

FIRST THINGS FIRST

East Maricopa



2018 NEEDS AND ASSETS REPORT

EAST MARICOPA REGIONAL PARTNERSHIP COUNCIL 2018 NEEDS AND ASSETS REPORT

Prepared by

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Funded by

First Things First East Maricopa Regional Partnership Council

LETTER FROM THE CHAIR

September 15, 2017

Message from the Chair:

Since the inception of First Things First, the East Maricopa Regional Partnership Council has taken great pride in supporting evidence-based and evidence-informed early childhood programs that are improving outcomes for young children. Through both programmatic and other systems-building approaches, the early childhood programs and services supported by the regional council have strengthened families, improved the quality of early learning, and enhanced the health and well-being of children birth to 5 years old in our community.

This impact would not have been possible without data to guide our discussions and decisions. One of the primary sources of that data is our regional Needs and Assets report, which provides us with information about the status of families and young children in our community, identifies the needs of young children, and details the supports available to meet those needs. Along with feedback from families and early childhood stakeholders, the report helps us to prioritize the needs of young children in our area and determine how to leverage First Things First resources to improve outcomes for young children in our communities.

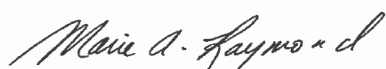
The East Maricopa Regional Council would like to thank our Needs and Assets vendor, John and Doris Norton School of Family and Consumer Sciences, for their knowledge, expertise and analysis of the East Maricopa region. Their partnership has been crucial to our development of this report and to our understanding of the extensive information contained within these pages.

As we move forward, the First Things First East Maricopa Regional Partnership Council remains committed to helping more children in our community arrive at kindergarten prepared to be successful by funding high-quality early childhood services, collaborating with system partners to maximize resources, and continuing to build awareness across all sectors on the importance of the early years to the success of our children, our communities and our state.

Thanks to our dedicated staff, volunteers and community partners, First Things First has made significant progress toward our vision that all children in Arizona arrive at kindergarten healthy and ready to succeed.

Thank you for your continued support.

Sincerely,

A handwritten signature in cursive script that reads "Marie A. Raymond".

Marie Raymond, Chair

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INTRODUCTORY SUMMARY AND ACKNOWLEDGMENTS

90 percent of a child's brain develops before kindergarten and the quality of a child's early experiences impact whether their brain will develop in positive ways that promote learning. Understanding the critical role the early years play in a child's future success is crucial to our ability to foster each child's optimal development and, in turn, impact all aspects of wellbeing of our communities and our state.

This Needs and Assets Report for the East Maricopa Region helps us in understanding the needs of young children, the resources available to meet those needs and gaps that may exist in those resources. An overview of this information is provided in the Executive Summary and documented in further detail in the full report.

The First Things First East Maricopa Regional Partnership Council recognizes the importance of investing in young children and ensuring that families and caregivers have options when it comes to supporting the healthy development of young children in their care. This report provides information that will aid the Council's funding decisions, as well as our work with community partners on building a comprehensive early childhood system that best meets the needs of young children in our community.

It is our sincere hope that this information will help guide community conversations about how we can best support school readiness for all children in the East Maricopa region. This information may also be useful to stakeholders in our area as they work to enhance the resources available to young children and their families and as they make decisions about how best to support children birth to 5 years old in our area.

Acknowledgments:

We want to thank the Arizona Department of Economic Security and the Arizona Child Care Resource and Referral, the Arizona Department of Health Services, the Arizona Department of Education, the Census Bureau, the Arizona Department of Administration- Employment and Population Statistics, Dignity Health Community Health Needs Assessment, and the Arizona Health Care Cost Containment System for their contributions of data for this report, and their ongoing support and partnership with First Things First on behalf of young children.

To the current and past members of the East Maricopa Regional Partnership Council, your vision, dedication, and passion have been instrumental in improving outcomes for young children and families within the region. Our current efforts will build upon those successes with the ultimate goal of building a comprehensive early childhood system for the betterment of young children within the region and the entire state.

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EXECUTIVE SUMMARY

This Needs and Assets Report is the sixth biennial assessment of the challenges and opportunities facing children birth to age 5 and their families in the First Things First East Maricopa Region.

Population Characteristics

According to the U.S. Census, in 2010, 54,701 children under the age of six resided in the East Maricopa Region representing approximately eight percent of the region's total population. Just over half (54%) of these preschool-age children are non-Hispanic white and most of the rest (27%) are Hispanic or Latino. Five percent are African American, seven percent are Asian or Pacific Islander, and three percent are American Indian.

The 2010 Census data also show that 12 percent of households in the region have at least one child under 6 years old. In the town of Guadalupe, one-third of the households have at least one young child. The Carefree community has relatively few households (3%) with young children. According to the American Community Survey (ACS), about 29 percent of children in the region live with a single parent, which is lower than the percentage statewide (38%). The proportion of young children living in a grandparent's household is 8 percent in both the region but 14 percent in the state as a whole.

In the East Maricopa Region, 82 percent of residents (age 5 and older) speak English at home with Spanish (10%) being the second most common home language. Most of the residents who speak a language other than English at home report that they also speak English very well. Only five percent of the population are reported not to speak English very well. Only three percent of households in the region are classified as limited-English-speaking, which means that there is no adult who speaks English very well. The highest proportion of limited-English-speaking households are found in downtown Chandler and in central Tempe.

Economic Characteristics

The median income for all Maricopa County families is estimated to be \$64,100. The median income for families with two parents and children under age 18 is more than \$15,000 higher (\$79,800). Single-parent families make substantially less: the median income for households run by a single female in the county is \$27,800. The median income for multi-generational families headed by grandparents is \$57,000 in the county; such families in which the grandparent is responsible for the grandchild earn less (median = \$51,500); and the median income is even lower (\$40,400) for the families in which the grandparent is responsible for the grandchild without the child's parents in the home.

An estimated 11 percent of the total (all-age) population of the region—and 17 percent of the young children—live in poverty. While child poverty is relatively rare in some areas—such as Cave Creek or Paradise Valley Village—nearly a third (32%) of the young children in Guadalupe and almost half (49%) of those in Fort McDowell live in families whose incomes are below the poverty line. Grandparents who are responsible for the grandchildren living with them have a greater rate of poverty (17%), compared to the general population of the region. The poverty rate for these grandparents is even higher in Guadalupe (44%) and Tempe (49%).

About 31 percent of families in the region with children aged four and under live below 185 percent of the Federal Poverty Level (which is, for example, \$3,677 or less monthly for a family of four), and this is slightly less than the 46 percent in the county and 49 percent across the state. Across the sub-regions, a majority of families with children ages 0 to 4 earn less than 185 percent of the FPL in Guadalupe (59%), Tempe (54%), and Fort McDowell (56%). In spite of this need, the number of young children supported by the TANF/Cash Assistance program has declined in recent years, in the region (down 44%) and statewide (down 39%).

Unemployment rates have been dropping steadily in both Maricopa County and the state since 2010. In 2015, the unemployment rate in Maricopa County was approximately 5 percent. Similar decreases have occurred in each of the cities and towns in the East Maricopa Region for which data are available, although the overall level of unemployment in 2015 was higher in Guadalupe (9.8%) and lower in Cave Creek (3.6%), Carefree (2.8%), and Paradise Valley (1.9%).

Nearly two-thirds (63%) of young children in the region live in a home in which there is no stay-at-home parent. (Approximately 39% of young children live with two parents who are both in the labor force, plus 24% live with a single parent who is in the labor force.) This calculates to approximately 34,200 children without a stay-at-home parent.

Twenty-five percent of children (those under 18 years old) in the county are food insecure, slightly lower than the state's 27 percent. While the number of young children participating in SNAP has declined since 2012, this program still helps to support over twelve thousand children annually in the East Maricopa Region. WIC enrollment has also declined slightly from 2012 (31% of children under five) to 2015 (26%). Just over 30 percent of all public- and charter-school students in the region have been eligible for free or reduced-price lunch since 2012, lower than across the state, where the rates are just under 60 percent.

Of the 343,317 occupied housing units in the region, 64 percent are occupied by homeowners, a little higher than countywide (61% owner-occupied). Residents of the region have a similar housing-cost burden to residents of the state as a whole: 33 percent of the region's housing units (and 34% of the state's) cost more than 30 percent of the household income.

Nearly four-fifths (79%) of the population of the East Maricopa Region have lived in the same house or apartment for one year or longer. Most of the rest (15%) had moved from within Maricopa County in the past year. More people had moved into their current home in the region from out of state (5%) than had come from elsewhere in Arizona (only 1%). The mobility data for the entire county show a similar pattern. Mobility was highest in Tempe, where only 67 percent of the population were living where they had a year ago. (College students living in dormitories or other group housing are not included in these statistics.) Mobility was lowest in Fort McDowell, where 94 percent of the population were living in the same place as in the previous year.

Across the East Maricopa Region, an estimated 5 percent of the 343,317 households have no vehicle available to them. This rate is higher in Guadalupe (8%), Tempe (11%), and south Scottsdale (9%).

Educational Indicators

In the 2014-2015 school year, 55 percent of East Maricopa Region third-grade students attained a proficient or highly proficient score on the AzMERIT Math assessment, which was greater than the passing rate as across Arizona as a whole (41%). Performance on the English Language Arts (ELA) test

was similar, with 57 percent of students in the region demonstrating proficiency, higher than the 40 percent across the state.

The rate of chronic absence (which is an attendance rate of less than 90 percent) among children in first through third grade in the region in 2015 (28%) was lower than the statewide rate (36%). The high school drop-out rate in the region, which had been about three percent from 2012 to 2014, increased to about six percent in 2015. Similarly, the four-year graduation rate in the region in 2015 (77%) was lower than it had been in previous years (84% in 2012 and 2013, and 82% in 2014). Adults (ages 25 and up) in the region are more likely to have a bachelor's degree or higher (46%) compared to adults in the entire county (30%) or state (27%).

Early Learning

According to the most recent data available in 2015 and 2016, there were 333 registered child care and early education providers in the East Maricopa Region, whose total estimated capacity was 28,340 children. About one-third of these providers are located in Chandler (113); there are fewer than 10 each in Carefree (1), Cave Creek (8), Fountain Hills (8), Guadalupe (3), and the Rio Verde-Fort McDowell-Goldfield Ranch area (1). In the region, there are an estimated 34,200 children without a stay-at-home parent, which is about 20 percent more than the estimated child-care capacity of 28,340 children. Of the 333 known child care providers in the region, about 22 percent (n=74) are participating in the Quality First program.

Families in Maricopa County are paying the same proportion of their overall income for a child care slot as other families statewide. Single-parent homes, particularly those with a single female householder, have a lower median income, resulting in a higher proportion of their income being spent on child care. The number of children in the region receiving a Department of Economic Security (DES) subsidy increased from 1,658 in 2013 to 2,424 in 2015.

In the East Maricopa Region, more children (ages birth to 2) were served by the Arizona Early Intervention Program (AzEIP) in FY2015 (965) than in either of the two years prior (418 in 2013 and 467 in 2014). The numbers served by the Division of Developmental Disabilities (DDD) have decreased over time, however. In the region, 248 children (ages birth to 2) were served by DDD in 2012 but only 188 were served in 2015. For children ages 3 to 5, the number served decreased from 312 to 264 from 2012 to 2015.

The number of preschoolers in special education in ADE schools in the region has remained fairly constant over the past four years (946 in 2012 to 1,003 in 2015). Among these children, 31 percent have a speech or language impairment, 49 percent have a developmental disability, and most of the others have a severe delay (18%).

Child Health

According to American Community Survey data averaged over the five years from 2010 to 2014, seven percent of young children in the East Maricopa Region are estimated to be without health insurance, along with 11 percent of the all-ages population in the region. Seventeen percent of children in Guadalupe were without health insurance.

In the calendar year 2014, East Maricopa Region residents gave birth to 8,441 babies, which was almost 10 percent of all births in the state. Of the mothers who gave birth in the region in 2014, 60 percent

were non-Hispanic White, 33 percent were Hispanic or Latina, 5 percent were Black or African American, 3 percent were Asian or Pacific Islander, and 10 percent were American Indian or Alaska Native. New mothers in the region had a higher level of educational attainment (48% with a college degree or higher), compared to the county (26%) or the state (23%). Mothers under the age of 20 accounted for four percent of the total in the region, but 7 percent in Maricopa County as a whole. Relatively fewer mothers in the region reported smoking (3%) as compared to the state (5%). Fifty-five percent of new mothers who participated in WIC were overweight or obese before becoming pregnant, compared to 58 percent statewide, and the rate of pre-pregnancy obesity in the region and the state has gradually increased each year since 2012. Nearly all mothers received at least some form of prenatal care, and only three percent of babies in the region were born to mothers who had had fewer than five prenatal care visits (which is less than the statewide rate of 6%).

In the region in 2014, 6.5 percent of babies were low birth weight, compared to seven percent across the state. The percent of premature births was lower in the region (8.3%) than in the state (9.0%). The percentage of infants participating in WIC in the region being breastfed (68.6%) falls short of the Healthy People 2020 goal (81.9% or more).

Although immunization rates vary by vaccine, over 90 percent of children in child care and kindergarten in the East Maricopa Region had completed each of the three major (DTAP, polio, and MMR) vaccine series. Rates of personal exemptions for vaccinations among children in child care (5.0%) and kindergarten (6.2%) in the region were higher than exemption rates at the county (3.9% and 4.9%, respectively) and state level (3.5% and 4.5%, respectively).

Untreated decay experience and need for dental care was reported for 25 percent of kindergarteners in the region, which was nearly the same as the state (27%). In overall decay experience, 46 percent of kindergarteners in the region had decay experience compared to Arizona's 52 percent.

Among children participating in WIC in the East Maricopa Region in 2015, 12 percent had obesity and an additional 12 percent had overweight. Promisingly, the region's proportion of children with obesity has decreased in recent years, from 13.7 percent in 2012 to 12.0 percent in 2015.

Family Support and Literacy

Of 14,350 reports of abuse and neglect of children birth to 17 received during the April 1–September 30, 2015 reporting period for Maricopa County, 1,709 (12%) resulted in a removal from the home. The proportion of reports resulting in removal were the same (12%) as across the state as a whole. In fiscal year 2015, 10 domestic violence shelters in Maricopa County served 3,934 people, 2,100 (53%) of whom were children.

In 2015, 974 pregnant or parenting women received publically funded behavioral health services in the region; a decrease of 31 percent from 2012. The number of children ages birth to 5 receiving behavioral health services in the region decreased by eight percent, from 435 in 2012 to 399 in 2015.

Communication, Public Information, and Awareness

Since state fiscal year 2011, First Things First has led a collaborative, concerted effort to build public awareness and support across Arizona. In addition, First Things First began a community engagement effort in SFY2014 to recruit, motivate and support community members to take action on behalf of young children. In the East Maricopa Region, these efforts have resulted in the recruitment of 2,057

Friends, 354 Supporters and 39 Champions during 2014 through 2016. In addition to these strategic communications efforts, First Things First has also led a concerted effort of policymaker awareness-building throughout the state. Furthermore, the Arizona Early Childhood Alliance represents the united voice of the early childhood community in advocating for early childhood programs and services. Finally, FTF recently launched enhanced online information for parents of young children, including the more intentional and strategic placement of early childhood content and resources in the digital platforms that today's parents frequent.

System Coordination among Early Childhood Programs and Services

A majority (61%, n=28) of 46 survey respondents described the early childhood system in Maricopa County as a partially coordinated system, with more than one in five respondents (22%, n=10) describing the system as a well-coordinated system, and the remaining 17 percent (8 respondents) describing the system as uncoordinated. A majority of respondents (78%, n=36) agreed that young children's family support and literacy needs are effectively addressed by the early childhood system in the region. In addition, 67, 65 and 64 percent of respondents felt that professional development, early learning, and children's health needs are effectively addressed.

2018 NEEDS AND ASSETS REPORT

About This Report

The data contained in this report come from a variety of sources. Some data were provided to First Things First by state agencies, such as the Arizona Department of Economic Security (DES), the Arizona Department of Education (ADE), and the Arizona Department of Health Services (ADHS). Other data were obtained from publically available sources, including the 2010 U.S. Census, the American Community Survey (ACS), the Arizona Department of Administration (ADOA), and the Arizona Department of Child Safety (DCS). Additionally, regional data from local agencies and the 2012 First Things First Family and Community Survey have been included where available and relevant. Not all data will be available at a First Things First (FTF) regional level because not all data sources analyze their data based on FTF regional boundaries. When regional data are unavailable, this will be noted by N/A.

This report follows the First Things First Data Dissemination and Suppression Guidelines. Throughout this report, suppressed counts will appear as either <10 or <25 in data tables, and percentages that could easily be converted to suppressed counts will appear as DS (data suppressed). The signifier N/A indicates where data is not available for a particular geography. Please also note that some data, such as that from the American Community Survey, are estimates that may be less precise for small areas. The ACS is a survey conducted by the U.S. Census Bureau each month by mail, telephone, and face-to-face interviews. The most recent and most reliable ACS data are averaged over the past five years; from surveys conducted from 2010 to 2014. For American Community Survey (ACS) sub-region data throughout the report, estimates based on a sample of fewer than 50 were excluded from presentation. In general, the reliability of ACS estimates is greater for more populated areas. For more detailed information on data sources, methodology, suppression guidelines, and limitation, please see the Appendix.

For the 2018 cycle, the Regional Partnership Council identified the following topics as priority areas: (a) households with limited English ability, (b) transportation, (c) childcare locations, and (d) economic status of grandparents raising grandchildren. These topics were a focus of a Data Interpretation Session held in the fall of 2016, and additional information and data are included on these topics whenever possible.

As part of the Data Interpretation Sessions, qualitative insights regarding the quantitative data presented in this report were gathered from session participants, including members of the Regional Partnership Council, local First Things First grantees, and interested members of the public. These insights are included in this report to provide further context to the data presented. Participants in the Data Interpretation Sessions are referred to as 'key informants' throughout this report.

Description of the Region

The First Things First regional boundaries were initially established in 2007, creating 31 regions. For fiscal year 2015, the boundaries were modified and the number of regions was reduced to 28. At that time, the Northeast Maricopa Region and the Central Maricopa Region were merged to form the new East Maricopa Region.

The East Maricopa First Things First Region lies to the east of the city of Phoenix, and includes three cities (Chandler, Scottsdale, and Tempe), five towns (Fountain Hills, Paradise Valley, Guadalupe, Cave Creek, and Carefree), two unincorporated places (Sun Lakes and Rio Verde), two Phoenix neighborhoods (Ahwatukee and Paradise Valley Village) and one Indian reservation (the Fort McDowell Yavapai Nation). This region lies entirely within Maricopa County.

Note that although the Salt River Pima Maricopa Indian Community and the Gila River Indian Community border the East Maricopa Region, neither is included in this region. Both of them form their own First Things First regions.

The East Maricopa region includes 29 zip code areas. The region was divided into 11 sub-regions. (See Figure 2.) The data tables in this report will present data for the East Maricopa Region (whenever possible) in the first row, followed by a row for each of the sub-regions, as described below. The last three rows in most data tables will present data for the Fort McDowell Yavapai Nation, Maricopa County in its entirety, and the state of Arizona.

The **Ahwatukee** sub-region is the southeastern corner of the city of Phoenix, and contains three zip code areas: 85044, 85045, and 85048. This sub-region is bounded by South Mountain on the north, the Gila River Indian Community on the south, and the I-10 freeway on the east.

The **Carefree** sub-region is the 85377 zip code area. This sub-region contains almost all of the town of Carefree.

The **Cave Creek** sub-region (85331) includes the entire town of Cave Creek. Most of the people in this sub-region, however, live to the south of the town of Cave Creek, in neighborhoods along Cave Creek Road and 56th Street, as far south as Dynamite Boulevard. (These neighborhoods are partly in the city of Phoenix and partly unincorporated.) The Cave Creek sub-region also includes unincorporated land to the north of the town of Cave Creek, as well as a small portion of the town of Carefree.

The **Chandler** sub-region includes the six zip code areas (85224, 85225, 85226, 85248, 85249, and 85286) which cover the city of Chandler. The 85248 zip code also includes Sun Lakes.

Bounded by the Fort McDowell and Salt River reservations, the city of Scottsdale, and McDowell Mountain Park, the **Fountain Hills** sub-region (85268) contains the town of Fountain Hills.

The **Guadalupe** sub-region is defined as the town of Guadalupe. Guadalupe does not have its own zip code area, but it shares 85283 with Tempe.

The majority of the **Paradise Valley** sub-region (85253) is the town of Paradise Valley. It also includes small portions of the cities of Phoenix and Scottsdale, as well as some unincorporated land.

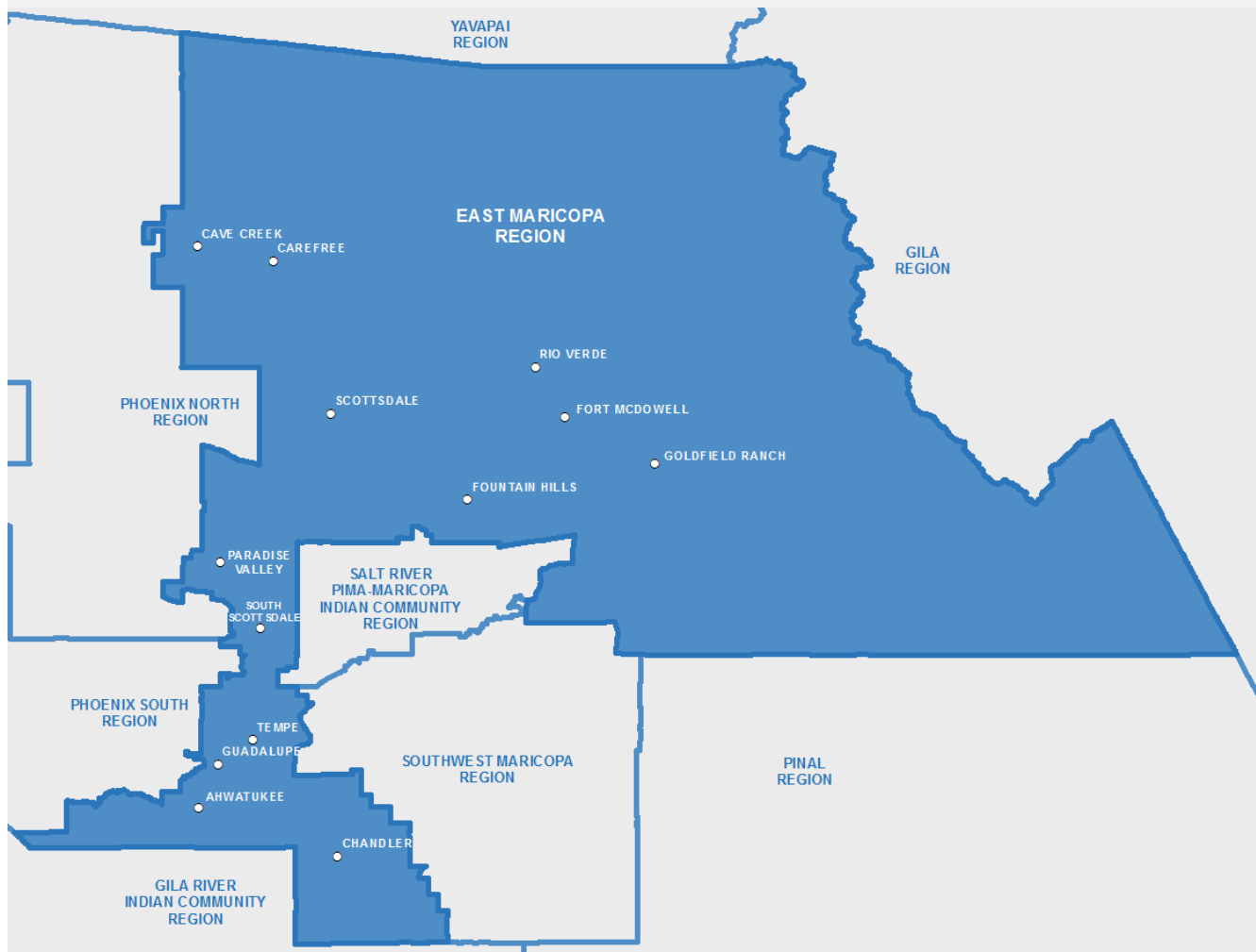
Paradise Valley Village (85254) is another Phoenix neighborhood which is included in the East Maricopa Region. This sub-region is approximately bounded by Scottsdale Road, Shea Boulevard, 48th Street, and the Central Arizona Project canal. It also includes a small part of the city of Scottsdale.

In the northeast corner of the East Maricopa Region is the **Rio Verde-Fort McDowell-Goldfield Ranch** sub-region. It includes the two zip code areas of 85263 and 85264. There are no incorporated cities or towns in this sub-region. About a third of the population live on the Fort McDowell Reservation. The rest live north of the reservation, in Rio Verde or along 172nd Street, or east of the reservation, in the Goldfield Ranch neighborhood off Highway 87.

Nine zip code areas (85250, 85251, 85255, 85257, 85258, 85259, 85260, 85262, and 85266) make up the **Scottsdale** sub-region. Although most of these zip codes lie in the city of Scottsdale, they also include small portions of Phoenix city, Carefree town, and Paradise Valley town, as well as some unincorporated land. Whenever possible, we will also present data for **South Scottsdale**, which is a part of this sub-region and lies south of Chaparral Road (zip code areas 85251 and 85257). Note that because the Scottsdale sub-region includes South Scottsdale, data reported for Scottsdale in this report includes South Scottsdale.

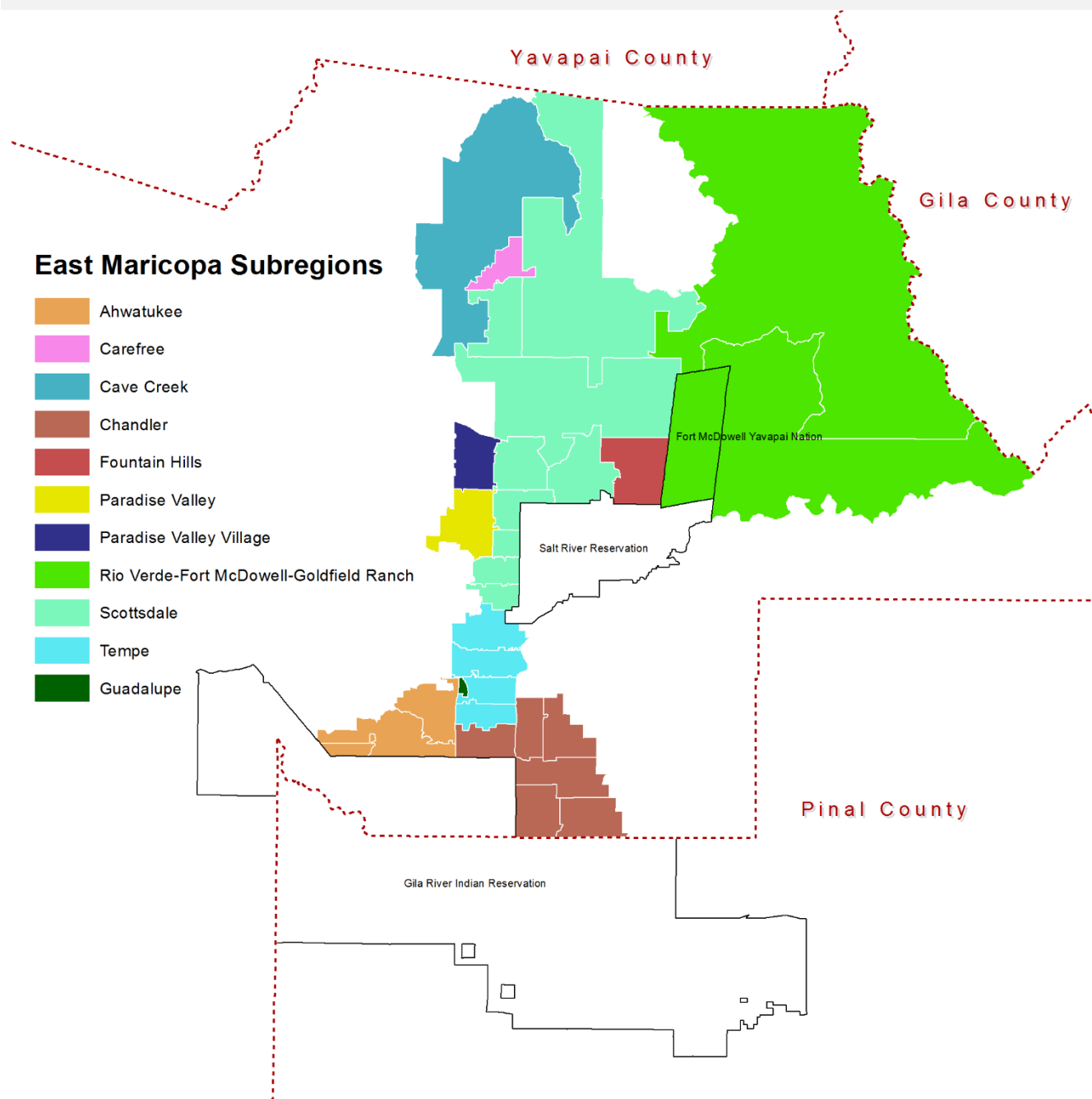
The **Tempe** sub-region includes four zip code areas (85281, 85282, 85283, and 85284) except the town of Guadalupe. This sub-region includes the entire city of Tempe plus a small amount of unincorporated land.

Figure 1. The East Maricopa First Things First Region



Source: First Things First (2016).

Figure 2. The Eleven Sub-Regions of the East Maricopa Region



Source: U.S Census Bureau (2016). Map produced by CRED.



POPULATION CHARACTERISTICS

Why Population Characteristics Matter

Knowing the characteristics of families living within a region, and how they change over time, is important for understanding the resources and supports needed by those families.¹ The number of young children and families in a region, their ethnic composition, and the languages they speak can influence the type and location of services within a region such as schools, health care facilities and services, and social services and programs. Some families, such as recently arrived refugees, may have distinct needs for their young children. Accurate and up-to-date information about population characteristics such as these can lead to the development or continuation of relevant resources and assure that they align with the needs of families in the region. Appropriately locating resources and services can support positive child outcomes. Disparities in access to jobs, food resources, schools, health care facilities and providers, and social services have been associated with a number of poor outcomes for children including infant mortality, obesity, and health insurance coverage, among others.²

An understanding of the supports and resources *within* a family is also key to helping young children achieve the best possible developmental outcomes.^{3,4} Children living with and being cared for by someone other than their parents, such as relatives or close friends, is known as kinship care and is increasingly common.⁵ Children living in kinship care can arrive in those situations for a variety of reasons including a parent's absence for work, military service, chronic illness, incarceration, or due to abuse, neglect, or homelessness, among others. Children in kinship care often face special needs as a result of trauma, and these families often require additional support and assistance to help children adjust and provide the best possible home environment.⁶ Caring for young children may pose a particular challenge for aging grandparents, as they often lack information on resources, support services, benefits, and policies available to aid in their caregiving role.⁷ Understanding the makeup of families in a region can help better prepare child care, school and agency staff to engage with diverse families in ways that support positive interactions with staff and within families to enhance each child's early learning.⁸

Recognizing variations in regional language use and proficiency is also important to ensuring appropriate access to services and resources and identifying needed supports. Mastery of the language spoken in the home is related to school readiness and academic achievement.⁹ Those children who engage in dual language learning have cognitive, social-emotional and learning benefits in early school and throughout their lifetimes.¹⁰ Although dual language learning is an asset, some children come from limited English speaking households (that is, a household where none of the adult members speak English very well). Language barriers for these families can limit access to health care and social services, and can provide challenges to communication between parents and teachers, doctors and other providers, which can affect the quality of services children receive.¹¹ Assuring that early childhood resources and services are available in a language accessible to the child and caregivers is essential. Although Spanish is the most common second language spoken, Arizona is also home to a large number of Native communities, with numerous Native languages spoken by families in those communities. The U.S. Department of Health & Human Services recognizes that language preservation and revitalization are keys to strengthening culture in Native communities and to encouraging communities to move toward social unity and self-sufficiency.¹² Special consideration should be given

to respecting and supporting the numerous Native languages spoken, particularly in tribal communities around the state.

What the Data Tell Us

Demographics

According to the U.S. Census, 54,701 children under the age of six resided in the East Maricopa Region (see Table 1) as of April 1, 2010. Overall, the region's population was 836,533 in 2010 (see Table 3), meaning that 7 percent of residents are young children. This ranged from a low of 2 percent of young children living in the Carefree sub-region, to a high of 13 percent living in in Guadalupe.

In Maricopa County as a whole, the number of young children (ages 0 to 5) grew by 17 percent from 2000 (289,759) to 2010 (339,217). Much of this growth, however, occurred outside of the East Maricopa Region. The total number of young children in the three largest cities in the region (Chandler, Scottsdale, and Tempe) decreased slightly from 42,466 in the 2000 census to 42,239 in the 2010 census. The population of young children on the Fort McDowell Yavapai Nation remained fairly stable (Table 2).ⁱ

The overall population of Maricopa County is projected to grow by about 48 percent over the next several decades, but the population of young children is projected to grow somewhat less steeply, by 35 percent (see Table 4 and Table 5). The total population of the Fort McDowell Yavapai Nation is projected to increase by 11 percent in the same time period.

Fifty four percent of young children in the East Maricopa Region are white, over a quarter (27%) are Hispanic or Latino, seven percent are Asian, five percent are African American and three percent are American Indian. This is a lower percentage of Hispanic and Latino children than reside in Maricopa County as a whole (46%) (Table 7). Across the region, there is considerable variation in the racial and ethnic composition of young children within communities. For example, in Guadalupe, the majority of young children are Latino or American Indian, and in the Fort McDowell Yavapai Nation, the majority of young children are American Indian. In Tempe, one in ten children is African American (twice the state rate of 5%), and in Paradise Valley Village and in Chandler, about one in ten young children is Asian (three times the state rate of 3 percent). In Carefree, Cave Creek, Fountain Hills, and Paradise Valley, over 80 percent of the young children are non-Hispanic white. Compared to children, a larger proportion of adults (those aged 18 and older) identify as non-Hispanic white across the region (Table 6). A lower percentage of adults (those aged 18 and older) in the region identify as Hispanic or Latino (13%) than in the county as a whole or the state (25%).

Arizona is also increasingly a home to those displaced from other parts of the world. The national Office of Refugee Resettlement compiles an annual report of refugee arrival data by country of origin and state of resettlement.ⁱⁱ The number of refugees resettled in Arizona has increased steadily over time, with 744 refugee entrants to Arizona in 1981, and 4,833 in 2016 (county level resettlement data are not currently available). The country of origin of resettled refugees has changed over time, with the

ⁱ We cannot calculate the population of the East Maricopa Region at the time of the 2000 U. S. Census, because the region was not yet defined.

ⁱⁱ For more information, visit <https://www.acf.hhs.gov/orr/resource/refugee-arrival-data>

largest number of entrants in the last decade coming from countries such as Burma, the Democratic Republic of Congo, Cuba, Iraq, and Somalia.ⁱⁱⁱ In Arizona, most refugees are resettled in the greater Phoenix and Tucson areas, and so it is likely that refugee families may be amongst those served in the East Maricopa Region.¹³

Table 1. Population of Young Children (Ages 0 to 5) in the 2010 Census

	Ages 0-5	Age 0	Age 1	Age 2	Age 3	Age 4	Age 5
East Maricopa Region	54,701	8,548	8,816	9,093	9,277	9,391	9,576
Ahwatukee	5,176	805	779	852	853	931	956
Carefree	57	8	4	10	10	13	12
Cave Creek	1,729	238	254	251	315	334	337
Chandler	21,900	3,351	3,564	3,689	3,814	3,712	3,770
Fountain Hills	830	124	129	124	128	176	149
Guadalupe	708	111	118	119	113	111	136
Paradise Valley	719	84	98	121	130	113	173
Paradise Valley Village	2,602	387	414	427	456	462	456
Rio Verde-Fort McDowell-Goldfield Ranch	157	21	22	26	33	28	27
Scottsdale	11,293	1,766	1,758	1,825	1,873	1,986	2,085
South Scottsdale	3,334	610	550	564	535	551	524
Tempe	9,530	1,653	1,676	1,649	1,552	1,525	1,475
Fort McDowell Yavapai Nation	117	14	16	15	26	25	21
Maricopa County	339,217	54,300	55,566	57,730	58,192	56,982	56,447
ARIZONA	546,609	87,557	89,746	93,216	93,880	91,316	90,894

Source: U.S. Census Bureau (2010). 2010 Decennial Census, SF 1, Table P14

ⁱⁱⁱ For more information, visit https://des.az.gov/sites/default/files/REFREPT_Dec2016.pdf

Table 2. Change in Population of Young Children (Ages 0 to 5), 2000 to 2010 Census

	Number of children (ages 0-5) in 2000 Census	Number of children (ages 0-5) in 2010 Census	Percent change in population (ages 0-5), 2000 to 2010
East Maricopa Region	N/A	54,701	N/A
Fort McDowell Yavapai Nation	116	117	1%
Maricopa County	289,759	339,217	17%
ARIZONA	459,141	546,609	19%

Source: U.S. Census Bureau (2000). 2000 Decennial Census, SF 1, Table P014

Table 3. Population (All Ages) in the 2010 Census

	All ages	Ages 0 to 5	Children (ages 0-5) as a percentage of the total population
East Maricopa Region	836,533	54,701	7%
Ahwatukee	78,624	5,176	7%
Carefree	3,051	57	2%
Cave Creek	26,628	1,729	6%
Chandler	254,746	21,900	9%
Fountain Hills	22,684	830	4%
Guadalupe	5,523	708	13%
Paradise Valley	16,996	719	4%
Paradise Valley Village	46,053	2,602	6%
Rio Verde-Fort McDowell-Goldfield Ranch	3,389	157	5%
Scottsdale	217,051	11,293	5%
South Scottsdale	60,377	3,334	6%
Tempe	161,788	9,530	6%
Fort McDowell Yavapai Nation	971	117	12%
Maricopa County	3,817,117	339,217	9%
ARIZONA	6,392,017	546,609	9%

Source: U.S. Census Bureau (2010). 2010 Decennial Census, SF 1, Table P1

Table 4. Projected Population (Ages 0 to 5), 2015 to 2040

	2015	2020	2025	2030	2035	2040
East Maricopa Region	N/A	N/A	N/A	N/A	N/A	N/A
Fort McDowell Yavapai Nation	N/A	N/A	N/A	N/A	N/A	N/A
Maricopa County	328,794	353,910	384,475	413,097	431,970	444,864
ARIZONA	522,213	556,443	603,660	648,746	681,380	705,102

Source: Arizona Department of Administration, Employment and Population Statistics (2015). State and county population projections (medium series).

