. https://cpb-us-w2.wpmucdn.com/sites.wustl.edu/dist/f/1141/files/2018/02/ClarkFoxPolicyInstitute_MakeWorkWork_Report2018-1urjgqh.pdf.

275 Cradle to Career Alliance. *Kindergarten Readiness Community Status Report*.; 2018. http://www.cradletocareeralliance.org/wp-content/uploads/2018/11/FINAL_Cradle-to-Career-2018-Kreadiness-Community-Report.pdf. Accessed December 12, 2019.

276 Community Innovation and Action Center. Qualitative Data.; 2019.

277 Community Innovation and Action Center. Listening Session. 2019.

278 Clark-Fox Policy Institute - Brown School at Washington University. Strengthening Missouri through Quality Child Care for Working Families.; 2018. https://cpb-us-w2.wpmucdn.com/sites.wustl.edu/dist/f/1141/files/2018/02/ClarkFoxPolicyInstitute_MakeWorkWork_Report2018-1urjgqh.pdf.

279 Clark-Fox Policy Institute - Brown School at Washington University. Strengthening Missouri through Quality Child Care for Working Families.; 2018. https://cpb-us-w2.wpmucdn.com/sites.wustl.edu/dist/f/1141/files/2018/02/ClarkFoxPolicyInstitute_MakeWorkWork_Report2018-1urjgqh.pdf.

280 Community Innovation and Action Center. Listening Session. 2019.

281 Gleason T. Missouri Budget Project » Budget Basics: Child Care & Early Childhood Education. Mobudget.org. https://www.mobudget.org/budget-basics-child-care-early-childhood-education/. Published 2018. Accessed December 12, 2019.

282 Gleason T. Missouri Budget Project » Budget Basics: Child Care & Early Childhood Education. Mobudget.org. https://www.mobudget.org/budget-basics-child-care-early-childhood-education/. Published 2018. Accessed December 12, 2019.

283 Gleason T. Missouri Budget Project » Budget Basics: Child Care & Early Childhood Education. Mobudget.org. https://www.mobudget.org/budget-basics-child-care-early-childhood-education/. Published 2018. Accessed December 12, 2019.

284 Giannarelli L, Adams G, Minton S, Dwyer K. *What If We Expanded Child Care Subsidies in Missouri?*; 2019. https://www.urban.org/sites/default/files/what-if-we-expanded-child-care-subsidies-in-mo.pdf. Accessed December 12, 2019.

285 Corsi S. *Department of Social Services Children's Division Fiscal Year 2020 Budget Request Book 3 of 6*. https://oa.mo.gov/sites/default/files/FY_2020_DSS_Childrens_Division_Budget_Gov_Rec.pdf. Accessed December 12, 2019.

286 Corsi S. *Department of Social Services Children's Division Fiscal Year 2020 Budget Request Book 3 of 6*. https://oa.mo.gov/sites/default/files/FY_2020_DSS_Childrens_Division_Budget_Gov_Rec.pdf. Accessed December 12, 2019.

287 Workman S. Where Does Your Child Care Dollar Go? Center for American Progress. https://www.americanprogress.org/issues/early-childhood/reports/2018/02/14/446330/child-care-dollar-go/. Published February 14, 2018. Accessed December 12, 2019.

288 Workman S. Where Does Your Child Care Dollar Go? Center for American Progress. https://www.americanprogress.org/issues/early-childhood/reports/2018/02/14/446330/child-care-dollar-go/. Published February 14, 2018. Accessed December 12, 2019.

289 *Missouri Living in Missouri*.; 2019. https://info.childcareaware.org/hubfs/2019%20Price%20of%20Care%20State%20Sheets/Missouri.pdf?utm_campaign=2019%20Cost%20of%20Care&utm_source=2019%20COC%20-%20MO.

290 Workman S. Where Does Your Child Care Dollar Go? Center for American Progress. https://www.americanprogress.org/issues/early-childhood/reports/2018/02/14/446330/child-care-dollar-go/. Published February 14, 2018. Accessed December 12, 2019.

291 Community Innovation and Action Center. Qualitative Data.; 2019. Community Innovation and Action Center. Qualitative Data.; 2019

292 Workman S. Where Does Your Child Care Dollar Go? Center for American Progress. https://www.americanprogress.org/issues/early-childhood/reports/2018/02/14/446330/child-care-dollar-go/. Published February 14, 2018. Accessed December 12, 2019.

293 *Missouri Living in Missouri.*; 2019. https://info.childcareaware.org/hubfs/2019%20Price%20of%20Care%20State%20Sheets/Missouri.pdf?utm_campaign=2019%20Cost%20of%20Care&utm_source=2019%20COC%20-%20MO.

294 Workman S. Where Does Your Child Care Dollar Go? Center for American Progress. https://www.americanprogress.org/issues/early-childhood/reports/2018/02/14/446330/child-care-dollar-go/. Published February 14, 2018. Accessed December 12, 2019.

295 Missouri Living in Missouri.; 2019. https://info.childcareaware.org/hubfs/2019%20Price%20of%20Care%20State%20Sheets/Missouri.pdf?utm_campaign=2019%20Cost%20of%20Care&utm_source=2019%20COC%20-%20MO.

296 Clark-Fox Policy Institute - Brown School at Washington University. *Strengthening Missouri through Quality Child Care for Working Families*.; 2018. https://cpb-us-w2.wpmucdn.com/sites.wustl.edu/dist/f/1141/files/2018/02/ClarkFoxPolicyInstitute_MakeWorkWork_Report2018-1urjgqh.pdf.

297 Child Care and Development Fund (CCDF) Program. Federal Register. https://www.federalregister.gov/documents/2016/09/30/2016-22986/child-care-and-development-fund-ccdf-program. Published September 30, 2016. Accessed December 12, 2019.

298 Workman S. Where Does Your Child Care Dollar Go? Center for American Progress. https://www.americanprogress.org/issues/early-childhood/reports/2018/02/14/446330/child-care-dollar-go/. Published February 14, 2018. Accessed December 12, 2019.

299 Workman S. Where Does Your Child Care Dollar Go? Center for American Progress. https://www.americanprogress.org/issues/early-childhood/reports/2018/02/14/446330/child-care-dollar-go/. Published February 14, 2018. Accessed December 12, 2019.

300 Clark-Fox Policy Institute - Brown School at Washington University. *Strengthening Missouri through Quality Child Care for Working Families*.; 2018. https://cpb-us-w2.wpmucdn.com/sites.wustl.edu/dist/f/1141/files/2018/02/ClarkFoxPolicyInstitute_MakeWorkWork_Report2018-1urjgqh.pdf.

301 Creating an Integrated Efficient Early Care and Education System to Support Children and Families: A State-by-State Analysis | Bipartisan Policy Center. Bipartisanpolicy.org. https://bipartisanpolicy.org/report/ece-administration-state-by-state/. Published 2018. Accessed December 12, 2019.

302 FY 2019 CCDF Allocations (Based on Appropriations). Office of Child Care | ACF. https://www.acf.hhs.gov/occ/resource/fy-2019-ccdf-allocations-based-on-appropriations. Published 2019. Accessed December 12, 2019.

303 FY 2019 CCDF Allocations (Based on Appropriations). Office of Child Care | ACF. https://www.acf.hhs.gov/occ/resource/fy-2019-ccdf-allocations-based-on-appropriations. Published 2019. Accessed December 12, 2019.

304 Community Innovation and Action Center. Qualitative Data.; 2019.

305 Cradle to Career Alliance. *Kindergarten Readiness Community Status Report.; 2018*. http://www.cradletocareeralliance.org/wp-content/uploads/2018/11/FINAL_Cradle-to-Career-2018-Kreadiness-Community-Report.pdf. Accessed December 12, 2019.

306 Corsi S. *Department of Social Services Children's Division Fiscal Year 2020 Budget Request Book 3 of 6.*; 2019:324. https://oa.mo.gov/sites/default/files/FY_2020_DSS_Childrens_Division_Budget_Gov_Rec.pdf. Accessed December 12, 2019.

307 Community Innovation and Action Center. Qualitative Data.; 2019

308 *Missouri State Board Of Education Agenda Item.*; 2019. https://dese.mo.gov/sites/default/files/CommissionerEdPolicyCommittee8-19.pdf. Accessed December 12, 2019.

309 *The Ounce. Backgrounder: Public -Private Partnerships.*; 2012. http://www.ncsl.org/documents/cyf/Ounce_Public_Private_Partnership.pdf. Accessed December 12, 2019.

310 *The Ounce. Backgrounder: Public -Private Partnerships.*; 2012. http://www.ncsl.org/documents/cyf/Ounce_Public_Private_Partnership.pdf. Accessed December 12, 2019.

311 *The Ounce. Backgrounder: Public -Private Partnerships.*; 2012. http://www.ncsl.org/documents/cyf/Ounce_Public_Private_Partnership.pdf. Accessed December 12, 2019.

312 Community Innovation and Action Center. Needs Assessment for Missouri's Early Childhood System Stakeholder Survey. October 2019.

313 Missouri Department of Health and Human Services. Ensuring Safe and Quality Child Care In Missouri Investing in Child Care Today for a Brighter Future Tomorrow.; 2019. https://health.mo.gov/safety/childcare/pdf/cc-work-group-report.pdf. Accessed December 11, 2019.

314 State Advisory Councils. Early Childhood Development | ACF. https://www.acf.hhs.gov/ecd/early-learning/state-advisory-councils. Published 2015. Accessed December 12, 2019.

315 Creating an Integrated Efficient Early Care and Education System to Support Children and Families: A State-by-State Analysis | Bipartisan Policy Center. Bipartisanpolicy.org. https://bipartisanpolicy.org/report/ece-administration-state-by-state/. Published 2018. Accessed December 12, 2019.

316 Creating an Integrated Efficient Early Care and Education System to Support Children and Families: A State-by-State Analysis | Bipartisan Policy Center. Bipartisanpolicy.org. https://bipartisanpolicy.org/report/ece-administration-state-by-state/. Published 2018. Accessed December 12, 2019.

317 210.102. Mo.gov. https://revisor.mo.gov/main/OneSection.aspx?section=210.102&bid=35612&hl=. Published 2018. Accessed December 12, 2019.

318 Missouri Coordinating Board for Early Childhood | Missouri Department of Social Services. Mo.gov. https://dss.mo.gov/cbec/. Published 2019. Accessed December 12, 2019.

319 Lainie Strange. General Guidance - Memorandum of Understanding - Early Head Start and First Steps. Missouri Department of Elementary and Secondary Education. https://dese.mo.gov/special-education/compliance/general-guidance. Published March 12, 2014. Accessed December 12, 2019.