Table 5. Projected Population (All Ages), 2015 to 2040

	2015	2020	2025	2030	2035	2040
East Maricopa Region	N/A	N/A	N/A	N/A	N/A	N/A
Fort McDowell Yavapai Nation	N/A	1,026	N/A	1,097	N/A	1,135
Maricopa County	4,076,438	4,480,899	4,885,981	5,280,059	5,665,917	6,030,950
ARIZONA	6,758,251	7,346,787	7,944,753	8,535,913	9,128,899	9,706,815

Source: Arizona Department of Administration, Employment and Population Statistics (2015). State and county population projections (medium series).

Table 6. Race and Ethnicity of the Adult Population (Ages 18 and Older) in the 2010 Census

	Number of persons (ages 18 and older)	Hispanic or Latino	White alone (not Hispanic or Latino)	American Indian alone (not Hispanic or Latino)	African- American alone (not Hispanic or Latino)	Asian or Pacific Islander (not Hispanic or Latino)
East Maricopa Region	658,905	13%	76%	1%	3%	5%
Ahwatukee	59,489	11%	75%	1%	5%	6%
Carefree	2,738	2%	94%	0%	0%	2%
Cave Creek	20,239	5%	91%	0%	1%	2%
Chandler	188,304	18%	68%	1%	4%	8%
Fountain Hills	19,433	3%	93%	0%	1%	2%
Guadalupe	3,538	63%	3%	32%	1%	0%
Paradise Valley	13,437	4%	90%	0%	1%	4%
Paradise Valley Village	36,091	5%	87%	0%	1%	5%
Rio Verde-Fort McDowell-Goldfield Ranch	2,915	4%	78%	17%	0%	1%
Scottsdale	178,158	7%	86%	1%	2%	3%
South Scottsdale	50,620	15%	77%	1%	2%	2%
Tempe	134,563	18%	66%	2%	5%	6%
Fort McDowell Yavapai Nation	614	14%	4%	79%	0%	0%
Maricopa County	2,809,256	25%	64%	1%	4%	4%
ARIZONA	4,763,003	25%	63%	4%	4%	3%

Source: U.S. Census Bureau (2010). 2010 Decennial Census, SF 1, Table P11

Note: Entries in each row may sum to less than 100% because persons who report two or more race categories are not included here.

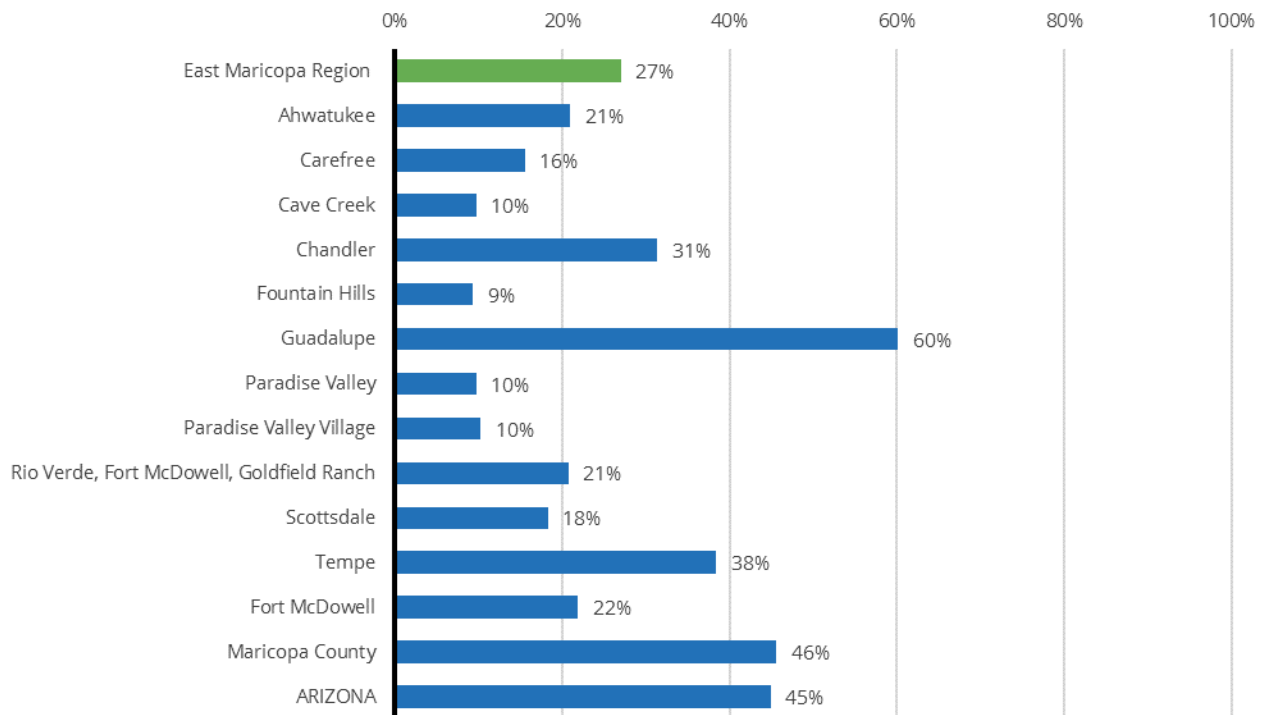
Table 7. Race and Ethnicity of the Population of Children (Ages 0 to 4) in the 2010 Census

	Population of children (ages 0-4)	Hispanic or Latino	White alone (not Hispanic or Latino)	American Indian	African-American	Asian or Pacific Islander
East Maricopa Region	45,125	27%	54%	3%	5%	7%
Ahwatukee	4,220	21%	56%	3%	7%	7%
Carefree	45	16%	82%	0%	2%	0%
Cave Creek	1,392	10%	82%	1%	1%	2%
Chandler	18,130	31%	49%	2%	5%	9%
Fountain Hills	681	9%	82%	0%	2%	2%
Guadalupe	572	60%	2%	55%	2%	0%
Paradise Valley	546	10%	82%	0%	1%	4%
Paradise Valley Village	2,146	10%	73%	1%	2%	10%
Rio Verde-Fort McDowell-Goldfield Ranch	130	21%	18%	68%	0%	0%
Scottsdale	9,208	18%	69%	1%	2%	4%
South Scottsdale	2,810	40%	47%	4%	3%	2%
Tempe	8,055	38%	38%	5%	10%	5%
Fort McDowell Yavapai Nation	96	22%	0%	92%	0%	0%
Maricopa County	282,770	46%	40%	3%	6%	4%
ARIZONA	455,715	45%	40%	6%	5%	3%

Source: U.S. Census Bureau (2010). 2010 Decennial Census, SF 1, Tables P12B, P12C, P12D, P12E, P12H, and P12I

Note: Entries in each row may sum to more than 100% because persons who report two or more race categories could be counted twice.

Figure 3. Percent of Children (Ages 0 to 4) Reported to be Hispanic in the 2010 Census



Source: U.S. Census Bureau (2010). 2010 Decennial Census, SF 1, Table P12H

Living Arrangements

Based on data from the 2010 U.S. Census, in the East Maricopa Region, 12 percent of households have at least one child under 6 years old (Table 8). The largest concentration of these families are in Guadalupe, where one in three households have a young child, and the Fort McDowell Yavapai Nation, where one in four household does. Carefree (3%), Fountain Hills (6%) and the Rio Verde-Fort McDowell-Goldfield Ranch sub-region (6%) have substantially fewer households with young children.

According to the American Community Survey, 29 percent of children in the East Maricopa Region live with a single parent, which is lower than the proportion statewide (38%) (Figure 4). More than half of the children in the Carefree (67%) and Rio Verde-Fort McDowell-Goldfield Ranch (59%) sub-regions live with a single parent. The rate in Tempe (44%) is also higher than the state rate. Children in the Cave Creek (88%), Paradise Valley (86%), and Fountain Hills (82%) communities are the most likely to live in a two-parent home.

The U.S. Census Bureau has recently begun to collect data on the number of families with children (0-18) headed by same-sex parents. In Maricopa County, 0.9 percent of families are same-sex households, the same as in Arizona as a whole.¹⁴

About 2 percent of children ages 0 to 5 in the East Maricopa Region are in kinship or other family arrangements, with extended families, friends, and other non-relatives caring for them. Children living

with relatives is especially common in the Rio Verde-Fort McDowell-Goldfield Ranch sub-region (6%), and Paradise Valley Village (6%).

The proportion of young children (ages 0-5) living in a grandparent's household is lower in the region (8%) than in both the state (14%) and the county (12%) (Figure 5). It is important to note that these households may be multigenerational—the grandparent is the head of the household, but the child's parent may also live there. Table 9 provides more information about the estimated 9,901 children ages 0 to 17 living with grandparents in the East Maricopa Region.^{iv} For 55 percent of these children, the grandparent is not responsible for the child; for the other 45 percent, the grandparent is responsible for the child. Within the group of children that the grandparent is responsible for, fewer than half (18% out of the 45%) do not have their parent also present in the home. The remaining children (27% out of the 45%) do have their parent present, even though the grandparent is responsible for them.

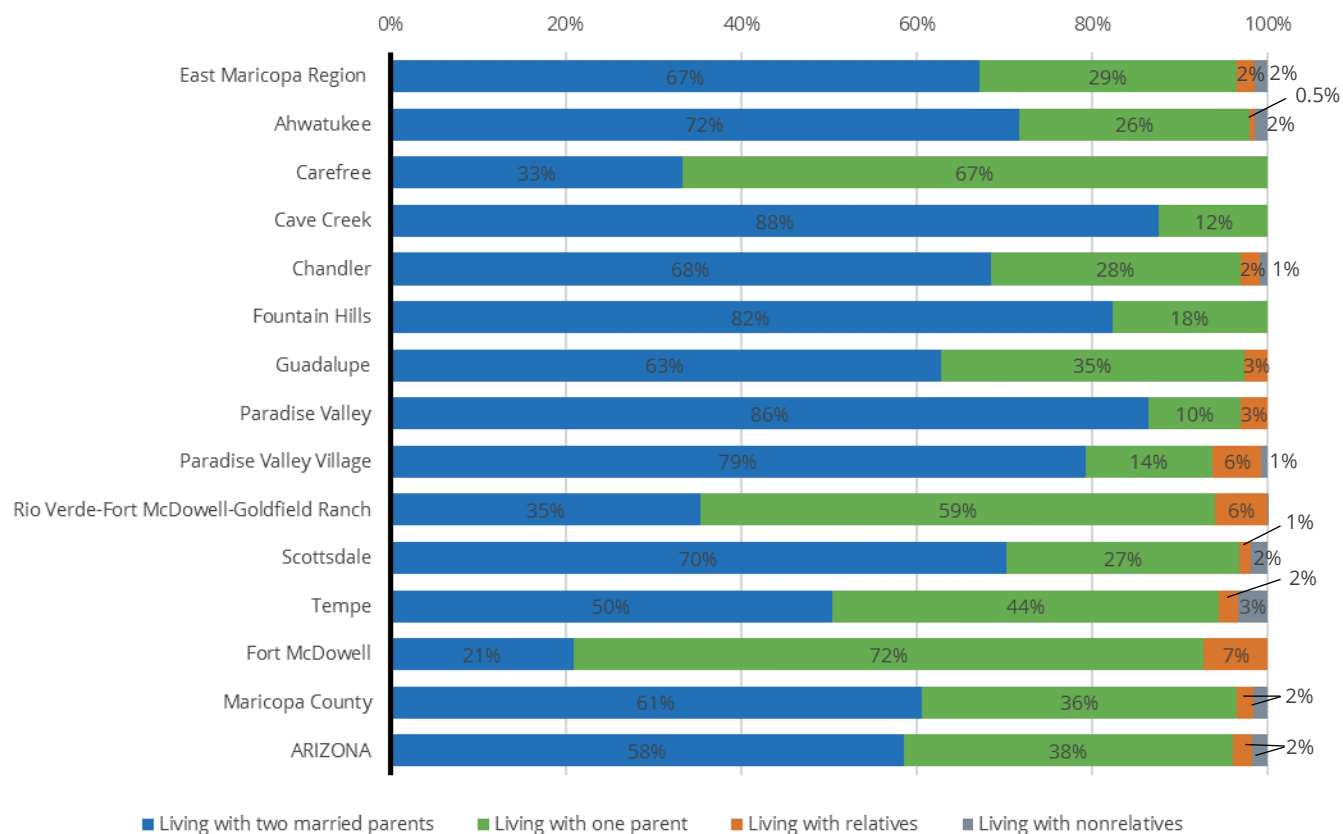
Extending families with multiple generations and relatives is an important part of many American Indian families.¹⁵ It should be noted that there is a high rate of grandparent-headed households with children ages 0-17 in the Fort McDowell Yavapai Nation (61%) (Table 9). A shortage of available housing may lead multiple families to live together, or in some cases, grandparents may care for grandchildren while their parents leave the community to look for work. Additionally, grandparents may take responsibility for grandchildren due to social services intervention when parents are deemed unsuitable guardians.

These patterns in grandparent caregiving may hold true across the sub-regions. Families may live in multigenerational households to share the costs of housing and child care, or grandparents may step in when parents are unable to care for children. Given particularly high percentages of grandparents involved in the care of grandchildren in several communities, additional supports for grandparents raising grandchildren may be needed.

There are fewer children living with foreign-born parents in the region compared to the county (Table 10). In the East Maricopa Region, 27 percent of children ages 0 to 5 live with a foreign-born parent. While this is the same as the statewide rate (27%), the percentages of children living with a foreign-born parent are higher in the sub-regions of Paradise Valley (33%), Chandler (31%), and Guadalupe (31%).

^{iv} Please note that Figure 5 and Table 8 are based on different data sources—and refer to different age groups—so they are not directly comparable.

Figure 4. Living Arrangements for Young Children (Ages 0 to 5)



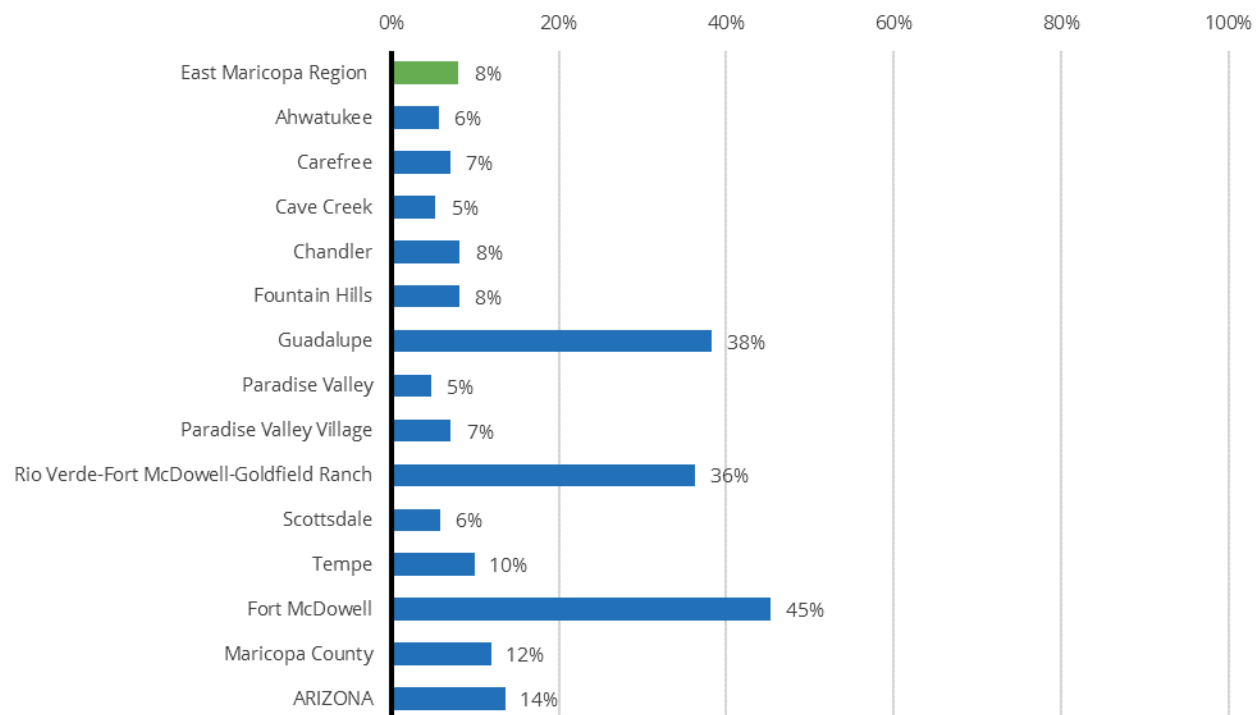
Source: U.S. Census Bureau (2016). American Community Survey, 5-year estimates (2010-2014), Tables B05009, B09001, B17006

Table 8. Composition of Households in the 2010 Census

	Total number of households	Total number of households with child(ren) under 6 years old	Percent of households with child(ren) under 6 years old	Households with child(ren) under 6 years old, husband-wife householders	Households with child(ren) under 6 years old, single male householder	Households with child(ren) under 6 years old, single female householder
East Maricopa Region	345,927	40,150	12%	72%	9%	18%
Ahwatukee	32,062	3,945	12%	72%	9%	18%
Carefree	1,500	45	3%	80%	7%	13%
Cave Creek	10,379	1,271	12%	85%	5%	10%
Chandler	96,699	16,011	17%	74%	9%	17%
Fountain Hills	10,426	628	6%	79%	7%	13%
Guadalupe	1,292	425	33%	43%	14%	43%
Paradise Valley	6,914	522	8%	85%	6%	9%
Paradise Valley Village	18,603	1,930	10%	82%	6%	12%
Rio Verde-Fort McDowell-Goldfield Ranch	1,523	94	6%	47%	15%	38%
Scottsdale	100,502	8,343	8%	76%	8%	16%
South Scottsdale	29,570	2,471	8%	61%	13%	27%
Tempe	66,027	6,936	11%	59%	14%	27%
Fort McDowell Yavapai Nation	283	67	24%	30%	21%	49%
Maricopa County	1,411,583	238,955	17%	66%	11%	22%
ARIZONA	2,380,990	384,441	16%	65%	11%	24%

Source: U.S. Census Bureau (2010). 2010 Decennial Census, SF 1, Table P20

Figure 5. Children (Ages 0 to 5) Living in a Grandparent's Household in the 2010 Census



Source: U.S. Census Bureau (2010). 2010 Decennial Census, SF 1, Table P41

Table 9. Children (Ages 0 to 17) Living in a Grandparent's Household

	Number of children (ages 0-17) living in a grandparent's household	Percent of children (ages 0-17) living in a grandparent's household, and the grandparent is responsible for the child	Percent of children (ages 0-17) living in a grandparent's household, and the grandparent is responsible for the child (with no parent present)
East Maricopa Region	9,901	45%	18%
Ahwatukee	468	68%	28%
Carefree	0	N/A	N/A
Cave Creek	82	45%	45%
Chandler	4,818	49%	22%
Fountain Hills	50	70%	0%
Guadalupe	180	30%	9%
Paradise Valley	143	8%	0%
Paradise Valley Village	567	45%	22%
Rio Verde-Fort McDowell-Goldfield Ranch	114	67%	32%
Scottsdale	1,495	46%	16%
South Scottsdale	713	46%	21%
Tempe	1,984	32%	7%
Fort McDowell Yavapai Nation	98	61%	20%
Maricopa County	74,058	50%	13%
ARIZONA	140,038	53%	14%

Source: U.S. Census Bureau (2016). American Community Survey, 5-year estimates (2010-2014), Table B10002

Table 10. Children (Ages 0 to 5) Living with Foreign-Born Parents

	Children (ages 0-5) living with one or two parents	Children (ages 0-5) living with one or two foreign-born parents
East Maricopa Region	54,269	27%
Ahwatukee	5,463	23%
Carefree	57	0%
Cave Creek	1,337	12%
Chandler	21,502	31%
Fountain Hills	915	16%
Guadalupe	730	31%
Paradise Valley	807	33%
Paradise Valley Village	2,474	22%
Rio Verde-Fort McDowell-Goldfield Ranch	143	28%
Scottsdale	11,348	26%
South Scottsdale	4,417	33%
Tempe	9,494	27%
Fort McDowell Yavapai Nation	115	11%
Maricopa County	320,911	31%
ARIZONA	510,658	27%

Source: U.S. Census Bureau (2016). American Community Survey, 5-year estimates (2010-2014), Table B05009

Language Use

In the East Maricopa Region, 82 percent of residents age 5 and older speak English at home with Spanish (10%) being the second most common home language, followed by those who speak a language other than English (8%) (Table 11). The population of residents age 5 and older who speak Spanish at home were highest in the Guadalupe (21%) and Tempe (15%) communities. A high percentage of the residents in Guadalupe (10%) and Tempe (8%) also report that they do not speak English very well as compared to the overall region (5%) (Table 12).

It is important to note that in the Fort McDowell Yavapai Nation community, a native North American language is the second most common language spoken among residents age 5 and older (17%) after English. In tribal communities, higher percentages of adult speakers of Native North American

languages can be considered an asset for cultural preservation and strengthening children's sense of identity.

At a household level, 3 percent of households in the East Maricopa Region are classified as limited-English-speaking; this is lower than the proportion of households with that designation (5%) statewide (Table 13). A household is considered "limited-English-speaking" if there is no adult (14 or older) who speaks English well. Similar trends are seen in the proportion of English Language Learners (ELL) in schools in the region (Table 42). The percent of kindergarten through third grade students in the region who are English Language Learners in the East Maricopa region (5%) is half that of the statewide rate (10%). However, in certain districts, the proportion of English Language Learners is considerably higher; 13 percent of students in the Tempe School District are English Language Learners, almost three times higher than the regional rate. The Maricopa County Schools rate of English Language Learners is also double that of the region (11%). The map in Figure 6 shows the geographic distribution of limited-English-speaking households. In addition to those near the ASU campus in Tempe, there are several such households in central Chandler.

Table 11. Language Spoken at Home (Ages 5 and Older)

	Estimated population (ages 5 and older)	Speak English at home	Speak Spanish at home	Speak a native North American language at home	Speak another language at home
East Maricopa Region	813,744	82%	10%	0%	8%
Ahwatukee	75,985	85%	7%	0%	8%
Carefree	2,991	94%	3%	0%	3%
Cave Creek	25,876	90%	4%	0%	6%
Chandler	245,519	78%	13%	0%	9%
Fountain Hills	22,544	93%	2%	0%	4%
Guadalupe	5,298	72%	21%	1%	6%
Paradise Valley	16,441	88%	4%	0%	7%
Paradise Valley Village	43,410	87%	4%	0%	9%
Rio Verde-Fort McDowell-Goldfield Ranch	3,349	90%	2%	5%	3%
Scottsdale	213,783	87%	6%	0%	7%
South Scottsdale	62,313	83%	12%	0%	4%
Tempe	158,549	74%	15%	1%	9%
Fort McDowell Yavapai Nation	934	76%	2%	17%	5%
Maricopa County	3,672,140	74%	20%	0%	6%
ARIZONA	6,120,900	73%	20%	2%	5%

Source: U.S. Census Bureau (2016). American Community Survey, 5-year estimates (2010–2014), Table B16001

Note: The percentages in each row above may not add to 100% due to rounding.

Table 12. Proficiency in English (Ages 5 and Older)

	Population (ages 5 and older)	Speak English at home	Speak another language at home, and speak English "very well"	Speak another language at home, and do not speak English "very well"
East Maricopa Region	813,744	82%	13%	5%
Ahwatukee	75,985	85%	12%	4%
Carefree	2,991	94%	6%	0%
Cave Creek	25,876	90%	9%	1%
Chandler	245,519	78%	15%	7%
Fountain Hills	22,544	93%	5%	2%
Guadalupe	5,298	72%	19%	10%
Paradise Valley	16,441	88%	10%	1%
Paradise Valley Village	43,410	87%	10%	3%
Rio Verde-Fort McDowell-Goldfield Ranch	3,349	90%	8%	2%
Scottsdale	213,783	87%	9%	3%
South Scottsdale	62,313	83%	11%	6%
Tempe	158,549	74%	18%	8%
Fort McDowell Yavapai Nation	934	76%	20%	5%
Maricopa County	3,672,140	74%	17%	10%
ARIZONA	6,120,900	73%	17%	9%

Source: U.S. Census Bureau (2016). American Community Survey, 5-year estimates (2010-2014), Table B16001

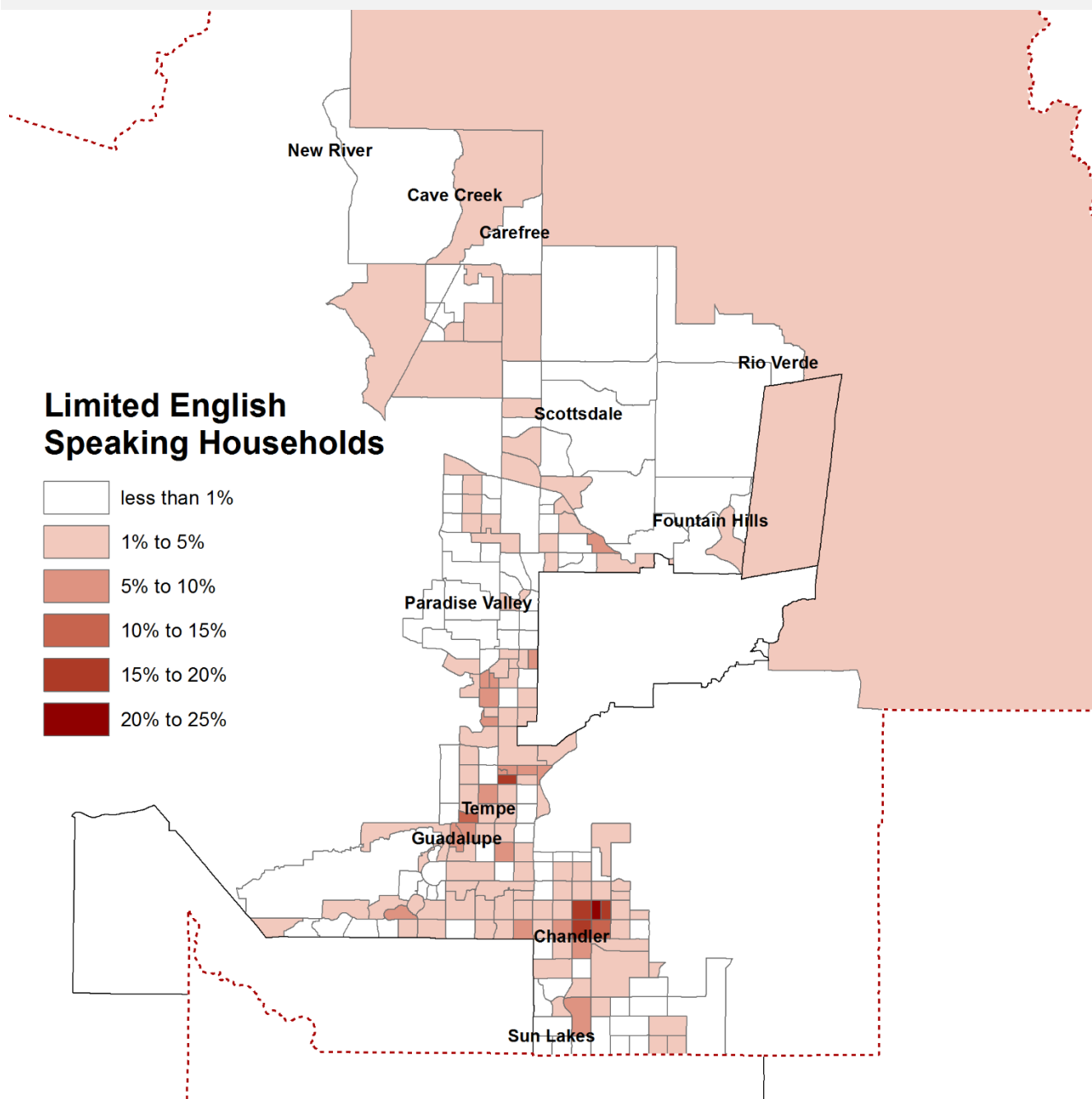
Note: The percentages above may not add to 100% due to rounding.

Table 13. Limited-English-Speaking Households

	Number of households	Households which speak a language other than English	Limited-English-speaking households (Total)	Limited-English-speaking households (Spanish)
East Maricopa Region	343,317	20%	3%	1%
Ahwatukee	32,098	20%	2%	0%
Carefree	1,667	7%	0%	0%
Cave Creek	10,423	14%	1%	0%
Chandler	96,359	23%	3%	2%
Fountain Hills	10,742	10%	1%	0%
Guadalupe	1,282	29%	5%	3%
Paradise Valley	7,141	15%	0%	0%
Paradise Valley Village	17,854	16%	1%	0%
Rio Verde-Fort McDowell-Goldfield Ranch	1,511	13%	2%	1%
Scottsdale	100,439	15%	2%	1%
South Scottsdale	30,272	17%	3%	2%
Tempe	63,800	27%	4%	2%
Fort McDowell Yavapai Nation	278	36%	4%	0%
Maricopa County	1,424,244	26%	5%	4%
ARIZONA	2,387,246	27%	5%	4%

Source: U.S. Census Bureau (2016). American Community Survey, 5-year estimates (2010-2014), Table B16002

Figure 6. Limited English Speaking Households, by Census Tract



Source: U.S. Census Bureau (2016). American Community Survey, 5-year estimates (2010–2014), Table B16002



ECONOMIC CIRCUMSTANCES

Why Economic Circumstances Matter

The economic well-being of a family is a powerful predictor of child well-being. Children raised in poverty are at a greater risk of adverse outcomes including low birth weight, lower school achievement, and poor health.^{16,17,18,19,20} They are also more likely to remain poor later in life.²¹ More than a quarter (26%) of Arizona's children lived in poverty in 2014, compared to just over a fifth (21%) six years earlier.²²

Poverty rates alone do not tell the full story of economic vitality in a region. Income and unemployment rates are also important indicators. According to the National Center for Children in Poverty, families typically need an income of about twice the federal poverty level to meet basic needs.²³ As a benchmark, the 2015 Federal Poverty Guideline for a family of four was \$24,250; a typical family of four making less than \$48,500 is likely struggling to make ends meet. Unemployment and under-employment can affect a family's ability to meet the expenses of daily living, and their access to resources needed to support their children's well-being and healthy development. A parent's job loss can affect children's school performance, leading to poorer attendance, lower test scores, and higher risk of grade repetition, suspension or expulsion.²⁴ Unemployment can also put families at greater risk for stress, family conflict, and homelessness.²⁵

Housing instability and homelessness can have deleterious effects on the physical, social-emotional, and cognitive development of young children.²⁶ Housing that requires more than 30 percent of a household's income is an indicator of a housing affordability problem in a region, leaving inadequate funds for other family necessities, such as food and utilities.²⁷ High housing costs, relative to family income, are associated with increased risk for overcrowding, frequent moving, poor nutrition and homelessness.²⁸ Examining indicators related to housing quality, costs, and availability can reveal additional factors affecting the health and well-being of families in a region.

Public assistance programs are one way of counteracting the effects of poverty and providing supports to children and families in need. The Temporary Assistance for Needy Families (TANF) Cash Assistance program provides temporary cash benefits and supportive services to children and families. Eligibility is based on citizenship or qualified resident status, Arizona residency, and limits on resources and monthly income. In 2014, seven out of 10 TANF participants in Arizona were children, and the average monthly benefit was \$93.²⁹

Other public assistance programs available in Arizona affect access to food. Food insecurity – a limited or uncertain availability of food – is negatively associated with many markers of health and well-being for children, including a heightened risk for developmental delays.³⁰ Food insecurity is also associated with overweight and obesity.³¹ The Supplemental Nutrition Assistance Program (SNAP, also referred to as “Nutrition Assistance” and “food stamps”) has been shown to help reduce hunger and improve access to healthier food.³² SNAP benefits support working families whose incomes simply do not provide for all their needs. For low-income working families, the additional income to access food from SNAP is substantial. For example, for a three-person family with one person whose wage is \$10 per hour, SNAP benefits boost take-home income by 10 to 20 percent.³³

In addition to SNAP, food banks and school-based programs such as the National School Lunch Program³⁴ and Summer Food Service Program³⁵ are important resources aimed at addressing food insecurity by providing access to free and reduced-price food and meals in both community and

school settings. The National School Lunch Program³⁶ provides free and reduced-price meals at school for students whose family incomes are no more than 130 percent of the federal poverty level (FPL) for free lunch and 185 percent of the FPL for reduced price lunch. The Arizona Department of Education's Child and Adult Care Food Program (CACFP) reimburses eligible child care centers, adult daycare centers, Head Starts, emergency shelters, and afterschool programs serving at-risk youth for providing healthier meals and snacks. Participants enhance their current menus to offer more fresh fruits and vegetables, whole grains, and low-fat dairy products. The goals of the CACFP program are to support the health and nutrition status of children and adults and promote good eating habits.^v A growing body of research suggests CACFP has positive effects on young children's health and wellbeing. Children who attend care facilities that participate in CACFP have been found to have healthier diets^{37,38,39} and decreased risk of under and overweight.⁴⁰

Another food and nutrition resource, the Special Supplemental Nutrition Program for Women, Infants and Children (WIC) program, is a federally funded program that serves economically disadvantaged pregnant, postpartum, and breastfeeding women, as well as infants and children under the age of five. The program offers supplemental nutritious food, breastfeeding and nutrition education, and referrals to health and social services.^{vi} In Arizona in 2015, half of all children aged birth through four were enrolled in WIC.⁴¹ Participation in WIC has been shown to be associated with healthier births, lower infant mortality, improved nutrition, decreased food insecurity, improved access to health care and improved cognitive development and academic achievement for children.⁴²

What the Data Tell Us

Income

The median income^{vii} for all Maricopa County families is about \$64,100. (See Table 14.) The median income for families with two parents and children under age 18 is more than \$15,000 higher (\$79,800), and single-parent families make substantially less. The median income for households run by a single female in Maricopa County is \$27,800; the median income for households led by single males is almost 40 percent greater (\$38,600). Although a median cannot be computed for the East Maricopa Region, Figure 7 shows the median family incomes for each census tract in the region. The lighter areas in the map show that incomes tend to be lower in southern Scottsdale, Tempe, and central Chandler. The higher incomes are found in Paradise Valley and northern Scottsdale.

The median family income for grandparents who live with their grandchildren under the age of 18 is approximately \$57,000 in Maricopa County (Table 15). This figure is about 11 percent less than the median income for all families in the county, \$64,100. The pattern in the county, the state, and in two of the larger cities in the region is that grandparents who are responsible for the grandchildren living with them have lower median incomes. Also, the grand-families in which the child's parents are not present have even lower incomes. This pattern does not appear to hold in the city of Tempe, where the

^v For more information on the CACFP, visit <http://www.azed.gov/health-nutrition/cacfp/>

^{vi} For more information on the Arizona WIC Program, visit <http://azdhs.gov/prevention/azwic/>

^{vii} The median is the number which separates the lower half from the upper half. Fifty percent of families in the county have income less than \$64,072 and the other half have more.

median income stays around \$60,000 even if the grandparent is responsible for the child, with or without the parent present.