320 Early Childhood Comprehensive Systems (ECCS) Grant | Health & Senior Services. Mo.gov. https://health.mo.gov/atoz/eccs/. Published 2019. Accessed December 12, 2019.

321 State of Springfield Early Childhood | Springfield, MO - Official Website. Springfieldmo.gov. https://www.springfieldmo.gov/3588/State-of-Springfield-Early-Childhood. Published 2016. Accessed December 12, 2019.

322 Programs & Initiatives - Early Learning. Marc.org. https://www.marc.org/Community/Early-Learning/Early-Learning/Programs-and-Initiatives. Published 2010. Accessed December 12, 2019.

323 ANNIE E. CASEY FOUNDATION. Improving Child & Family Services Through Integrated Data Systems - The Annie E. Casey Foundation. *The Annie E Casey Foundation*. 2017. https://www.aecf.org/blog/improving-child-and-family-services-through-integrated-data-systems/. Accessed December 12, 2019.

SECTION 10:

Appendices

Appendix 1: Summary of Existing Needs Assessments

Twelve Missouri needs assessments and reports published in the past decade were reviewed as important context for this needs assessment, and many of which articulate themes similar to those found in the research that underlies this needs assessment.

- Cradle to Career Alliance. 2018. *Boone County Kindergarten Readiness Community Status Report*
- IFF. 2019. *The First Step to Equity: Building a Better Future Through Early Childhood Education in St. Louis*
- Mid-America Regional Council. 2018. *Status of Children & Families: Greater Kansas City Metropolitan Area*
- Missouri Department of Health and Senior Services. 2019. *Ensuring Safe and Quality Child Care in Missouri*
- Missouri Department of Social Services. 2018. *CCDF State Plan*
- Missouri Head Start State Collaboration Office. 2018. F*iscal Year 2018 Needs Assessment Report*
- Missouri Department of Health and Senior Services. 2014. *Title V Needs Assessment*
- Missouri Department of Health and Senior Services. 2010. *MIECHV Needs Assessment*
- St. Louis Regional Early Childhood Council Data Committee. 2017. *Building Blocks Report: The Early Care and Education Landscape in the St. Louis Region*
- University of Missouri Health Management and Informatics Department. 2016. *MO MIECHV Program: Summary of Evaluations Report*
- Chung, S., Liem, W., Hirschberg, V., & Hicks, T. 2018. *Caregiver Perspectives on Access to and Experience with Early Childhood Education Providers in St. Louis: A Qualitative Study of Lived Experiences*

Several reports articulated challenges in Missouri's current ECCE system, including:

- Child care capacity, including reference to an insufficient number of providers, accredited centers and slots, subsidized slots, as well as lack of funds to support programs for children with disabilities, children in rural areas, and children with diverse linguistic or cultural backgrounds.
- Accessibility issues related to transportation and confusing bureaucracy.
- Prohibitive child care cost and stringent assistance program eligibility thresholds
- Cultural and language barriers to accessing high quality ECCE services, particularly in St. Louis City and St. Louis County
- The absence of state-level coordination, integration, and collaboration systems
- Challenges related to the lack of a statewide professional training and development system, including reference to unmet training needs, especially in regards to supporting children with special needs, navigating relationships with parents, and classroom management skills
- An imbalance between the workload of ECCE professionals, and their compensation
- The need for improved ability to measure child care quality
- Systems inefficiency and data gaps as a result of insufficient state-level data on ECCE programs, facilities, and providers.

Several reports included recommendations on improving the ECCE system in Missouri including:

- Improving collaboration and integration between agencies, programs, and services
- Coordinating focus groups and public awareness initiatives to stress the importance of safe and quality child care.
- Supporting and strengthening workforce development through providing better compensation packages, formalizing the profession, and offering more professional development and training opportunities.
- Instituting quality improvement measures, including the adoption of QRIS, providing financial and technical assistance to help providers maintain health and safety standards, conducting program evaluation, improving teacher-student ratios, and creating and maintaining data systems.
- Increasing access to child care through increased access to subsidies, more affordable child care options, and a focus on equitable access and outcomes.

Appendix 2: Glossary of ECCE Acronyms

Some of the following acronyms are used in this needs assessment. This glossary is not intended to be comprehensive, but rather as a useful resource for those interacting with the ECCE field.

- **ACF** Administration for Children and Families
- **ARRA** American Recovery and Reinvestment Act of 2009
- **CCAMO** Child Care Aware® of Missouri
- **CCDF** Child Care Development Fund
- **CCR&R** Child Care Resource and Referral Agency (CCAMO in Missouri)
- **CDA** Child Development Associate credential
- **CEU** Continuing Education Unit
- **CHIP** Children's Health Insurance Program
- **DESE** Department of Elementary and Secondary Education
- **DHSS** Department of Health and Senior Services
- **DLL** Dual Language Learners
- **DMH** Department of Mental Health
- **DSS** Department of Social Services
- **ECCE** Early Childhood Care and Education
- **ECCS** Early Childhood Comprehensive Systems
- **ECERS** Early Childhood Environment Rating Scales
- **ECIT** Early Childhood Interagency Team
- **ERS** Environment Rating Scales
- **FACT** Family and Community Trust
- **FCC** Family Child Care
- **FCCERS** Family Child Care Environment Rating Scales
- **HSSCO** Head Start State Collaboration Office
- **IDEA** Individuals with Disabilities Education Act
- **IEP** Individual Education Plan
- **ITERS** Infant Toddler Environment Rating Scales
- **LEP** Limited English Proficiency
- **MIECHV** Maternal, Infant and Early Childhood Home Visiting Initiative
- **OPEN** Opportunities in a Professional Education Network at the Center for Family Policy and Research at MU

Appendix 3: Quantitative Methodology

The quantitative portion of this needs assessment brings together multiple data sources on early childhood in Missouri to help tell the story of children ages birth through five and identify specific urban and rural geographic areas that may be at risk and/or in need of services.

Data for this report were obtained from a variety of sources. Overall population and demographic information were obtained directly from the U.S. Census Bureau 2013–2017 American Community Survey 5-Year Estimates, and the 2018 Current Population Survey. Additional data for the report were obtained from the Missouri Departments of Elementary and Secondary Education, Social Services, and Health and Senior Services. Child care capacity data were provided by Child Care Aware® of Missouri.

Nearly all data were obtained at the county-level; when data is aggregated to higher levels of geography it is nearly always based on underlying county data. Missouri has a total of 115 counties, including the City of St. Louis (which uniquely serves both municipal and county functions).

The specific methodology used for the Risk and Reach Analysis is described at the beginning of that section; the methodology for the Child Care Capacity Analysis is described below, as well as data limitations for this needs assessment.

CHILD CARE CAPACITY ANALYSIS METHODOLOGY

Data for the Child Care Capacity Analysis came from two sources: Child Care Aware® of Missouri (CCAMO) and the U.S. Census.

CCAMO compiles child care licensing data regularly from DHSS; data from DSS regarding facilities that accept child care subsidy; and data on accredited child care facilities from several accrediting bodies. Additionally, CCAMO regularly collects other data relevant to parental child care choice through direct surveys of child care facilities. The project team is grateful to CCAMO for sharing their data and the additional guidance they provided. It should be noted that the primary purpose of the CCAMO database is not for child care capacity analysis but rather to populate a web-based portal that allows families with children ages birth to eighteen to review child care options.

After consultation with CCAMO staff, the project team undertook a series of steps intended to prepare the data for this analysis which was intended to focus on children ages birth through five years of age. The CCAMO data has several classification variables that were used initially to cull the data and remove facilities that only served older children. All facilities identified as serving only school-aged children were removed from the data. Indicators for the child care accrediting bodies were combined into a composite indicator variable; all facilities noted to have at least one accreditation were marked as 'accredited' for this analysis.

The child care capacity data was population adjusted by converting facility capacity into percentages for each county based on the U.S. Census' Current Population Survey for that county, for children from birth up to and including age five. This approach is consistent with other child care capacity reports including The Center for American Progress (CAP). Researchers also followed CAP's approach to the definition of a child care desert. They defined any county as a child care desert where the percent of child care slots fell below 33% or put another way, when the ratio of children to child care slots exceeds 3 to 1.

GENERAL QUANTITATIVE DATA LIMITATIONS

As noted earlier, data for this project were assembled from a variety of sources. While some of the data were publicly available from either state or federal websites, a more substantial portion could only be obtained through special requests made to state departments. These requests were made to the Missouri Departments of Elementary and Secondary Education, Social Services, and Health and Senior Services. The project team attempted to complete a single overarching request to all three departments, though this was not effective due to different approval processes for each department's legal teams.

Delays in Data Receipt

This fragmentation resulted in substantial delays that resulted in limited analysis of the data that was ultimately received by the project team. While conversations around data collection began in May 2019, data requested for the project was not released until October, with requested data continuing to arrive as late as mid-December, even as the report was finalized. Data often arrived without the documentation needed for researchers to ensure that data were accurately analyzed and

portrayed, requiring additional follow-up. In some cases, requested data was never released to the project team. While a more iterative process of data analysis is typical for projects of this scope, this was not possible given these constraints.

Missing Data

While every effort was made to ensure that all relevant data was included, several indicators could not be included in the risk and reach analysis. For example, infant deaths are rare enough and rural county populations are low enough that infant mortality rates becomes unstable and unreliable. Similarly, many variables are missing data or could not be generated for racial subgroups due to a combination of low-populated rural counties and low numbers of racial subgroup county residents. For example, data on WIC utilization among people who identify as Black/African Americans in rural counties is suppressed due to low numbers; publication of such data could risk privacy violations.

Lag in Census Data

The American Community Survey estimates are based on five-year periods between 2013 and 2017. Because access to the most current comprehensive data from the American Community Survey lags behind the availability of that data due to Census workers needing time to compile and aggregate data, the five-year time span is unavoidable. American Community Survey five-year estimates can be interpreted as the average yearly overall presence of indicators over the five-year span. This is to say that data applies to five-year periods, rather than single years.

Multiple Data Sources

As mentioned earlier, data used in this needs assessment came from several different sources. While efforts were made to ensure that data was accurate and that different data points matched one another, it is likely that decisions made at the agency- or department-level influenced the consistency of data presented. For example, Department of Elementary and Secondary Education may use the U.S. Census 2018 Current Population Survey population data to measure a rate while DHSS may use U.S. Census 2010 Population Estimates. Given multiple data sources, there is no guarantee that two agencies will use the same measurement or calculation practices, and this may be reflected in the data. In a similar vein, different agencies did not employ identical data management practices. While strong efforts were made to ensure that data were accurate and consistent by requesting counts, versus rates or percent data, it may be that different data management practices resulted in minor errors of data entry when data points could not be automatically matched to their corresponding counties.

Data Discrepancies in Low Population Areas

In areas of the state where populations are low, particularly in rural areas, minor adjustments for a given data indicator can have an outsized effect on the percentage of persons represented by that variable. For a hypothetical example, a rural area may have 10 people in it with one person who utilizes food stamps. If another person receives food stamps, the percentage of people in that county on food stamps moves from 10% to 20%. However, if one person utilizes food stamps while living in a county with a population of 100 people, and another person enters the program, the percentage of people on food stamps merely shifts from 1% to 2%. Small changes in a rural county indicator can have large effects on rural county indicator percentages.

County Comparisons Within Missouri

Data for counties in this report are compared to other Missouri counties, or to the statewide average. However, this approach does not allow for comparisons to non-Missouri counties. Furthermore, even Missouri counties that appear to have high reach or low risk relative to other Missouri counties may not be considered high reach or low risk relative to other states or national averages. Put another way, a Missouri county that appears to have high reach or low risk relative to other Missouri counties should not be assumed to be performing satisfactorily.

Geographic Unit of Analysis

Geography itself should be carefully considered as a limitation in this report. The project team chose to use counties as the primary unit of analysis for both simplicity and as the most common unit of geographic analysis for similar reports. Postal or zip codes are generally considered inferior for this type of analysis, as they are created and used primarily for mail delivery and do not always align with county or U.S. Census geographies. U.S. Census tracts are smaller than counties and zip codes yet most data are not readily available at the tract level and would have greatly limited the amount of data that would be available for analysis in this report.

However, counties often cover large areas containing many diverse populations, especially in urban areas. Therefore, presenting county level statistics for racially and economically diverse urban counties carries some risk of diminishing the true picture in that county for a given indicator. Similarly, conducting child care capacity analyses in geographically large counties where child care centers could be clustered in one corner of a county does not adequately depict the hardship encountered by families living in the opposite corner of the same county.

Appendix 4: Qualitative Methodology

LISTENING SESSION METHODOLOGY

A total of 22 listening sessions were conducted from July 30, 2019 through September 30, 2019 to gather perspectives from parents/caregivers and ECCE service providers. In total, 289 people participated in listening sessions.

Listening Session Protocol Development

Separate question paths were developed for parents/caregiver and provider sessions, based on the domains described in the federal guidelines of the PDG B-5 Grant. Several team members collaborated to revise and finalize the question paths, to ensure questions aligned with the domains described in the federal guidelines, and to edit questions to fit within the allotted time for sessions. The Needs Assessment Advisory Committee also had an opportunity to review the question paths. Feedback for the question paths was solicited after the first listening session to ensure responses aligned with the question domains. One question was added based on feedback from one team leader after the second listening session.

Location Selection and Recruitment of Listening Session Participants

Twenty-two listening sessions were conducted throughout Missouri. Locations included Columbia, Kansas City, Springfield, St. Louis County, St. Louis City, and St. Joseph, Kirksville, Kennett, and Salem. These locations were selected based on the initial PDG proposal, in an effort to have listening sessions throughout the state, with a mix of rural and urban communities Additionally, one location changed based on Census data and the desire to have a balance in both Southwest and South Central Missouri.

Demographic and geographic strata

These sessions were designed to represent both service providers and parents/caregivers of both urban and rural communities, as well as both English and Spanish speaking participants.

Ten of these listening sessions were conducted with parents/caregivers and ten were conducted with service providers. The remaining 2 sessions were conducted in mixed groups with Spanish speaking parents/caregivers and service providers in St. Louis City, MO and Kansas City, MO. The decision to hold mixed groups for sessions in Spanish was based on a desire to reach Spanish speaking families, with the theory that Spanish speaking families would have a higher trust in the Listening Session if their Spanish-speaking provider was also there. Finally, there was concern with regard to recruiting sufficient numbers of Spanish-speaking parents/caregivers and providers to justify having separate groups.

Listening sessions were conducted in both rural and urban communities. The following areas were considered urban: Columbia, Kansas City, Springfield, St. Louis County, St. Louis City, and St. Joseph. In Kansas City, listening sessions were conducted both in the urban and suburban communities. The rural communities included: Kirksville, Kennett, and Salem. Rural and urban designations were determined by the 2010 Urban and Rural Classification and Urban Area Criteria, as published through the U.S. Census.

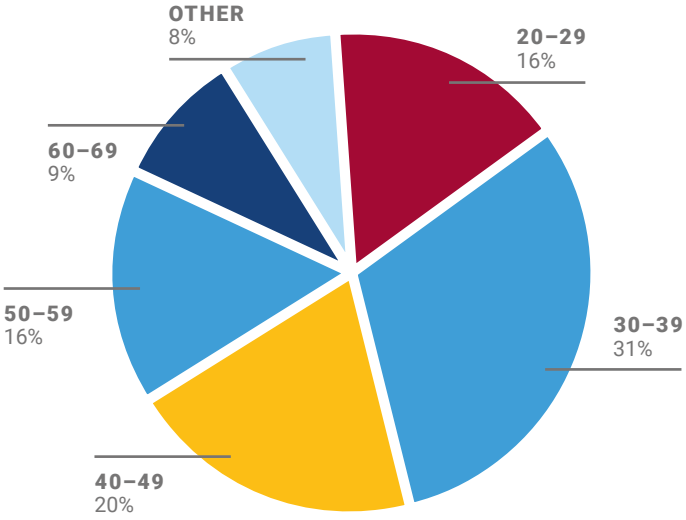
Rational for strata

Each group (urban and rural parents/caregivers and providers) have different perspectives and needs regarding early childhood education in Missouri. Dividing listening sessions into these groups allows for each of these perspectives to be discussed, and their differing needs expressed.

Demographics of Listening Session Participants

The listening sessions drew participants from a wide variety of economic, geographic and educational backgrounds. A total of 289 people attended to share their opinions on early childhood in Missouri. Over 45% of participants identified as non-white[iv] for their race, with all age groups being represented. Almost 84% of attendees were female. The highest percentage of participants (28%) only had a high school diploma or GED, followed by college graduates (22%) and participants with associate's or technical degree (18%).

LISTENING SESSION PARTICIPANTS AGE DISTRIBUTION



Recruitment for Listening Sessions

In each area of Missouri where listening sessions were held, local community partners were identified through County-based University of Missouri Extension Community Development offices and through County-based Caring Communities offices, both statewide networks of community development outreach and service provision.

Listening sessions were advertised based on local community partners' preferences and including strategies such as newsletters, press releases and 'piggybacking' on other local early childhood events. Partners were provided with flyers and a media toolkit to facilitate recruitment of participants. The project team's recruitment targets included a goal of 100 parents/caregivers across the state and 100 providers across the state. Researchers exceeded this goal with a total of 289 participants attending sessions – 142 parents/caregivers attending and 147 providers.

Participants registered for listening sessions by completing an RSVP survey via a Google form, which asked participants about their demographic information (age, gender, race/ethnicity, education and role-specific questions), need for any accommodations, dietary preferences and child care. Based on participant's self-assigned role (provider or parent/caregiver), the survey would ask extra questions specific to the chosen role. For instance, providers were asked about their salary level, while parents/caregivers were asked to provide their household income. Another example included a question about which early child care services the participating provider supplies, while parents were asked which early child care services they use. Participants who were eligible to identify as both a provider and a parent were encouraged to identify the role of their choosing.

Marketing Efforts for Listening Sessions:

The following templates were provided by the project team, in order to be posted to social media platforms:

1. *Want to improve early education and child care in Missouri? Come to the community listening session in [LOCATION]! See the flyer for details.*
2. *Stronger Together Missouri organizes community listening sessions to better understand the needs of children ages 0–5, their families, and care providers. Are you a professional child care provider, caregiver, or parent? We want to hear what is important to you!*

   Join us for a free dinner and help to improve early education and child care in Missouri!

   **Free professional child care will be available. Participants will get a $30 reimbursement.*

   When? [DATE], 5:30–7:30 pm (providers), [DATE] 5:30–7:30 pm (parents/caregivers)

   Where? [LOCATION] To attend the session, please fill out the form: https://forms.gle/DpyXQgtpZkRRbrjn7

[iv] *Including Asian, Hispanic/Latinx, Native American or Alaska Native, Non-white and mixed race*

The following template was used to issue press releases in each community hosting a listening session:

For Immediate release

Community Listening Session in LOCATION

Are you a professional care provider for children from zero to five, parent or caregiver? Do you want to share your story and help to improve childcare in your community?

Stronger Together Missouri organizes community listening sessions focused on early childhood services in [LOCATION] area. Childhood care providers and parents/caregivers are highly encouraged to participate in the sessions and make their voices heard!

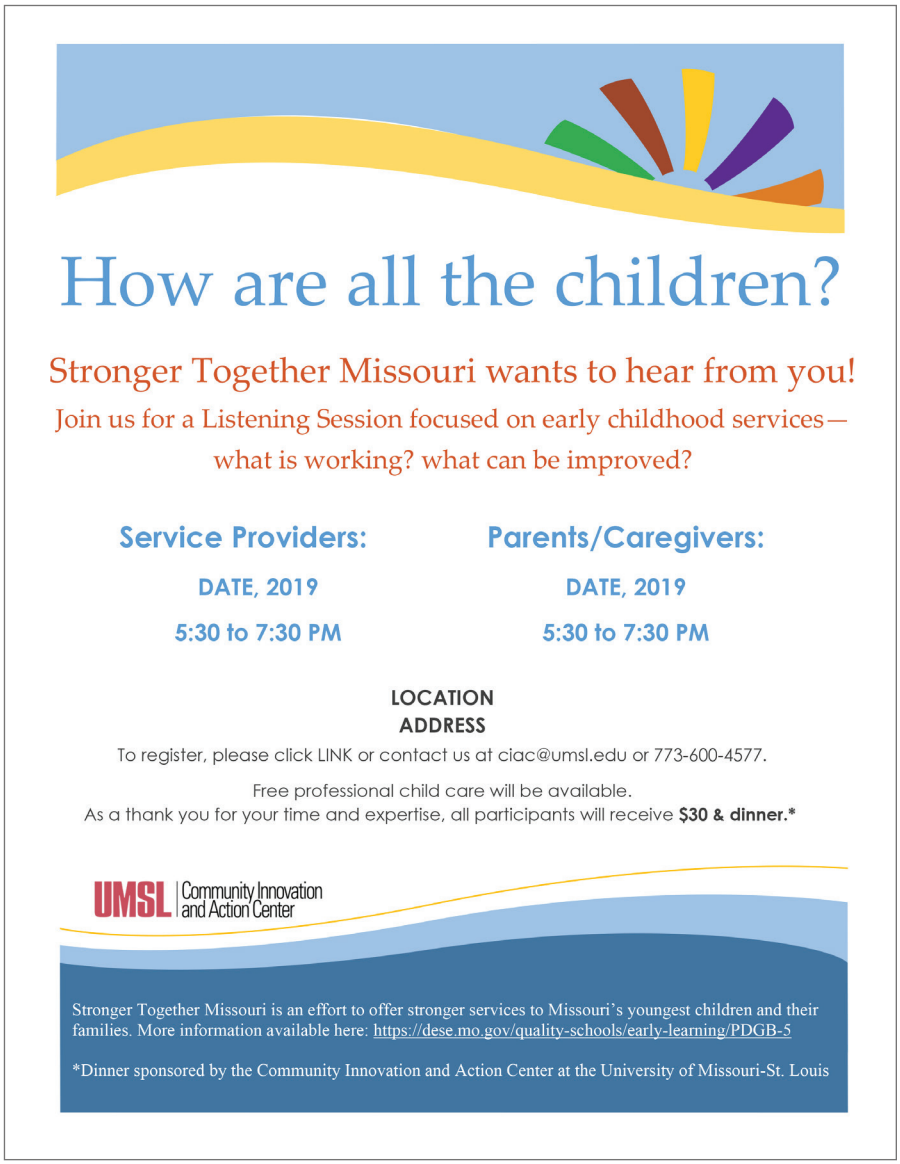
Care providers session will take place on DATE between 5:30pm and 7:30pm, while parents and caregivers are welcome to attend the session on DATE between 5:30pm and 7:30pm.