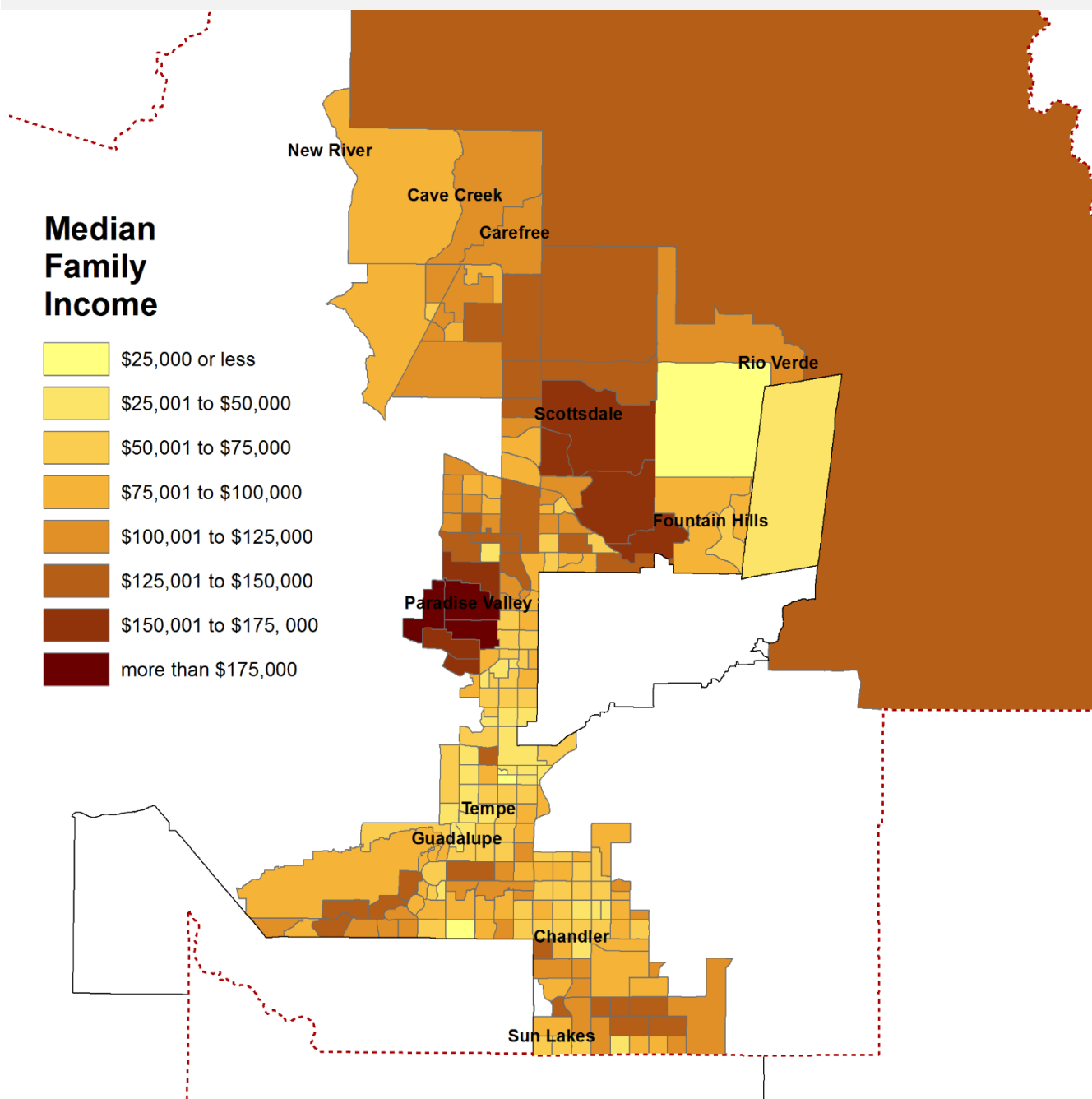
Table 14. Median Annual Family Income

	Median family income for all families	Median family income for husband-wife families with child(ren) under 18	Median family income for single-male-householder families with child(ren) under 18	Median family income for single-female-householder families with child(ren) under 18
East Maricopa Region	N/A	N/A	N/A	N/A
Fort McDowell Yavapai Nation	\$42,700	\$73,000	\$15,000	\$24,600
Maricopa County	\$64,100	\$79,800	\$38,600	\$27,800
ARIZONA	\$59,100	\$73,600	\$37,100	\$25,800

Source: U.S. Census Bureau (2016). American Community Survey, 5-year estimates (2010-2014), Table B19126

Note: Median incomes have been rounded to the nearest hundred dollars.

Figure 7. Median Family Income, by Census Tract



Source: U.S. Census Bureau (2016). American Community Survey, 5-year estimates (2010–2014), Table B19126

Table 15. Median Annual Family Income for Grandparents Living With Children Ages 0 to 17

	Median family income for grandparents living with grandchildren (ages 0-17)	Median family income for grandparents living with and responsible for grandchildren (0-17)	Median family income for grandparents living with and responsible for grandchildren (0-17) with no parent present
East Maricopa Region	N/A	N/A	N/A
City of Chandler	\$57,700	\$52,700	\$38,900
City of Scottsdale	\$68,200	\$55,800	\$43,700
City of Tempe	\$60,500	\$59,600	\$61,000
Maricopa County	\$57,000	\$51,500	\$40,400
Arizona	\$51,200	\$46,800	\$37,500

Source: U.S. Census Bureau (2016). American Community Survey, 5-year estimates (2010-2014), Table B10010

Note: Median incomes have been rounded to the nearest hundred dollars.

Poverty

An estimated eleven percent of the total (all-age) population of the East Maricopa Region lives in poverty, which is slightly lower than in Maricopa County (17%) and the state (18%) (Table 16). The percentage of the population aged 0-5 in poverty in the East Maricopa Region (17%) is higher than the total population in the region in poverty (11%) but lower than the population of children aged 0-5 living in poverty across the state (29%). Sub-regional data illustrates that there is a great deal of diversity across the region. While poverty is rare among young children in some areas, such as Carefree, Cave Creek, or Paradise Valley Village, almost half of children ages 0-5 in the Fort McDowell community (49%) live in poverty.

There are an estimated 15,020 grandparents in the region who live with their grandchild or grandchildren, of whom 14 percent live below the poverty level (Table 17). About one-third of the grandparents (5,038) are responsible for the grandchildren living with them. A somewhat larger fraction (17%) of these grandparents live in poverty. The poverty rates are higher in the county as a whole: 19 percent of all grandparents and 23 percent of grandparents who are responsible for the grandchildren live in poverty in Maricopa County. In three sub-regions (Guadalupe, South Scottsdale, and Tempe), the poverty rates for all grandparents is relatively low, but the poverty rate for the subset of grandparents who are responsible for their grandchild is much higher (44%, 36%, and 49%, respectively).

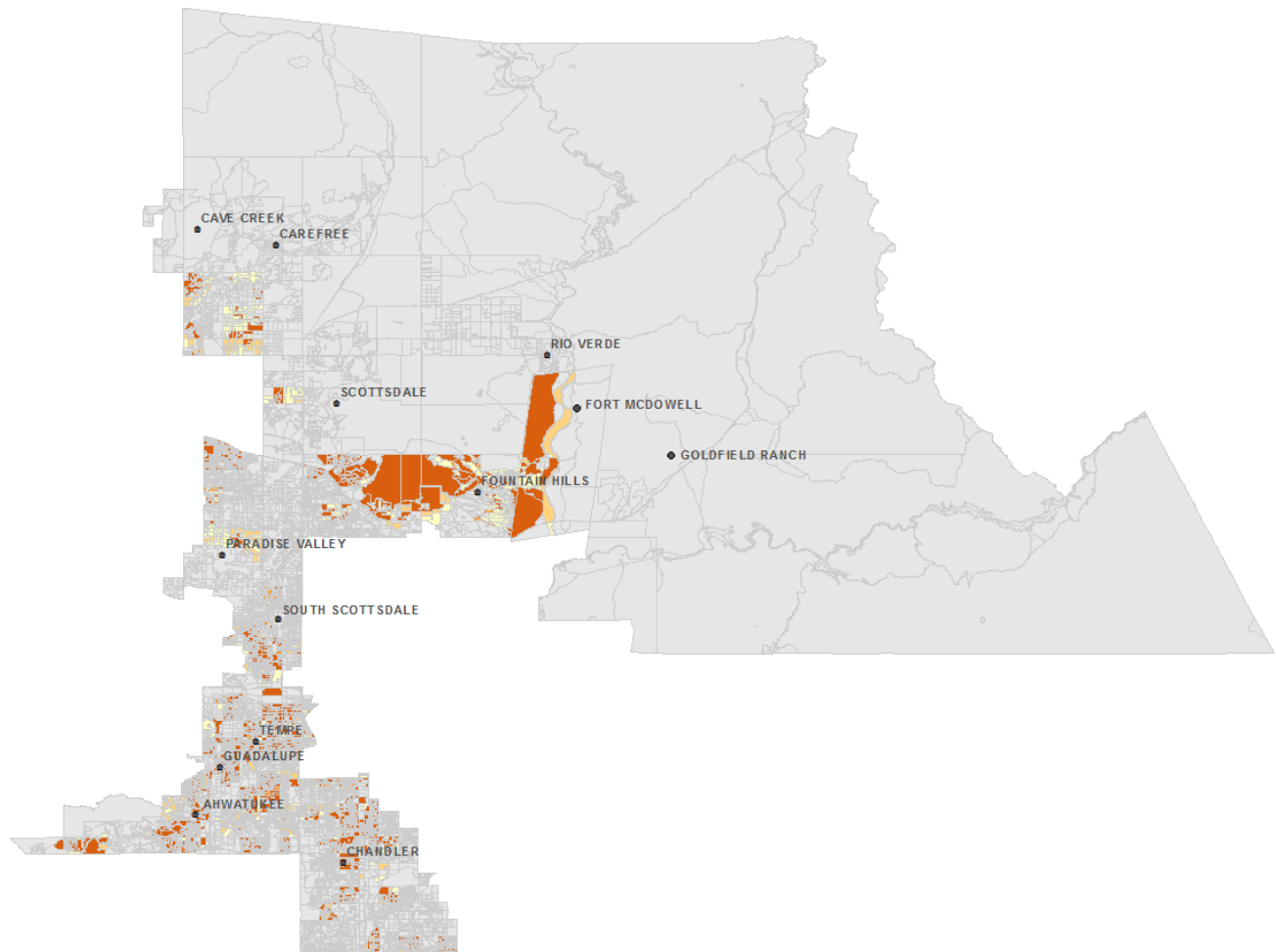
In addition to the families whose incomes fall below the federal poverty level, a proportion of households in the region and county are considered low-income (i.e., near but not below the federal poverty level, or FPL). Over a fourth of families (31%) in the region with children aged four and under live below 185 percent of the FPL (i.e., earned less than \$3,677 a month for a family of four), which is lower than the 46 percent in the county and 49 percent across the state (Table 18). Families with

children tend to have lower incomes in Guadalupe (59% below 185% FPL), Tempe (54%), and Fort McDowell (56%).

The Temporary Assistance to Needy Families (TANF) cash assistance program can be an important short-term support to families in dire financial need. The number of young children supported by this program has steadily declined in recent years, both in the East Maricopa Region and statewide, dropping by over forty percent in the region over the past four years (Table 19). The 825 young children receiving TANF in the East Maricopa Region represent under 2 percent of the total children (ages 0–4) in the region, a lower percentage than the percent of young children receiving TANF statewide (4%).

Between 1996 and 2015, Arizona reduced TANF benefits more than any other state in the nation, and now ranks 42nd in the level of assistance to those participating in TANF.⁴³ In Arizona, TANF eligibility is capped at \$335 per month, or \$4020 annually for a family of four. Beginning in 2016, Arizona became the first and only state that limits a person's lifetime benefit to 12 months.⁴⁴ In addition, since 2009, a steadily decreasing percentage of Arizona TANF funds have been spent on three of the key assistance categories: cash assistance to meet basic needs, helping connect parents to employment opportunities, and child care. In 2013, Arizona ranked 51st, 47th, and 46th respectively in proportional spending in those categories across all states and the District of Columbia. Meanwhile, since 2009, an increasing percentage of Arizona TANF funds have been spent on other costs such as child protection, foster care, and adoption.⁴⁵

Figure 8. Poverty in the East Maricopa Region, by Census Tract



	Legend	# of Census Blocks	Poverty 0-5	Population 0-5	% Poverty
	High Poverty-High Population	1,748	8,260	25,131	33%
	High Poverty-Low Population	493	628	1,302	48%
	Low Poverty-High Population	653	238	4,469	5%
	Low Poverty-Low Population	1,589	372	2,907	13%
	No Poverty	10,988	0	20,892	0%
	Total	15,471	9,498	54,701	17%

Source: First Things First (2016).

Note: Census 2010 census block data were utilized for the population of children 0-5. The 2007-2011 American Community Survey (ACS) data were used to obtain poverty estimates and proportionally assign them to census blocks because these estimates align better with the Census 2010 population of children 0-5. To establish the assignment of each geographical area to one of the categories listed above, the region's median number (children 0-5) for all census blocks was determined (census blocks with no children 0-5 were excluded from the analysis). Those census blocks with the number of children 0-5 below the median were assigned to the "low population" category, while census blocks with the number of children 0-5 above the median were assigned to the "high population" category. The same process was independently followed with the poverty indicator to arrive at the "low poverty" and "high poverty" categories (census blocks with "0 poverty" were excluded from the analysis). The combination of categories was ultimately used to assign a geographical area to one of the categories listed above.

Table 16. Persons Living in Poverty

	Number of persons (all ages) for whom poverty status is known	Persons (all ages) below poverty level	Number of young children (ages 0-5) for whom poverty status is known	Young children (ages 0-5) below poverty level	Number of older children (ages 6-17) for whom poverty status is known	Older children (ages 6-17) below poverty level
East Maricopa Region	847,096	11%	55,375	17%	120,973	12%
Ahwatukee	80,263	6%	5,490	7%	13,421	6%
Carefree	3,017	12%	57	0%	30	0%
Cave Creek	27,000	5%	1,337	1%	4,947	7%
Chandler	262,979	10%	21,986	16%	45,277	12%
Fountain Hills	23,113	5%	915	8%	2,349	9%
Guadalupe	5,618	16%	751	32%	1,231	26%
Paradise Valley	17,087	8%	833	14%	2,613	8%
Paradise Valley Village	45,137	6%	2,620	1%	6,641	4%
Rio Verde-Fort McDowell-Goldfield Ranch	3,470	14%	152	40%	289	32%
Scottsdale	222,227	9%	11,515	16%	26,633	10%
South Scottsdale	65,757	15%	4,519	28%	6,389	25%
Tempe	157,184	23%	9,719	33%	17,542	27%
Fort McDowell Yavapai Nation	1,028	31%	124	49%	244	37%
Maricopa County	3,895,963	17%	326,901	27%	669,565	23%
ARIZONA	6,411,354	18%	522,513	29%	1,071,471	25%

Source: U.S. Census Bureau (2016). American Community Survey, 5-year estimates (2010-2014), Table B17001

Table 17. Grandparents Living in Poverty

	Number of grandparents living with grandchildren (ages 0-17)	Poverty rate for grandparents living with grandchildren (ages 0-17)	Number of grandparents living with and responsible for grandchildren (ages 0-17)	Poverty rate for grandparents living with and responsible for grandchildren (ages 0-17)
East Maricopa Region	15,020	14%	5,038	17%
Ahwatukee	5,561	23%	2,199	16%
Carefree	313	3%	25	0%
Cave Creek	41	0%	11	0%
Chandler	3,516	9%	1,139	13%
Fountain Hills	15	0%	15	0%
Guadalupe	265	14%	43	44%
Paradise Valley	591	3%	49	0%
Paradise Valley Village	175	5%	112	7%
Rio Verde-Fort McDowell-Goldfield Ranch	557	1%	142	1%
Scottsdale	3,339	11%	1,166	23%
South Scottsdale	783	11%	249	36%
Tempe	647	12%	137	49%
Fort McDowell Yavapai Nation	63	32%	37	38%
Maricopa County	92,902	19%	33,208	23%
Arizona	163,317	21%	64,290	25%

Source: U.S. Census Bureau (2016). American Community Survey, 5-year estimates (2010-2014), Table B10059

Table 18. Ratio of Income to Federal Poverty Level (FPL) for Families with Young Children (Ages 0 to 4)

	Estimated number of families with children (ages 0-4)	Families with children (ages 0-4) below 100% FPL	Families with children (ages 0-4) below 130% FPL	Families with children (ages 0-4) below 150% FPL	Families with children (ages 0-4) below 185% FPL
East Maricopa Region	33,055	16%	21%	25%	31%
Ahwatukee	3,291	7%	10%	13%	17%
Carefree	42	0%	0%	0%	0%
Cave Creek	786	2%	5%	7%	7%
Chandler	13,252	15%	19%	22%	28%
Fountain Hills	523	11%	11%	20%	26%
Guadalupe	377	30%	42%	48%	59%
Paradise Valley	477	16%	18%	18%	18%
Paradise Valley Village	1,531	2%	4%	10%	21%
Rio Verde-Fort McDowell-Goldfield Ranch	76	30%	35%	35%	48%
Scottsdale	6,910	15%	20%	23%	27%
South Scottsdale	2,614	24%	35%	41%	46%
Tempe	5,790	31%	41%	47%	54%
Fort McDowell Yavapai Nation	64	36%	41%	41%	56%
Maricopa County	188,518	26%	34%	38%	46%
ARIZONA	301,165	27%	35%	41%	49%

Source: U.S. Census Bureau (2016). American Community Survey, 5-year estimates (2010-2014), Table B17022

Note: Each income category includes the categories to the left. For example, 21 percent of families in the region are below 130% FPL; this includes the families who are also below 100% FPL.

Table 19. Number of Children (Ages 0 to 5) Receiving Temporary Assistance to Needy Families (TANF)

	CY 2012	CY 2013	CY 2014	CY 2015	Change from 2012 to 2015
East Maricopa Region	1,468	1,478	1,086	825	down 44%
Maricopa County	17,120	15,936	12,432	10,042	down 41%
ARIZONA	26,827	24,889	19,884	16,336	down 39%

Source: Arizona Department of Economic Security (2016). [Family Assistance Administration dataset]. Unpublished data.

Employment and Unemployment

Unemployment rates have been dropping steadily in both Maricopa County and the state since 2010 (Table 20). In 2015, the unemployment rate in Maricopa County was approximately 5 percent. A closer inspection within East Maricopa sub-regions reveals diversity from place to place. The town of Guadalupe had consistently higher rates of unemployment than other towns in the region, such as Cave Creek, Carefree, and Paradise Valley, which have had lower unemployment rates than the county or the state.^{viii}

For young children living with both parents in the region, both parents are more likely to be in the labor force (39%) than only one parent (30%) (Table 21).^{ix} This pattern is the same for the county and the state. Twenty-four percent of young children live with a single parent who is employed (Table 21). Considered together, this means that two-thirds (63%) of young children in the region live in a home where all parents participate in the labor force. Thus, we estimate there to be approximately 34,200 children under six in the region who do not have a stay-at-home parent. This rate is higher in the Carefree and Cave Creek communities (100% and 71%, respectively); however, it is important to note that parents are considered in the labor force if they currently have a job or are looking for a job, so high rates of labor force participation may indicate that many parents in the community are looking for work, even if they are not currently employed. Families in this situation are likely to have a high need for child care. In addition to unemployment rates, the lack of child care, or the prohibitive cost of child care, can keep parents from participating in the labor force.⁴⁶

About 7 percent of children are in homes where no parent is employed, which is slightly lower than the statewide rate (11%). However, rates are much higher in the Fort McDowell (70%) and Rio Verde-Fort McDowell-Goldfield Ranch (57%) communities.

^{viii} Note that the areas listed are those for which the Arizona Local Area Unemployment Statistics have calculated unemployment rates. The definitions of these places follow Census definitions of cities and towns. Geographic definitions were revised by the Bureau of Labor Statistics in 2016 and recalculated for the periods of 1976-2016. Tribal unemployment statistics as well as estimates for small towns and places are no longer available.

^{ix} Note: "In the labor force" includes persons who are employed and persons who are unemployed but looking for work. Persons who are "not in the labor force" include stay-at-home parents, students, retirees, and others who are not working or looking for work.

For the estimated 15,020 grandparents in the region who have a grandchild or grandchildren living with them, about half (51%) are in the labor force (Table 22). This fraction is larger (65%) for those grandparents who are responsible for the grandchildren living with them. These rates of labor force participation are similar in the county (53% and 65%) and the state (51% and 61%).

Table 20. Annual Unemployment Rates, 2007 to 2015

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
East Maricopa Region	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Town of Carefree	N/A	N/A	N/A	N/A	4.6%	3.9%	3.6%	3.1%	2.8%	N/A
Town of Cave Creek	N/A	N/A	N/A	N/A	6.1%	5.2%	4.7%	4.1%	3.6%	N/A
City of Chandler	N/A	N/A	N/A	7.6%	7.1%	6.0%	5.6%	5.0%	4.4%	3.9%
Town of Fountain Hills	N/A	N/A	N/A	7.6%	7.1%	5.9%	6.1%	5.3%	4.7%	4.2%
Town of Guadalupe	N/A	N/A	N/A	N/A	15.8%	13.6%	12.3%	11.0%	9.8%	N/A
Town of Paradise Valley	N/A	N/A	N/A	N/A	3.2%	2.7%	2.4%	2.1%	1.9%	N/A
City of Scottsdale	N/A	N/A	N/A	6.5%	6.8%	5.7%	5.4%	4.7%	4.2%	3.8%
City of Tempe	N/A	N/A	N/A	9.5%	7.9%	6.6%	6.1%	5.4%	4.8%	4.2%
Maricopa County	3.3%	5.4%	9.1%	9.5%	8.6%	7.3%	6.6%	5.8%	5.1%	4.5%
Arizona	3.9%	6.2%	9.9%	10.4%	9.5%	8.3%	7.7%	6.8%	6.0%	5.3%

Source: Arizona Department of Administration, Employment and Population Statistics (2016). Local area unemployment statistics (LAUS).

Table 21. Parents of Young Children (Ages 0 to 5) Who Are or Are Not in the Labor Force

	Estimated number of children (ages 0-5) living with one or two parents	Children (ages 0-5) living with two parents who are both in the labor force	Children (ages 0-5) living with two parents, one in the labor force, and one not	Children (ages 0-5) living with two parents, neither in the labor force	Children (ages 0-5) living with a single parent who is in the labor force	Children (ages 0-5) living with a single parent who is not in the labor force
East Maricopa Region	54,269	39%	30%	1%	24%	6%
Ahwatukee	5,463	47%	26%	0%	22%	5%
Carefree	57	33%	0%	0%	67%	0%
Cave Creek	1,337	59%	29%	0%	12%	1%
Chandler	21,502	41%	29%	1%	22%	8%
Fountain Hills	915	50%	28%	4%	18%	0%
Guadalupe	730	31%	34%	0%	29%	6%
Paradise Valley	807	26%	63%	0%	8%	3%
Paradise Valley Village	2,474	51%	33%	0%	14%	1%
Rio Verde-Fort McDowell-Goldfield Ranch	143	19%	9%	9%	15%	48%
Scottsdale	11,348	35%	37%	1%	23%	5%
South Scottsdale	4,417	25%	30%	0%	38%	7%
Tempe	9,494	29%	23%	1%	40%	6%
Fort McDowell Yavapai Nation	115	0%	11%	11%	18%	59%
Maricopa County	320,911	32%	29%	2%	28%	10%
ARIZONA	510,658	31%	29%	1%	29%	10%

Source: U.S. Census Bureau (2016). American Community Survey, 5-year estimates (2010-2014), Table B23008

Note: "In the labor force" includes persons who are employed and persons who are unemployed but looking for work. Persons who are "not in the labor force" include stay-at-home parents, students, retirees, and others who are not working or looking for work.

Note: The percentages in each row above may not add to 100% due to rounding.

Table 22. Labor-Force Participation of Grandparents of Children (Ages 0 to 17)

	Number of grandparents living with grandchildren (ages 0-17)	Grandparents living with grandchildren (ages 0-17), in the labor force	Number of grandparents living with and responsible for grandchildren (ages 0-17)	Grandparents living with and responsible for grandchildren (ages 0-17), in the labor force
East Maricopa Region	15,020	51%	5,038	65%
Maricopa County	92,902	53%	33,208	65%
Arizona	163,322	51%	64,290	61%

Source: U.S. Census Bureau (2016). American Community Survey, 5-year estimates (2010–2014), Table B10058

Note: “In the labor force” includes persons who are employed and persons who are unemployed but looking for work. Persons who are not in the labor force include retirees, and others who are not working or looking for work.

Food Insecurity

Feeding America’s “Map the Meal Gap” project gathers information regarding food insecure households, types of households, unemployment rates, and other information to provide a picture of nation’s food insecurity.⁴⁷ Food insecurity is defined by the USDA as a “household-level economic and social condition of limited or uncertain access to adequate food.”⁴⁸ In Maricopa County, 16 percent of the population is estimated to be food insecure, which is similar to the rate across the state (17%). However, twenty-five percent of children (those under 18 years old) in the county are food insecure, slightly lower than the state’s 27 percent. An estimated 68 percent of food insecure children in the county are likely to be income-eligible for federal nutrition assistance (Table 23).

Families’ ability to promote the health of their children is influenced by the built environment (the physical parts of where people live and work, such as homes, buildings, streets, open spaces and infrastructure) of their communities. In Maricopa County in 2012 (the most recent data available), there were 6 times as many fast-food restaurants as there are grocery stores (Table 24).^x The county also has few recreation facilities. There were 265 fitness and recreation facilities in 2012^{xi}, meaning that there are 0.07 facilities per 1,000 residents. Approximately one-quarter (24%) of adults over age 18 in Arizona reported getting no physical activity during their leisure time in the prior month.⁴⁹

Other programs, such as the Supplemental Nutrition Assistance Program (SNAP), the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), and the National School Lunch Program are important for helping those at risk of hunger. While the number of young children participating in SNAP has declined since 2012, this program still supports over 12,000 children annually

^x Based on the USDA definitions, grocery stores are defined here as “establishments generally known as supermarkets and smaller grocery stores primarily engaged in retailing a general line of food, such as canned and frozen foods; fresh fruits and vegetables; and fresh and prepared meats, fish, and poultry. Included in this industry are delicatessen-type establishments primarily engaged in retailing a general line of food. Convenience stores, with or without gasoline sales, are excluded. Large general merchandise stores that also retail food, such as supercenters and warehouse club stores, are excluded.”

https://www.ers.usda.gov/webdocs/DataFiles/Data_Access_and_Documentation_Downloads_18030/documentation.pdf

^{xi} Based on the USDA definitions, these are “establishments primarily engaged in operating fitness and recreational sports facilities featuring exercise and other active physical fitness conditioning or recreational sports activities, such as swimming, skating, or racquet sports” https://www.ers.usda.gov/webdocs/DataFiles/Data_Access_and_Documentation_Downloads_18030/documentation.pdf

in the East Maricopa Region (Table 26). Available to these SNAP participants in the region are 458 SNAP retailers (54.75 retailers per 100,000 residents) (Table 25).

WIC enrollment has also declined slightly from 2012 to 2015 (Table 28) but still served one-fourth of the population of women and children (26% in 2015). Table 29 provides a single month snapshot of participation in the program in 2015; 77 percent of women, 82 percent of infants, and 75 percent of children were enrolled in WIC claimed their benefits in the month of January. There were 83 reported WIC retailers (9.92 retailers per 100,000 residents) (Table 25).

Schools are an important part of the nutrition assistance system, especially for children that may be food insecure. About thirty percent of students in the East Maricopa Region have been eligible for free or reduced-price lunch since 2012 (Table 30). This is lower than the percent across the state, which has hovered at 57 percent. Over the last five years, the proportion of students receiving free or reduced-price lunch has declined in the region and county, as well as many of the districts in the region. In 2016, the Cave Creek Unified District (9%) had the lowest proportion of students eligible for free/reduced lunch, while East Maricopa Region Charter Schools had the highest proportion (72%), followed by Tempe School District (71%) (Table 30). When school is not in session, schools, community centers, churches, and other community institutions in areas with at least 50 percent of children who are eligible for free or reduced-price lunch can receive funding through the Summer Food Service Program (SFSP)^{xii} to provide summer meals to children of all ages.⁵⁰ A reported 2,292 sites provided summer meals to children in Maricopa County in 2015, and the number of meals served in the county decreased by 16 percent from 2012 to 2015 (Table 31). From 2012 to 2015, the number of meals served through the Child and Adult Care Food Program (CACFP) increased by 16 percent in Maricopa County, which was higher than the increase across the state (+9%) (Table 33).

Table 23. Food Insecurity and Eligibility for Federal Nutrition Assistance

	Total population	Food insecurity rate (all ages)	Likely eligible for Federal Nutrition Assistance (all ages)	Population of children (ages 0-17)	Food insecurity rate (ages 0-17)	Likely eligible for Federal Nutrition Assistance (ages 0-17)
East Maricopa Region	N/A	N/A	N/A	N/A	N/A	N/A
Maricopa County	3,947,377	16%	67%	1,011,474	25%	68%
ARIZONA	6,731,485	17%	67%	1,622,072	27%	68%

Source: Feeding America (2016). Hunger in America. Retrieved from map.feedingamerica.org/county/2014/overall

^{xii} For more information on the Summer Food Service Program in Arizona, visit <http://www.azsummerfood.gov/>

Table 24. Food Environment

	Grocery stores, 2012	Grocery stores per thousand residents, 2012	Fast-food restaurants, 2012	Fast-food restaurants per thousand residents, 2012	Recreation & fitness facilities, 2012	Recreation and fitness facilities per thousand residents, 2012
East Maricopa Region	N/A	N/A	N/A	N/A	N/A	N/A
Maricopa County	493	0.13	2,758	0.70	265	0.07
ARIZONA	825	0.13	4,238	0.65	456	0.07

Source: USDA Economic Research Service (2014). Food Environment Atlas. Retrieved from www.ers.usda.gov/data-products/food-environment-atlas

Table 25. Retailers Participating in the SNAP or WIC Programs

	Number of SNAP retailers	SNAP retailers per 100,000 residents	Number of WIC retailers	WIC retailers per 100,000 residents
East Maricopa Region	458	54.75	83	9.92
Maricopa County	2,274	59.57	388	10.16
ARIZONA	4,038	63.17	644	10.08

Source: Arizona Department of Health Services (2016). Arizona WIC Vendor List & United States Department of Agriculture (2016). SNAP Retailer Locator.

Table 26. Numbers of Young Children (Ages 0 to 5) Receiving SNAP Benefits, 2012 to 2015

	FY 2012	FY 2013	FY 2014	FY 2015	Change from 2012 to 2015
East Maricopa Region	15,239	14,822	13,871	12,382	down 19%
Maricopa County	176,139	173,143	164,403	146,940	down 17%
ARIZONA	296,686	290,513	277,345	249,712	down 16%

Source: Arizona Department of Economic Security (2016). [Family Assistance Administration dataset]. Unpublished data.

Table 27. Number of Women, Infants, and Children Enrolled in the WIC Program During 2015

	Total	Women	Infants	Children
East Maricopa Region	16,541	4,654	4,816	7,071
Maricopa County	196,750	52,634	55,391	88,725
ARIZONA	310,181	82,860	87,836	139,485

Source: Arizona Department of Health Services (2016). [WIC datasets]. Unpublished data.

Table 28. Infants and Children (Ages 0 to 4) Enrolled in the WIC Program as a Percentage of the Population, 2012 to 2015

	Number of children (ages 0-4) in 2010 US Census	2012	2012	2013	2013	2014	2014	2015	2015
East Maricopa Region	45,125	13,863	31%	12,835	28%	12,152	27%	11,887	26%
Maricopa County	282,770	160,058	57%	152,869	54%	147,626	52%	144,116	51%
ARIZONA	455,715	255,332	56%	243,050	53%	233,012	51%	227,321	50%

Source: Arizona Department of Health Services (2016). [WIC datasets]. Unpublished data.

Table 29. WIC Participation Rates During January 2015

	Total	Women	Infants	Children
East Maricopa Region	78%	77%	82%	75%
Maricopa County	80%	79%	85%	78%
ARIZONA	79%	78%	84%	77%

Source: Arizona Department of Health Services (2016). [WIC datasets]. Unpublished data.

Note: The participation rate is the number of persons receiving WIC benefits during January 2015, divided by the total number of persons enrolled in the program.

Table 30. Proportion of Students (Pre-kindergarten Through Twelfth Grade) Eligible for Free or Reduced-Price Lunch, 2012 to 2016

	2012	2013	2014	2015	2016
East Maricopa Region Schools	33%	32%	33%	32%	31%
Cave Creek Unified District	12%	9%	9%	9%	9%
Chandler Unified District	31%	32%	35%	31%	30%
Fountain Hills Unified District	35%	43%	28%	31%	35%
Kyrene Elementary District	29%	28%	29%	29%	30%
Mesa Unified District	53%	54%	53%	54%	55%
Paradise Valley Unified District	13%	13%	12%	11%	10%
Scottsdale Unified District	24%	25%	25%	24%	23%
Tempe School District	71%	71%	70%	70%	71%
Tempe Union High School District	41%	27%	26%	28%	28%
East Maricopa Region Charter Schools	62%	60%	64%	72%	72%
Maricopa County Schools	54%	54%	54%	54%	55%
All Arizona Schools	57%	57%	58%	58%	58%

Source: Arizona Department of Education (2016). [Free and reduced lunch dataset]. Unpublished data.

Note: The school-district data in this table include only the schools that are located within the East Maricopa Region.

Table 31. The Summer Food Service Program (SFSP)

	Number of sites in Summer 2015	Number of free meals in Summer 2015	Change in the number of meals from 2012 to 2015
East Maricopa Region	N/A	N/A	N/A
Maricopa County	2,292	2,568,675	down 16%
Arizona	3,506	3,998,264	down 10%

Source: Arizona Department of Education (2015). [Summer Food Service Program Dataset]. Unpublished data.

Note: The Summer Food Service Program serves children of all ages based on area eligibility. Sites must be located in the attendance area of a school or a census tract or block group where at least 50 percent of children are eligible for free or reduced price meals

Table 32. Number of Children Served by the Child and Adult Care Food Program (CACFP) in January 2015

	Breakfast	Morning snack	Lunch	Afternoon snack	Supper	Evening snack
East Maricopa Region	N/A	N/A	N/A	N/A	N/A	N/A
Maricopa County	27,988	8,563	31,236	31,620	22,247	1,263
Arizona	50,252	16,809	54,098	56,849	27,906	2,375

Source: Arizona Department of Education (2015). [Child and Adult Food Care Program Dataset]. Unpublished data.

Note: Meals served at adult care centers and emergency shelters were excluded from this table

Table 33. Meals Served by the Child and Adult Care Food Program (CACFP), 2012 and 2015

	Number of meals served in 2012	Number of meals served in 2015	Change from 2012 to 2015
East Maricopa Region	N/A	N/A	N/A
Maricopa County	11,504,433	13,317,691	16%
Arizona	19,923,277	21,773,052	9%

Source: Arizona Department of Education (2015). [Child and Adult Food Care Program Dataset]. Unpublished data.

Notes: Meals served at adult care centers and emergency shelters were excluded from this table.

Housing and Homelessness

Of the 343,317 occupied housing units in the East Maricopa Region, 36 percent are occupied by renters and 64 percent are occupied by homeowners (Table 34). Homeownership across the region (64%) is slightly higher than elsewhere in the county and state (61% and 63%, respectively) (Table 34). Lower homeownership rates are seen in the Guadalupe (48%) and Tempe (43%) communities, while the Cave Creek, Paradise Valley, and Rio Verde-Fort McDowell-Goldfield Ranch communities have homeownership rates at or above 85 percent. Residents of the East Maricopa region have a similar housing cost burden to residents of the state as a whole: 33 percent of the East Maricopa housing units require their residents to contribute more than 30 percent of their household income toward housing, compared to 34 percent statewide (Table 35). Housing costs are particularly high in the Carefree area, as 43 percent of housing units cost more than 30 percent of household income.

In the East Maricopa Region, nearly three-fourths of the population has lived in the same house for the past year (79%) (Table 37). The rate of the population living in the same house is higher in the Fort McDowell (94%), Cave Creek (91%), and Carefree communities (90%), which are greater even than the rate across the state (81%).

An estimated 5 percent of the households in the East Maricopa Region reported having no available vehicle, which is lower than the state's overall rate (7%) (Table 38). However, the rate of households with no available vehicle is higher than both state and regional rates in the Guadalupe (8%) and Tempe (11%) communities. The lack of available vehicle can limit a families' access to a number of things, including basic needs and services such as health and child care.

Table 34. Owner- and Renter-Occupied Housing Units

	Number of occupied housing units	Owner-occupied units	Renter-occupied units
East Maricopa Region	343,317	64%	36%
Ahwatukee	32,098	65%	35%
Carefree	1,667	83%	17%
Cave Creek	10,423	85%	15%
Chandler	96,359	65%	35%
Fountain Hills	10,742	82%	18%
Guadalupe	1,282	48%	52%
Paradise Valley	7,141	85%	15%
Paradise Valley Village	17,854	72%	28%
Rio Verde-Fort McDowell-Goldfield Ranch	1,511	88%	12%
Scottsdale	100,439	68%	32%
South Scottsdale	30,272	54%	46%
Tempe	63,800	43%	57%
Fort McDowell Yavapai Nation	278	66%	34%
Maricopa County	1,424,244	61%	39%
ARIZONA	2,387,246	63%	37%

Source: U.S. Census Bureau (2016). American Community Survey, 5-year estimates (2010-2014), Table B25106

Table 35. The Cost of Housing, Relative to Household Income

	Number of occupied housing units	Occupied housing units which cost 30% of household income, or more
East Maricopa Region	343,317	33%
Ahwatukee	32,098	28%
Carefree	1,667	43%
Cave Creek	10,423	33%
Chandler	96,359	29%
Fountain Hills	10,742	33%
Guadalupe	1,282	37%
Paradise Valley	7,141	40%
Paradise Valley Village	17,854	32%
Rio Verde-Fort McDowell-Goldfield Ranch	1,511	23%
Scottsdale	100,439	34%
South Scottsdale	30,272	37%
Tempe	63,800	39%
Fort McDowell Yavapai Nation	278	19%
Maricopa County	1,424,244	35%
ARIZONA	2,387,246	34%

Source: U.S. Census Bureau (2016). American Community Survey, 5-year estimates (2010-2014), Table B25106

Table 36. Occupied and Vacant Housing Units

	Total housing units	Occupied housing units	Non-seasonal vacant housing units	Seasonal vacant housing units
East Maricopa Region	400,120	86%	7%	7%
Ahwatukee	35,020	92%	5%	3%
Carefree	2,422	69%	9%	22%
Cave Creek	12,083	86%	6%	8%
Chandler	106,601	90%	6%	3%
Fountain Hills	14,129	76%	7%	17%
Guadalupe	1,403	91%	8%	1%
Paradise Valley	8,693	82%	8%	10%
Paradise Valley Village	20,105	89%	6%	5%
Rio Verde-Fort McDowell-Goldfield Ranch	2,394	63%	7%	30%
Scottsdale	125,334	80%	8%	12%
Tempe	71,936	89%	10%	1%
Fort McDowell Yavapai Nation	298	93%	6%	1%
Maricopa County	1,657,753	86%	9%	5%
ARIZONA	2,874,548	83%	10%	7%

Source: U.S. Census Bureau (2016). American Community Survey, 5-year estimates (2010-2014), Tables B25002 & B25004

Table 37. Estimated Population Mobility

	Estimated population (ages 1 and older)	Lived in the same house a year ago	Moved within Maricopa County in the past year	Moved from elsewhere in Arizona in the past year	Moved from outside of Arizona in the past year
East Maricopa Region	851,422	79%	15%	1%	5%
Ahwatukee	79,591	78%	16%	1%	5%
Carefree	3,048	90%	10%	0%	0%
Cave Creek	26,880	91%	5%	0%	3%
Chandler	260,552	80%	13%	2%	5%
Fountain Hills	23,087	85%	11%	0%	5%
Guadalupe	5,601	73%	21%	2%	4%
Paradise Valley	17,028	88%	8%	1%	3%
Paradise Valley Village	45,183	84%	11%	1%	5%
Rio Verde-Fort McDowell-Goldfield Ranch	3,463	88%	10%	0%	1%
Scottsdale	221,648	81%	12%	1%	5%
South Scottsdale	65,501	73%	19%	2%	6%
Tempe	165,341	67%	23%	2%	7%
Fort McDowell Yavapai Nation	1,021	94%	4%	0%	1%
Maricopa County	3,895,703	81%	14%	1%	4%
ARIZONA	6,480,318	81%	13%	2%	4%

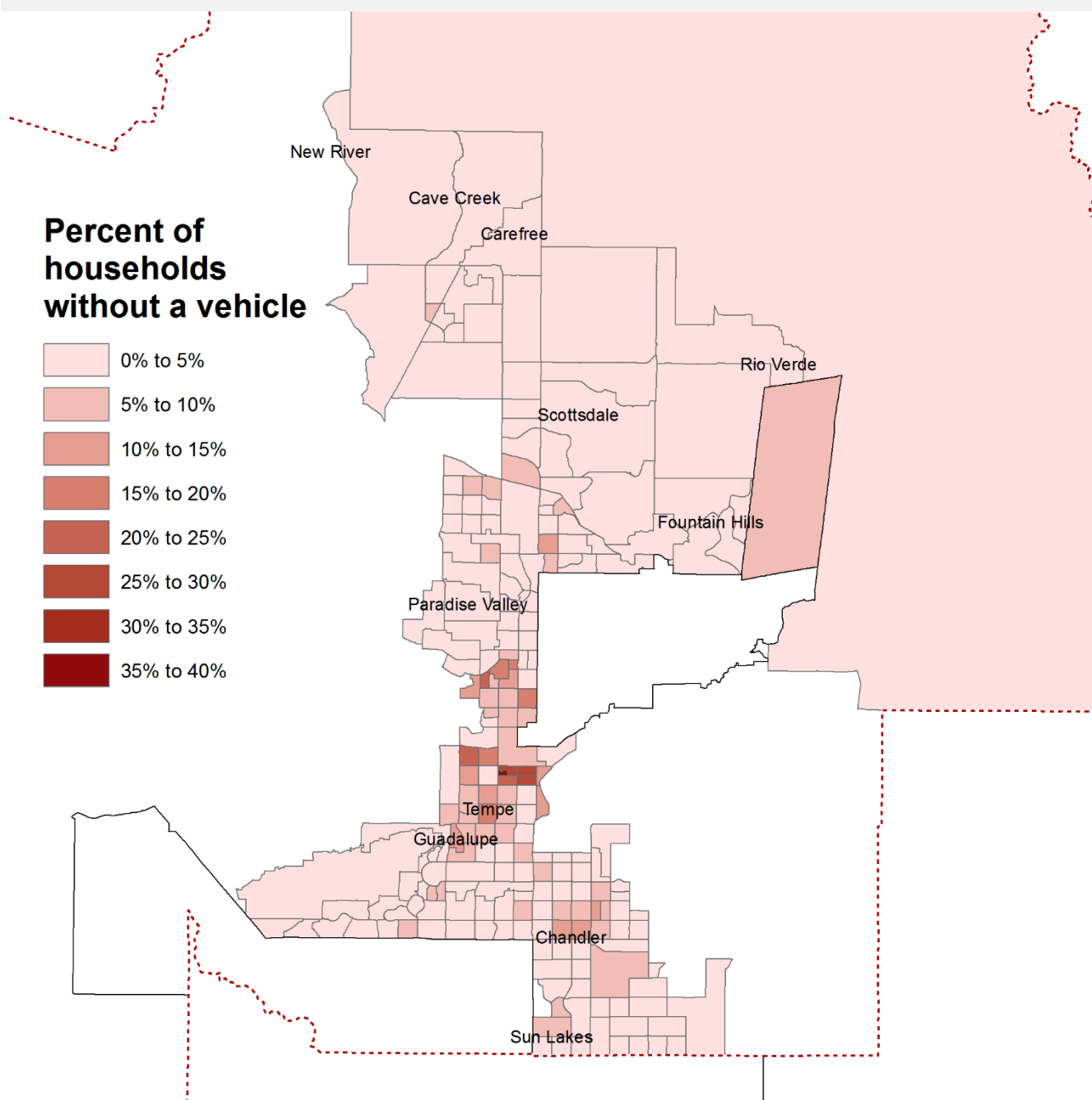
Source: U.S. Census Bureau (2016). American Community Survey, 5-year estimates (2010-2014), Table B07001

Table 38. Households With No Vehicle Available

	Estimated number of households	Households with no vehicle available
East Maricopa Region	343,317	5%
Ahwatukee	32,098	2%
Carefree	1,667	3%
Cave Creek	10,423	1%
Chandler	96,359	3%
Fountain Hills	10,742	2%
Guadalupe	1,282	8%
Paradise Valley	7,141	2%
Paradise Valley Village	17,854	3%
Rio Verde-Fort McDowell-Goldfield Ranch	1,511	3%
Scottsdale	100,439	4%
South Scottsdale	30,272	9%
Tempe	63,800	11%
Fort McDowell Yavapai Nation	278	7%
Maricopa County	1,424,244	7%
ARIZONA	2,387,246	7%

Source: U.S. Census Bureau (2016). American Community Survey, 5-year estimates (2010–2014), Table B08201

Figure 9. Percent of Households Without a Vehicle, by Census Tract



Source: U.S. Census Bureau (2016). American Community Survey, 5-year estimates (2010–2014), Table B08201



EDUCATIONAL INDICATORS

Why Educational Indicators Matter

The degree to which people in a community are engaged and succeeding in educational settings can have profound impacts on the developmental and economic resources available to children and families in that region. Indicators such as school enrollment and attendance, achievement on standardized testing, graduation and dropout rates, and the overall level of education in the adult population can all paint a picture of a region's educational engagement and success.

The importance of education begins early in life. Preschool participation has been shown to better prepare young children for kindergarten by supporting good school attendance practices and honing socio-emotional, cognitive, and physical skills.^{51,52,53,54} Starting in kindergarten, poor school attendance can cause children to fall behind, leading to lowered proficiency in reading and math, and increased grade-retention.⁵⁵

Early education is laying an important foundation for the future. Students who are at or above grade level reading in third grade are more likely to graduate high school and attend college.⁵⁶ A family's economic circumstances can multiply this effect: more than one-fourth (26%) of children who were both not reading proficiently in third grade and living in poverty for at least a year do not finish high school – that is more than six times the drop-out rate for proficient readers.⁵⁷

In 2010, the Arizona legislature, recognizing the importance of early reading proficiency, enacted *Move on When Reading* legislation to support building literacy skills in the early grades. Part of the legislation is Arizona Revised Statute §15-701, which states that, as of school year 2013-14, a student shall not be promoted from the third grade if the student obtains a reading score that falls far below the third-grade level as established by the State Board of Education.^{xiii} Exceptions exist for students identified with or being evaluated for learning disabilities, English language learners, and those with reading impairments.

From 2000-2014, the primary in-school performance measure of students in public elementary schools in the state was the Arizona's Instrument to Measure Standards (AIMS). In 2014, the statewide assessment tool for English language arts (ELA) (including reading and writing) and mathematics changed from AIMS to AzMERIT (Arizona's Measurement of Educational Readiness to Inform Teaching), and the first AzMERIT testing began in the 2015 school year. AzMERIT scores are now used to determine promotion from the third grade in accordance with the *Move on When Reading* law. New proficiency cut points were determined by grade level, and earning a score of "proficient" or "highly proficient" indicates that a student is prepared for the next grade without requiring additional support. Students who score as either "minimally" or "partially proficient" are likely to need support to be ready to move on to the next grade. In order for children to be prepared to succeed on tests such as AzMERIT, research shows that early reading experiences, opportunities to build vocabularies, and literacy-rich environments are the most effective ways to support the literacy development of young children.

Beyond the direct connections between caregivers' education and their own literacy, the ability to read to, share with, and teach young children in the home is influenced by parental and familial stress levels,

^{xiii} For more information on *Move on When Reading*, visit <http://www.azed.gov/mowr/>

income levels, and educational levels. Families in poverty are often grappling with issues of day-to-day survival which may limit time spent in developmentally enriching activities. Parents with higher educational attainment may be less vulnerable to these issues and are more likely to have children with positive outcomes related to school readiness and educational achievement, as well improved health, social and economic outcomes.⁵⁸ Higher levels of parental education are also associated with better housing, more secure neighborhoods, and stable working conditions, all of which are important for the health and well-being of children.^{59,60}

What the Data Tell Us

Standardized Test Scores

The AzMERIT, which replaced AIMS in the 2014-2015 school year, is designed to assess students' critical thinking skills and their mastery of the Arizona College and Career Ready Standards established in 2010. Students who receive a proficient or highly proficient score are considered adequately prepared for success in the next grade. In the 2014-2015 school year, 55 percent of East Maricopa Region students attained these scores on the third grade math assessment, which was a higher passing rate than across Arizona as a whole (42%) (Figure 10). Performance on the English Language Arts (ELA) test was similar, with 57 percent of East Maricopa students demonstrating proficiency, compared to 40 percent across the state (Figure 11). A portion of the 28 percent of East Maricopa region third graders who scored minimally proficient are at risk for retention in third grade, based on the Arizona's *Move on When Reading* law, which requires retention of those whose reading falls far below the third grade level.^{xiv}

The highest achieving districts in the region in math were in the Paradise Valley Unified District (62% passing math) and the Kyrene Elementary District (62% passing math); in addition, the Paradise Valley Unified District (68%), Cave Creek (63%), and Scottsdale Unified District (63%) performed better than region and state on the English Language Arts test (Table 39, Table 40). The districts with the lowest proficiency rates were the Tempe School District (30% passing math, 35% passing ELA) and the Mesa Unified District (49% passing math, 46% passing ELA) (Table 39, Table 40). District boundaries are shown in Figure 12.^{xv}

A sample of students in Arizona grades 4, 8 and 12 also take the National Assessment of Educational Progress (NAEP), a nationally administered achievement test that allows for comparisons between states. Thirty percent of Arizona fourth graders scored at the proficient or advanced level in reading in 2015, compared with 35 percent of fourth graders nationally. Scores have been improving steadily, both in the state and nationally, since testing began in 1998.⁶¹

Strong disparities exist in the state NAEP scores based on race, ethnicity and income. Forty-four percent of Arizona fourth grade white students score at the proficient reading level or above, compared with 27 percent of black students, 18 percent of Hispanic students, and 11 percent of

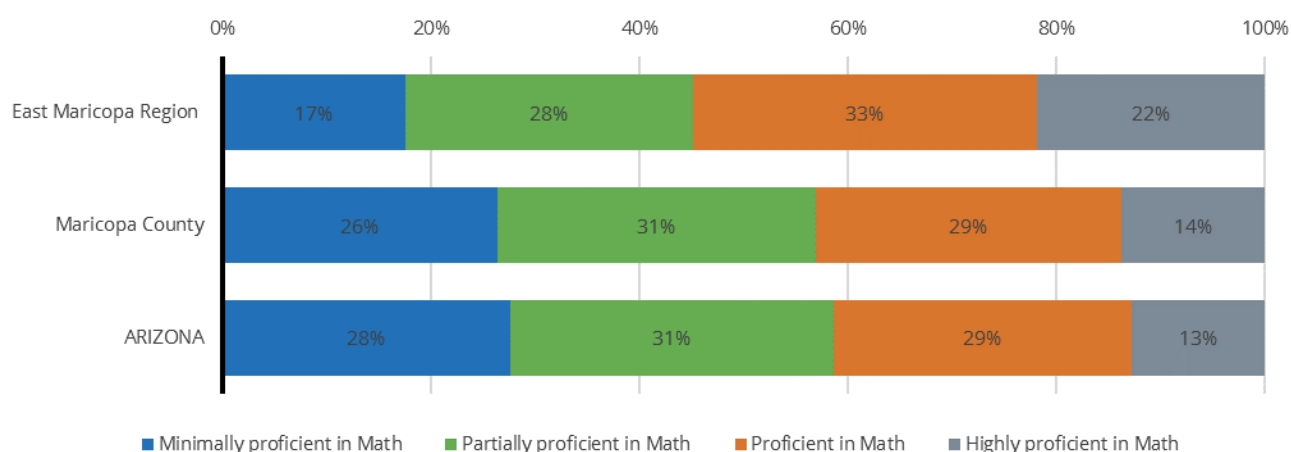
^{xiv} Note that in the data provided the scores reported are a combined ELA score of reading and writing. Students may have a minimally proficient ELA score and still meet the Move On When Reading requirement.

^{xv} Information on individual schools is available through the Arizona Department of Education's website: <http://www.azed.gov/research-evaluation/aims-assessment-results/>.

American Indian students. Fifty-two percent of fourth graders who were *not* eligible for free or reduced-price school lunch scored at or above the proficient reading level, but only 17 percent of children who were eligible for the program scored that highly. In the East Maricopa Region, we see that some of the districts with the highest proportions of children eligible for free or reduced-price lunch, such as Tempe Unified District (71% eligible) and Mesa Unified District (55%) (see Table 30), also have the highest proportions of students not passing the AzMERIT assessments in the third grade (Table 39, Table 40).

Student performance in the East Maricopa Region, and statewide, suggests that there is much work to be done to support early literacy and to strengthen scholastic achievement, particularly among young children of color and children in poverty.

Figure 10. AzMERIT Math Test Results for Third-Graders in the 2014-2015 School Year



Source: Arizona Department of Education (2016). [Education dataset]. Unpublished data.

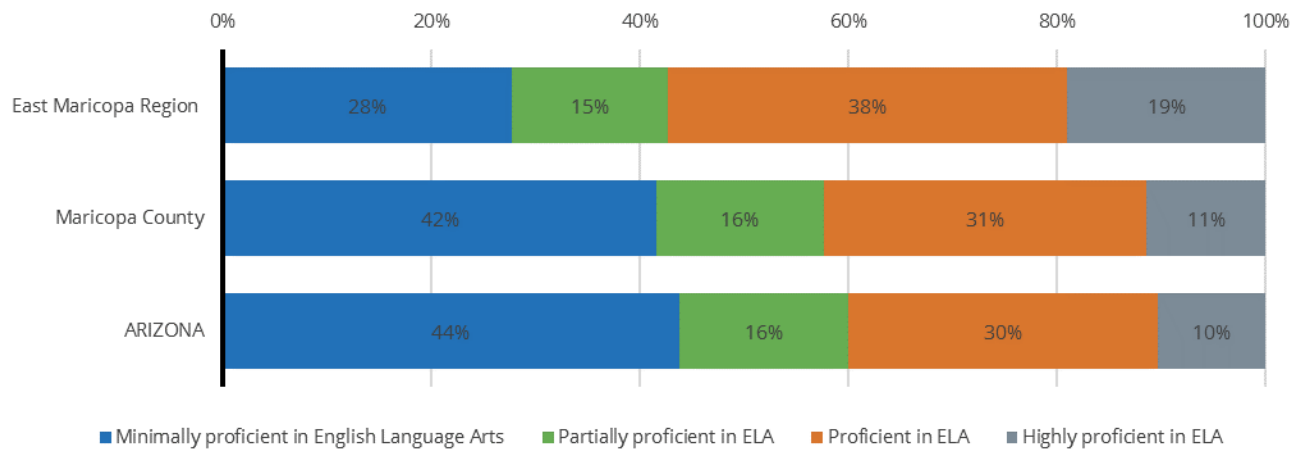
Table 39. AzMERIT Math Test Results for Third-Graders in 2014-15, by School District

	Minimally proficient in Math	Partially proficient in Math	Proficient in Math	Highly proficient in Math	Passing Math (proficient or highly proficient)
East Maricopa Region Schools	17%	28%	33%	22%	55%
Cave Creek Unified District	14%	29%	35%	21%	56%
Chandler Unified District	17%	25%	35%	23%	59%
Fountain Hills Unified District	17%	30%	32%	21%	53%
Kyrene Elementary District	13%	25%	32%	29%	62%
Mesa Unified District	21%	30%	33%	16%	49%
Paradise Valley Unified District	10%	28%	40%	22%	62%
Scottsdale Unified District	15%	28%	35%	22%	57%
Tempe School District	35%	34%	20%	10%	30%
East Maricopa Region Charter Schools	15%	29%	35%	21%	56%
Maricopa County Schools	26%	31%	29%	14%	43%
All Arizona Schools	28%	31%	29%	13%	41%

Source: Arizona Department of Education (2016). [Education dataset]. Unpublished data.

Note: The school-district data in this table include only the schools that are located within the East Maricopa Region.

Figure 11. AzMERIT English Language Arts Test Results for Third-Graders in the 2014-2015 School Year



Source: Arizona Department of Education (2016). [Education dataset]. Unpublished data.

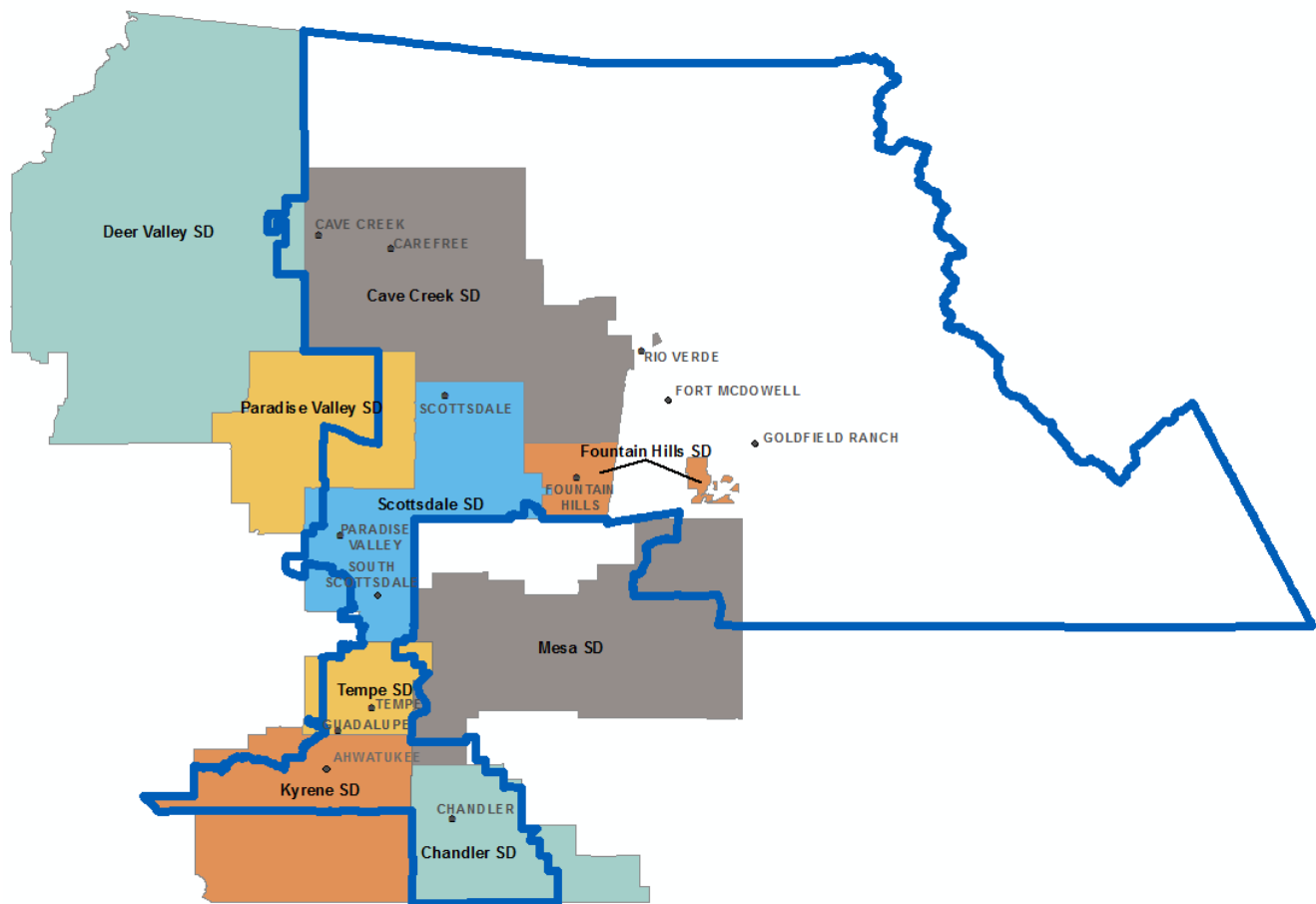
Table 40. AzMERIT English Language Arts Test Results for Third-Graders in 2014-15, by School District

	Minimally proficient in English Language Arts	Partially proficient in English Language Arts	Proficient in English Language Arts	Highly proficient in English Language Arts	Passing English Language Arts (proficient or highly proficient)
East Maricopa Region Schools	28%	15%	38%	19%	57%
Cave Creek Unified District	25%	12%	45%	18%	63%
Chandler Unified District	26%	14%	40%	20%	60%
Fountain Hills Unified District	29%	17%	40%	14%	54%
Kyrene Elementary District	26%	17%	38%	20%	58%
Mesa Unified District	39%	15%	33%	13%	46%
Paradise Valley Unified District	17%	15%	41%	27%	68%
Scottsdale Unified District	22%	15%	40%	23%	63%
Tempe School District	50%	15%	26%	9%	35%
East Maricopa Region Charter Schools	24%	14%	43%	19%	62%
Maricopa County Schools	42%	16%	31%	11%	42%
All Arizona Schools	44%	16%	30%	10%	40%

Source: Arizona Department of Education (2016). [Education dataset]. Unpublished data.

Note: The school-district data in this table include only the schools that are located within the East Maricopa Region.

Figure 12. The School Districts of the East Maricopa First Things First Region



Source: First Things First (2016).

Educational Attainment

The Arizona Department of Education tracks the percent of students who are chronically absent, meaning they have missed more than 10 days of school in a school year. Table 43 shows these percentages for elementary school districts in the region. Rates of chronic absences in the East Maricopa Region have been consistently lower in 2014 (26%) and 2015 (28%) than in the state as a whole (34% and 36%, respectively). Chronic absences are particularly high in the Tempe School district (36%), while the rates are lowest in the Chandler Unified District (25%). Identifying and addressing the reasons behind chronic absenteeism is important to ameliorate later effects on educational achievement and graduation rates.⁶²

The East Maricopa Region contains 56 high schools and alternative schools. The high school drop-out rate in East Maricopa region increased to 6 percent in 2015, after remaining at 3 percent in the three years prior. Until this increase in 2015, the rate in East Maricopa had consistently been about the same as the state rate of 3 to 4 percent (Table 44). East Maricopa Region Charter Schools (14%) had drop-out rates that were higher than that of the region and state overall.

Four-year graduation rates in the East Maricopa region (2014: 77%) are consistently similar to those in Arizona as a whole (2014: 76%). However, a number of districts outperformed the state, county, and region in four-year graduation rates in 2014, including the Paradise Valley Unified District (95%) and Cave Creek Unified District (93%) (Table 44). Despite having a rate of chronic absences similar to that of the overall region, East Maricopa Region Charter Schools had the lowest rate of four-year graduations (46%) across the state, county, and overall region in 2014.

Adults aged 25 and older in the East Maricopa Region are more likely to have a bachelor's degree or higher (46%) than adults across Arizona (27%) (Table 41). The percent of adults with less than a high school education in the region (6%) is also lower than the state (14%). However, the highest rate of adults who did not complete high school was seen in the Fort McDowell (22%) community. Adults in the Paradise Valley area have the highest educational attainment in the sub-regions, with high rates of at least some post-secondary education (21%) as well as bachelor's and advanced degrees (70%).

Table 41. Level of Education for the Adult Population (Ages 25 and Older)

	Estimated population (ages 25 and older)	Less than high school	High school or GED	Some college or professional education	Bachelor's degree or more
East Maricopa Region	588,569	6%	16%	32%	46%
Ahwatukee	55,673	3%	15%	33%	50%
Carefree	2,878	0%	18%	19%	63%
Cave Creek	19,434	3%	15%	31%	51%
Chandler	173,173	8%	18%	35%	39%
Fountain Hills	18,887	3%	20%	32%	45%
Guadalupe	3,615	11%	19%	34%	36%
Paradise Valley	12,931	2%	8%	21%	70%
Paradise Valley Village	32,670	3%	15%	29%	53%
Rio Verde-Fort McDowell-Goldfield Ranch	2,935	5%	20%	26%	48%
Scottsdale	170,040	4%	14%	29%	53%
South Scottsdale	48,289	7%	20%	33%	40%
Tempe	96,333	10%	17%	33%	40%
Fort McDowell Yavapai Nation	565	22%	35%	35%	8%
Maricopa County	2,550,592	13%	23%	33%	30%
ARIZONA	4,284,776	14%	25%	34%	27%

Source: U.S. Census Bureau (2016). American Community Survey, 5-year estimates (2010-2014), Table B15002

Note: The percentages in each row above may not add to 100% due to rounding.

Table 42. Kindergarten Through Third-Grade Enrollment

	Number of students enrolled (K to 3)	Number of English Language Learners (ELL)	Percent of students who are ELL	Number of students in special education	Percent of students in special education
East Maricopa Region Schools	38,758	1,811	5%	3,369	9%
Cave Creek Unified District	1,408	32	2%	185	13%
Chandler Unified District	10,023	456	5%	1,027	10%
Fountain Hills Unified District	382	<10	2%	30	8%
Kyrene Elementary District	7,343	195	3%	494	7%
Mesa Unified District	1,021	34	3%	101	10%
Paradise Valley Unified District	2,940	62	2%	246	8%
Scottsdale Unified District	5,185	210	4%	497	10%
Tempe School District	4,983	636	13%	462	9%
East Maricopa Region Charter Schools	5,473	178	3%	327	6%
Maricopa County Schools	222,761	23,576	11%	20,635	9%
All Arizona Schools	342,307	34,256	10%	33,269	10%

Source: Arizona Department of Education (2016). [Free and reduced lunch dataset]. Unpublished data.

Note: The school-district data in this table include only the schools that are located within the East Maricopa Region.

Table 43. Chronic Absences for Students in Grade 1 to 3 (2014 and 2015)

	Number of schools	Number of students in 2014	Students with chronic (more than 10) absences in 2014	Percent of students with chronic absences in 2014	Number of students in 2015	Students with chronic (more than 10) absences in 2015	Percent of students with chronic absences in 2015
East Maricopa Region Schools	128	30,630	7,851	26%	31,342	8,810	28%
Cave Creek Unified District	5	1,198	330	28%	1,135	319	28%
Chandler Unified District	25	7,899	1,195	15%	8,314	2,037	25%
Fountain Hills Unified District	1	382	125	33%	367	124	34%
Kyrene Elementary District	20	5,800	1,600	28%	5,967	1,559	26%
Mesa Unified District	3	752	206	27%	818	261	32%
Paradise Valley Unified District	9	2,244	696	31%	2,312	728	31%
Scottsdale Unified District	17	4,311	1,209	28%	3,870	1,025	26%
Tempe School District	16	4,207	1,428	34%	4,344	1,579	36%
East Maricopa Region Charter Schools	32	3,837	1,062	28%	4,215	1,178	28%
Maricopa County Schools	687	181,096	56,299	31%	185,765	63,293	34%
All Arizona Schools	1,185	278,142	93,719	34%	283,147	103,078	36%

Source: Arizona Department of Education (2016). [Education dataset]. Unpublished data.

Note: The school-district data in this table include only the schools that are located within the East Maricopa Region.

Table 44. High School Drop-Out and Graduation Rates, 2012 to 2015

	Total number of high schools and alternative schools	Drop-out rate, 2012	Drop-out rate, 2013	Drop-out rate, 2014	Drop-out rate, 2015	Four-year graduation rate, 2011	Four-year graduation rate, 2012	Four-year graduation rate, 2013	Four-year graduation rate, 2014
East Maricopa Region Schools	56	3%	3%	3%	6%	84%	84%	82%	77%
Cave Creek Unified District	1	0%	1%	1%	1%	95%	93%	88%	93%
Chandler Unified District	8	1%	1%	1%	1%	91%	91%	92%	90%
Fountain Hills Unified District	2	2%	1%	1%	1%	89%	89%	89%	88%
Paradise Valley Unified District	1	1%	1%	1%	1%	95%	95%	94%	95%
Scottsdale Unified District	7	1%	1%	1%	1%	91%	90%	88%	86%
Tempe Union High School District	8	3%	3%	3%	2%	88%	90%	84%	76%
East Maricopa Region Charter Schools	29	6%	5%	5%	14%	54%	54%	53%	46%
Maricopa County Schools	383	3%	3%	3%	3%	80%	79%	77%	77%
All Arizona Schools	836	4%	3%	3%	4%	78%	77%	76%	76%

Source: Arizona Department of Education (2016). [Education dataset]. Unpublished data.

Note: The school-district data in this table include only the schools that are located within the East Maricopa Region.



EARLY LEARNING

Why Early Learning Matters

Young children spend their time observing the world and learning at a rapid pace. From fine and gross motor skill development, to language and numeracy skills, to social skills, the early years of a child's life are filled with opportunities for learning. The skills that young children are building are critical for healthy brain development as well as later achievement and success. Just as rich, stimulating environments can promote development, early negative experiences can also carry lasting effects.⁶³ Gaps in language development between children from disadvantaged backgrounds and their more advantaged peers are already evident by 18 months of age;⁶⁴ those disparities that persist until kindergarten are predictive of later academic problems.⁶⁵

Families play a tremendous role in fostering development. Research shows that children's health, socio-emotional, and cognitive development also benefit greatly from high quality early learning.^{66,67} This is particularly true for children from disadvantaged backgrounds.⁶⁸ Children whose education begins in high quality preschool programs repeat grades less frequently, obtain higher scores on standardized tests, experience fewer behavior problems, and are more likely to graduate high school.⁶⁹

Investment in children during the crucial first five years not only provides the necessary foundation for later achievement, but also produces a positive return on investment to society through increased educational achievement and employment, reductions in crime, and better overall health of those children as they mature into adults.^{70,71,72} Experts estimate that investments in quality early learning initiatives can offer returns as high as \$16 per dollar spent.⁷³ In other words, the costs of these programs are ultimately repaid several times over and the investment in early childhood is potentially one of the most lucrative ones that a community can make.

The ability of families to access quality, affordable early care and education opportunities, however, can be limited. Nearly one-third (32%) of parents of young children responding to a national survey regarding child care reported it was very or somewhat difficult to find care for their child, with cost being the most often cited challenge. More than two-thirds (69%) of parents surveyed reported having to pay in order to secure child care, and almost a third (31%) of those parents reported that this cost has caused a financial problem for the household.⁷⁴ According to the U.S. Department of Education, only 19 percent of four-year-olds in Arizona are enrolled in publically funded preschool or Head Start programs, compared to 41 percent nationally.⁷⁵ If not enrolled in publically-funded programs, which are often free or reduced cost, the annual cost of full-time center-based care for a young child in Arizona is nearly equal to the cost of a year at a public college (\$9,166).⁷⁶

Child care subsidies can be a support for families who have financial barriers to accessing early learning services.⁷⁷ The number of subsidies to families in Arizona through the Child Care and Development Fund (CCDF) has increased recently. In 2015, 38,855 children aged birth to 5 (about 7% of Arizona's children in this age range) received CCDF vouchers, up from 26,685 (about 5% of children aged 0-5) in 2014. With half of young children in Arizona living below the federal poverty level, the number in need of these subsidies is likely much higher than those receiving them.

In addition to prohibitive costs, the availability of suitable child care cannot be taken for granted. An inadequate child care supply, known as a “child care desert,” has been defined as a zip code with at least 30 children under five years of age and either no or very limited center-based early care and education programs (i.e., there are more than three times as many children under age five as there are spaces in the child care settings).⁷⁸ Living in a child care desert disproportionately affects rural populations, and given the many rural counties in Arizona, this is likely a common phenomenon in many regions.