Free professional childcare will be available during the session. Participants will receive $30 and free dinner will be provided by the Community Innovation and Action Center at the University of Missouri-St. Louis.

To attend the session, you need to register online at [LINK]. Contact Kiley Bednar at kiley.bednar@umsl.edu if you have any questions.

Stronger Together is an effort to offer stronger services to Missouri's youngest children and their families. You can find more information at the website https://dese.mo.gov/quality-schools/early-learning/PDGB-5

The following flyer was distributed to inform stakeholders about listening sessions.



Recruitment Limitations

Recruitment of listening session participants had some limitations. As noted previously, participant recruitment occurred using varying mechanisms (print, social media, word of mouth) in different locations. A majority of participants were recruited due to their association with an existing child care facility (both parents/caregivers and providers). While the team felt this approach led to adequate participation, it should be acknowledged that this likely resulted in some selection bias or what is commonly referred to as a 'convenience sample'.

For example, parents/caregivers utilizing home-based child care providers, or who choose to provide care for their own children at home, were likely under-represented in the sample. Non-licensed child care providers were also likely to be under-represented in the sample as well. It is primarily for this reason that the project team chose to conduct key informant interviews as a mechanism to gather information from important groups that were not well represented through listening sessions.

Data Collection Methods for Listening Sessions

Participant survey development and response rate

If a participant was unable to register through the online survey prior to the event, a paper survey was provided at the time of registration immediately preceding the listening session. While the online RSVP survey had all mandatory questions, meaning that the participant could not complete the registration without answering all questions, some participants who completed paper surveys skipped questions (despite the option "Prefer not to answer") as well as did not provide their names and contact information. Out of a total of 289 listening session participants, only eight (2.77%) did not provide their demographic and/or contact information.

Facilitator Selection

In order to conduct all the Listening Sessions within the short timeframe needed by the project, researchers opted to partner with local facilitators and ensured that all facilitators were trained in the listening session methods and expectations. This training was conducted via a one hour webinar, as well as one-on-one phone calls with facilitators. Local facilitators were primarily drawn from MU Extension, which has a reach in all counties across the state. MU Extension facilitators were selected based on their facilitation skills and experience in conducting listening sessions, as well as their partnerships with leaders and non-profits in the community.

Listening Session Description

Each listening session lasted ninety minutes. Sessions were typically held from 5:30–7:00 pm. The first 20–30 minutes included registration and time for participants to interact with each other if they chose to. Following that, the facilitator welcomed the participants, provided an overview of the purpose and agenda for the evening, and offered 'guidelines' for the discussion. Facilitators also outlined how the data would be shared as well as read a statement regarding anonymity and permission to be recorded. Participants had the option not to continue through the evening if they did not want to be recorded. Facilitators then led with a set of "Thought Cards" where participants wrote their responses as an initial warm-up to the verbal discussion as outlined in the question path. The facilitator closed by thanking the participants, reiterating next steps for the research process, and providing a gift card for participation.

Transcription Methods

All listening session audio recordings were professionally transcribed. Listening session participants were de-identified during audio transcription by removing any personal identifiable information (e.g., names) before analysis. Group characteristics were retained (providers/parents, rural/urban) to enable comparisons of these characteristics. Audio transcription was provided by Verbal Ink, using a level of accuracy they described as 'near-verbatim.' The audio recordings from the two Spanish language listening sessions were translated to English by Verbal Ink in addition to being professionally transcribed. The project team checked 10% of the transcripts against the audio recording to ensure transcription accuracy. Discrepancies were corrected and, given that only minimal levels of errors (less than five errors per page) were detected and those errors did not impact the meaning of what was said, it was not necessary to check all remaining transcripts for accuracy.

Transcription Analysis

The project team conducted a rapid analysis of listening session transcripts, which has been used in other studies, and created a 'summary template' using the original session question path domains, in order to summarize findings and reduce the quantity of data.

Three members of the project team tested the summary template by summarizing four transcripts (two provider sessions, two parent/caregiver sessions). Summaries included potential themes as well as comments on data quality (i.e. missing data, response depth, etc.), any other information that did not fall within the question path domains, as well as important or powerful quotations. The team then met to compare summaries, finalize domains, and establish consistency in data reduction across team members. Minimal inconsistencies were discovered in summarizing techniques, however the meeting allowed team members to discuss their methods and reconcile them.

The remaining transcripts were then summarized individually. A total of 11 transcripts were summarized by at least 2 team members, to ensure consistency. Themes were organized into a matrix and were then summarized to facilitate dissemination of results to report writers.

KEY INFORMANT INTERVIEW METHODOLOGY

Key Informant Interview Protocol Development

In addition to the listening sessions, the project team conducted 15 'key informant interviews' with parents, providers and regional and statewide leaders. The project team recruited key informants and specialists who are not adequately represented in the community listening sessions, such as special education providers, home visiting specialists, and state policy makers. The key informant interview question path was primarily adapted from the Zero to Three State Self-Assessment. Questions that addressed the PDG B-5 domains were kept, and additional questions regarding systems-level domains were added.

Selection and Recruitment of Key Informant Interview Participants

The Needs Assessment Advisory Committee identified gaps in the Listening Sessions audiences after a review of initial demographic data from the first twelve Listening Sessions. Participants were identified through recommendations of the Advisory Committee, Better Together MO partners and consultants. Participants received the following standard outreach email inviting them to participate in a 45 minute interview in service of the Stronger Together MO Needs Assessment. If the interviewee was a parent or provider, they received a gift card, similar to participants in the listening sessions.

Dear Participant,

Stronger Together MO, a federal grant focused providing better services to families, includes a Needs Assessment of early childhood services throughout the state of Missouri. The Community Innovation and Action Center, is partnering with the Institute for Public Policy (IPP) at the University of Missouri to complete this Needs Assessment.

One component of the data collection is to speak with Key Informants regarding their experiences with the system of care for early childhood, including education, physical health and mental health. The Key Informant interviews will complement the 21 Community Listening Sessions held throughout the state in August.

To that end, we are eager to speak with [key actors like yourself in the early childhood space] or [families and service providers who have knowledge and experience with early childhood in Missouri]. Conversations will be 45–60 minutes long and information collected will be used in the aggregate (i.e., nothing will be tied back to individuals).

Would you be willing to speak with us? We are widely available over the next two weeks (DATES). All interviews will be conducted by [phone? Zoom?]. I have attached a one-pager explaining the project. Please be in touch if you have any questions or concerns.

All the best,

NAME

Data Collection Methods for Key Informant Interviews

Multiple key informant interviews were conducted in various settings, including one-on-one interviews and group meetings. Settings and methods for conducting these interviews were decided based on participants preferences. Only one group meeting was conducted with two participants who worked for the same organization and preferred to have their meeting together. Participant permission was obtained to audio-record sessions. Audio transcription and analysis mirrored listening session methods described previously.

QUESTION PATHS FOR LISTENING SESSIONS AND KEY INFORMANT INTERVIEWS

QUESTION	PARENT/CAREGIVER SESSIONS	PROVIDER SESSIONS	KEY INFORMANT INTERVIEWS
What is your experience of administering early childhood programs in the state of Missouri? What is working? What could be improved?			X
WARM-UP: Please take a few minutes to think about or jot down why you wanted to come to today's session. We would like to collect these at the end if you are willing to share.	X	X	
WARM-UP: How are young children in Missouri doing? What do they need to be well?	X		
The state wants to strengthen all services for early childhood (ages 0–5). This includes daycare, home visiting, special education, and mental health services. When it comes to young children, what do you think the state of Missouri should care about?	X	X	X
Please describe your experience in providing early childhood services for groups that do not represent the majority (for example, refugee and immigrant communities, families that opt-out of early care, etc.). What are your ideas to increase engagement in services with these families?			X
How do you make decisions about early childhood services? What is most important to you when it comes to choosing services for your child?	X		
How would you define a quality program?	X		
What information do you need when finding services for your child? What makes it difficult to find services?	X		
What do providers in our community need to successfully care for children 0–5? How do you think that is similar or different to other communities? Is this 'normal' for Missouri or do think this reflects unique aspects of your community?		X	X
What do you see as your biggest need in improving the quality and availability of care for underserved children or those in rural areas? What do you see as the biggest opportunity in improving the quality and availability of care for underserved children and those in rural areas?		X	X
As someone who is providing services to children 0–5 in the state of Missouri, what are the strengths of the state supports (funding, technical assistance, licensing)? What are the challenges of the state supports?		X	X
What are the strengths of your community when it comes to early childhood services? How do you think your community is similar or different to other communities? Is this 'normal' for Missouri or do you think there are unique aspects of your community?	X		