Beyond basic issues of access and affordability, quality is of paramount concern to parents. A recent national survey of parents who use child care for their young child(ren) found that most parents (59%) rated the quality of their child care as “excellent;” however, this runs contrary to research which suggests most child care across the country is not high quality.⁷⁹ How parents perceive and understand quality may differ; this points to the importance of quality rating systems to help guide parent choices. Quality First is Arizona’s Quality Improvement and Rating System (QRIS) for early child care and preschool providers. Quality First employs a five-point rating scale to indicate quality levels. A one-star rating indicates that the provider is committed to examining practices and improving the quality of care beyond basic health and safety requirements. Quality First participants can advance to a quality rating (3, 4, or 5 stars) by implementing lower teacher-to-child ratios, supporting higher staff qualifications, instituting a curriculum that aligns with state standards and child assessment, and providing a nurturing relationships between adults and children that promote emotional, social, and academic development. The number of providers across the state who meet quality standards (3-star rating or higher) has increased in recent years with 25 percent of the 857 participating providers in 2013 and 65 percent of 918 participating providers in 2016 meeting or exceeding quality standards.⁸⁰

Arizona was one of five states to receive a federal Preschool Development Block Grant (PDG) in 2015, with funding totaling \$80 million over fiscal years 2017-2020. A main goal of this funding is to expand the number of quality preschools enrolled in Quality First in underserved areas through a partnership between First Things First and the Arizona Department of Education. The grant will also support early childhood infrastructure development, early-learning provider partnerships, and coordination of early childhood funding.⁸¹

The presence of qualified, well-trained, caring professionals is essential to providing quality child care and early education experiences for children. In Arizona, the number of early childhood professionals receiving a credential or degree has increased from 2007 (21%) to 2012 (29%). However, one incentive for attaining these credentials – increased wages – shows an opposite pattern. Wages for assistant teachers, teachers, and administrative directors working across all types of licensed child care and education settings in Arizona decreased between 2007 and 2012, after adjusting for inflation. In addition, average annual wages for early education professionals in Arizona are about half that of kindergarten and elementary teachers, which may affect retention of those in early education settings, particularly after degree attainment.⁸²

In addition to formal education, there are additional professional development opportunities available for early childhood professionals in Arizona. The Arizona Early Childhood Career and Professional Development Network, supported by First Things First, hosts a professional development website, AZEaryChildhood.org, that provides early childhood professionals with resources and information on

professional development opportunities, career and job advancement, and networking in the early childhood field.^{83,84}

The availability of early learning opportunities and services for young children with special needs is an ongoing concern across the state, particularly in the more geographically remote communities. Children with special health care needs (CSHCN) are defined as “those who have or are at increased risk for a chronic physical, developmental, behavioral, or emotional condition and who also require health and related services of a type or amount beyond that required by children generally.”⁸⁵ According to the National Survey of Children’s Health, children with special health care needs are more likely to experience more adverse childhood experiences than typically developing children,⁸⁶ and are at an increased risk for maltreatment and neglect.^{87,88} Almost half (46%) of families with a child with special needs in Arizona have incomes below 200 percent of the federal poverty level.⁸⁹

Ensuring all families have access to timely and appropriate screenings for children who may benefit from early identification of special needs is paramount to improving outcomes for these children and their families. Timely intervention can help young children with, or at risk for, developmental delays improve language, cognitive, and socio-emotional development. It also reduces educational costs by decreasing the need for special education.^{90,91,92} In Arizona, the services available to families with children with special needs include early intervention screening and intervention services provided through the Arizona Department of Education AZ FIND (Child Find),⁹³ the Arizona Early Intervention Program (AzEIP),⁹⁴ and the Division of Developmental Disabilities (DDD).⁹⁵

What the Data Tell Us

Child Care and Preschool

According to the data from the American Community Survey, 52 percent of children in the East Maricopa Region aged 3 and 4 were enrolled in nursery school, preschool, or kindergarten, meaning that relatively more children are enrolled, compared to children statewide (36%) (Figure 13). The higher rates of participation occur in Carefree (81%), Paradise Valley (69%), and Rio Verde-Fort McDowell-Goldfield Ranch (67%). The lower rates of participation are in Guadalupe (37%), Tempe (35%), and Fountain Hills (33%).

Enrollment in early care and education is influenced by the availability of child care in the region. According to the most recent data available in 2015 and 2016, there were 333 registered child care and early education providers in the East Maricopa region, approved to serve up to 28,340 children (Table 45). The Arizona Department of Economic Security’s 2014 Market Rate Survey⁹⁶, which surveyed a total of 3,717 child care providers (1,765 licensed centers, 1,552 approved family homes, 280 certified group homes, and 129 unregulated homes listed with Child Care Resource & Referral [CCR&R]), found that providers typically provided care to about 58 percent of their approved capacity.

The number of children with all parents in the labor force provides another estimate of how many children may currently need child care. In the East Maricopa Region, there are approximately 34,200 children without a stay-at-home parent (Table 21) but only 28,340 child care and early education slots available. Within the community, the capacity of early care and education centers to meet this estimate of child care demand varies. In the Carefree and Cave Creek communities, capacity exceeds the estimated demand. In all other communities, there is not sufficient capacity to meet the estimated

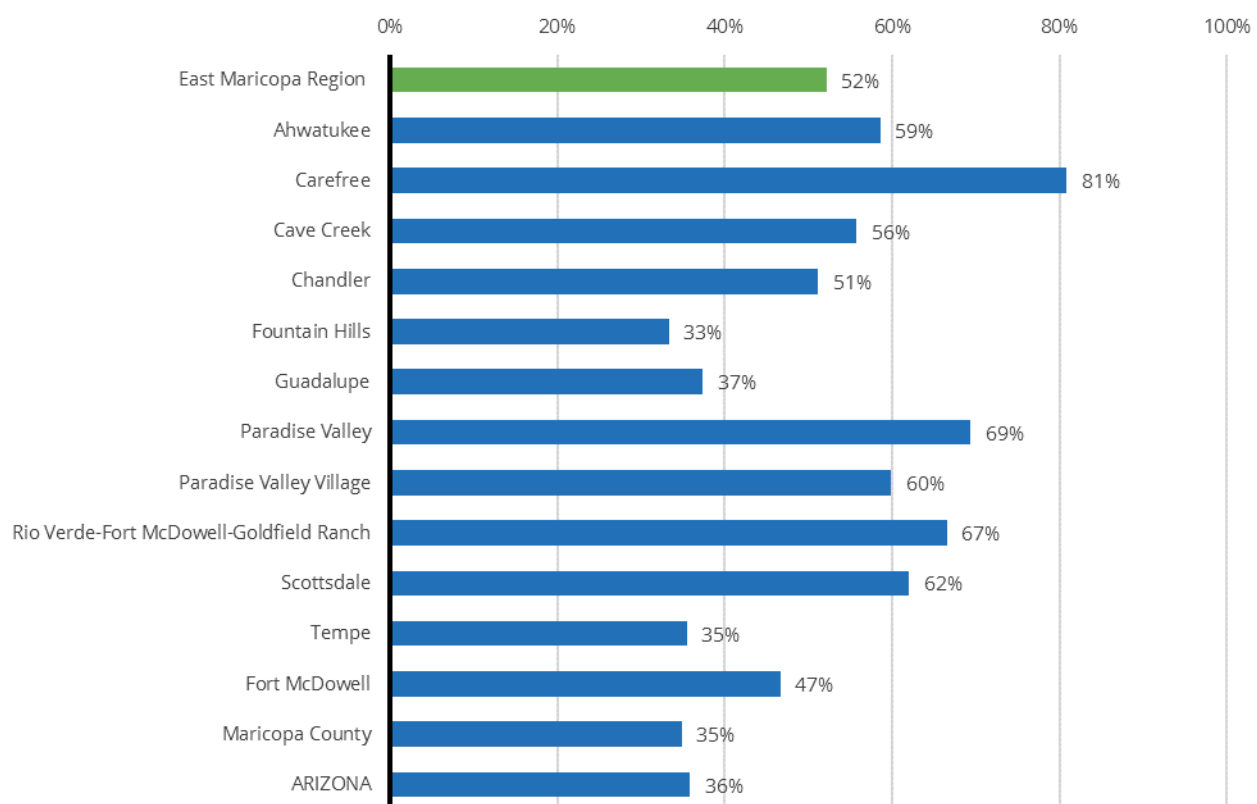
demand. Considering that there may be parents who are not currently in the workforce due to the difficulty of finding child care, increasing the number of registered or licensed child care providers could bring an important benefit to communities in the area with a current capacity shortage.

Of the 333 known child care providers in the East Maricopa Region, about 22 percent (n=74) are participating in the Quality First program. Most of these programs (43) have a 2-star or 3-star rating, which are also the most common ratings among sites statewide (Table 46). The 2-star rating is described as a “progressing star” by First Things First, and means that the program is “approaching quality standards,” and the 3-star rating is described as a “quality” program that “meets quality standards.”⁹⁷ There are 15 programs in the East Maricopa Region that have achieved the 4-star rating, indicating they are exceeding quality standards, and 4 sites that have achieved 5-stars, the highest Quality First rating.

There are 52 schools in the East Maricopa Region that provide preschool classes, and about 30 percent of these are in the Scottsdale Unified District, where 675 children are enrolled in preschool (Table 47). There are also high numbers of children enrolled in preschool in the Chandler Unified District (n=663) and the Kyrene Elementary District (n=422). About half of students enrolled in Tempe preschools (56%) and Kyrene preschools (44%) have special needs. The preschool in Cave Creek Unified District appears to serve only children with special needs.

In the East Maricopa Region, there are 201 registered child care providers, excluding Head Start centers and providers enrolled in Quality First (Table 45). Most of these providers are child care centers, though there are a handful of family child care homes.

Figure 13. Estimated Numbers of Children (Ages 3 and 4) Enrolled in School



Source: U.S. Census Bureau (2016). American Community Survey, 5-year estimates (2010-2014), Table B14003

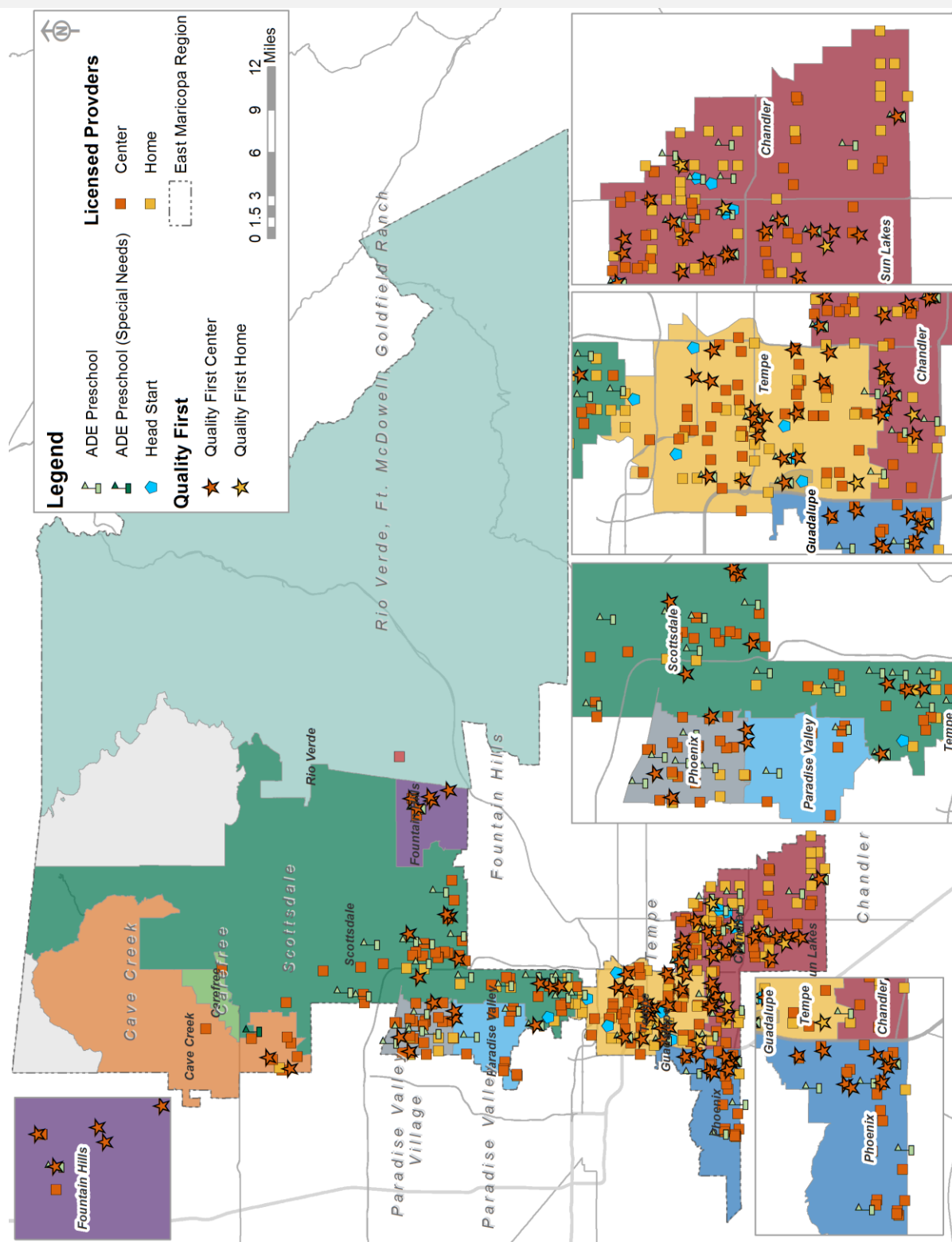
Table 45. Childcare Capacity, by Type of Site

	Total number and total capacity of all childcare sites		Number and capacity of Quality First sites		Number and estimated capacity of Head Start sites (excluding any QF sites)		Number and capacity of public-school-based sites (excluding any QF or HS sites)		Number and capacity of other childcare providers	
East Maricopa Region	333	28,340	75	10,000	18	630	39	1,589	201	16,121
Ahwatukee	28	3,556	8	1,127	0	0	4	151	16	2,278
Carefree	1	59	0	0	0	0	0	0	1	59
Cave Creek	8	1,149	2	540	0	0	0	0	6	609
Chandler	113	7,873	26	3,430	7	245	11	498	69	3,700
Fountain Hills	8	491	5	364	0	0	0	0	3	127
Guadalupe	3	95	1	25	2	70	0	0	0	0
Paradise Valley	15	1,617	2	188	0	0	2	117	11	1,312
Paradise Valley Village	22	1,908	2	175	0	0	5	116	15	1,617
Rio Verde-Fort McDowell-Goldfield Ranch	1	43	1	43	0	0	0	0	0	0
Scottsdale	61	5,995	10	1,852	1	35	16	659	34	3,449
Tempe	73	5,554	18	2,256	8	280	1	48	46	2,970
Maricopa County	1,608	109,609	489	50,636	151	5,240	190	7,156	778	46,577
ARIZONA	3,053	173,566	916	75,173	201	14,665	313	10,280	1,623	73,448

Source: Arizona Department of Economic Security (2016). [Child Care Resource & Referral dataset]. Unpublished data.

Note: Head Start enrollment numbers for Maricopa County do not include enrollment data for tribal or migrant head start programs. Head Start capacities are estimated based on the countywide average of 35 children per site.

Figure 14. Child Care Locations in the East Maricopa Region



Source: Arizona Department of Economic Security (2016). [Child Care Resource & Referral dataset]. Unpublished data.

Table 46. Numbers and Capacities of Quality First Sites, as of June 2016, by Star Rating

	Number and capacity of 1-star QF sites		Number and capacity of 2-star QF sites		Number and capacity of 3-star QF sites		Number and capacity of 4-star QF sites		Number and capacity of 5-star QF sites		Number and capacity of QF sites not publically rated		Total number and total capacity of all QF sites	
East Maricopa Region	0	0	26	3,583	17	2,790	15	2,160	4	314	12	1,110	74	9,957
Maricopa County	2	96	145	17,060	146	14,942	77	6,925	20	1,557	99	10,056	489	50,636
ARIZONA	2	96	288	27,350	262	20,978	143	10,106	36	2,350	180	13,880	911	74,760

Source: First Things First (2016). Quality First, a Signature Program of First Things First. Retrieved from www.qualityfirstaz.com

Table 47. Pre-Kindergarten Enrollment, October 2015

	Number of schools with pre-kindergarten	Number of students enrolled	Number of students in special education	Percent of students in special education
East Maricopa Region Schools	52	2,778	1,146	41%
Cave Creek Unified District	1	50	50	100%
Chandler Unified District	12	663	221	33%
Fountain Hills Unified District	1	49	<25	DS
Kyrene Elementary District	10	422	184	44%
Mesa Unified District	1	399	337	84%
Paradise Valley Unified District	7	185	30	16%
Scottsdale Unified District	16	675	116	17%
Tempe School District	4	335	186	56%
Maricopa County Schools	268	12,975	5,885	45%
All Arizona Schools	445	19,123	8,773	46%

Source: Arizona Department of Education (2016). [Education dataset]. Unpublished data.

Note: The school-district data in this table include only the schools that are located within the East Maricopa Region.

Cost of Care

The cost of care in Maricopa County varies by the type of care and the age of the child receiving care; the median costs in the county are a little greater than the median costs statewide. For example, residents in Maricopa County tend to pay higher prices for child care centers (e.g., \$44.19 per day for infant care vs. \$42, Table 48) and certified group homes (e.g., \$30 per day for infant care vs. \$27, Table 50), but slightly lower prices for child care in approved family homes (e.g. \$20 per day vs. \$22, Table 49) than parents statewide. Across all kinds of care, parents can expect to pay more for infant care, which is typical as the lower teacher-to-child ratio needed for infant care necessitates a higher cost of care.

Families in Maricopa County are paying the same proportion of their overall income for a child care slot as other families statewide (Table 51). However, to avoid being overburdened, the Department of Health and Human Services recommends that parents spend no more than 10 percent of their family income on child care. Families in Maricopa County and across the state are paying more than that infant and toddler care, and these percentages reflect the burden for families with only one young child in need of full-time care. Families with more children would spend a greater proportion of their income on child care. Also, single-parent homes, particularly those with a single female householder, have lower median incomes (see Table 14), resulting in a higher proportion of their income being spent on child care.

Subsidies from the Department of Economic Security (DES) can help families shoulder the cost burden of child care. DES prioritizes assistance for subsidies to families who receive Cash Assistance (TANF), those who are transitioning off Cash Assistance to employment, and families involved with the Department of Child Safety (DCS). As of 2009, other families seeking DES subsidy support are placed on a waiting list. Statewide, 7,194 children were wait-listed as of January 6, 2017. The number of children on the waitlist in the East Maricopa Region has risen slightly since 2013; the most recent data from 2015 showed 344 children whose families were hoping to receive support (Table 52). Additionally, more than one-third of those children who received subsidies in 2015 were involved with DCS; 87 percent of DCS-involved children received a subsidy, suggesting that this is an important support for children in the child welfare system (Table 53).

Table 48. Median Daily Charge for Full-Time Child Care in Licensed Child Care Centers

	For one infant	For one child, 1 or 2 years old	For one child, 3 to 5 years old
East Maricopa Region	N/A	N/A	N/A
Maricopa County	\$44.19	\$40.00	\$35.00
ARIZONA	\$42.00	\$38.00	\$33.00

Source: Arizona Department of Economic Security (2016). [Child Care Resource & Referral dataset]. Unpublished data.

Table 49. Median Daily Charge for Full-Time Child Care in Approved Family Homes

	For one infant	For one child, 1 or 2 years old	For one child, 3 to 5 years old
East Maricopa Region	N/A	N/A	N/A
Maricopa County	\$20.00	\$20.00	\$16.00
ARIZONA	\$22.00	\$20.00	\$20.00

Source: Arizona Department of Economic Security (2016). [Child Care Resource & Referral dataset]. Unpublished data.

Table 50. Median Daily Charge for Full-Time Child Care in Certified Group Homes

	For one infant	For one child, 1 or 2 years old	For one child, 3 to 5 years old
East Maricopa Region	N/A	N/A	N/A
Maricopa County	\$30.00	\$27.00	\$25.00
ARIZONA	\$27.00	\$25.00	\$25.00

Source: Arizona Department of Economic Security (2016). [Child Care Resource & Referral dataset]. Unpublished data.

Table 51. Charge for Full-Time Child Care in Licensed Child Care Centers, as a Percentage of Median Annual Income

	Median family income for all families	For one infant	For one child, 1 or 2 years old	For one child, 3 to 5 years old
East Maricopa Region	N/A	N/A	N/A	N/A
Maricopa County	\$64,072	17%	15%	13%
ARIZONA	\$59,088	17%	15%	13%

Sources: Arizona DES (2016). [Child Care Resource & Referral dataset]. Unpublished data; and U.S. Census Bureau (2016). ACS, 5-year estimates (2010–2014), Table B19126

Table 52. Department of Economic Security (DES) Child Care Subsidies for Children (Ages 0 to 5), 2013 to 2015

	Children eligible for subsidy during 2013	Children eligible for subsidy during 2014	Children eligible for subsidy during 2015	Children receiving subsidy during 2013	Children receiving subsidy during 2014	Children receiving subsidy during 2015	Children on waiting list during 2013	Children on waiting list during 2014	Children on waiting list during 2015
East Maricopa Region	1,697	1,825	2,724	1,658	1,678	2,424	331	318	344
Maricopa County	17,165	18,031	27,042	16,439	16,448	23,851	2,836	3,123	2,989
ARIZONA	28,429	29,180	43,860	27,041	26,685	38,855	5,094	5,195	5,140

Source: Arizona Department of Economic Security (2016). [Child Care Administration dataset]. Unpublished data.

Table 53. DES Child Care Subsidies for Children Involved in the Department of Child Safety (DCS) During 2015

	Number of DCS-involved children eligible for subsidy	Number of DCS-involved children receiving subsidy	Percent of DCS-involved children receiving subsidy
East Maricopa Region	1,087	946	87%
Maricopa County	11,506	9,858	86%
ARIZONA	18,417	15,785	86%

Source: Arizona Department of Economic Security (2016). [Child Care Administration dataset]. Unpublished data.

Child Care Professionals

Formal education of Early Childhood Education (ECE) professionals is important for quality care and early learning. According to the 2012 Early Care and Education Workforce Survey, 50 percent of ECE teachers surveyed statewide had obtained an associate's, bachelor's or master's degree. Twenty-nine percent of assistant teachers had a Child Development Associate (CDA) credential, an associate's degree or higher, and 73 percent of administrative directors had an associate's degree or higher.

Developmental Screenings and Services for Children with Special Developmental and Health Needs

The Department of Economic Security Arizona Early Intervention Program (AzEIP) provides services to children from birth to 36 months of age who are developmentally delayed or at high risk of developmental delay.⁹⁸ In the East Maricopa Region and across Arizona, more children were referred to and served by AzEIP in FY2015 than in either of the two years prior (Table 56). In 2015, 965 children ages 0 to 2 were served through the AzEIP program. Based on the 2010 population estimates for children ages 0 to 2, this means that the AzEIP services, designed to prevent and address

developmental delays, are used by approximately 4 percent of children in the region. Research suggests that about 13 percent of children ages 0 to 2 would typically qualify for early intervention services.⁹⁹

In the last two years, the number of children ages 0-2 being referred to the Division of Developmental Disabilities (DDD) in East Maricopa Region has decreased while there has been a slight increase in children ages 3-5 being referred (Table 57). To qualify for DDD services an individual must have a cognitive disability, cerebral palsy, autism, epilepsy or be at risk for a developmental disability. Children under the age of six are eligible if they show significant delays in one or more of these areas of development: physical, cognitive, communication, social emotional or self-help.¹⁰⁰

The number of preschoolers in special education in East Maricopa Region schools has increased slightly over the past four years (Table 54). Among these children, about half have a developmental disability (49%) while most others either have speech or language impairment (31%) or a severe delay (18%) (Table 55). There are very few children with hearing impairments (1%) or vision impairments (1%). This may be because hearing impairments are frequently diagnosed as speech or language impairments in the preschool age groups, or because many children with vision or hearing impairments may receive services through the Arizona State Schools for the Deaf and the Blind, which provides services to children in the region through the North Central Regions Cooperative.¹⁰¹

Several districts across the region have high concentrations of students with specific needs. In the Chandler Unified District, Tempe Unified District, and Fountain Hills Unified District, most children need services for developmental delay, while in the Kyrene Elementary District and the Paradise Valley Unified District, more children need services for a speech or language impairment (Table 55). Over 3,000 students in kindergarten through third grade are enrolled in special education in the region, representing 9 percent of all students enrolled (Table 42).

The National Survey of Children with Special Health Care Needs estimated that 7.6 percent of children from birth to five (and about 17% of school-aged children) in Arizona have special health care needs.^{xvi,102} The survey also estimates that nearly one in three Arizona children with special health care needs have an unmet need for health care services (compared to about one in four nationally). Further data on children with special health care needs in Arizona and Maricopa County should be available in early 2017 with the publication of the results of the 2016 Arizona Children's Health Survey.^{xvii}

^{xvi} The survey defines children with special health care needs broadly as "those who have or are at increased risk for a chronic physical, developmental, behavioral, or emotional condition and who also require health and related services of a type or amount beyond that required by children generally."

^{xvii} For more information on the Arizona Children's Health Survey, visit <http://directorsblog.health.azdhs.gov/take-the-arizona-childrens-survey/>

Table 54. Number of Preschoolers in Special Education, 2012 to 2015

	Number Of ADE schools with a special needs preschool	Number of preschoolers in special education, 2012	Number of preschoolers in special education, 2013	Number of preschoolers in special education, 2014	Number of preschoolers in special education, 2015
East Maricopa Region Schools	51	946	911	1,003	1,003
Cave Creek Unified District	3	52	49	33	33
Chandler Unified District	16	237	231	207	207
Fountain Hills Unified District	1	<25	<25	<25	<25
Kyrene Elementary District	10	160	149	141	141
Mesa Unified District	4	144	124	317	317
Paradise Valley Unified District	7	43	51	44	44
Scottsdale Unified District	8	104	86	86	86
Tempe School District	2	191	201	162	162
East Maricopa Region Charter Schools	0	0	0	0	0
Maricopa County Schools	307	6,124	6,236	6,081	5,674
All Arizona Schools	550	9,173	9,203	8,845	8,702

Source: Arizona Department of Education (2016). [Education dataset]. Unpublished data.

Note: The school-district data in this table include only the schools that are located within the East Maricopa Region.

Table 55. Types of Disabilities Among Preschoolers in Special Education, 2015

	Developmental Disability	Hearing Impairment	Severe Delay	Speech Or Language Impairment	Vision Impairment
East Maricopa Region Schools	49%	1%	18%	31%	1%
Cave Creek Unified District	45%	3%	21%	30%	0%
Chandler Unified District	56%	0%	14%	28%	1%
Fountain Hills Unified District	85%	0%	15%	0%	0%
Kyrene Elementary District	43%	0%	11%	45%	0%
Mesa Unified District	44%	2%	26%	28%	0%
Paradise Valley Unified District	41%	7%	14%	39%	0%
Scottsdale Unified District	52%	1%	26%	20%	1%
Tempe School District	55%	1%	9%	33%	2%
Maricopa County Schools	40%	1%	22%	37%	1%
All Arizona Schools	41%	1%	21%	36%	1%

Source: Arizona Department of Education (2016). [Education dataset]. Unpublished data.

Note: The data presented in this table are unduplicated (i.e., children diagnosed with multiple disabilities are counted only one time in the Federal Primary Need (FPN) category).

Note: The school-district data in this table include only the schools that are located within the East Maricopa Region.

Note: The percentages in each row above may not add to 100% due to rounding.

Table 56. Arizona Early Intervention Program (AzEIP) Referrals and Services for Children (Ages 0 to 2), 2013 to 2015

	Children (ages 0-2) referred to AzEIP during FY 2013	Children (ages 0-2) referred to AzEIP during FY 2014	Children (ages 0-2) referred to AzEIP during FY 2015	Children (ages 0-2) served by AzEIP during FY 2013	Children (ages 0-2) served by AzEIP during FY 2014	Children (ages 0-2) served by AzEIP during FY 2015
East Maricopa Region	848	856	1,273	418	467	965
Maricopa County	6,495	7,499	9,212	3,077	3,474	6,704
ARIZONA	10,715	11,741	14,450	4,799	5,248	10,039

Source: Arizona Department of Economic Security (2016). [Arizona Early Intervention Program dataset]. Unpublished data.

Table 57. Children (Ages 0 to 5) Referred to the Division of Developmental Disabilities (DDD), 2012 to 2015

	Number of children (ages 0-2) referred in FY2012	Number of children (ages 0-2) referred in FY2013	Number of children (ages 0-2) referred in FY2014	Number of children (ages 0-2) referred in FY2015	Number of children (ages 3-5) referred in FY2012	Number of children (ages 3-5) referred in FY2013	Number of children (ages 3-5) referred in FY2014	Number of children (ages 3-5) referred in FY2015
East Maricopa Region	153	182	228	201	146	152	185	198
Maricopa County	1,044	1,538	1,763	1,747	957	963	1,266	1,386
ARIZONA	1,439	2,186	2,479	2,484	1,393	1,401	1,804	1,969

Source: Arizona Department of Economic Security (2016). [Division of Developmental Disabilities dataset]. Unpublished data.

Table 58. Children (Ages 0 to 5) Evaluated by the Division of Developmental Disabilities (DDD), 2012 to 2015

	Number of children (ages 0-2) screened in FY2012	Number of children (ages 0-2) screened in FY2013	Number of children (ages 0-2) screened in FY2014	Number of children (ages 0-2) screened in FY2015	Number of children (ages 3-5) screened in FY2012	Number of children (ages 3-5) screened in FY2013	Number of children (ages 3-5) screened in FY2014	Number of children (ages 3-5) screened in FY2015
East Maricopa Region	73	35	25	29	81	80	75	95
Maricopa County	536	217	157	180	474	506	509	698
ARIZONA	732	314	216	238	669	731	727	958

Source: Arizona Department of Economic Security (2016). [Division of Developmental Disabilities dataset]. Unpublished data.

Note: Screening is defined by DES as including *children who DDD had paid for an evaluation, not including occupational therapy, physical therapy, or speech therapy, during State Fiscal Year 2015.

Table 59. Children (Ages 0 to 5) Served by the Division of Developmental Disabilities (DDD), 2012 to 2015

	Number of children (ages 0-2) served in FY2012	Number of children (ages 0-2) served in FY2013	Number of children (ages 0-2) served in FY2014	Number of children (ages 0-2) served in FY2015	Number of children (ages 3-5) served in FY2012	Number of children (ages 3-5) served in FY2013	Number of children (ages 3-5) served in FY2014	Number of children (ages 3-5) served in FY2015
East Maricopa Region	248	228	218	188	312	303	276	264
Maricopa County	1,926	1,918	1,662	1,647	1,866	1,891	1,847	1,826
ARIZONA	2,646	2,693	2,341	2,336	2,563	2,600	2,533	2,540

Source: Arizona Department of Economic Security (2016). [Division of Developmental Disabilities dataset]. Unpublished data.

Table 60. Division of Developmental Disabilities (DDD) Service Visits for Children (Ages 0 to 5), 2012 to 2015

	Number of service visits (ages 0-2) in FY2012	Number of service visits (ages 0-2) in FY2013	Number of service visits (ages 0-2) in FY2014	Number of service visits (ages 0-2) in FY2015	Number of service visits (ages 3-5) in FY2012	Number of service visits (ages 3-5) in FY2013	Number of service visits (ages 3-5) in FY2014	Number of service visits (ages 3-5) in FY2015
East Maricopa Region	19,205	16,908	14,210	11,217	52,605	51,104	45,106	40,286
Maricopa County	130,651	117,268	98,971	87,309	285,585	294,586	285,484	275,800
ARIZONA	168,992	158,496	130,486	120,519	363,468	374,440	367,590	358,322

Source: Arizona Department of Economic Security (2016). [Division of Developmental Disabilities dataset]. Unpublished data.



CHILD HEALTH

Why Child Health Matters

Health encompasses not only physical health, but also mental, intellectual, social and emotional well-being. Optimal development brings all of these facets together. A child's health begins with its mother's health before she becomes pregnant and is influenced by early prenatal care.¹⁰³ The exposures and experiences in utero, at birth, and in early life set the stage for health and well-being throughout a child's life.^{104,105} Access to health care and health insurance, preventive care such as immunizations and oral health care all influence not only a child's current health, but long-term development and future health as well.^{106,107,108}

One way to assess how well a region is faring is by comparing a set of indicators to known targets or standards. Healthy People is a federal initiative that provides 10-year national objectives for improving the health of Americans. Healthy People 2020 targets were developed with the use of current health data, baseline measures, and areas for specific improvement. Using the Healthy People 2020 standards as a tool for comparison can help regions understand where they fall relative to the nation as a whole, as well as identify particular areas of strength and places for improvement in relation to young children's health.

The ability to obtain health care is critical for supporting the health of young children. In the early years of a child's life, well-baby and well-child visits allow clinicians to offer developmentally appropriate information and guidance to parents and provide a chance for health professionals to assess the child's development and administer preventative care measures like vaccines and developmental screenings.¹⁰⁹ Families without health insurance are more likely to skip these visits, and so are less likely to receive preventive care for their children, or to receive care for health conditions and chronic diseases.^{110,111} Children who lack health insurance are also more likely to be hospitalized and to miss school.¹¹²

Low-income children in Arizona are covered by the Arizona Health Care Cost Containment System (AHCCCS), Arizona's Medicaid. AHCCCS coverage is available for children in families with income up to 147 percent of the Federal Poverty Level (FPL) for those under age 1, and up to 141 percent of FPL for those ages 1 to 5 (and 133% for those from 6-19 years). Across the nation, state-run Children's Health Insurance Programs (CHIP) have provided health insurance to children up to age 19 in families with incomes too high to qualify them for Medicaid (AHCCCS). Enrollment in the Arizona version of CHIP, KidsCare, was suspended as of January 1, 2010, a particularly vulnerable time for families, following on the heels of the Great Recession.¹¹³ Arizona became the only state without an active CHIP program. In May 2016, however, the Arizona legislature voted to lift the freeze on KidsCare,¹¹⁴ and in July 2016 applications began to be accepted for the first time in six years, with coverage beginning September 1, 2016.¹¹⁵ Expanding health insurance availability for lower-income children can lead to health improvements, and to longer-term benefits such as increased high school and college graduation rates and higher lifetime earnings.¹¹⁶

Because a number of factors influence the health of a child before conception and in utero, the characteristics of women giving birth can have a substantial impact on the birth and developmental outcomes for their children. For instance, pregnancy during the teen years is associated with a number of health concerns for infants, including neonatal death, sudden infant death syndrome, and child

abuse and neglect.¹¹⁷ Teenaged mothers (and fathers) themselves are less likely to complete high school or college, and more likely to require public assistance and to live in poverty than their peers who are not parents.^{118,119,120}

A mother's weight status can also influence her child's health. Women who are obese before they become pregnant have pregnancies with a higher risk of birth complications and neonatal and infant mortality.^{121,122} Babies born to obese women are at risk for chronic conditions in later life such as diabetes and heart disease.¹²³ Maternal smoking is another factor that can greatly affect child outcomes. Babies born to mothers who smoke are more likely to be born early (pre-term), be low birth weight, die from sudden infant death syndrome (SIDS) and have weaker lungs than other babies.¹²⁴

One potentially harmful birth outcome that can have long-lasting effects are preterm births – births before 37 weeks of gestation. Preterm birth, in addition to being associated with higher infant and child mortality, often results in longer hospitalization, increased health care costs, and longer-term impacts such as physical and developmental impairments. Babies born at a low-birth weight (less than 2,500 grams or 5 pounds, 8 ounces) are also at increased risk of infant mortality and longer-term health problems such as diabetes, hypertension and cardiac disease.¹²⁵

Quality preconception counseling and early-onset prenatal care can help reduce some of these risks for poor birth outcomes by providing information and supporting an expectant mother's health and nutrition.

After birth, a number of factors have been associated with improved health outcomes for infants and young children. One factor is breastfeeding, which has been shown to reduce the risk of ear, respiratory and gastrointestinal infections, SIDS, overweight, and type 2 diabetes.¹²⁶ The American Academy of Pediatrics recommends exclusive breastfeeding for about 6 months, and continuing to breastfeed as new foods are introduced for 1 year or longer.¹²⁷ Healthy People 2020 aims to increase the proportion of infants who were ever breastfed to 81.9 percent.¹²⁸

Children exposed to alcohol and drugs neonatally face behavioral and developmental health challenges. Opiate use during pregnancy, both illegal and prescribed use, has been associated with neonatal abstinence syndrome (NAS), where infants born exposed to these substances exhibit withdrawal creating longer hospital stays, increased health care costs and increased complications for infants born with NAS.¹²⁹ Infants exposed to cannabis (marijuana) in utero often have a decrease in birth weight, and are more likely to be placed in neonatal intensive care, compared to infants whose mothers had not used the drug during pregnancy.¹³⁰ Substance abuse treatment and supports for parents and families grappling with these issues can help to ameliorate these short and long-term impacts on young children.

Immunization against preventable diseases protects children from illness and potentially death. In order to assure community immunity (also known as “herd immunity”), which helps to protect unvaccinated children and adults from contracting vaccine- preventable diseases, rates of vaccination in a community need to remain high.¹³¹ Research shows that higher exemption rates from vaccines at the school-level have been associated with school-based outbreaks of preventable diseases such as measles and pertussis.¹³²

Oral health and good oral hygiene practices are also very important to children's overall health. According to the National Survey of Children's Health, the percentage of children in Arizona with

excellent or very good oral health (65.7%) falls below the national level of 71.3 percent.¹³³ Tooth decay and early childhood caries can have short and long term consequences including pain, poor appetite, disturbed sleep, lost school days, and reduced ability to learn and concentrate.¹³⁴ More children in kindergarten in Arizona (52%) have tooth decay compared to children across the nation (36%). Within Arizona, American Indian (76%) and Hispanic children (56%) are more likely to experience tooth decay than white children (34%).¹³⁵

In early childhood, illness and injury can cause not only trauma to a child but added stress for a family. Non-fatal unintentional injuries substantially affect the well-being of children,¹³⁶ and injuries are the leading cause of death in children in the United States.¹³⁷ Common causes of visits to the emergency department for children 0-5 in Arizona include falls (particularly from furniture), collisions with an object, and natural events like bites and stings. Common causes for hospitalization of young children in Arizona include falls, poisoning, and assault/abuse.¹³⁸ Many of these injuries are preventable, prompting the Centers for Disease Control and Prevention to produce a National Action Plan for Child Injury Prevention, which outlines evidence-based strategies for addressing the challenge of keeping children safe.¹³⁹ The Arizona Department of Health Services has recognized the need to focus on reducing childhood injuries in Arizona, and identified that as one of their priorities in the Bureau of Women's and Children's Health Strategic Plan¹⁴⁰, as well as included it as part of their Arizona Injury Prevention Plan.¹⁴¹

A child's weight status can have long-term impacts on health and well-being; in the United States, areas of concern tend to center around malnutrition and obesity, rather than undernutrition and underweight. Nationwide, it is estimated that about 3.8 percent of children ages 2-19 are underweight, 16.2 percent are overweight, and 17.2 percent are obese.^{142,143} Obesity can have negative consequences on physical, social, and psychological well-being that begin in childhood and continue into and throughout adulthood.¹⁴⁴ The first two years of life are seen as critical to the development of childhood obesity and its resultant negative consequences. Higher birth weight and higher infancy weight, as well as lower-socioeconomic status and low-quality mother-child relationships have all been shown to be related to higher childhood weight.¹⁴⁵ One component of establishing a healthy weight – physical activity – also promotes improved visual-motor integration skills and object manipulation skills which in turn lead to improved executive function, social behaviors and ultimately school readiness for young children.¹⁴⁶

What the Data Tell Us

Access to Care

The Arizona Department of Health Services designates Primary Care Areas (PCAs) as geographically based areas in which most residents seek primary medical care from the same place.¹⁴⁷ There are 16 primary care areas that coincide with the East Maricopa Region: Ahwatukee Foothills Village, Chandler Central, Chandler North, Chandler South, Fort McDowell Yavapai Nation, Fountain Hills-Rio Verde, New River-Cave Creek, Paradise Valley, Paradise Valley Village, Scottsdale Central, Scottsdale North, Scottsdale South, South Mountain Village & Guadalupe, Sun Lakes, Tempe North, and Tempe South (Figure 15). Each PCA receives a score based on 13 weighted items to provide a snapshot of the health

of area residents.^{xviii} In the East Maricopa Region, the Ahwatukee Foothills Village (6), Scottsdale North (6), and Fountain Hills-Rio Verde (6) have the lowest (best) scores, while the scores of the Scottsdale South (22), Fort McDowell Yavapai Nation (34), and South Mountain Village & Guadalupe (40) PCAs are much higher, indicating more public health risk factors. Medically Underserved Areas (MUAs) are federally designated areas that have a need for medical services due to a shortage of primary care providers, while Medically Underserved Populations are specific groups of people living in an area with a provider shortage and barriers to health care.^{xix,148} Parts of the Paradise Valley Village, Tempe North, and Chandler Central PCAs are designated as medically underserved areas. Figure 16 shows the ratio of population to primary care providers by PCA as of July 2015. Scottsdale South had the best population to provider ratio (213), while South Mountain Village & Guadalupe (1,268) and Sun Lakes (977) had the fewest providers per population.

Another key factor for access to health care is health insurance, and seven percent of young children in the region were estimated to be uninsured, along with 11 percent of the total population in the East Maricopa Region (Table 61). This is lower than uninsured rates statewide for young children (10%) and all ages (16%). The proportion of health insurance varied by community. No young children in the Carefree and Fountain Hills communities lacked health insurance, with one percent in the Paradise Valley community with no health insurance, compared to 45 percent in the Rio Verde-Fort McDowell-Goldfield Ranch community and 13 percent in the Guadalupe community with no health insurance.

One way that children in Arizona have had access to health insurance is through the Affordable Care Act (ACA). As of February 2016, 46,700 children under 18 in Arizona were enrolled in federally facilitated marketplace plans through the ACA, representing 23 percent of those enrolled under ACA across the state. This is the highest proportion of young people enrolled in any state (tied with North Dakota and Utah); the national rate is nine percent.¹⁴⁹

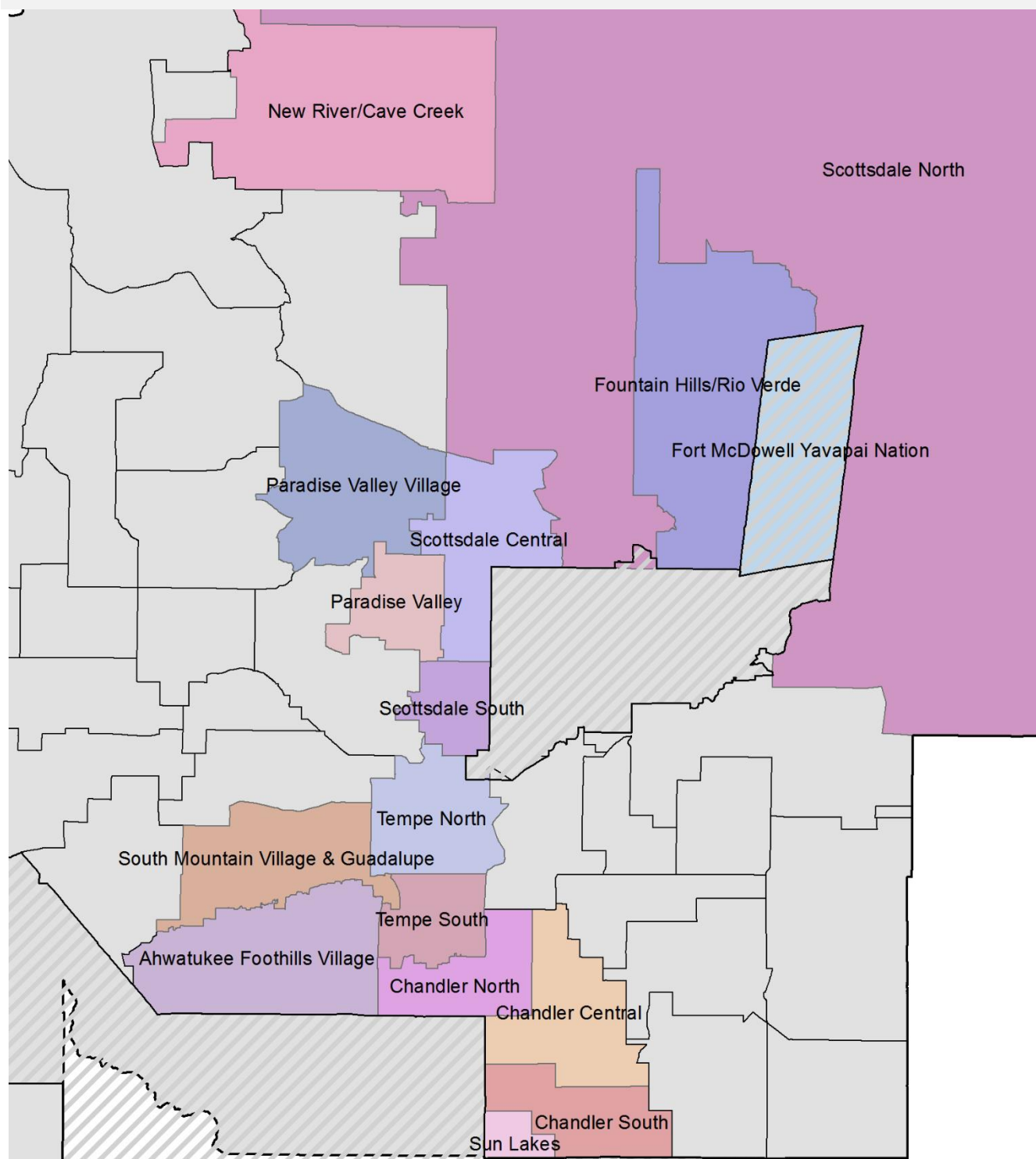
The smallest proportion of adults without health insurance were in the Paradise Valley (4%), Carefree (5%), Paradise Valley Village (6%) and Cave Creek (7%) communities, while the highest proportions were in the Rio Verde-Fort McDowell-Goldfield Ranch (19%) and Guadalupe (17%) communities. It is important to note for children and adults living in tribal communities, that the U. S. Census does not consider health care coverage through the Indian Health Service (IHS) to be health insurance.¹⁵⁰ Thus, while there may be high percentages of uninsured persons in tribal communities, this does not mean that these people do not have access to health care.

Dignity Health and Truven Health have developed a Community Need Index (CNI) score which quantifies community health-care needs and demand for health care. The CNI is a function of income, cultural factors such as English-language use, education, insurance, and housing factors. Figure 17 maps the CNI scores in the East Maricopa Region. Darker shades of red indicate neighborhoods with greater need. South Scottsdale, Tempe, and central Chandler have the highest CNI scores in the region.

^{xviii} The geography of Primary Care Areas differs from the definition of sub-regional communities in the East Maricopa Region. For a map of Arizona Primary Care Areas, visit <http://azdhs.gov/documents/prevention/health-systems-development/data-reports-maps/maps/azpca.pdf>

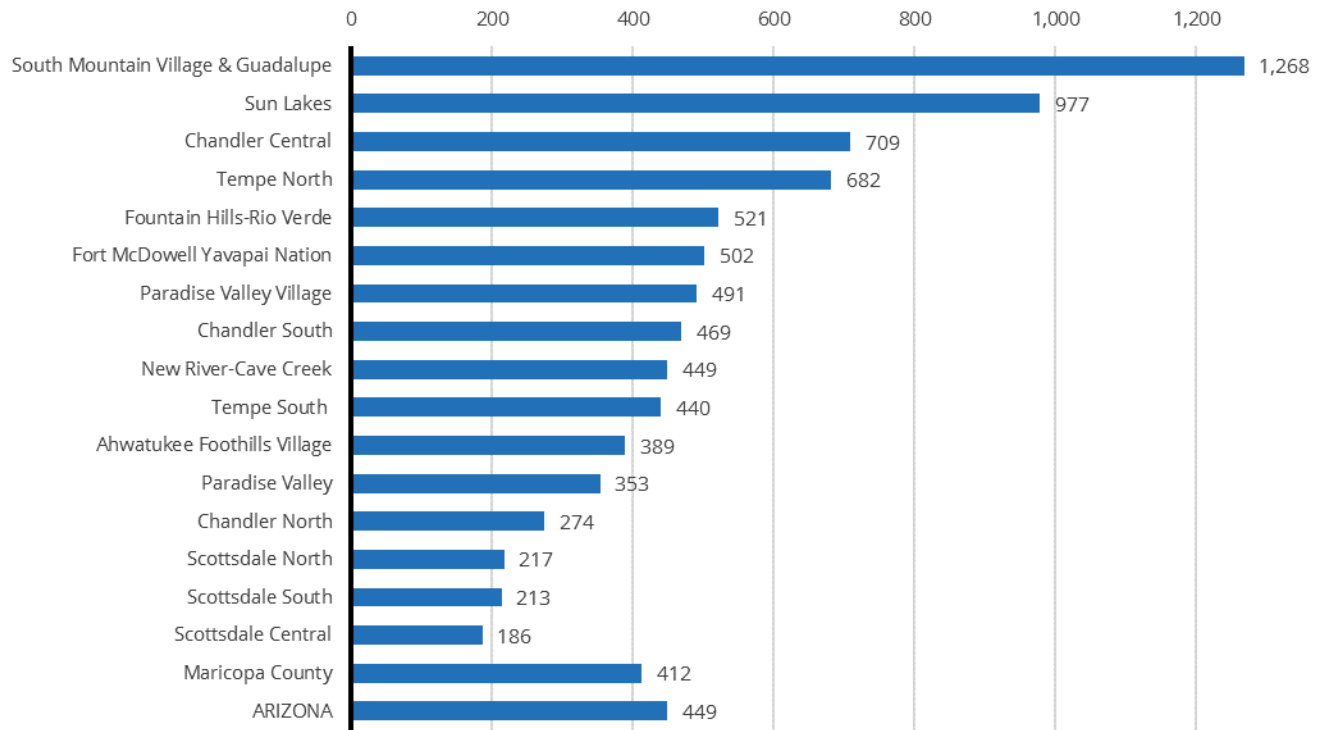
^{xix} Medically Underserved Areas and Populations are defined using the Index of Medical Underservice, which is calculated on four criteria: population to provider ratio, poverty rate, share of population over age 65, and the infant mortality rate.

Figure 15. The ADHS Primary Care Areas in the East Maricopa Region



Source: Arizona Department of Health Services (2016). Primary Care Area Statistical Profiles.

Figure 16. Ratio of Population to Primary Care Providers by Primary Care Area, July 2015



Source: Arizona Department of Health Services (2016). Primary Care Area Statistical Profiles. Retrieved from <http://azdhs.gov/prevention/health-systems-development/data-reports-maps/index.php#statistical-profiles-pca>.

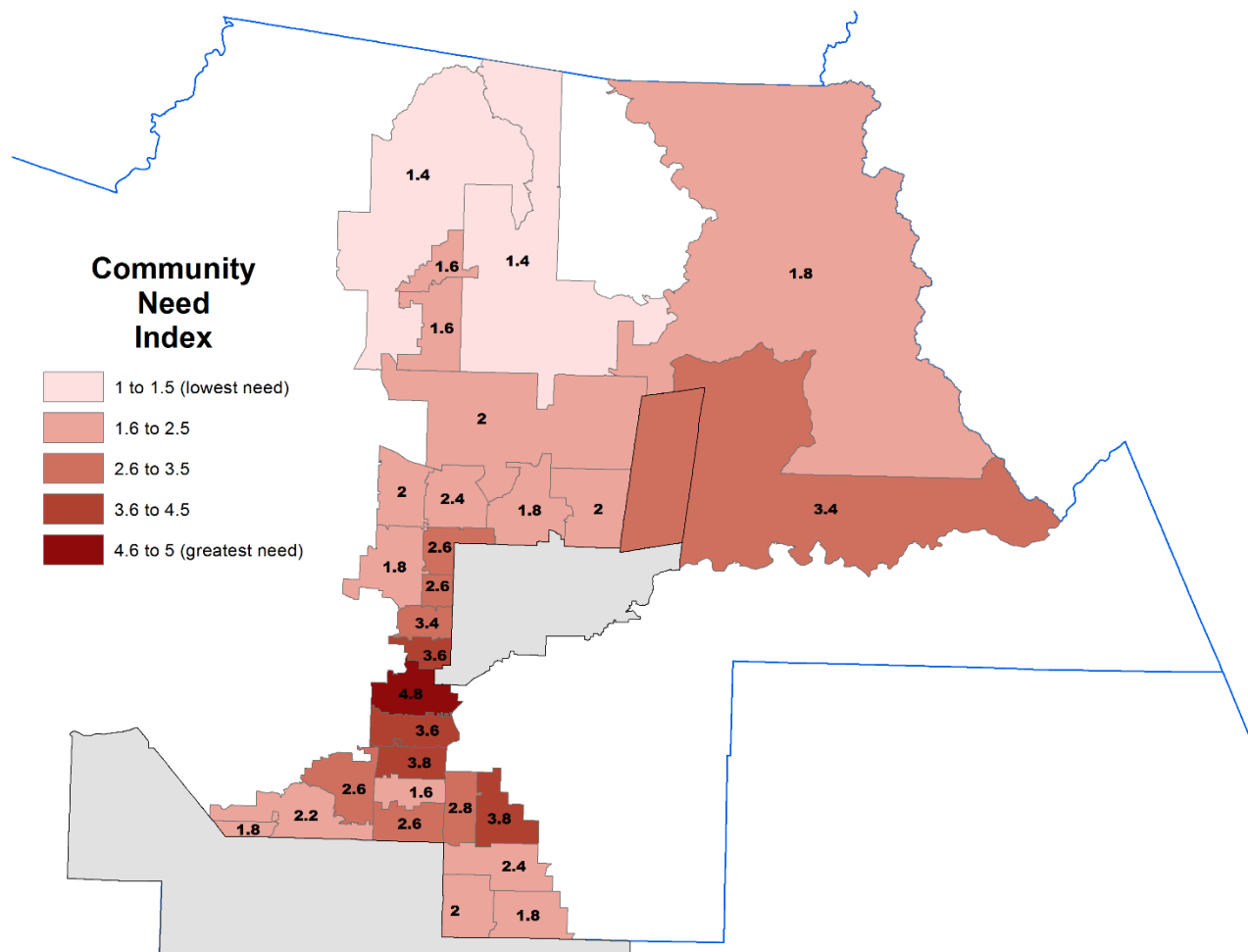
Table 61. Estimated Proportion of Population Without Health Insurance

	Estimated population (ages 0-5)	Children (ages 0-5) without health insurance	Estimated population (all ages)	Persons (all ages) without health insurance
East Maricopa Region	56,228	7%	858,609	11%
Ahwatukee	5,574	7%	80,523	8%
Carefree	57	0%	3,017	5%
Cave Creek	1,337	8%	27,048	7%
Chandler	22,180	8%	263,785	11%
Fountain Hills	915	0%	23,177	7%
Guadalupe	751	13%	5,666	17%
Paradise Valley	833	1%	17,105	4%
Paradise Valley Village	2,639	6%	45,247	6%
Rio Verde-Fort McDowell-Goldfield Ranch	152	45%	3,474	19%
Scottsdale	11,732	6%	222,708	9%
Tempe	10,059	9%	166,860	17%
Fort McDowell Yavapai Nation	124	56%	1,032	50%
Maricopa County	332,425	9%	3,918,121	16%
ARIZONA	531,825	10%	6,453,706	16%

Source: U.S. Census Bureau (2016). American Community Survey, 5-year estimates (2010-2014), Table B27001

Note: Included in the “uninsured” category are persons whose only health coverage is with the Indian Health Service (IHS).

Figure 17. Community Need Index



Source: Dignity Health (2016). Community Need Index. <http://cni.chw-interactive.org/>

Pregnancies and Birth

During calendar year 2014, East Maricopa Region residents gave birth to 8,441 babies (Table 62). This represented 9.7 percent of the births statewide. In keeping with the projected population growth in East Maricopa, the number of births in the county is expected to increase through 2040 (Table 63).

Table 62. Live Births During Calendar Year 2014, by Mother's Place of Residence

Total number of births to Arizona-resident mothers in 2014	
East Maricopa Region	8,441
Maricopa County	55,285
ARIZONA	86,648

Source: Arizona Department of Health Services (2016). [Vital Statistics Births dataset]. Unpublished data.

Table 63. Projected Number of Births Per Year, 2015 to 2040

	2015	2020	2025	2030	2035	2040
East Maricopa Region	N/A	N/A	N/A	N/A	N/A	N/A
Maricopa County	55,502	60,383	65,682	69,633	72,123	74,148
ARIZONA	86,475	94,177	102,207	108,600	112,982	116,633

Source: Arizona Department of Administration, Employment and Population Statistics (2015). State and county population projections (medium series).

Maternal Characteristics

Of the 8,441 mothers who gave birth in the East Maricopa Region in 2014, 60 percent were non-Hispanic White, 22 percent were Hispanic or Latina, and 10 percent were Asian or Pacific Islander (Figure 18). Compared to the state as a whole, mothers in the East Maricopa Region were much more likely to be White, non-Hispanic, and less likely to be Hispanic or Latina. New mothers in the East Maricopa Region had much higher educational attainment than mothers statewide; twenty-three percent had a high school education or less (45% statewide), and 48 percent had attained a bachelor's degree or more (23% statewide) (Table 64).

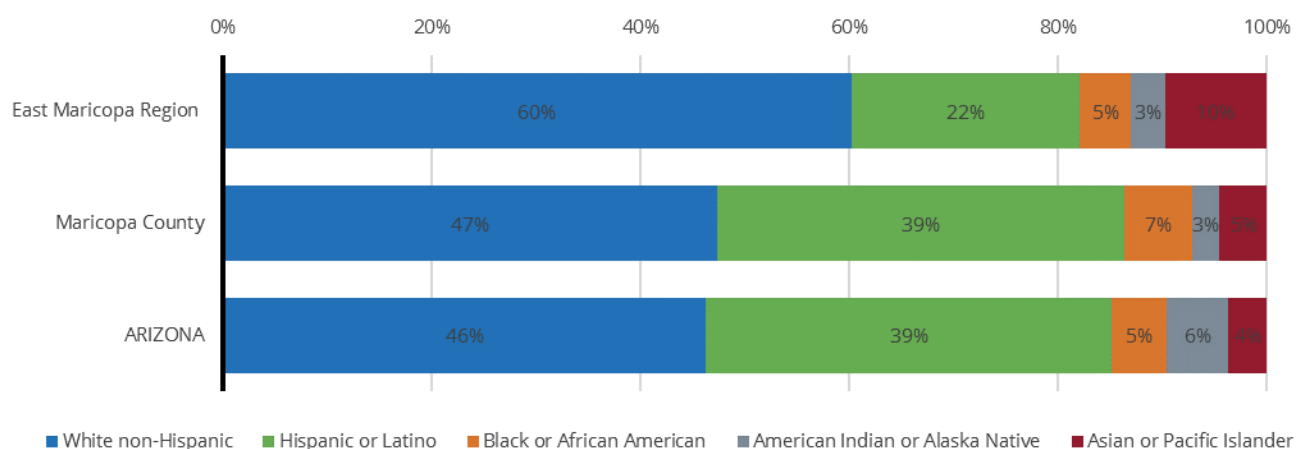
The population of new mothers in the East Maricopa Region differed somewhat to those across the county and statewide on other attributes. Just under one-third (31%) of mothers were not married in the region (43% Maricopa County, 45% statewide) and four percent were in their teens (7% county, 8% statewide) (Table 65). In East Maricopa, less than one-third of births (31%) were to mothers relying on AHCCCS or Indian Health Service (IHS) coverage, which was much lower than the county percentage (52%) and statewide proportion of 55 percent.

A lower proportion of mothers in the East Maricopa Region reported smoking (2.6%) than across the county (3.7%) or state (4.6%), though all areas fall above the Healthy People 2020 goal of 1.4 percent

(Table 65). In Arizona, the percent of expectant mothers who reported smoking during pregnancy has remained relatively stable from 2009 to 2013 at just over four percent. However, there is evidence of disparities. In Arizona in 2013, expectant mothers insured by AHCCCS were more likely to report smoking (6.4%) compared to those with private insurance (1.8%). Race and ethnicity also affect reports of smoking during pregnancy with white, non-Hispanic (7%) and African-American (6.5%) expectant moms more likely to report smoking than expectant moms who were Alaska native (2.9%), Hispanic or Latina (1.8%), and Asian or Pacific Islander (1.1%).¹⁵¹

Another aspect of maternal health that is linked to both birth outcomes and a child's subsequent health is maternal obesity. Among Arizonan women overall, about 51 percent were overweight or obese before pregnancy in 2014.¹⁵² Among women who participate in WIC, this rate was higher – 58 percent, which is to be expected given that low-income women are more likely to be obese in the United States.¹⁵³ In the East Maricopa Region, this rate was slightly lower; 28 percent of women were overweight, and 27 percent were obese, for a total of 55 percent who were overweight or obese before becoming pregnant (Figure 19). The rate of obesity in the region, county, and the state has increased slightly but steadily since 2012 (see Figure 20); this mirrors national trends as well.¹⁵⁴

Figure 18. Race and Ethnicity of Mothers Giving Birth in 2014



Source: Arizona Department of Health Services (2016). [Vital Statistics Births dataset]. Unpublished data.

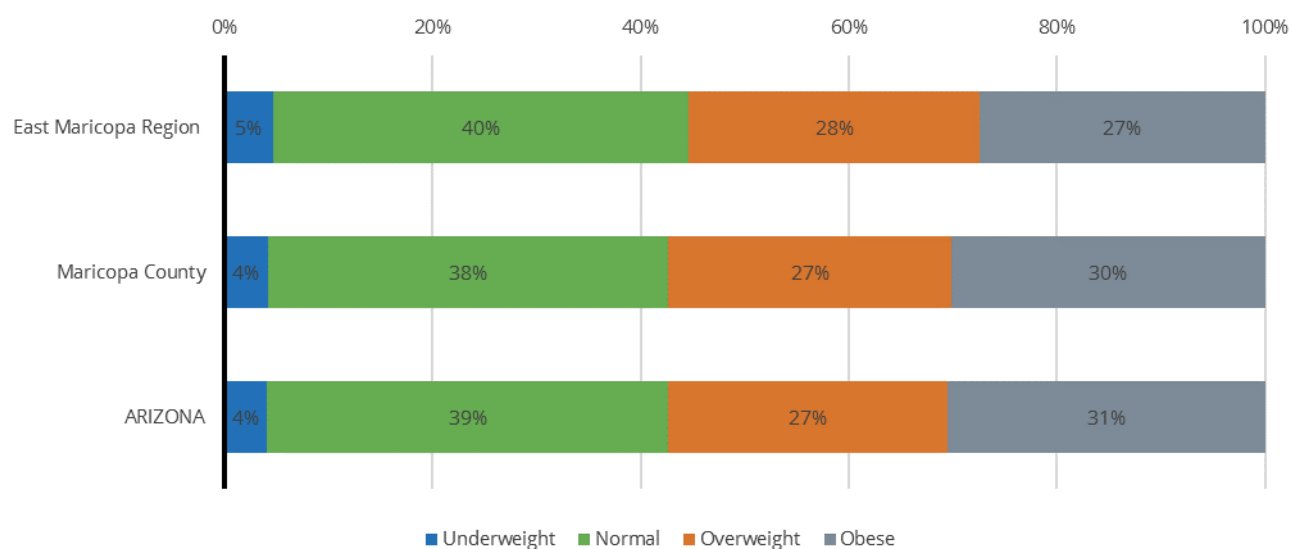
Table 64. Live Births During Calendar Year 2014, by Mother's Educational Attainment

	Less than high school	High school or GED	Some college or professional education	Bachelor's degree or more
East Maricopa Region	9%	14%	28%	48%
Maricopa County	20%	24%	30%	26%
ARIZONA	20%	25%	31%	23%

Source: Arizona Department of Health Services (2016). [Vital Statistics Births dataset]. Unpublished data.

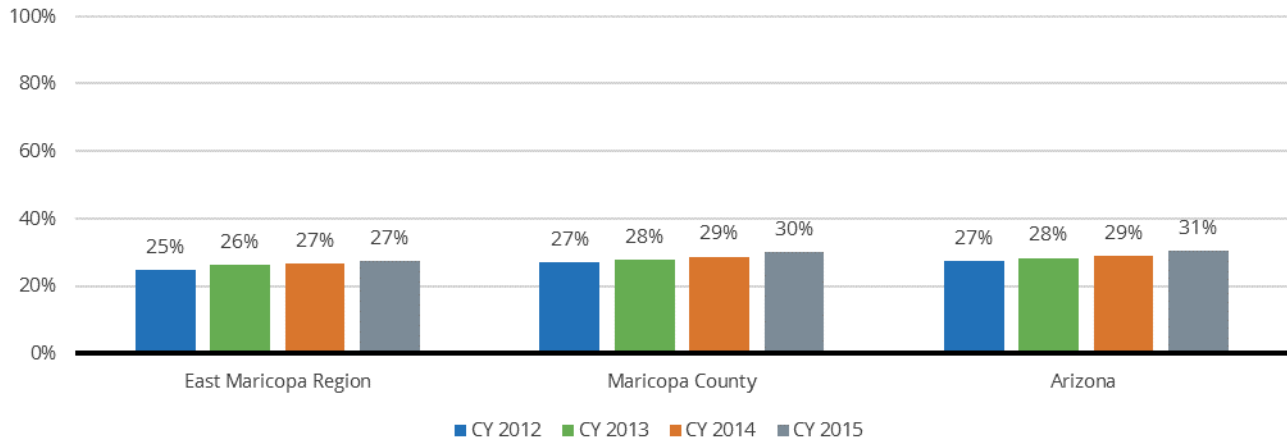
Note: The percentages in each row above may not add to 100% due to rounding.

Figure 19. Pre-Pregnancy Weight Status for WIC Women, 2015



Source: Arizona Department of Health Services (2016). [WIC datasets]. Unpublished data.

Figure 20. Pre-Pregnancy Obesity Rates for WIC Women, 2012 to 2015



Source: Arizona Department of Health Services (2016). [WIC datasets]. Unpublished data.

Table 65. Other Characteristics of Mothers Giving Birth in 2014

	Mother was not married	Mother was 19 or younger	Mother was 17 or younger	Birth was covered by AHCCCS or Indian Health	Tobacco use during pregnancy
East Maricopa Region	31%	4%	1%	31%	3%
Maricopa County	43%	7%	2%	52%	4%
ARIZONA	45%	8%	2%	55%	5%

Source: Arizona Department of Health Services (2016). [Vital Statistics Births dataset]. Unpublished data.

Prenatal Care

The Healthy People 2020 goal is that at least 77.9 percent of pregnant women receive prenatal care that begins in the first trimester of pregnancy. In the East Maricopa Region in 2014, only 75.1 percent of pregnant women obtained prenatal care during the first trimester, meaning that the Healthy People 2020 goal was not met (Figure 21). Across the region, the percent of pregnant women receiving care in the first trimester decreased by 13 percentage points from 88.9 percent of women who obtained prenatal care in the first trimester in 2012.¹⁵⁵ While the reason for the decline in timely prenatal care is not clear, this is a trend that is mirrored by the state as a whole (66.0% of births in 2014 were to mothers who began prenatal care in the first trimester, down from 82.6% in 2012), and one that could have serious repercussions for child well-being. Particularly concerning is that there is a similar downward trend in the proportion of Arizona women of child-bearing age (18-45) who report that a

doctor, nurse or other health care worker ever talked with them about ways to prepare for a healthy pregnancy and baby (that is, discussed preconception health). Statewide, this rate has fallen from 47 percent in 2011, to 35 percent in 2014; in Maricopa County the rate in 2014 was 33 percent.¹⁵⁶

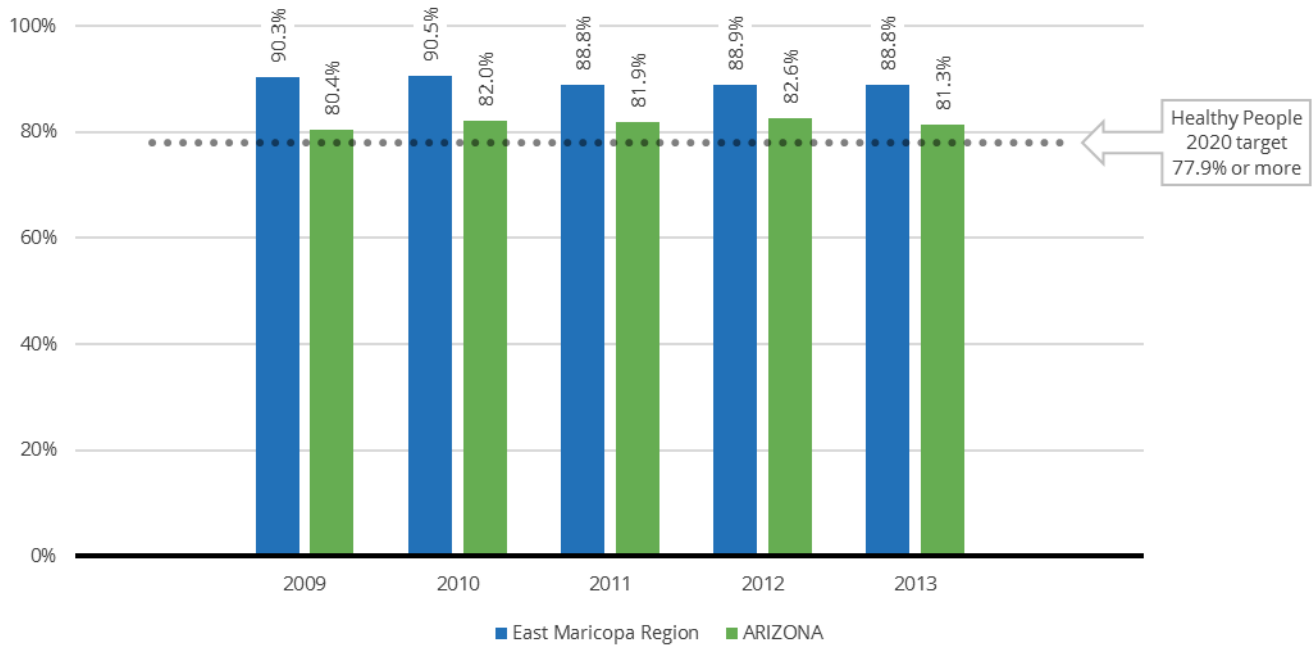
On a more positive note, most mothers are receiving at least some form of prenatal care; only 3.1 percent of babies in the East Maricopa Region were born to mothers who had had fewer than five prenatal care visits (Table 66). The East Maricopa Region had a smaller proportion of mothers with few prenatal visits, compared to the state, where 6 percent of births were to mothers who had fewer than five prenatal care visits.

Table 66. Live Births During Calendar Year 2014, by Number of Prenatal Visits

	No visits	1 to 4 visits	5 to 8 visits	9 to 12 visits	13 or more visits	Percent of births with fewer than five prenatal care visits	Percent of births with prenatal care begun in first trimester
East Maricopa Region	1%	2%	9%	48%	38%	3%	75.1%
Maricopa County	2%	3%	13%	49%	32%	5%	66.0%
ARIZONA	2%	4%	15%	47%	31%	6%	77.9%

Source: Arizona Department of Health Services (2016). [Vital Statistics Births dataset]. Unpublished data.

Figure 21. Percent of Births With Prenatal Care Begun in First Trimester



Source: Arizona Department of Health Services (2016). [Vital Statistics Births dataset]. Unpublished data.

Note: In 2014, the Arizona Department of Health Services introduced major changes in the way that pregnant care by trimester is assessed; these structural changes mean that rates from 2014 onward are not directly comparable to earlier rates.

Birth Outcomes

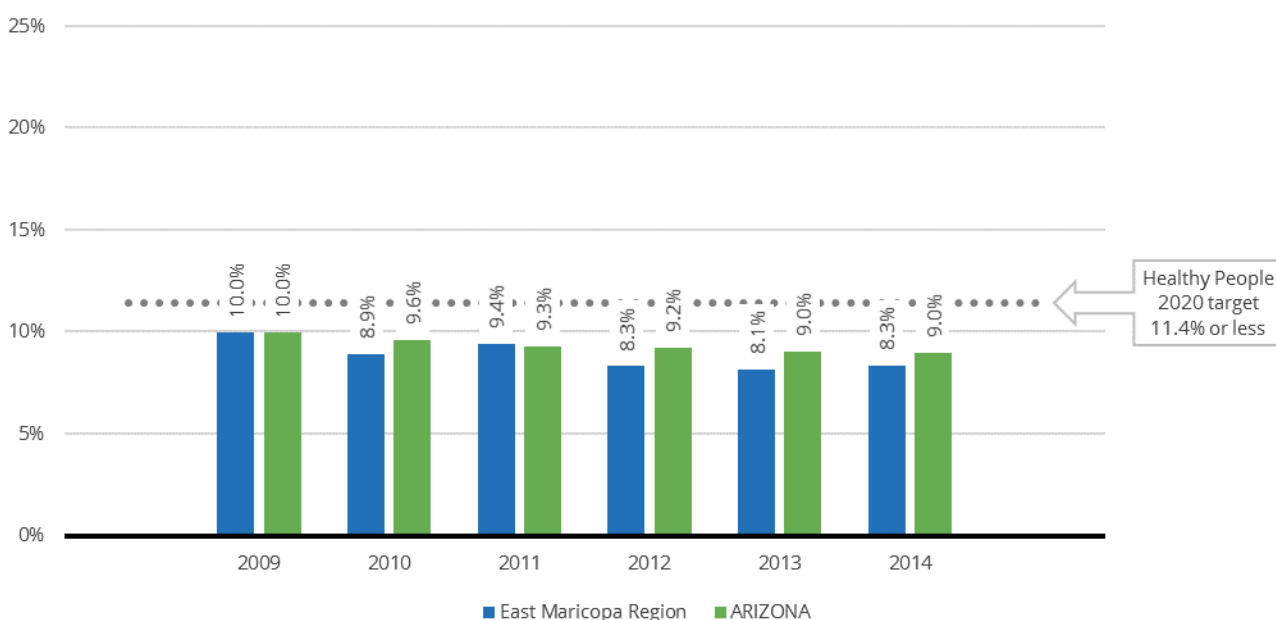
With regard to perinatal health, babies in the East Maricopa Region were doing slightly better than babies born statewide. In the region in 2014, 6.5 percent of babies were low birth weight, compared to seven percent across the state (Figure 23). The percent of premature births was slightly lower in the region than in the state, with 8.3 percent in the region, and 9.0 percent across the state (Figure 22). Healthy People 2020 objectives include that fewer than 7.8 percent of babies are born at low birth weights and fewer than 11.4 percent are born preterm, meaning that the East Maricopa Region has achieved the Healthy People 2020 goal for both. The percentage of newborns admitted to the NICU in the region (8%) was slightly higher than across the county or state (7% for both) (Table 67).