QUESTION PATHS FOR LISTENING SESSIONS AND KEY INFORMANT INTERVIEWS

QUESTION	PARENT/CAREGIVER SESSIONS	PROVIDER SESSIONS	KEY INFORMANT INTERVIEWS
In general, what needs to be improved in early childhood services in your community? How do you think your community is similar or different? Is this 'normal' for Missouri or do you think there are unique aspects of your community?	X		
Sometimes programs serve families who receive care from multiple agencies such as home visiting, special education, mental health or medical care. What is your experience in supporting families who are receiving care from multiple agencies? What supports collaboration with other providers? What do you need to make this experience better?		X	X
What is your experience in participating in programs from multiple agencies? This could include home visiting, special education, mental health supports, medical care. What do you need to make this experience better?	X		
Collaboration and system building can take many forms. These can include aligned policies between departments and between programs serving the same constituents, communication from state to local entities, stable funding that cohesively addresses the range of needs of early childhood. To what extent does Missouri promote collaboration and system building to meet the needs of children birth–5, and their families?			X
What could Missouri improve upon to promote collaboration and system building to meet the needs of children birth–5 and their families?			X
What additional recommendations do you have for special education supports? For home visiting supports?	X		
Tell us about your experience of moving children from early care to Kindergarten. What helped? What didn't?	X	X	
Tell us about your experience of transitioning children from early care to Kindergarten. What policies are in place to ensure continuity of services during this transition? What are some things that facilitate this transition? What are some things that aren't as helpful?			X
How would you describe the workforce serving children 0–5? What needs to be strengthened in order to better support the workforce?	X	X	X
What would you recommend for supporting the workforce of early childhood workers across the state of Missouri?			X
When you think about kids who are getting what they need, who are they? Please describe what they are getting. Please tell us about kids who aren't getting what they need.	X		
What does your community have that helps connect families to appropriate, high quality care and education? What is working? What is a challenge? Is this unique to your community or is this 'normal' for Missouri?		X	X

QUESTION PATHS FOR LISTENING SESSIONS AND KEY INFORMANT INTERVIEWS

QUESTION	PARENT/CAREGIVER SESSIONS	PROVIDER SESSIONS	KEY INFORMANT INTERVIEWS
What works to help parents access child care that is compatible with their employment or training situation? What is needed to improve care for these families?		X	X
What would you note about early childhood facilities?		X	
What barriers currently exist to the funding and provision of high quality early childhood care and education supports?		X	X
How do you or your program use available community and state data to inform your work? What data would you like to have in order to better support children and families?		X	X
If you had a billion dollars, how would you want the state of Missouri to spend it?	X	X	
If the state of Missouri had 1 billion dollars to spend on early childhood services, how would you advise them to spend it?			X
After hearing the discussion tonight, what is your biggest hope for young children in our state?		X	
What further public awareness would you recommend around early childhood needs and services in the state of Missouri?			X
What data, research and evaluation information do you find most useful to inform your work? What would you recommend the state pursue if they wanted to advance the use of data, research and evaluation in Missouri's early childhood service system?			X
Missouri is currently piloting a Quality Assurance Report (a kind of Quality Rating System). What possibilities exist in quality improvement for early childhood services in Missouri? What could you envision as next steps?			X

STAKEHOLDER SURVEY

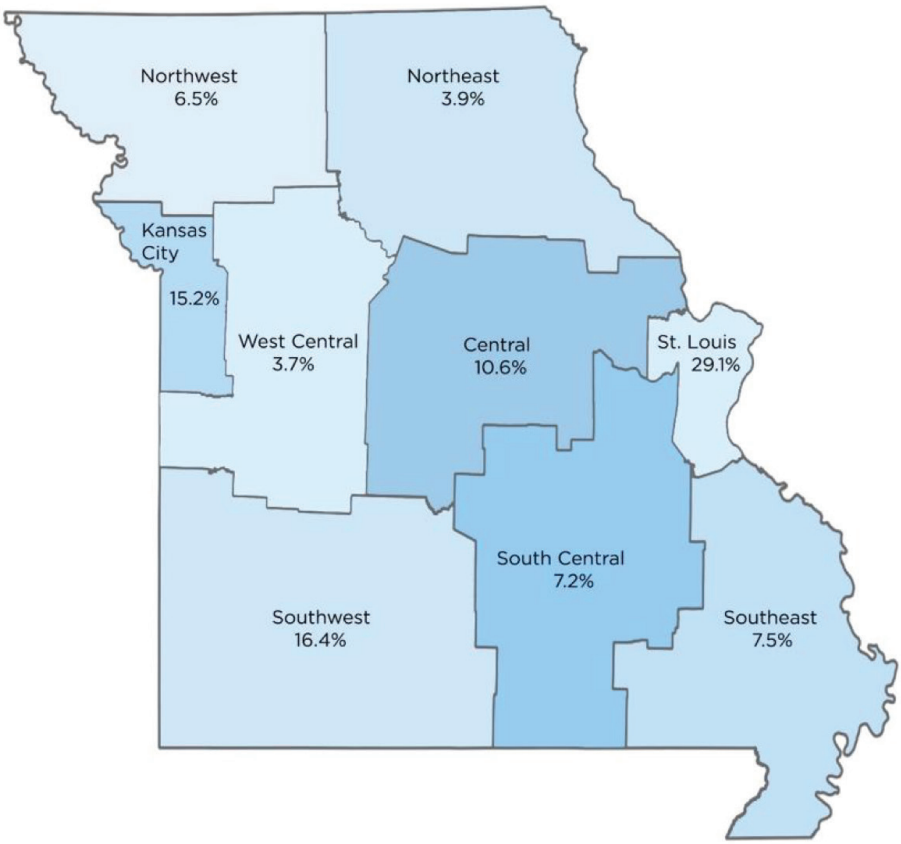
An online survey was distributed by DESE to partners throughout the state on September 27, 2019. The survey closed on Monday, October 14. The purpose of the survey was to gather opinions from stakeholders regarding the status of Missouri's early childhood system. Stakeholders were asked to complete the survey and provide any comments.

The survey was adapted from Zero to Three's Infants and Toddlers in the Policy Picture: A Self-Assessment Toolkit for States.

Approximately 920 stakeholders from across the state of Missouri participated in the survey. The respondents were from government agencies (9%), school districts (34%), non-profit organizations (28%) and other stakeholder agencies (29%).

Survey respondents were from over 272 different zip codes. The top represented zip codes were St. Louis, Kansas City, Columbia, Springfield, St. Charles County, Rolla, and Sikeston.

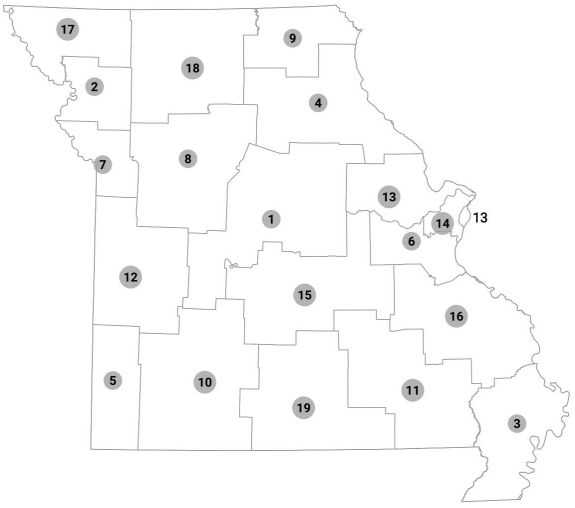
The map indicates the regions of the state and the percentage of respondents in those regions. Individuals living in St. Louis accounted for 29.1% of the total number of respondents, followed by the Southwest region with 16.4% and the Kansas City region with 15.2%. The Northeast and West Central regions had the fewest respondents with 3.9% and 3.7% respectively.



Appendix 5: Head Start Service Regions

#	REGION NAME	HS, EHS
1	Central Missouri Community Action	HS, EHS
2	Community Action Partnership of Greater St. Joseph	HS, EHS
3	Delta Area Economic Opportunity Corporation	HS, EHS
4	Douglass Community Services	HS, EHS
5	Joplin Economic Security Corporation	HS, EHS
6	Jefferson Franklin Community Action Corporation	HS, EHS
7	Mid America Regional Council	HS, EHS
8	Missouri Valley Community Action Agency	HS, EHS
	Children's Therapy Center (Pettis County only)	EHS
9	Northeast Missouri Community Action Agency	HS, EHS
10	Ozarks Area Community Action Corporation	HS, EHS
11	South Central Missouri Community Action Agency	HS, EHS
12	Appleton City CDI	HS, EHS
13	St. Charles & St. Louis City	
	Grace Hill	HS, EHS
	Youth in Need	HS, EHS
14	St. Louis County	
	YWCA of Metropolitan St. Louis	HS, EHS
	Urban League	HS, EHS
15	Missouri Ozarks Community Action, Inc	HS, EHS
16	East Missouri Action Agency	HS
17	Community Services, Inc	HS
18	North Central Missouri College Green Hills	HS, EHS
19	Ozark Action, Inc.	HS

HEAD START & EARLY HEAD START GRANTEE SERVICE AREAS



Notes: This map depicts the Head Start and Early Head Start grantee service areas utilized in this report. This map is based on data received from the Missouri Head Start State Collaboration Office in Nov. of 2019.