Infants enrolled in WIC fell below the Healthy People 2020 goal of 81.9 percent of babies ever being breastfed in the East Maricopa Region (2015: 68.6%), as did breastfeeding in Arizona where 71.2 percent of WIC-enrolled infants were ever breastfed (Figure 24). Data on the complete (i.e., including those not participating in WIC) East Maricopa Region infant population are unavailable. However, data from the National Immunization Survey on children born in 2013 estimated the Arizona statewide rate of infants ever-breastfed was 85.0 percent, suggesting that WIC participants are less likely to be breastfed than

other infants.^{xx} Thus, it is possible that the region overall does currently approach or meet the Healthy People 2020 goal. Additionally, although the rate of breastfeeding among WIC participants (68.6%) in the region is below the target, it has increased by five percentage points over the last three years (Figure 24).

In 2015, about three out of 100 newborns (3.1%) did not pass an initial hearing screen. However, only 0.6 percent of those screened required a diagnostic evaluation and a very small proportion, 0.3 percent, were found to have confirmed hearing loss (Table 68). This was similar to the proportion across the state where 0.2 percent were found to have confirmed hearing loss.

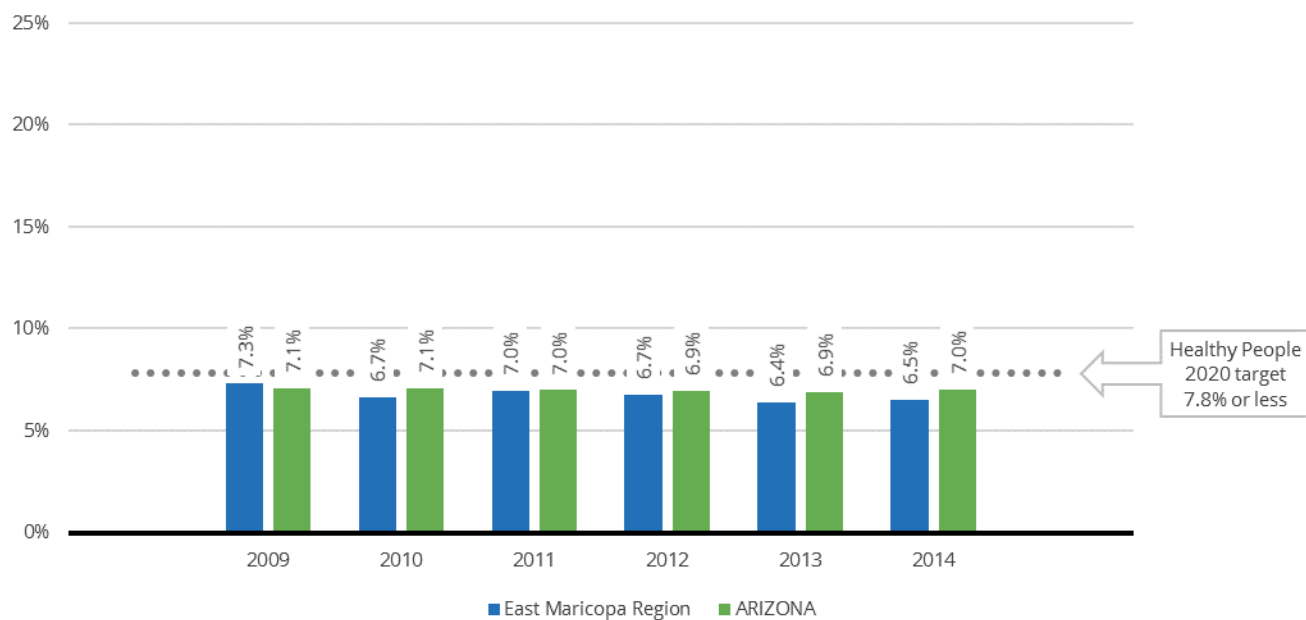
Figure 22. Percent of Babies Born Premature (37 Weeks or Less), 2009 to 2014



Source: Arizona Department of Health Services (2016). [Vital Statistics Births dataset]. Unpublished data.

^{xx} This estimate is based on a sample of 291 births in Arizona in 2013. Rates of Any and Exclusive Breastfeeding by State among Children Born in 2013. Data available at: https://www.cdc.gov/breastfeeding/data/nis_data/rates-any-exclusive-bf-state-2013.htm

Figure 23. Percent of Babies Born With Low Birthweight (5.5 Pounds or Less), 2009 to 2014



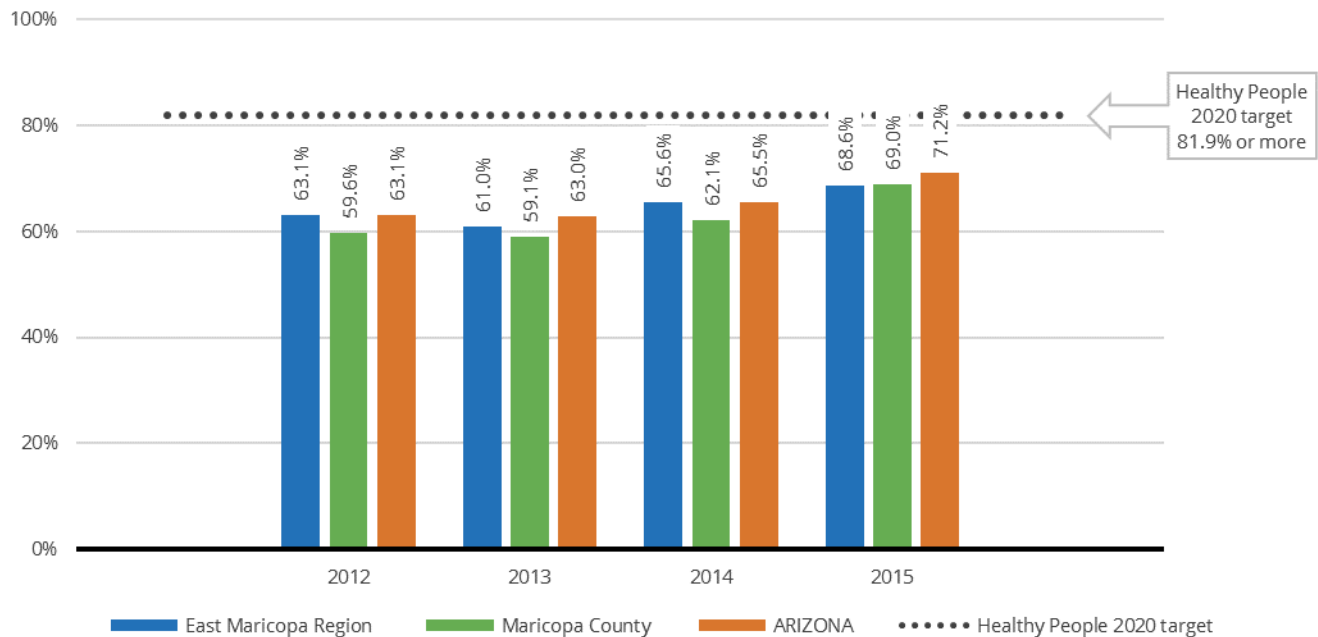
Source: Arizona Department of Health Services (2016). [Vital Statistics Births dataset]. Unpublished data.

Table 67. NICU Admissions

Newborns admitted to intensive care unit	
East Maricopa Region	8%
Maricopa County	7%
ARIZONA	7%

Source: Arizona Department of Health Services (2016). [Vital Statistics Births dataset]. Unpublished data.

Figure 24. WIC Infants Who Were Ever Breastfed, 2012 to 2015



Source: Arizona Department of Health Services (2016). [WIC datasets]. Unpublished data.

Table 68. Newborn Hearing Screening Results

	Newborns with hearing screening	Newborns not passing initial screen	Newborns requiring diagnostic evaluation	Newborns with confirmed hearing loss
East Maricopa Region	8,389	3%	1%	0%
Maricopa County	N/A	N/A	N/A	N/A
ARIZONA	84,887	4%	1%	0%

Source: Arizona Department of Health Services (2016). [Hearing Screening Results dataset]. Unpublished data.

Immunizations

While immunization rates vary by vaccine, over 89 percent of children in child care in the East Maricopa Region had completed each of the three major (DTAP, polio, and MMR) vaccine series; the regional rates were lower than those of the county or state (Table 69). The Healthy People 2020 target for vaccination coverage for children ages 19–35 months for these vaccines is 90 percent,¹⁵⁷ suggesting the region is nearly meeting this goal (DTAP coverage is 89.9%). However, given that state regulations require children enrolled in child care to be up to date on immunizations, it is possible that the rates of

immunization for children in child care are higher than immunization rates for children not in child care.^{xxi} If that is the case, the rates for the entire population of children in these areas may be lower than the Healthy People 2020 goal. One exception to the extensive vaccine coverage is Hepatitis A; only 84 percent of children in child care had completed the recommended two immunizations. One possible explanation for this difference is that the Hepatitis A vaccine is not recommended until later in childhood, and the second dose may follow the first by as many as 18 months.^{xxii} Rates for the three major (DTAP, polio, and MMR) vaccine series for children in kindergarten fell slightly above the rates for children in child care (Table 70). Rates of personal exemptions for vaccinations among children in child care (5.0%) and kindergarten (6.2%) in the region were higher than exemption rates at the county (3.9% and 4.9%, respectively) and state level (3.5% and 4.5%, respectively) (Figure 25).

Table 69. Vaccination Rates and Exemption Rates for Children in Childcare

	Students enrolled	Four or more DTAP	Three or more Polio	Two or more MMR	Three or more HIB	Two Hep A	Three or more Hep B	One or more Varicella	Religious exemption	Medical exemption
East Maricopa Region	16,522	90%	92%	93%	91%	84%	90%	94%	5.0%	1.1%
Maricopa County	61,756	91%	92%	93%	92%	85%	91%	94%	3.9%	0.6%
ARIZONA	92,128	92%	93%	94%	92%	81%	92%	95%	3.5%	0.5%

Source: Arizona Department of Health Services (2016). [Immunization Data Reports dataset]. Unpublished data.

^{xxi} For example, the National Immunization Survey (NIS) monitors vaccination coverage among U.S. children aged 19–35 months, and estimates the Arizona statewide rate for DTAP (Diphtheria, Tetanus, Pertussis, 4 or more doses) to be about 81 percent and the statewide rate for MMR (Measles, Mumps and Rubella, 1 or more doses) to be about 84 percent. Source: Hill, H., Elam-Evans, L., Yankey, D., Singleton, J., Kolasa, M. (2015). National, state, and selected local area vaccination coverage among children aged 19–35 months—United States. *Morbidity and Mortality Weekly Report*, 2014, 64(33), 889–896. Retrieved from: <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6433a1.htm>

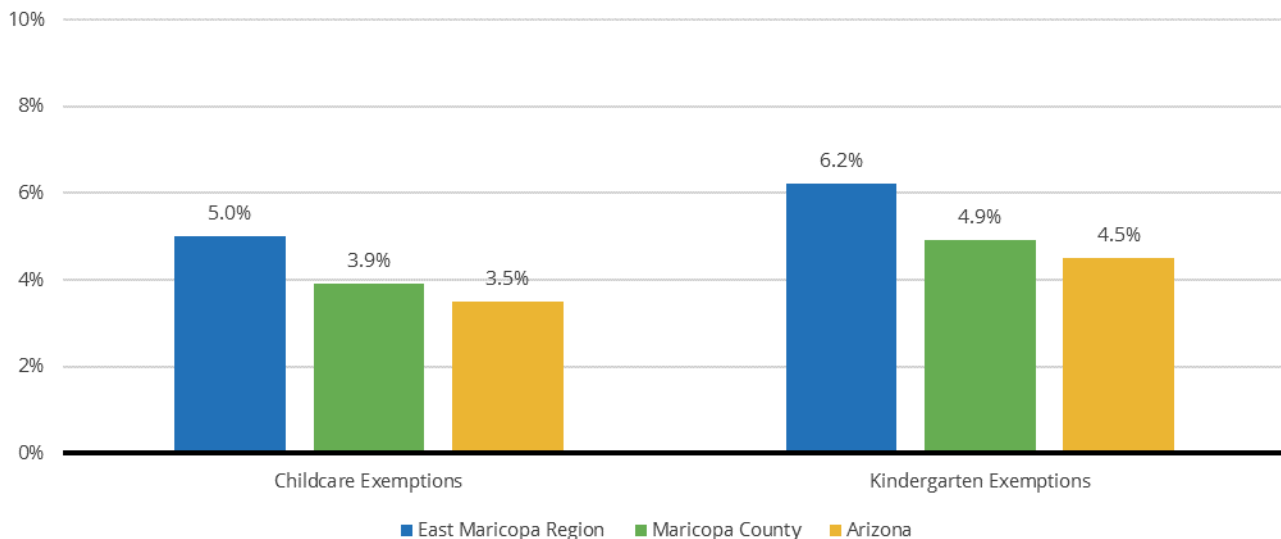
^{xxii} The CDC immunization schedule recommends initiating the Hepatitis A vaccine at 12 through 23 months, with the second dose administered 6 to 18 months later. For more information see: <https://www.cdc.gov/vaccines/schedules/hcp/imz/child-adolescent.html>

Table 70. Vaccination Rates and Exemption Rates for Kindergarten Children

	Students enrolled	Four or more DTAP	Three or more Polio	Two or more MMR	Three or more Hep B	One or more Varicella	Personal exemption	Medical exemption
East Maricopa Region	9,888	93%	94%	93%	94%	96%	6.2%	0.2%
Maricopa County	54,019	94%	94%	94%	95%	97%	4.9%	0.3%
ARIZONA	83,088	94%	95%	94%	96%	97%	4.5%	0.3%

Source: Arizona Department of Health Services (2016). [Immunization Data Reports dataset]. Unpublished data.

Figure 25. Non-Medical Exemption Rates; Childcare and Kindergarten



Source: Arizona Department of Health Services (2016). [Immunization Data Reports dataset]. Unpublished data.

Oral Health

To identify the trends in the oral health of the state's children, First Things First and the Arizona Department of Health Services administered the *Healthy Smiles Healthy Bodies* survey to 3,630 kindergarten children during the 2014-2015 school year.^{xxiii} The survey was designed to gather information from Arizona's kindergarten children regarding prevalence and severity of tooth decay, and included dental screening and parent/caregiver questionnaire component.^{xxiv} In the East

^{xxiii} Please see appendix for methodology.

^{xxiv} First Things First (2016). *Taking a bite out of school absences*. Children's Oral Health Report 2016.

Maricopa Region, 119 children were screened and 35 parents or caregivers answered at least one question on the questionnaire given with their child's screening. Untreated decay experience and need for dental care was reported for 25 percent of kindergarteners in the region, which was slightly lower than the state (27%). In overall decay experience, 46 percent of kindergarteners evidenced decay experience compared to Arizona's 52 percent. While the state has met its own 2020 benchmark (no more than 32% of children with untreated tooth decay) and is on track towards the Healthy People's 2020 target (26%), there remains a need for focused oral health efforts on primary prevention across the state.

Oral health care may be an under-emphasized issue with regards to children with special needs, because of the other perhaps more salient health needs. In addition to the chronic conditions that children with special health care needs face, they also are twice as likely to have unmet oral health care needs that their typical peers, and face additional barriers to care including inaccessibility of dental offices and limited dentists willing to treat children with special healthcare needs.¹⁵⁸

Childhood Injury, Illness and Mortality

The Arizona Child Fatality Review (CFR) Program produces an annual report in order to identify ways to decrease or eliminate identified preventable deaths amongst children across the state.¹⁵⁹ In the 2015 annual report, 768 deaths were reported in children under 18 years old in Arizona, a decrease from 834 the year prior. Of child fatalities in 2015, 39 percent were determined to be preventable and 74 percent (n=566) were young children from birth to age five. More than one-third of the deaths of children birth to five (38%) occurred in the neonatal period (birth-27 days) and were due to natural causes (prematurity, neurological disorders, and other medical conditions). The infancy age group (28-365 days) saw 23 percent of these deaths, which were largely due to suffocation. About 13 percent of deaths were amongst children one to four years old, an age group with high rates of fatalities due to drowning, motor vehicle accidents, and blunt force trauma. In 2015, 10 percent of perinatal deaths, 48 percent of infant deaths, and 57 percent of young child deaths in Arizona were deemed preventable.

Local CFR Teams determine which deaths can be classified as maltreatment based on the actions or failures to take appropriate preventative action by a parent, guardian, or caretaker. In the 2015 review, 11 percent of all child fatalities were due to maltreatment and all of these deaths were determined to have been preventable. These maltreatment deaths are classified in one of three categories: homicide (e.g. abusive force trauma), natural (e.g., failure to obtain medical care or prenatal substance use that caused premature death), or accidental (e.g., unintentional injuries caused by negligence or impaired driving).

In 2015, Maricopa County reported 445 deaths among its population of 1,021,299 children aged 0-17. The overall Arizona rate for 2015 was 47.3 child deaths per 100,000 residents. Across the state, the two leading causes of death were those classified as home-safety related (rate of 7.9 per 100,000 children) and maltreatment (rate of 5.3 per 100,000 children). Additionally, fatalities were overrepresented among African American children (9% of child deaths) and American Indian children (9% of child deaths).

Weight Status

Based on data from the Centers for Disease Control and Prevention (CDC), adult obesity has increased slightly overall in Maricopa County between 2011 and 2013 (from 22.6% to 25.4%) (Table 71). Across all three years, Maricopa County met the Healthy People 2020 goal of having no more than 30.5 percent of the population have obesity.^{xxv} In contrast, state rates have been increasing, from 25 to 27 percent over the same period.

Compared to adults, children are less likely to be obese. Healthy People 2020 has set a goal of no more than 9.4 percent of children having obesity. Among children participating in WIC in the East Maricopa Region in 2015, 12 percent had obesity and an additional 12 percent have overweight (Figure 26). The proportion of children with obesity decreased between 2012 and 2015, dropping from 13.7 percent in 2012 to 12.0 percent in 2015 (Table 72). This pattern mirrors national patterns, where 2014 saw a decrease in obesity from 2010 among WIC participants ages 2 to 4.¹⁶⁰ Based on these data, the East Maricopa Region is not meeting the Healthy People 2020 target, although it is important to note that these data only reflect one segment of the population of the region, and low-income populations, i.e., those receiving WIC benefits, are at an elevated risk for obesity.

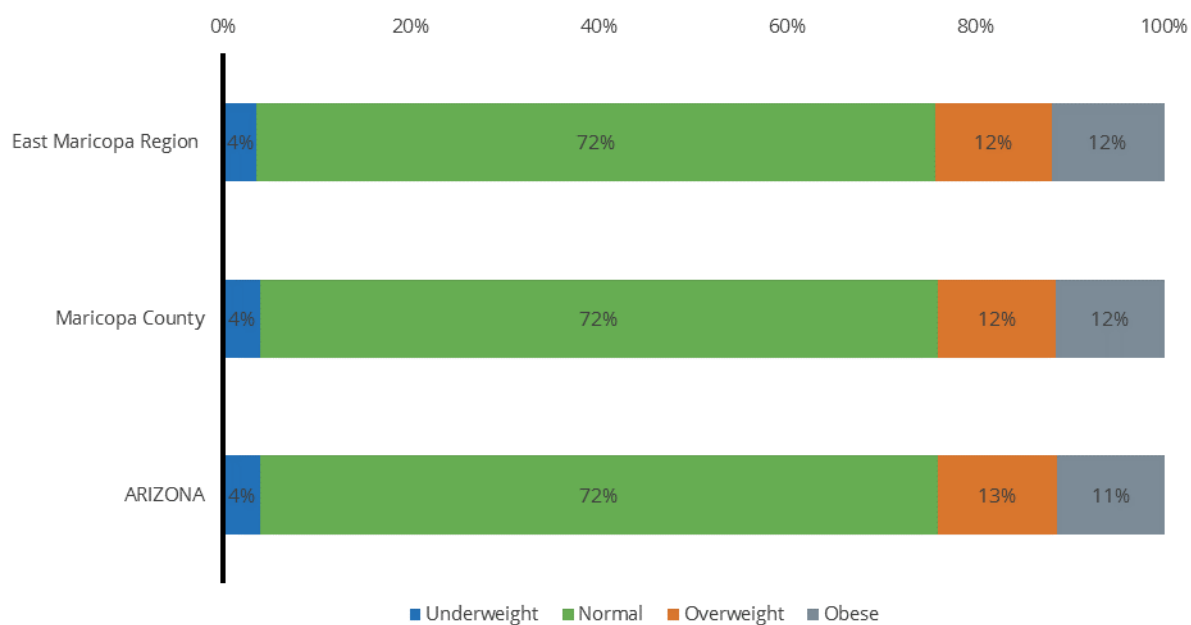
Table 71. Adult Obesity Rate, According to the CDC

	CDC adult obesity rate, 2011	CDC adult obesity rate, 2012	CDC adult obesity rate, 2013
East Maricopa Region	N/A	N/A	N/A
Maricopa County	23%	22%	25%
ARIZONA	25%	26%	27%

Source: CDC (2016). Diabetes Data and Statistics. Retrieved from www.cdc.gov/diabetes/atlas/countydata/atlas.html

^{xxv} Note that the Centers for Disease Control now use language consistent with the perspective that obesity is a disease state. We have adopted that language. See <https://www.cdc.gov/obesity/data/adult.html>.

Figure 26. WIC Children's Weight Status, 2015



Source: Arizona Department of Health Services (2016). [WIC datasets]. Unpublished data.

Table 72. WIC Children's Obesity Rates, 2012 to 2015

	Childhood obesity rate, 2012	Childhood obesity rate, 2013	Childhood obesity rate, 2014	Childhood obesity rate, 2015	Healthy People 2020 Target for Childhood Obesity
East Maricopa Region	13.7%	12.8%	11.5%	12.0%	9.4%
Maricopa County	13.2%	12.8%	11.3%	11.5%	9.4%
ARIZONA	12.7%	12.3%	11.1%	11.4%	9.4%

Source: Arizona Department of Health Services (2016). [WIC datasets]. Unpublished data.



FAMILY SUPPORT AND LITERACY

Why Family Support and Literacy Matter

Parents, caregivers and families who provide positive and responsive relationships support optimal brain development during a child's first years^{161,162} and promote better social, physical, academic and economic outcomes later in that child's life.^{163,164} Parental and family involvement is positively linked to academic skills and literacy in preschool, kindergarten and elementary school.¹⁶⁵ Literacy promotion is so central to a child's development that the American Academy of Pediatrics has identified it as a key issue in primary pediatric care, aiming to make parents more aware of their important role in literacy.¹⁶⁶ Reading aloud, singings songs, practicing nursery rhymes, and engaging in conversation primes children to reach their full potential. To assess the degree to which these activities are happening across the state, the First Things First Family and Community Survey, a phone-based survey, was designed to measure many critical areas of parents' knowledge, skills, and behaviors related to their young children. Among other topics, the 2012 survey collected data about parent and caregiver knowledge of children's early development and their involvement in a variety of behaviors known to contribute positively to healthy development. Data on the amount and quality of the interaction parents and caregivers typically have with their children can be useful to inform programs and policies to encourage positive engagement. One example of these community-level resources in Arizona is Read On Arizona, a partnership of agencies, philanthropic organizations, and community stakeholders committed to creating a continuum of services to improve language and literacy outcomes.^{xxvi} Another example is the national "Reach Out & Read" program, in which close to 200 clinics and pediatric practices across the state seeing children for a well-child visit provide them with a book to take home.¹⁶⁷

Not all children are able to begin their lives in the most positive, stable environments. Adverse Childhood Experiences (ACEs)¹⁶⁸ have been linked to risky health behaviors (such as smoking, drug use and alcoholism), chronic health conditions (such as diabetes, depression, obesity), poorer life outcomes (such as lower educational achievement and increased lost work time), and early death.¹⁶⁹ Children in Arizona are more likely to have experienced two or more ACEs (31.1%) than children across the country (21.1%).¹⁷⁰ Reports of child maltreatment grew by 44 percent in Arizona between 2010 and 2014, fueled in part by an increasing number of children, in particular poor children, living in the state; cut backs in child care subsidies during the same period; and a decrease in the size of the state child welfare workforce. During the same period, the percentage of reports being substantiated, i.e., verified, also increased. Arizona places more children with a substantiated case of maltreatment in foster care than many other states across the country, and with an increase in the number of substantiated reports, there is an increasing demand on the foster care system.¹⁷¹ Children involved in the foster care system often have physical and behavioral health issues, in addition to the social needs brought on by being removed from a parent's care. Nationally and in Arizona, very young children are at most risk for child abuse, neglect and fatalities from abuse and neglect; in 2013 children five and under made up more than half (53.3%) of cases of child maltreatment and of children waiting for adoption (52.1%) in Arizona.¹⁷²

Children subject to maltreatment and neglect often suffer physical, psychological and behavioral consequences, and in fact are much more likely to have interactions with the criminal justice system in

^{xxvi} For more information on Read On Arizona, visit <http://readonarizona.org/>

later life.¹⁷³ Referrals are the most common method of entry into the juvenile justice system and can be made by police, school officials and parents, among others. In Arizona, between 2010 and 2014, the number of juveniles referred to juvenile court decreased from 24,074 in 2010 to 15,193 in 2014.¹⁷⁴ Like many other states in the nation, Arizona has moved from sentencing juveniles to prison or corrections settings, to applying probation or community-service sentences.¹⁷⁵

Children who are exposed to domestic violence, either as direct victims or witnesses, are subject to short and long term negative consequences including physical health problems, behavioral issues, and emotional impacts such as depression, anxiety and post-traumatic stress.¹⁷⁶ Fortunately, the effects of observing domestic violence can be mitigated to some extent through strong relationships and attachments to supportive adults and timely intervention and support.¹⁷⁷ The need for increased focus on the issue of domestic violence in Arizona is evidenced by results from a statewide needs assessment, in which domestic violence was the second most often cited top health priority, after access to health services, by Arizonans surveyed.¹⁷⁸

Behavioral health supports are often needed to address issues of domestic violence, maltreatment, abuse and neglect that children may face. Infant and toddler mental health is the young child's developing capacity to "experience, regulate and express emotions; form close interpersonal relationships; and explore the environment and learn."¹⁷⁹ When young children experience stress and trauma they have limited responses available to react to those experiences.

What the Data Tell Us

Family Involvement

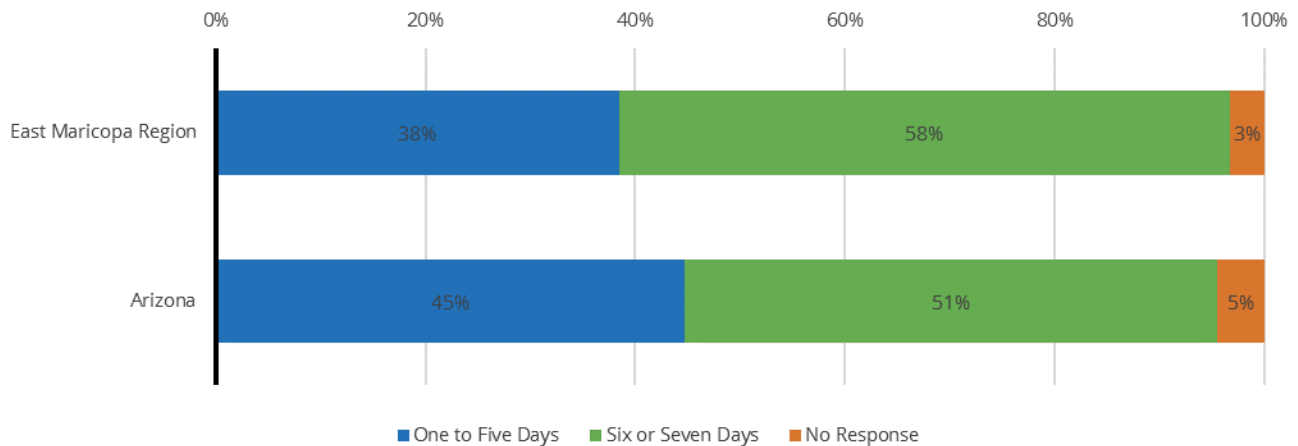
The skills that children develop between birth and five years of age can have profound effects on early and later literacy. The six most important of these skills are alphabet knowledge, phonological awareness, rapid automatic naming of letters or digits and objects or colors, writing and phonological memory.¹⁸⁰ Interventions known to have a positive impact on these skills include shared-reading interventions, parent and home programs, and preschool and kindergarten programs.¹⁸¹

Assets related to literacy in the region include the Read On communities of Chandler, Tempe, and Scottsdale. Read On is a program designed to raise awareness of the importance of early literacy and create a collaborative support system of community stakeholders to ensure all children obtain the necessary literacy skills for school readiness. In State Fiscal Year 2017, the Read On communities of Chandler, Tempe, and Scottsdale distributed 15,000 copies of an early literacy guide, conducted parenting workshops and hosted events for families of children birth to five to increase families' awareness of the importance of early childhood development, including early learning and language acquisition, and quality literacy opportunities.

The First Things First Family and Community Survey is a phone-based survey designed to measure many critical areas of parents' knowledge, skills, and behaviors related to their young children. In the East Maricopa Region, 351 people responded to the 2012 First Things First Family and Community Survey. Among other topics, the 2012 First Things First Family and Community Survey collected data about parent and caregiver knowledge of children's early development and their involvement in a variety of behaviors known to contribute positively to healthy development. Parents in the East Maricopa Region were more likely to report reading to their children (58%) and telling stories to their

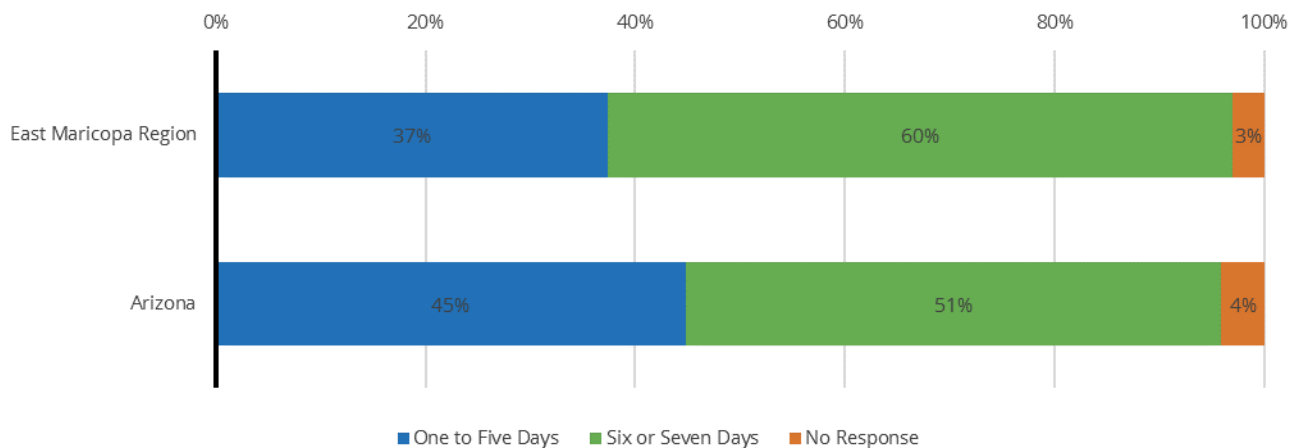
children (60%) six or seven days a week compared to parents across the state (51% and 51% respectively).

Figure 27. Reading Stories to Young Children (Family and Community Survey, 2012)



Source: First Things First (2014). [2012 Family and Community Survey data]. Unpublished data.

Figure 28. Telling Stories or Singing Songs to Young Children (Family and Community Survey, 2012)



Source: First Things First (2014). [2012 Family and Community Survey data]. Unpublished data.

Child Welfare

The Arizona Department of Child Safety produces a semi-annual report on child welfare services. Statewide, reports of child abuse and neglect had been increasing from 2013 through 2015 to a high of 26,455 reports during the April 1-September 30, 2015 reporting period. In the last two reporting periods available, reports were lower, with 24,787 reports in the last period available, April 1-September 30, 2016.¹⁸² According to this latest report, of 14,350 reports of abuse and neglect received during that period for Maricopa County, 1,709 (12%) resulted in a removal from the home (Table 73); note this

number reflects all children, not just those aged birth to 5. The proportion of reports resulting in removal were the same (12%) as across the state as a whole. For reports of maltreatment that were substantiated during that period, most (88%) were cases of neglect, followed by physical (10%) and sexual (2%) abuse (Table 74).

Statewide, the number of children entering out-of-home care has been decreasing since the April 1–September 30, 2015 reporting period; from 6,819 to 5,669 during April 1–September 30, 2016. The total number of children entering out-of-home care in Maricopa County for the April 1–September 30, 2016 reporting period (n=3,276) is higher than the number of removals resulting from substantiated reports of abuse (n=1,709) due to several factors. One, a report focuses on the family unit, and thus could concern multiple children; two, these removals are also the result of reports prior to the current reporting period; and three, the children entering out-of-home care include children in voluntary foster care agreements (Table 75). More than one in 10 children entering out-of-home care had been removed at least once in the prior two years.

Table 73. Department of Child Safety Reports and Removals, April to September 2016

	Number of reports received, April to September 2016	Number of reports assigned, April to September 2016	Number of reports with removal, April to September 2016	Removal rate
East Maricopa Region	N/A	N/A	N/A	N/A
Maricopa County	14,350	14,312	1,709	12%
ARIZONA	24,787	24,403	2,967	12%

Source: Department of Child Safety (2016). Child welfare reporting requirements semi-annual report for the period of April 1, 2016 through September 30, 2016. Tables 5 & 15

Table 74. Department of Child Safety Substantiated Maltreatment Reports, April to September 2016

	Number of substantiated maltreatment reports	Neglect	Physical Abuse	Sexual Abuse	Emotional Abuse
East Maricopa Region	N/A	N/A	N/A	N/A	N/A
Maricopa County	1,793	88%	10%	2%	0%
ARIZONA	2,823	87%	10%	2%	0%

Source: Department of Child Safety (2016). Child welfare reporting requirements semi-annual report for the period of April 1, 2016 through September 30, 2016. Table 19

Table 75. Children Entering Out-of-Home Care, April to September 2016

	Number of children removed	Number of children with a prior removal within the previous 24 months	Percent of children with a prior removal within the previous 24 months
East Maricopa Region	N/A	N/A	N/A
Maricopa County	3,276	419	13%
ARIZONA	5,669	715	13%

Source: Department of Child Safety (2016). Child welfare reporting requirements semi-annual report for the period of April 1, 2016 through September 30, 2016. Table 31

Domestic Violence

The Arizona Department of Economic Security produces an annual report on domestic violence shelters including county-level data on the populations served and services provided. In fiscal year 2015, 10 domestic violence shelters in Maricopa County served 3,934 people, 2,100 (53%) of whom were children (Table 76). These were Autumn House, Chrysalis, De Colores, DV STOP, Elm House, Faith House, My Sister's Place, New Life Center, Sojourner Center, and UMOM. Sojourner Center and New Life Center served the greatest numbers of clients (925 and 731, respectively). The average length of stay across all ten shelters was about 45 days, close to the statewide average of 39 days. Additionally, 14,251 calls were made to hotline and information and referral (I&R) numbers for the county, representing 57 percent of such calls statewide (Table 76).

Table 76. Domestic Violence Shelters, State Fiscal Year 2015

	Total number served	Number of adults served	Number of children served	Number of bed-nights	Average length of stay	Number of hours of support services	Number of hotline and information-and-referral (I&R) calls
East Maricopa Region	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maricopa County	3,934	1,834	2,100	176,104	N/A	60,611	14,251
ARIZONA	7,567	3,862	3,705	293,970	39 days	144,025	25,185

Source: Arizona Department of Economic Security (2015). Domestic Violence Shelter Fund Report for SFY 2015. Retrieved from des.az.gov/digital-library/domestic-violence-shelter-fund-report-sfy-2015

Behavioral Health

In Arizona, the Arizona Health Care Cost Containment System (Arizona's Medicaid program) contracts with community-based organizations, known as Regional Behavioral Health Authorities (RBHAs) and Tribal Regional Behavioral Health Authorities (TRBHAs), to administer publically funded behavioral

health services. Arizona is divided into separate geographical service areas (GSAs) served by various RBHAs.^{xxvii} Maricopa County is served by Mercy Integrated Care.