KEY: 1-LOW | 2-LOW TO MODERATE | 3-MODERATE TO HIGH | 4-HIGH

Appendix 6: Supplemental Data Tables

PERCENT OF CHILD MALTREATMENT (TOTAL INCIDENTS) IN 2018 FOR CHILDREN BIRTH TO 5

COUNTY	%	RISK LEVEL
Adair	7.2	3
Andrew	2.8	1
Atchison	3.2	1
Audrain	7.2	3
Barry	6.6	2
Barton	7.0	3
Bates	5.8	2
Benton	7.1	3
Bollinger	9.3	4
Boone	4.6	2
Buchanan	9.9	4
Butler	9.6	4
Caldwell	5.6	2
Callaway	7.4	3
Camden	6.7	2
Cape Girardeau	5.5	2
Carroll	5.6	2
Carter	12.2	4
Cass	3.9	1
Cedar	6.8	3
Chariton	4.9	2
Christian	4.1	1
Clark	9.1	4
Clay	3.5	1
Clinton	6.4	2
Cole	4.7	2
Cooper	4.7	2
Crawford	7.5	3
Dade	5.4	2
Dallas	7.8	3
Daviess	7.0	3
DeKalb	4.7	2
Dent	8.8	3
Douglas	6.6	2
Dunklin	8.4	3
Franklin	6.3	2
Gasconade	7.0	3
Gentry	4.2	1
Greene	8.4	3
Grundy	7.3	3
Harrison	7.1	3
Henry	7.2	3
Hickory	7.7	3
Holt	4.0	1
Howard	6.5	2
Howell	8.3	3
Iron	10.0	4
Jackson	5.2	2
Jasper	7.5	3
Jefferson	5.0	2
Johnson	4.3	1
Knox	5.8	2
Laclede	10.4	4
Lafayette	5.4	2
Lawrence	6.9	3
Lewis	6.0	2
Lincoln	5.4	2
Linn	7.1	3
Livingston	10.6	4
McDonald	5.9	2
Macon	7.2	3
Madison	7.3	3
Maries	6.9	3
Marion	9.1	4
Mercer	2.9	1
Miller	7.5	3
Mississippi	11.9	4
Moniteau	4.0	1
Monroe	5.8	2
Montgomery	11.1	4
Morgan	7.7	3
New Madrid	7.5	3
Newton	4.5	1
Nodaway	6.3	2
Oregon	8.7	3
Osage	3.2	1
Ozark	9.6	4
Pemiscot	11.6	4
Perry	4.8	2
Pettis	5.6	2
Phelps	6.6	2
Pike	6.2	2
Platte	2.7	1
Polk	8.6	3
Pulaski	6.4	2
Putnam	7.7	3
Ralls	5.5	2
Randolph	9.8	4
Ray	6.8	3
Reynolds	11.9	4
Ripley	8.1	3
St. Charles	2.6	1
St. Clair	5.4	2
Ste. Genevieve	6.0	2
St. Francois	7.6	3
St. Louis	2.9	1
Saline	7.4	3
Schuyler	5.4	2
Scotland	2.1	1
Scott	7.7	3
Shannon	6.0	2
Shelby	9.6	4
Stoddard	7.9	3
Stone	9.0	4
Sullivan	6.4	2
Taney	7.7	3
Texas	7.6	3
Vernon	7.2	3
Warren	6.3	2
Washington	7.7	3
Wayne	7.8	3
Webster	4.8	2
Worth	5.4	2
Wright	8.0	3
St. Louis City	6.2	2

MEDICAID ENROLLMENT IN 2018 FOR CHILDREN BIRTH TO 5

COUNTY	%	RISK LEVEL
Adair	78.4	3
Andrew	41.9	1
Atchison	53.3	2
Audrain	64.2	2
Barry	82.7	4
Barton	76.2	3
Bates	62.2	2
Benton	81.0	3
Bollinger	80.6	3
Boone	48.9	1
Buchanan	75.8	3
Butler	88.4	4
Caldwell	53.6	2
Callaway	58.9	2
Camden	67.9	3
Cape Girardeau	58.9	2
Carroll	50.9	2
Carter	83.2	4
Cass	47.2	1
Cedar	68.1	3
Chariton	50.7	2
Christian	53.8	2
Clark	65.5	2
Clay	41.6	1
Clinton	50.5	2
Cole	56.0	2
Cooper	57.8	2
Crawford	77.3	3
Dade	70.2	3
Dallas	64.1	2
Daviess	64.6	2
DeKalb	46.8	1
Dent	79.7	3
Douglas	84.1	4
Dunklin	97.1	4
Franklin	54.6	2
Gasconade	59.0	2
Gentry	51.1	2
Greene	63.5	2
Grundy	57.4	2
Harrison	66.8	3
Henry	70.3	3
Hickory	67.9	3
Holt	59.4	2
Howard	58.5	2
Howell	88.4	4
Iron	85.5	4
Jackson	65.6	2
Jasper	73.3	3
Jefferson	48.0	1
Johnson	41.3	1
Knox	55.6	2
Laclede	76.4	3
Lafayette	59.9	2
Lawrence	69.2	3
Lewis	59.9	2
Lincoln	49.0	1
Linn	61.9	2
Livingston	62.3	2
McDonald	81.1	3
Macon	64.2	2
Madison	76.3	3
Maries	57.8	2
Marion	64.5	2
Mercer	37.1	1
Miller	71.7	3
Mississippi	100*	4
Moniteau	48.0	1
Monroe	60.8	2
Montgomery	66.8	3
Morgan	67.7	3
New Madrid	80.0	3
Newton	75.0	3
Nodaway	45.6	1
Oregon	98.7	4
Osage	30.2	1
Ozark	100*	4
Pemiscot	99.3	4
Perry	57.5	2
Pettis	80.8	3
Phelps	66.4	3
Pike	61.3	2
Platte	33.0	1
Polk	65.7	2
Pulaski	45.5	1
Putnam	61.5	2
Ralls	50.4	2
Randolph	75.0	3
Ray	59.3	2
Reynolds	100*	4
Ripley	90.7	4
St. Charles	27.1	1
St. Clair	65.0	2
Ste. Genevieve	54.0	2
St. Francois	73.8	3
St. Louis	48.9	1
Saline	72.2	3
Schuyler	52.7	2
Scotland	34.5	1
Scott	84.3	4
Shannon	97.7	4
Shelby	68.5	3
Stoddard	81.7	3
Stone	82.9	4
Sullivan	76.3	3
Taney	82.4	3
Texas	72.3	3
Vernon	71.4	3
Warren	56.0	2
Washington	78.8	3
Wayne	86.9	4
Webster	56.6	2
Worth	56.2	2
Wright	81.7	3
St. Louis City	85.3	4

**Data percentages greater than 100*

MEDICAID ENROLLMENT IN 2019 FOR CHILDREN BIRTH TO 5 AND PERCENT DECREASE BY SEPTEMBER 2019

COUNTY	2019 % ENROLLED	RISK LEVEL
Adair	48.2	38.5
Andrew	26.2	37.6
Atchison	32.1	39.9
Audrain	41.2	35.9
Barry	50.3	39.1
Barton	45.4	40.4
Bates	35.2	43.5
Benton	48.4	40.3
Bollinger	52.8	34.5
Boone	30.5	37.6
Buchanan	45.0	40.7
Butler	55.8	36.9
Caldwell	30.7	42.8
Callaway	36.4	38.1
Camden	44.6	34.2
Cape Girardeau	36.7	37.7
Carroll	31.8	37.5
Carter	52.0	37.5
Cass	27.8	41.0
Cedar	40.2	41.0
Chariton	35.5	30.0
Christian	35.8	33.5
Clark	35.1	46.4
Clay	26.3	36.8
Clinton	30.0	40.6
Cole	34.3	38.6
Cooper	40.2	30.5
Crawford	47.7	38.2
Dade	44.9	36.0
Dallas	40.4	37.0
Daviess	43.1	33.3
DeKalb	23.9	49.0
Dent	49.1	38.5
Douglas	53.2	36.7
Dunklin	60.8	37.4
Franklin	34.4	37.0
Gasconade	38.9	34.0
Gentry	31.7	38.1
Greene	40.8	35.8
Grundy	38.2	33.5
Harrison	40.5	39.3
Henry	45.7	35.1
Hickory	41.5	38.9
Holt	30.6	48.5
Howard	32.9	43.7
Howell	58.3	34.1
Iron	53.2	37.8
Jackson	39.6	39.7
Jasper	46.6	36.4
Jefferson	31.0	35.4
Johnson	26.4	36.0
Knox	41.3	25.8
Laclede	52.9	30.7
Lafayette	39.7	33.8
Lawrence	45.9	33.6
Lewis	35.0	41.6
Lincoln	31.0	36.8
Linn	39.5	36.2
Livingston	40.3	35.3
McDonald	46.4	42.8
Macon	41.7	35.0
Madison	48.7	36.2
Maries	36.3	37.1
Marion	42.6	34.0
Mercer	22.7	38.8
Miller	46.7	34.8
Mississippi	63.2	38.1
Moniteau	32.9	31.5
Monroe	44.8	26.3
Montgomery	41.3	38.2
Morgan	42.4	37.3
New Madrid	48.3	39.6
Newton	48.0	36.0
Nodaway	27.4	39.9
Oregon	60.6	38.6
Osage	19.5	35.6
Ozark	61.6	43.0
Pemiscot	64.4	35.2
Perry	35.3	38.6
Pettis	52.5	35.0
Phelps	39.3	40.8
Pike	38.1	37.8
Platte	20.5	38.1
Polk	40.8	37.9
Pulaski	26.4	41.9
Putnam	31.9	48.1
Ralls	31.9	36.8
Randolph	46.8	37.7
Ray	38.4	35.2
Reynolds	79.2	23.8
Ripley	58.8	35.2
St. Charles	17.0	37.1
St. Clair	41.9	35.5
Ste. Genevieve	34.9	35.4
St. Francois	47.8	35.3
St. Louis	31.7	35.2
Saline	45.5	37.0
Schuyler	31.8	39.7
Scotland	20.0	42.1
Scott	52.9	37.3
Shannon	66.3	32.1
Shelby	44.9	34.5
Stoddard	51.8	36.6
Stone	54.5	34.3
Sullivan	44.5	41.6
Taney	51.4	37.6
Texas	46.9	35.1
Vernon	46.3	35.1
Warren	36.4	35.1
Washington	49.6	37.1
Wayne	51.4	40.8
Webster	37.7	33.4
Worth	30.8	45.2
Wright	54.9	32.8
St. Louis City	52.4	38.5

PERCENT OF LICENSED CHILD CARE SLOTS FOR CHILDREN AGES BIRTH TO TWO

COUNTY	%
Adair	14.5
Andrew	5.1
Atchison	0
Audrain	4.3
Barry	1.6
Barton	3.2
Bates	6.0
Benton	15.4
Bollinger	1.9
Boone	19.1
Buchanan	11.1
Butler	12.5
Caldwell	0
Callaway	18.3
Camden	14.2
Cape Girardeau	13.7
Carroll	13.8
Carter	5.1
Cass	13.5
Cedar	3.0
Chariton	7.5
Christian	7.5
Clark	5.3
Clay	15.4
Clinton	3.3
Cole	27.4
Cooper	6.7
Crawford	4.7
Dade	0
Dallas	3.6
Daviess	3.6
DeKalb	0
Dent	11.6
Douglas	2.7
Dunklin	12.9
Franklin	6.6
Gasconade	5.2
Gentry	4.5
Greene	14.1

COUNTY	%
Grundy	8.7
Harrison	2.0
Henry	21.8
Hickory	2.0
Holt	0
Howard	7.3
Howell	5.3
Iron	1.9
Jackson	14.9
Jasper	7.6
Jefferson	10.5
Johnson	11.8
Knox	17.6
Laclede	5.6
Lafayette	9.8
Lawrence	1.9
Lewis	1.9
Lincoln	3.4
Linn	1.6
Livingston	2.5
McDonald	2.0
Macon	13.8
Madison	10.9
Maries	0
Marion	10.0
Mercer	0
Miller	4.7
Mississippi	2.8
Moniteau	13.0
Monroe	7.6
Montgomery	13.6
Morgan	3.0
New Madrid	6.5
Newton	5.6
Nodaway	8.8
Oregon	3.6
Osage	20.4
Ozark	2.7
Pemiscot	10.0

COUNTY	%
Perry	17.7
Pettis	15.9
Phelps	2.4
Pike	11.9
Platte	11.0
Polk	8.1
Pulaski	4.8
Putnam	22.2
Ralls	2.1
Randolph	4.1
Ray	3.3
Reynolds	4.2
Ripley	5.3
St. Charles	19.7
St. Clair	3.5
Ste. Genevieve	18.8
St. Francois	13.5
St. Louis	18.8
Saline	3.4
Schuyler	0
Scotland	10.4
Scott	7.4
Shannon	2.3
Shelby	5.1
Stoddard	4.8
Stone	0.8
Sullivan	0
Taney	5.0
Texas	1.4
Vernon	1.7
Warren	4.7
Washington	2.8
Wayne	12.5
Webster	3.5
Worth	0
Wright	1.5
St. Louis City	26.9

PERCENT OF ACCREDITED CHILD CARE SLOTS FOR CHILDREN AGES BIRTH TO TWO

COUNTY	%
Adair	0
Andrew	0
Atchison	3.1
Audrain	0
Barry	0
Barton	0
Bates	0
Benton	0
Bollinger	5.9
Boone	4.7
Buchanan	1.5
Butler	0
Caldwell	1.7
Callaway	0
Camden	2.2
Cape Girardeau	0
Carroll	0
Carter	1.1
Cass	0
Cedar	0
Chariton	0
Christian	0
Clark	2.6
Clay	0
Clinton	3.0
Cole	0
Cooper	3.1
Crawford	0
Dade	0
Dallas	0
Daviess	0
DeKalb	0
Dent	0
Douglas	2.2
Dunklin	2.2
Franklin	0
Gasconade	0
Gentry	0
Greene	4.7

COUNTY	%
Grundy	0
Harrison	0
Henry	9.7
Hickory	0
Holt	0
Howard	0
Howell	2.9
Iron	0
Jackson	3.2
Jasper	0
Jefferson	1.2
Johnson	0
Knox	0
Laclede	0
Lafayette	0
Lawrence	0
Lewis	0
Lincoln	0.5
Linn	0
Livingston	0
McDonald	0
Macon	7.4
Madison	0
Maries	0
Marion	4.7
Mercer	0
Miller	0
Mississippi	0
Moniteau	0
Monroe	0
Montgomery	6.8
Morgan	0
New Madrid	0
Newton	1.7
Nodaway	0
Oregon	0
Osage	0
Ozark	0
Pemiscot	0

COUNTY	%
Perry	0
Pettis	4.6
Phelps	0
Pike	3.7
Platte	2.6
Polk	1.1
Pulaski	2.2
Putnam	0
Ralls	0
Randolph	0
Ray	0
Reynolds	0
Ripley	0
St. Charles	3.8
St. Clair	0
Ste. Genevieve	0
St. Francois	3.4
St. Louis	5.8
Saline	0
Schuyler	0
Scotland	0
Scott	0
Shannon	0
Shelby	0
Stoddard	0
Stone	0
Sullivan	0
Taney	3.8
Texas	1.4
Vernon	0
Warren	1.9
Washington	0
Wayne	0
Webster	0
Worth	0
Wright	0
St. Louis City	8.5

PERCENT OF LICENSED CHILD CARE SLOTS FOR CHILDREN AGES BIRTH TO FIVE

COUNTY	%
Adair	33.2
Andrew	11.1
Atchison	28.6
Audrain	14.6
Barry	6.5
Barton	15.0
Bates	11.3
Benton	19.8
Bollinger	16.7
Boone	38.3
Buchanan	18.1
Butler	27.9
Caldwell	8.0
Callaway	25.6
Camden	31.0
Cape Girardeau	28.8
Carroll	19.7
Carter	22.0
Cass	31.6
Cedar	9.0
Chariton	26.8
Christian	16.8
Clark	25.4
Clay	27.1
Clinton	9.4
Cole	41.5
Cooper	17.7
Crawford	22.4
Dade	7.9
Dallas	13.0
Daviess	4.5
DeKalb	2.8
Dent	24.8
Douglas	16.9
Dunklin	27.4
Franklin	16.3
Gasconade	20.7
Gentry	35.7
Greene	22.5

COUNTY	%
Grundy	17.1
Harrison	12.4
Henry	30.4
Hickory	21.0
Holt	14.4
Howard	18.9
Howell	19.7
Iron	12.9
Jackson	26.6
Jasper	14.4
Jefferson	19.0
Johnson	21.6
Knox	30.0
Laclede	12.7
Lafayette	21.4
Lawrence	6.8
Lewis	13.2
Lincoln	8.1
Linn	12.6
Livingston	24.3
McDonald	8.2
Macon	22.4
Madison	40.2
Maries	13.7
Marion	29.6
Mercer	3.6
Miller	18.7
Mississippi	23.6
Moniteau	23.2
Monroe	27.7
Montgomery	15.4
Morgan	12.4
New Madrid	22.7
Newton	15.6
Nodaway	30.1
Oregon	16.5
Osage	53.8
Ozark	12.9
Pemiscot	31.5

COUNTY	%
Perry	41.8
Pettis	19.7
Phelps	9.1
Pike	22.0
Platte	15.6
Polk	14.2
Pulaski	9.6
Putnam	31.3
Ralls	13.4
Randolph	21.4
Ray	5.0
Reynolds	8.6
Ripley	17.4
St. Charles	34.0
St. Clair	11.5
Ste. Genevieve	34.5
St. Francois	37.1
St. Louis	31.8
Saline	14.0
Schuyler	14.1
Scotland	18.6
Scott	29.9
Shannon	9.3
Shelby	13.4
Stoddard	27.1
Stone	12.2
Sullivan	14.4
Taney	12.9
Texas	15.1
Vernon	13.9
Warren	14.4
Washington	21.5
Wayne	19.4
Webster	16.5
Worth	15.4
Wright	16.1
St. Louis City	39.6

PERCENT OF ACCREDITED CHILD CARE SLOTS FOR CHILDREN AGES BIRTH TO FIVE

COUNTY	%
Adair	11.8
Andrew	0
Atchison	0
Audrain	2.5
Barry	0.8
Barton	1.8
Bates	1.7
Benton	0
Bollinger	0
Boone	7.2
Buchanan	5.2
Butler	4.2
Caldwell	3.2
Callaway	1.9
Camden	0.8
Cape Girardeau	3.1
Carroll	0
Carter	10.3
Cass	3.5
Cedar	0
Chariton	0
Christian	1.8
Clark	0
Clay	4.5
Clinton	0
Cole	3.1
Cooper	3.6
Crawford	7.1
Dade	0
Dallas	0
Daviess	0
DeKalb	0
Dent	0.9
Douglas	0
Dunklin	2.4
Franklin	3.9
Gasconade	0
Gentry	11.7
Greene	6.0

COUNTY	%
Grundy	0
Harrison	0
Henry	15.8
Hickory	0
Holt	0
Howard	0
Howell	3.9
Iron	0
Jackson	6.3
Jasper	0
Jefferson	2.6
Johnson	0
Knox	0
Laclede	0
Lafayette	4.3
Lawrence	0
Lewis	0
Lincoln	1.2
Linn	4.6
Livingston	0
McDonald	0
Macon	13.4
Madison	11.5
Maries	3.2
Marion	14.6
Mercer	0
Miller	0
Mississippi	0
Moniteau	1.6
Monroe	3.3
Montgomery	5.1
Morgan	1.3
New Madrid	0
Newton	2.9
Nodaway	6.3
Oregon	0
Osage	3.5
Ozark	0
Pemiscot	1.0

COUNTY	%
Perry	8.2
Pettis	1.4
Phelps	0
Pike	4.2
Platte	3.7
Polk	3.3
Pulaski	1.6
Putnam	0
Ralls	3.3
Randolph	5.2
Ray	0
Reynolds	0
Ripley	0
St. Charles	4.6
St. Clair	2.3
Ste. Genevieve	3.4
St. Francois	3.0
St. Louis	10.2
Saline	2.6
Schuyler	0
Scotland	0
Scott	0.7
Shannon	3.9
Shelby	0
Stoddard	2.5
Stone	0
Sullivan	4.1
Taney	5.1
Texas	4.0
Vernon	0
Warren	3.8
Washington	0
Wayne	0
Webster	1.1
Worth	0
Wright	0.9
St. Louis City	12.1

KEY: 1-LOW | 2-LOW TO MODERATE | 3-MODERATE TO HIGH | 4-HIGH

PERCENT OF CHILDREN AGES BIRTH TO FIVE RECEIVING PARENTS AS TEACHERS PROGRAM

COUNTY	%	RISK LEVEL
Adair	14.0	3
Andrew	8.7	2
Atchison	10.2	2
Audrain	4.4	1
Barry	13.9	3
Barton	11.2	2
Bates	14.2	3
Benton	15.6	3
Bollinger	14.6	3
Boone	14.9	3
Buchanan	19.0	3
Butler	8.2	2
Caldwell	17.7	3
Callaway	6.9	2
Camden	17.6	3
Cape Girardeau	12.1	2
Carroll	11.9	2
Carter	10.3	2
Cass	14.6	3
Cedar	10.6	2
Chariton	12.7	2
Christian	14.8	3
Clark	4.0	1
Clay	11.1	2
Clinton	26.5	4
Cole	17.9	3
Cooper	14.8	3
Crawford	13.3	2
Dade	12.2	2
Dallas	8.0	2
Daviess	17.5	3
DeKalb	13.7	3
Dent	6.3	1
Douglas	12.6	2
Dunklin	6.7	1
Franklin	11.8	2
Gasconade	18.6	3
Gentry	16.2	3
Greene	16.1	3
Grundy	9.3	2
Harrison	18.8	3
Henry	20.9	4
Hickory	7.5	2
Holt	12.2	2
Howard	11.5	2
Howell	5.2	1
Iron	15.4	3
Jackson	7.7	2
Jasper	30.0	4
Jefferson	10.3	2
Johnson	9.4	2
Knox	16.7	3
Laclede	12.6	2
Lafayette	13.6	3
Lawrence	14.6	3
Lewis	27.8	4
Lincoln	11.8	2
Linn	21.7	4
Livingston	11.6	2
McDonald	3.7	1
Macon	12.2	2
Madison	3.9	1
Maries	11.3	2
Marion	32.8	4
Mercer	15.8	3
Miller	25.3	4
Mississippi	13.3	2
Moniteau	4.6	1
Monroe	5.2	1
Montgomery	6.7	1
Morgan	8.6	2
New Madrid	10.1	2
Newton	12.4	2
Nodaway	15.6	3
Oregon	5.3	1
Osage	20.4	4
Ozark	33.2	4
Pemiscot	9.2	2
Perry	16.8	3
Pettis	6.6	1
Phelps	10.1	2
Pike	11.4	2
Platte	7.6	2
Polk	12.0	2
Pulaski	5.4	1
Putnam	31.1	4
Ralls	0	1
Randolph	18.5	3
Ray	9.7	2
Reynolds	22.9	4
Ripley	3.2	1
St. Charles	19.9	3
St. Clair	29.2	4
Ste. Genevieve	11.6	2
St. Francois	12.5	2
St. Louis	16.3	3
Saline	16.4	3
Schuyler	8.5	2
Scotland	25.0	4
Scott	6.3	1
Shannon	3.3	1
Shelby	15.6	3
Stoddard	22.7	4
Stone	12.3	2
Sullivan	17.1	3
Taney	14.2	3
Texas	13.4	2
Vernon	12.9	2
Warren	11.0	2
Washington	19.7	3
Wayne	25.9	4
Webster	10.1	2
Worth	10.0	2
Wright	9.7	2
St. Louis City	0.7	1

KEY: 1-LOW | 2-LOW TO MODERATE | 3-MODERATE TO HIGH | 4-HIGH

PERCENT OF CHILDREN AGES BIRTH TO TWO RECEIVING CHILD CARE SUBSIDY

COUNTY	%	RISK LEVEL
Adair	7.8	3
Andrew	1.2	2
Atchison	—	—
Audrain	3.7	2
Barry	1.1	2
Barton	1.8	2
Bates	1.8	2
Benton	11.2	4
Bollinger	4.4	2
Boone	11.1	4
Buchanan	7.9	3
Butler	9.1	4
Caldwell	4.7	3
Callaway	7.0	3
Camden	6.0	3
Cape Girardeau	7.1	3
Carroll	0.7	2
Carter	0.9	2
Cass	6.1	3
Cedar	2.8	2
Chariton	2.0	2
Christian	4.7	3
Clark	0.8	2
Clay	5.3	3
Clinton	2.3	2
Cole	14.6	4
Cooper	6.8	3
Crawford	3.6	2
Dade	—	—
Dallas	2.7	2
Daviess	2.7	2
DeKalb	1.1	2
Dent	6.1	3
Douglas	4.4	2
Dunklin	8.2	3
Franklin	7.3	3
Gasconade	3.1	2
Gentry	2.5	2
Greene	9.6	4
Grundy	3.5	2
Harrison	1.0	2
Henry	6.7	3
Hickory	2.5	2
Holt	—	—
Howard	4.7	3
Howell	7.3	3
Iron	1.8	2
Jackson	13.0	4
Jasper	4.9	3
Jefferson	7.5	3
Johnson	5.0	3
Knox	9.2	4
Laclede	6.0	3
Lafayette	3.6	2
Lawrence	1.9	2
Lewis	0.6	2
Lincoln	1.9	2
Linn	1.0	2
Livingston	2.4	2
McDonald	1.3	2
Macon	7.0	3
Madison	11.2	4
Maries	0.4	1
Marion	6.1	3
Mercer	—	—
Miller	2.2	2
Mississippi	6.1	3
Moniteau	3.8	2
Monroe	3.2	2
Montgomery	1.7	2
Morgan	2.4	2
New Madrid	4.7	3
Newton	4.2	2
Nodaway	0.9	2
Oregon	4.9	3
Osage	4.6	2
Ozark	—	—
Pemiscot	9.9	4
Perry	5.0	3
Pettis	3.8	2
Phelps	7.1	3
Pike	4.5	2
Platte	3.0	2
Polk	4.4	2
Pulaski	2.6	2
Putnam	1.1	2
Ralls	1.1	2
Randolph	7.1	3
Ray	0.5	2
Reynolds	0.7	2
Ripley	4.3	2
St. Charles	5.0	3
St. Clair	0.6	2
Ste. Genevieve	5.6	3
St. Francois	9.1	4
St. Louis	15.6	4
Saline	1.4	2
Schuyler	0.9	2
Scotland	2.5	2
Scott	13.7	4
Shannon	0.8	2
Shelby	1.7	2
Stoddard	7.9	3
Stone	2.1	2
Sullivan	0.4	1
Taney	2.2	2
Texas	1.5	2
Vernon	2.6	2
Warren	—	—
Washington	4.4	2
Wayne	2.7	2
Webster	1.9	2
Worth	—	—
Wright	1.9	2
St. Louis City	30.3	4

PERCENT OF CHILDREN AGES THREE TO FIVE RECEIVING CHILD CARE SUBSIDY

COUNTY	%	RISK LEVEL
Adair	11.4	3
Andrew	2.1	2
Atchison	0.6	1
Audrain	5.6	2
Barry	2.3	2
Barton	6.3	2
Bates	2.6	2
Benton	11.7	3
Bollinger	6.9	2
Boone	14.1	4
Buchanan	10.6	3
Butler	15.2	4
Caldwell	5.0	2
Callaway	10.5	3
Camden	10.2	3
Cape Girardeau	10.7	3
Carroll	2.4	2
Carter	1.2	1
Cass	10.2	3
Cedar	2.9	2
Chariton	1.7	2
Christian	9.2	3
Clark	2.7	2
Clay	7.1	2
Clinton	3.5	2
Cole	21.7	4
Cooper	13.3	3
Crawford	5.8	2
Dade	0.5	1
Dallas	7.1	2
Daviess	4.2	2
DeKalb	2.1	2
Dent	8.0	3
Douglas	5.7	2
Dunklin	10.8	3
Franklin	12.0	3
Gasconade	4.9	2
Gentry	4.7	2
Greene	15.2	4
Grundy	7.3	2
Harrison	2.1	2
Henry	11.6	3
Hickory	5.7	2
Holt	—	—
Howard	8.5	3
Howell	9.7	3
Iron	4.6	2
Jackson	19.0	4
Jasper	9.8	3
Jefferson	11.5	3
Johnson	7.7	3
Knox	4.9	2
Laclede	8.2	3
Lafayette	7.3	2
Lawrence	3.9	2
Lewis	0.3	1
Lincoln	4.6	2
Linn	3.5	2
Livingston	5.2	2
McDonald	2.3	2
Macon	10.9	3
Madison	25.3	4
Maries	1.2	1
Marion	12.0	3
Mercer	—	—
Miller	3.8	2
Mississippi	7.3	2
Moniteau	9.9	3
Monroe	8.7	3
Montgomery	*2.2*	*2*
Morgan	*5.5*	*2*
New Madrid	*9.6*	*3*
Newton	*8.2*	*3*
Nodaway	*0.9*	*1*
Oregon	*6.8*	*2*
Osage	*7.5*	*2*
Ozark	—	—
Pemiscot	*12.7*	*3*
Perry	10.7	3
Pettis	9.2	3
Phelps	9.2	3
Pike	9.3	3
Platte	5.0	2
Polk	9.3	3
Pulaski	4.8	2
Putnam	4.0	2
Ralls	3.8	2
Randolph	12.5	3
Ray	1.5	2
Reynolds	1.1	1
Ripley	9.9	3
St. Charles	7.0	2
St. Clair	1.6	2
Ste. Genevieve	7.1	2
St. Francois	12.3	3
St. Louis	21.2	4
Saline	2.5	2
Schuyler	0	1
Scotland	3.0	2
Scott	20.1	4
Shannon	2.0	2
Shelby	3.3	2
Stoddard	12.4	3
Stone	9.0	3
Sullivan	1.6	2
Taney	7.0	2
Texas	5.3	2
Vernon	6.4	2
Warren	0.4	1
Washington	9.7	3
Wayne	6.6	2
Webster	3.8	2
Worth	—	—
Wright	4.9	2
St. Louis City	44.3	4

PERCENT OF CHILDREN AGES THREE TO FIVE UTILIZING TITLE I FUNDING

COUNTY	%
Adair	2.9
Andrew	–
Atchison	134.8
Audrain	2.1
Barry	28.1
Barton	8.6
Bates	21.1
Benton	29.2
Bollinger	9.3
Boone	4.1
Buchanan	5.4
Butler	5.0
Caldwell	22.8
Callaway	13.1
Camden	18.8
Cape Girardeau	10.2
Carroll	5.4
Carter	25.3
Cass	9.1
Cedar	17.4
Chariton	19.9
Christian	13.5
Clark	–
Clay	5.7
Clinton	15.3
Cole	0.8
Cooper	12.5
Crawford	8.5
Dade	33.6
Dallas	18.8
Daviess	30.9
DeKalb	22.0
Dent	23.3
Douglas	26.0
Dunklin	29.4
Franklin	6.4
Gasconade	21.1
Gentry	29.7
Greene	11.7

COUNTY	%
Grundy	33.8
Harrison	34.7
Henry	25.4
Hickory	14.8
Holt	17.0
Howard	29.4
Howell	24.0
Iron	24.9
Jackson	8.6
Jasper	14.1
Jefferson	2.2
Johnson	16.6
Knox	23.3
Laclede	29.8
Lafayette	12.3
Lawrence	25.8
Lewis	8.5
Lincoln	5.9
Linn	23.1
Livingston	28.6
McDonald	24.2
Macon	6.8
Madison	26.0
Maries	34.6
Marion	23.5
Mercer	12.8
Miller	25.4
Mississippi	28.3
Moniteau	8.6
Monroe	28.7
Montgomery	24.9
Morgan	14.2
New Madrid	32.0
Newton	15.0
Nodaway	23.4
Oregon	28.1
Osage	9.2
Ozark	25.0
Pemiscot	22.4

COUNTY	%
Perry	–
Pettis	7.2
Phelps	8.9
Pike	20.3
Platte	2.2
Polk	19.0
Pulaski	23.6
Putnam	18.6
Ralls	6.0
Randolph	22.0
Ray	15.3
Reynolds	21.3
Ripley	12.4
St. Charles	2.1
St. Clair	16.4
Ste. Genevieve	14.6
St. Francois	17.1
St. Louis	1.4
Saline	19.9
Schuyler	19.6
Scotland	19.3
Scott	14.4
Shannon	37.2
Shelby	26.7
Stoddard	12.2
Stone	20.9
Sullivan	29.9
Taney	10.0
Texas	22.1
Vernon	18.8
Warren	12.7
Washington	18.7
Wayne	26.5
Webster	21.9
Worth	–
Wright	31.8
St. Louis City	23.4

Appendix 7: State of Missouri County Map

MISSOURI COUNTIES AND THE CITY OF ST. LOUIS