In 2015, 974 pregnant or parenting women received publically funded behavioral health services through Mercy in the East Maricopa Region (Table 77). This represents a decrease of 31 percent from the 1,416 women who received services in 2012. This decrease over the three years was greater than that statewide, with 24 percent fewer women receiving these services in 2015 compared to 2012. The number of children ages birth to 5 receiving behavioral health services in the East Maricopa Region also decreased from 2012 (n=435) to 2015 (n=399), representing a 8 percent decrease (Table 78). This represents less than one percent of young children in poverty in the East Maricopa Region (compared to about 9.5 percent of young children in poverty receiving services statewide). It is estimated that about 13 percent of low-income children aged 6 to 11 years old covered by Medicaid have mental health problems¹⁸³, suggesting that there may be an unmet need for services.^{xxviii}

According to a 2015 AHCCCS report, 67 percent of children in foster care in Arizona in FY2014 were enrolled in behavioral health services, compared to just one in 15 non-fostered children (7%) enrolled in AHCCCS.¹⁸⁴ This suggests that there may be a higher proportion of children not in the child welfare system who would benefit from behavioral health services statewide. Beginning in 2015, each Regional Behavioral Health Authority (RBHA) was contractually required to ensure that children in Department of Child Safety (DCS) custody and their families are referred for ongoing behavioral health services, suggesting that rates of both mothers and children being provided services are likely to increase going forward.

A continuum of services to address infant and toddler mental health promotion, prevention and intervention has been proposed by a number of national organizations. Recommendations to achieve a comprehensive system of infant and toddler mental health services include (1) the integration of infant and toddler mental health into all child-related services and systems, (2) ensuring earlier identification of and intervention for mental health disorders in infants, toddlers and their parents by providing child and family practitioners with screening and assessment tools, (3) enhancing system capacity through professional development and training for all types of providers, (4) providing comprehensive mental health services for infants and young children in foster care, and (5) engaging child care programs by providing access to mental health consultation and support.¹⁸⁵

^{xxvii} Arizona Regional Behavioral Health Areas. See <https://www.azahcccs.gov/img/BehavioralHealth/ARBHAMap.jpg>

^{xxviii} Representing the difference between the 140 low-income children (4.7%) currently served, and the estimated 388 (13%) likely in need.

Table 77. Number of Pregnant or Parenting Women Receiving Behavioral Health Services, 2012 to 2015

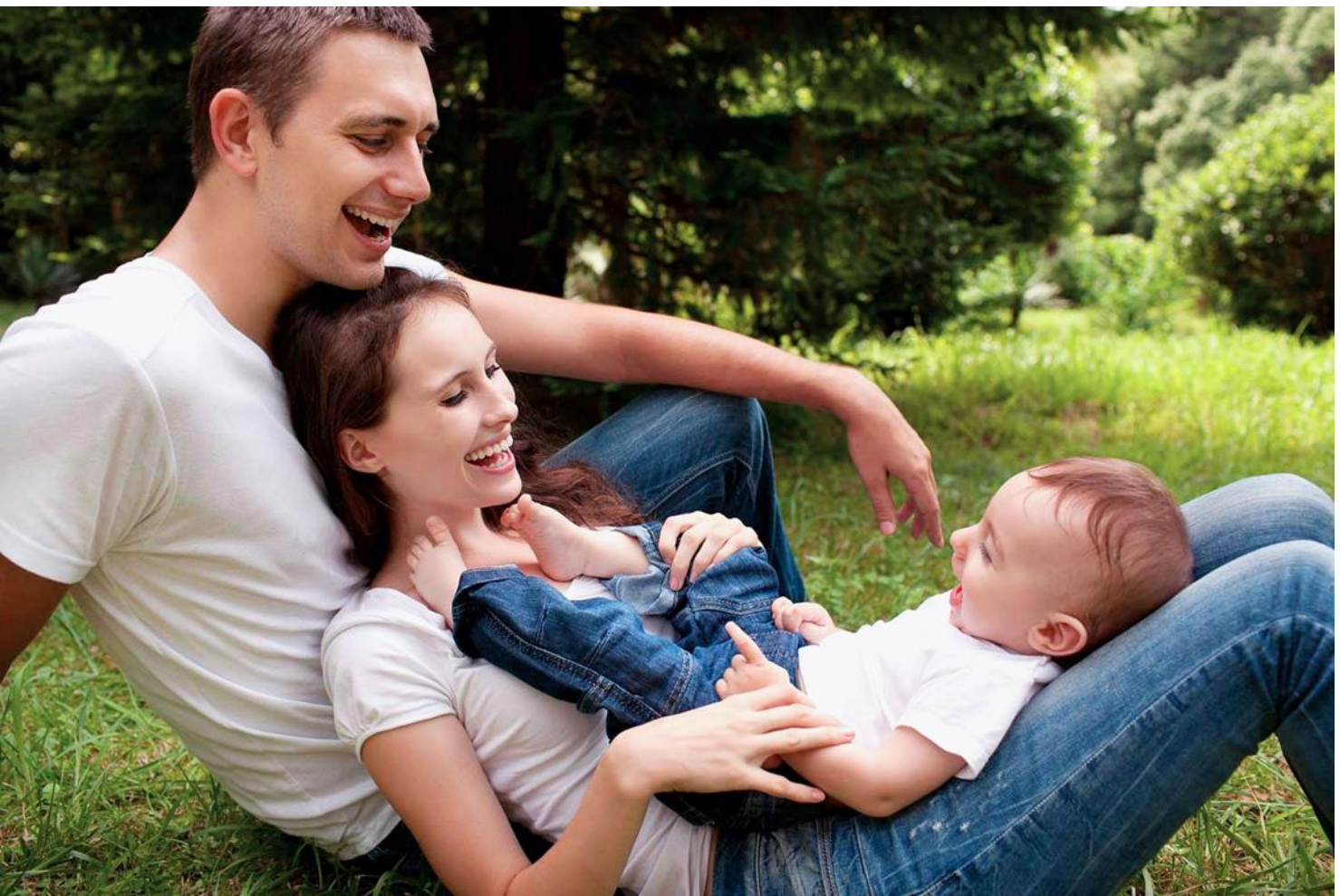
	2012	2013	2014	2015	Change from 2012 to 2015
East Maricopa Region	1,416	1,265	864	974	down 31%
Maricopa County	13,607	12,486	8,672	9,386	down 31%
ARIZONA	19,134	17,731	13,657	14,546	down 24%

Source: Arizona Department of Health Services (2016). [Behavioral Health dataset]. Unpublished data.

Table 78. Number of Children (Ages 0 to 5) Receiving Behavioral Health Services, 2012 to 2015

	2012	2013	2014	2015	Change from 2012 to 2015
East Maricopa Region	435	501	332	399	down 8%
Maricopa County	7,000	8,019	6,250	8,515	up 22%
ARIZONA	13,110	14,396	12,396	14,374	up 10%

Source: Arizona Department of Health Services (2016). [Behavioral Health dataset]. Unpublished data.



COMMUNICATION, PUBLIC INFORMATION, AND AWARENESS^{xxix}

^{xxix} The majority of this section of the report was prepared by the First Things First Communications Division.

Why Communication, Public Information, and Awareness Matter

Public awareness of the importance of early childhood development and health is a crucial component of efforts to build a comprehensive, effective early childhood system in Arizona. Building public awareness and support for early childhood is a foundational step that can impact individual behavior as well as the broader objectives of system building. For the general public, information and awareness is the first step in taking positive action in support of children birth to 5, whether that is influencing others by sharing the information they have learned within their networks or taking some higher-level action such as elevating the public discourse on early childhood by encouraging increased support for programs and services that impact young children. For parents and other caregivers, awareness is the first step toward engaging in programs or behaviors that will better support their child's health and development.

Unlike marketing or advocacy campaigns which focus on getting a narrowly-defined audience to take short-term action, communications efforts to raise awareness of the importance of early childhood development and health focus on changing what diverse people across Arizona value and providing them multiple opportunities over an extended time to act on that commitment.

There is no one single communications strategy that will achieve the goal of making early childhood an issue that more Arizonans value and prioritize. Therefore, integrated strategies that complement and build on each other are key to any successful strategic communications effort. Employing a range of communications strategies to share information – from traditional broad-based tactics such as earned media to grassroots, community-based tactics such as community outreach – ensures that diverse audiences are reached more effectively wherever they are at across multiple mediums. Other communications strategies include: strategic consistent messaging, brand awareness, community awareness tactics such as distribution of collateral and sponsorship of community events, social media, and paid media which includes both traditional and digital advertising. Each of these alone cannot achieve the desired outcome of a more informed community, so a thoughtful and disciplined combination of all of these multiple information delivery vehicles is required. The depth and breadth of all elements are designed to ensure multiple touch-points and message saturation for diverse audiences that include families, civic organizations, faith communities, businesses, policymakers and more.

What the Data Tell Us

Since state fiscal year 2011, First Things First has led a collaborative, concerted effort to build public awareness and support across Arizona employing the integrated communications strategies listed above.

Results of these statewide efforts from SFY2011 through SFY2016 include:

- More than 2,000 formal presentations to community groups which shared information about the importance of early childhood;
- Nearly 230 tours of early childhood programs to show community members and community leaders in-person how these programs impact young children and their families;
- Training of almost 8,700 individuals in using tested, impactful early childhood messaging and how to best share that message with others;

- The placement of more than 2,400 stories about early childhood in media outlets statewide;
- Increased digital engagement through online platforms for early childhood information, with particular success in the growth of First Things First Facebook Page Likes, which grew from just 3,000 in 2012 to 124,000 in 2016.
- Statewide paid media campaigns about the importance of early childhood from FY10 through FY15 included traditional advertising such as television, radio and billboards as well as digital marketing. These broad-based campaigns generated millions of media impressions over that time frame; for example in FY15 alone, the media campaign yielded over 40 million media impressions.

In addition, First Things First began a community engagement effort in SFY2014 to recruit, motivate and support community members to take action on behalf of young children. The community engagement program is led by community outreach staff in regions which fund the First Things First Community Outreach strategy. This effort focuses on engaging individuals across sectors – including business, faith, K-12 educators, and early childhood providers – in the work of spreading the word about the importance of early childhood since they are trusted, credible messengers in their communities. FTF characterizes these individuals, depending on their level of involvement, as Friends, Supporters, and Champions. Friends are stakeholders who have a general awareness of early childhood development and health and agree to receive more information and stay connected through regular email newsletters. Supporters have been trained in early childhood messaging and are willing to share that information with their personal and professional networks. Champions are those who have been trained and are taking the most active role in spreading the word about early childhood.

Supporters and Champions in the engagement program reported a total of 1,088 positive actions taken on behalf of young children throughout Arizona as of the end SFY16. These actions range from sharing early childhood information at community events, writing letters to the editor to connecting parents to early childhood resources and more. The table below shows total recruitment of individuals in the tiered engagement program through SFY2016.

Table 79. First Things First Engagement of Early Childhood Supporters, SFY2014 Through SFY2016

	Friends	Supporters	Champions
East Maricopa Region	2,057	354	39
ARIZONA	21,369	3,102	908

Source: First Things First Communications Division.

In addition to these strategic communications efforts, First Things First has also led a concerted effort of policymaker awareness-building throughout the state. This includes meetings with all members of the legislature to build their awareness of the importance of early childhood. FTF sends emails to all

policymakers providing information on the impact of early childhood investments (such as the FTF annual report) and also has instituted a quarterly email newsletter for policymakers and their staff with the latest news regarding early childhood.

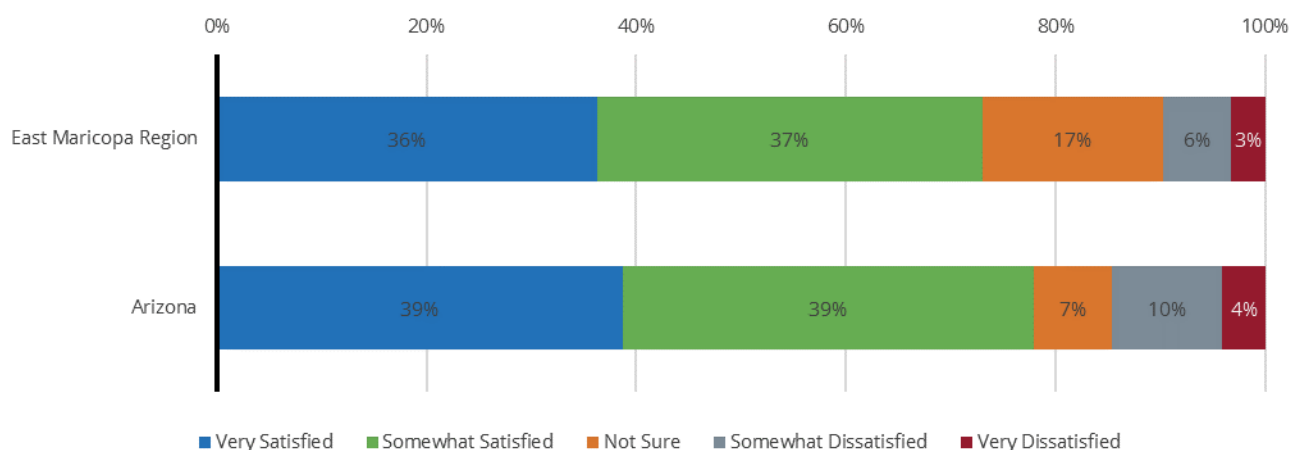
Furthermore, the Arizona Early Childhood Alliance—comprised of early childhood system leaders like FTF, the United Ways, Southwest Human Development, Children’s Action Alliance, Read On Arizona, Stand for Children, Expect More Arizona and the Helios Foundation—represent the united voice of the early childhood community in advocating for early childhood programs and services.

Finally, FTF recently launched enhanced online information for parents of young children, including the more intentional and strategic placement of early childhood content and resources in the digital platforms that today’s parents frequent. Future plans for this parenting site include a searchable database of early childhood programs funded in all the regions, as well as continuously growing the amount of high-quality parenting content available on the site and being “pushed out” through digital sources.

The Family and Community Survey

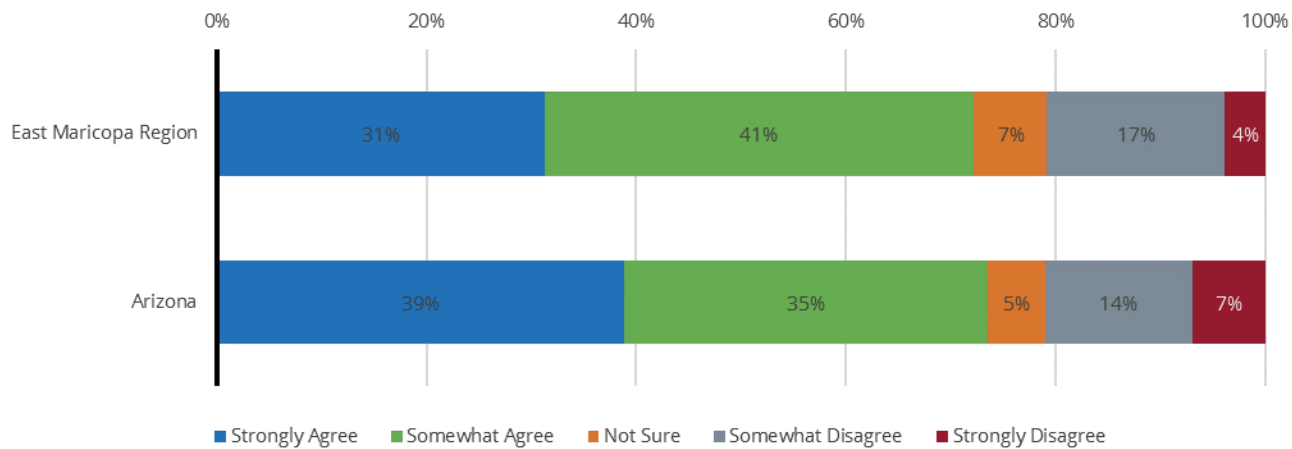
In addition to measuring parent knowledge, skills, and behaviors related to their young children, the 2012 First Things First Family and Community Survey collected data on parents’ perceptions regarding resources available to young children and their families across Arizona. Results from the survey demonstrated that residents in the East Maricopa Region had similar levels of satisfaction with available information and resources, and agreement with ease of locating services, compared to the state. About one-third (36%) of East Maricopa Region respondents indicated they were “very satisfied” with “the community information and resources available to them about their children’s development and health,” compared to 39 percent of respondents across the state (Figure 29). Seventy-two percent of East Maricopa Region respondents “strongly” or “somewhat agreed” that “it is easy to locate services that I want or need,” compared to 74 percent of respondents across the state (Figure 30).

Figure 29. Satisfaction With Information and Resources (Family and Community Survey, 2012)



Source: First Things First (2014). [2012 Family and Community Survey data]. Unpublished data.

Figure 30. Ease of Locating Needed Services (Family and Community Survey, 2012)



Source: First Things First (2014). [2012 Family and Community Survey data]. Unpublished data.



SYSTEM COORDINATION AMONG EARLY CHILDHOOD PROGRAMS AND SERVICES

Why System Coordination Matters

The partners in Arizona's early childhood system encompass a diverse array of public and private entities dedicated to improving overall well-being and school readiness for children birth to 5 statewide. Together they strive to develop a seamless, coordinated, and comprehensive array of services that can meet the multiple and changing needs of young children and their families.

In January 2010, First Things First (FTF) convened the first Arizona Early Childhood Task Force, comprised of a diverse group of leaders from across Arizona. The goal of this inaugural Task Force was to establish a common vision for young children in Arizona and to identify priorities and roles to build an early childhood system that would enable this vision to be realized. The Task Force identified six outcomes to work towards, including that the "early childhood system is coordinated, integrated and comprehensive." First Things First's role in building this system is to foster cross-system collaboration among and between local, state, federal, and tribal organizations to improve the coordination and integration of Arizona programs, services, and resources for young children and their families.^{xxx}

Through strategic planning and system-building efforts that are funded through both FTF and other mechanisms, FTF is focused on developing approaches to connect various areas of the early childhood system. When the system operates holistically, families should experience a seamless system of coordinated services that they can more easily access and navigate in order to meet their needs. Agencies that work together and achieve a high level of coordination and collaboration help to establish and support a coordinated, integrated, and comprehensive system. At the same time, agencies also increase their own capacity to deliver services as they work collectively to identify and address gaps in the service delivery continuum.

Service coordination and collaboration approaches work to advance the early childhood system in the following ways:

- Build stronger collaborative relationships among providers
- Increase availability and access of services for families and children
- Reduce duplication
- Maximize resources
- Assure long term sustainability
- Leverage existing assets
- Improve communication
- Reduce fragmentation
- Foster leadership capacity among providers
- Improve quality
- Share expertise and training resources
- Influence policy and program changes

^{xxx} To build on this progress and focus on priorities for the next phase of its mission, beginning in November 2016, FTF convened a new statewide Early Childhood Task Force. In June 2017, this new Taskforce will help set the strategic vision for the next five years.

The Coordination and Collaboration Survey

To gain a better understanding of the coordination and collaboration occurring among early childhood system partners within FTF regions, First Things First developed the Coordination and Collaboration Survey that was disseminated to non-tribal system partners in 18 FTF county-based regions via an online survey in October of 2016.^{xxxi}

The Coordination and Collaboration survey asked system partners about their organization's role in the Early Childhood System; the system building efforts within each area of the Early Childhood System in the county (i.e., Family Support and Literacy, Early Learning, Child's Health and Professional Development); the level of collaboration that is occurring among system partners; the sectors engaged in system building work; and perceptions of the FTF regional partnership councils' role in system building efforts.

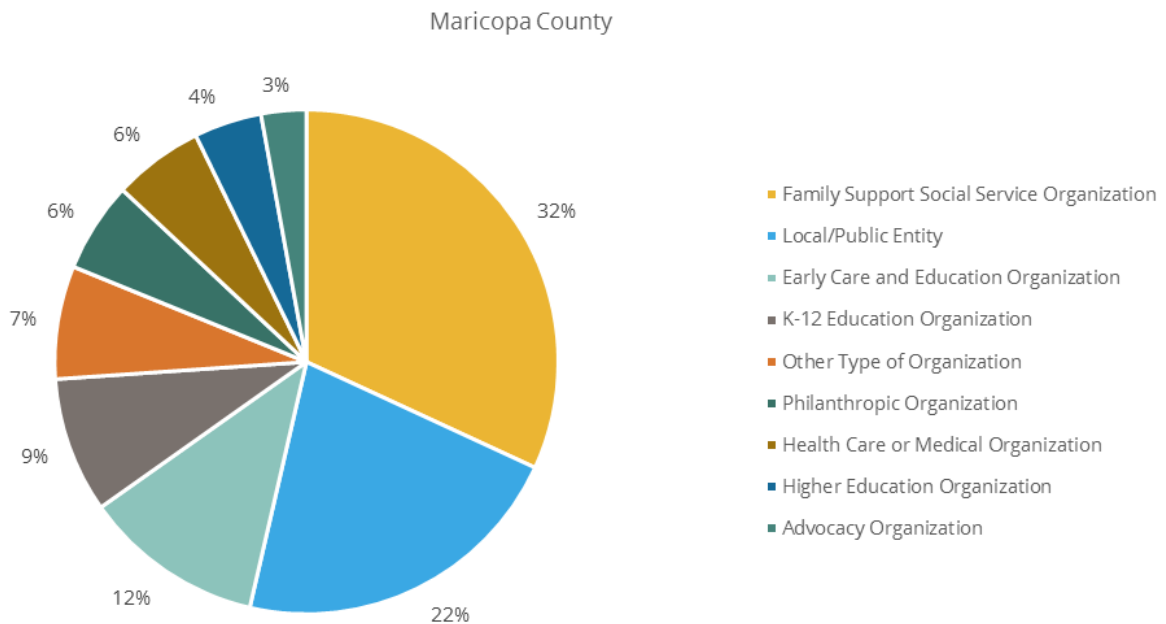
What the Data Tell Us

The results are based on the responses from 69 respondents that participated in the survey from Maricopa County out of 102 that were contacted to participate, for a 68 percent overall survey response rate. However, please note that not all respondents answered each question, and that the number of respondents varies by question. Each figure or table indicates the number of people responding to that particular question. The respondents represent the following FTF Regional Partnership Councils: Phoenix North, Phoenix South, East Maricopa, Northwest Maricopa, Southeast Maricopa, and Southwest Maricopa.

Respondents represented many sectors of the early childhood system in the region. The most common organization type among respondents was Family Support/Social Service agencies (32%), Local/Public entities (22%), and Early Care and Education organizations (12%), while state agencies and businesses were not represented at all in this survey (Figure 31).

^{xxxi} FTF tribal regions will be surveyed at a later date, once tribal approvals are sought and received for this work.

Figure 31. Sectors With Which Organizations Work (N=69)



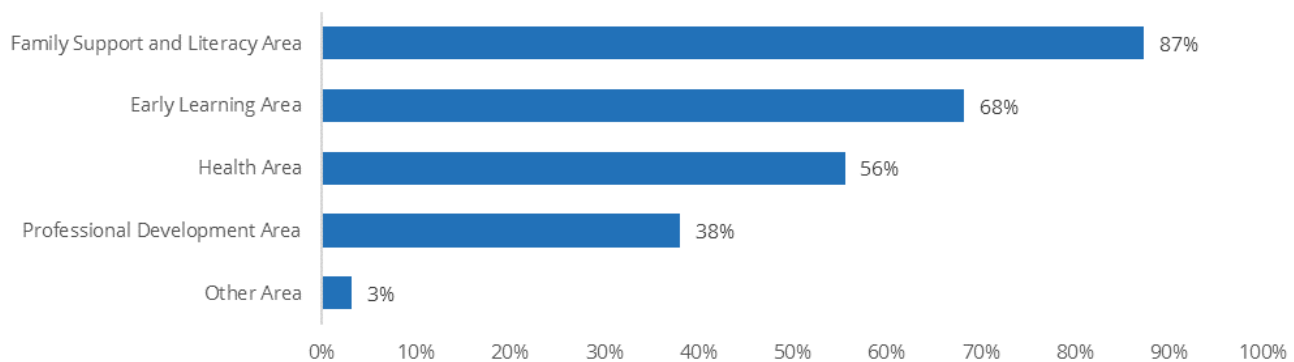
Source: First Things First (2016). [2016 Coordination and Collaboration Survey dataset]. Unpublished data.

Note: The percentages in the pie chart do not add to 100% because of rounding.

System Partners' View of Their Role in the Early Childhood System

The majority of respondents (93%) consider themselves to be a part of the early childhood system in Maricopa County. Although organizations representing each of the key areas of the Early Childhood System responded to the survey, the area best represented was Family Support and Literacy (87%) (Figure 32). This is in accordance with the large percentage of respondents from the Family Support/Social Service sector (Figure 31). Many partners reported engaging with multiple key areas of the Early Childhood System. While only 6% of organizations identified their primary sector as health care, 56% of organizations engaged with child health.

Figure 32. Area(s) of the Early Childhood System That Organizations Engage With (N=63)

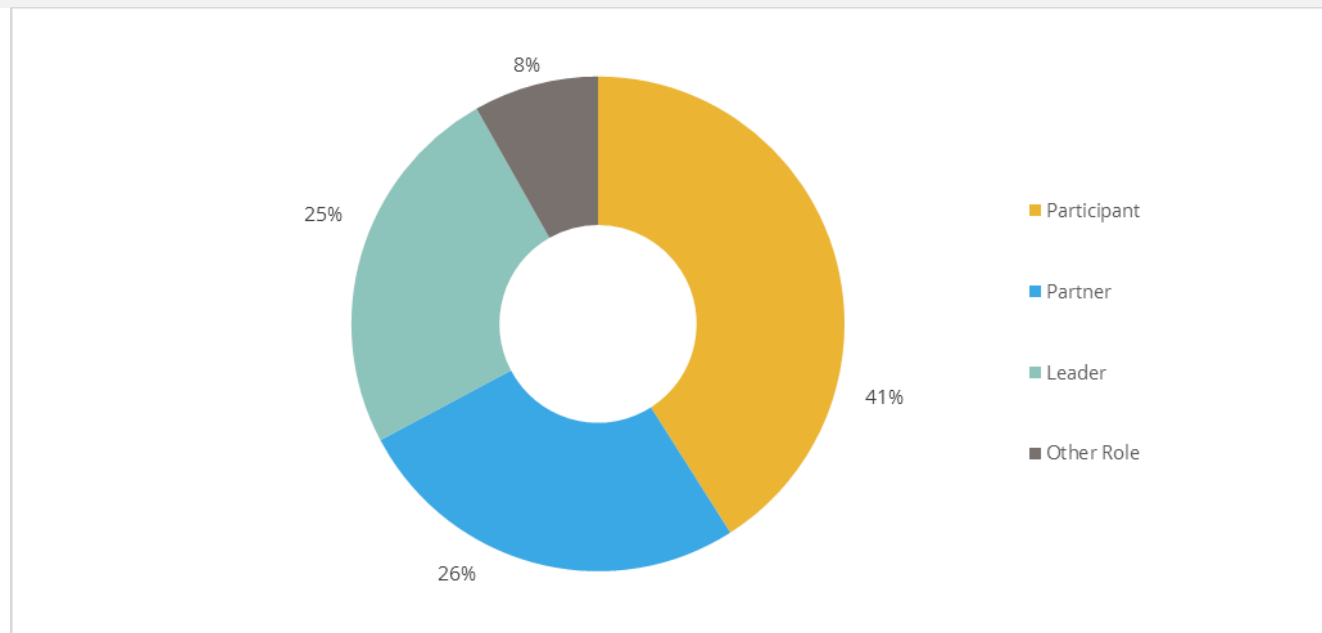


Source: First Things First (2016). [2016 Coordination and Collaboration Survey dataset]. Unpublished data.

Role of an Organization in the Early Childhood System

When asked about their organizations' role in the development and advancement of the Early Childhood System in Maricopa County, the majority of respondents viewed their organization's role as a Participant (41%), i.e., one of many community organizations involved in supporting the Early Childhood System. Nearly equal numbers described their roles as Partner (26%), i.e., part of a group responsible for co-convening and/or facilitation and is one of many community members involved in a community-based initiative and Leader (25%), i.e., taking the lead for convening and facilitating a group of community members. Eight percent of respondents defined their role in the development and advancement of the Early Childhood System as something different from the defined roles of Participant, Partner, Leader (see Figure 33). Respondents falling into "Other Role" category noted they had a very specific role that they played which they could not identify within one of the three roles (e.g., advocacy) or they target specific populations (e.g., low income families or African Americans).

Figure 33. Role of Organization in the Development and Advancement of the Early Childhood System in Maricopa County (N=61)



Source: First Things First (2016). [2016 Coordination and Collaboration Survey dataset]. Unpublished data.

In their roles as Participants, Partners, or Leaders, respondents noted numerous successful partnerships. Organizations that identified their role as that of a Participant described partnering with other groups for staff trainings and presentations, sharing resources put out by other organizations and connecting their clients to the resources of other organizations, using space at other organizations, participating in networks (e.g., Family Resource Network, Early Childhood Network), and participating in special events (e.g., Community Baby Showers).

Organizations that identified their role as that of a Partner also indicated that they participated in trainings hosted by other organizations, had formal memorandums of understanding (MOU), and one created a direct referral system from well child visits to local Family Support Specialists to determine eligibility & subsequently enrollment in Head Start.

Organizations that identified their role as that of a Leader primarily described experiences in alliances and task forces. One organization is working with Department of Child Safety to provide support, resources, and education that better equips parents/caregivers to care for their children and facilitates reunification and prevents removals from the home.

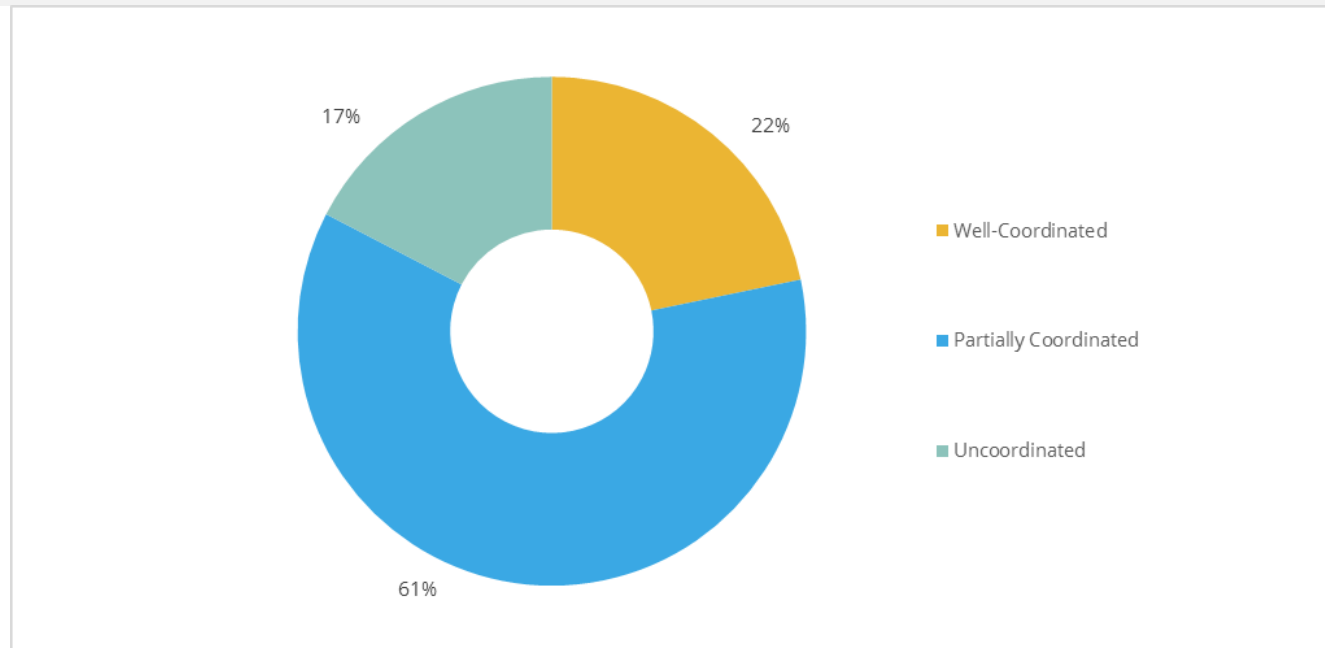
System Partners' Perspective on Systems Building

Respondents were also asked to provide their perspective on the existing early childhood system and systems building. Early childhood systems building is the ongoing process of developing approaches and connections that make all the components of an early childhood system operate as a whole to promote shared results for children and families. In Arizona, early childhood system partners work to promote and establish a seamless, coordinated, and comprehensive array of services that can meet the

multiple and changing needs of young children and families to help ensure that kids arrive at school healthy and ready to succeed.

A majority (61%) of survey respondents described the early childhood system in Maricopa County as a partially coordinated system, with less than a quarter of respondents (22%) describing the system as a well-coordinated system, and 17 percent viewing the early childhood system as a group of separate, uncoordinated system partners working in isolation (Figure 34).

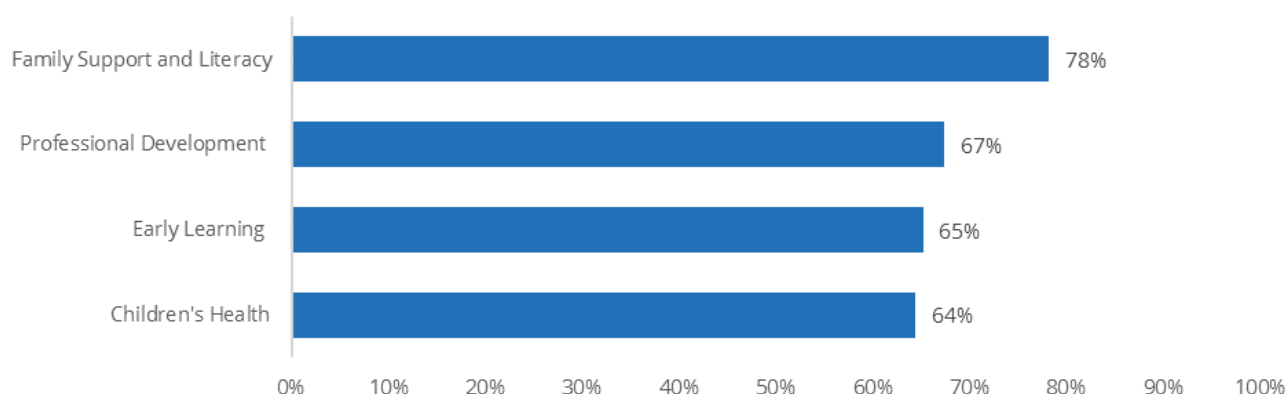
Figure 34. Describe the Early Childhood System in Maricopa County (N=46)



Source: First Things First (2016). [2016 Coordination and Collaboration Survey dataset]. Unpublished data.

With regard to each of the key areas, the majority of respondents reported that the early childhood system in Maricopa County effectively addresses the needs of young children (Figure 35). The percentage was highest in the Family Support and Literacy area (78%), followed by the Professional Development (67%), Early Learning (65%), and Children's Health (64%) areas. It is important to note, however, that in each area many organizations disagreed that the existing Early Childhood System was effectively meeting the needs of young children, suggesting that there is still work to be done and improvements than can be made.

Figure 35. Percent Agreeing That the Early Childhood System in Maricopa County Effectively Addresses the Needs of Young Children and Their Families Across Key Areas (N=46)

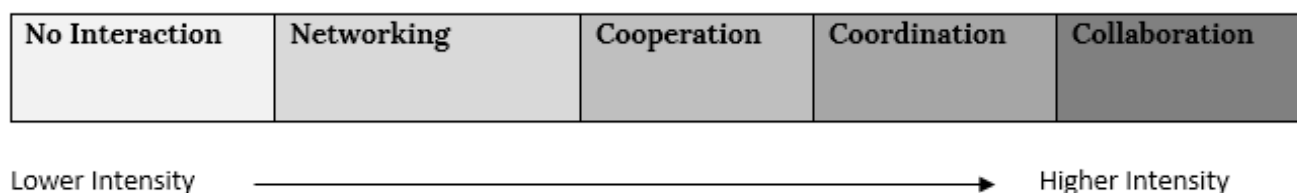


Source: First Things First (2016). [2016 Coordination and Collaboration Survey dataset]. Unpublished data.

Continuum of Collaboration in the Early Childhood System Areas

In order to understand the current system and to track progress, First Things First uses a five-level continuum of collaboration model. The model consists of five levels describing progressively more intensive levels of collaboration: No Interaction, Networking, Cooperation, Coordination and Collaboration (Figure 36).

Figure 36. The Five Levels of the Continuum of Collaboration



These stages, as described by Frey and colleagues,^{xxxii} are:

- **No Interaction:** No interactions occurring at all.
- **Networking:** Activities that result in bringing individuals or organizations together for relationship building and information sharing. Networking results in an increased understanding of the current system of services. There is no effort directed at changing the existing system. There is no risk associated with networking.

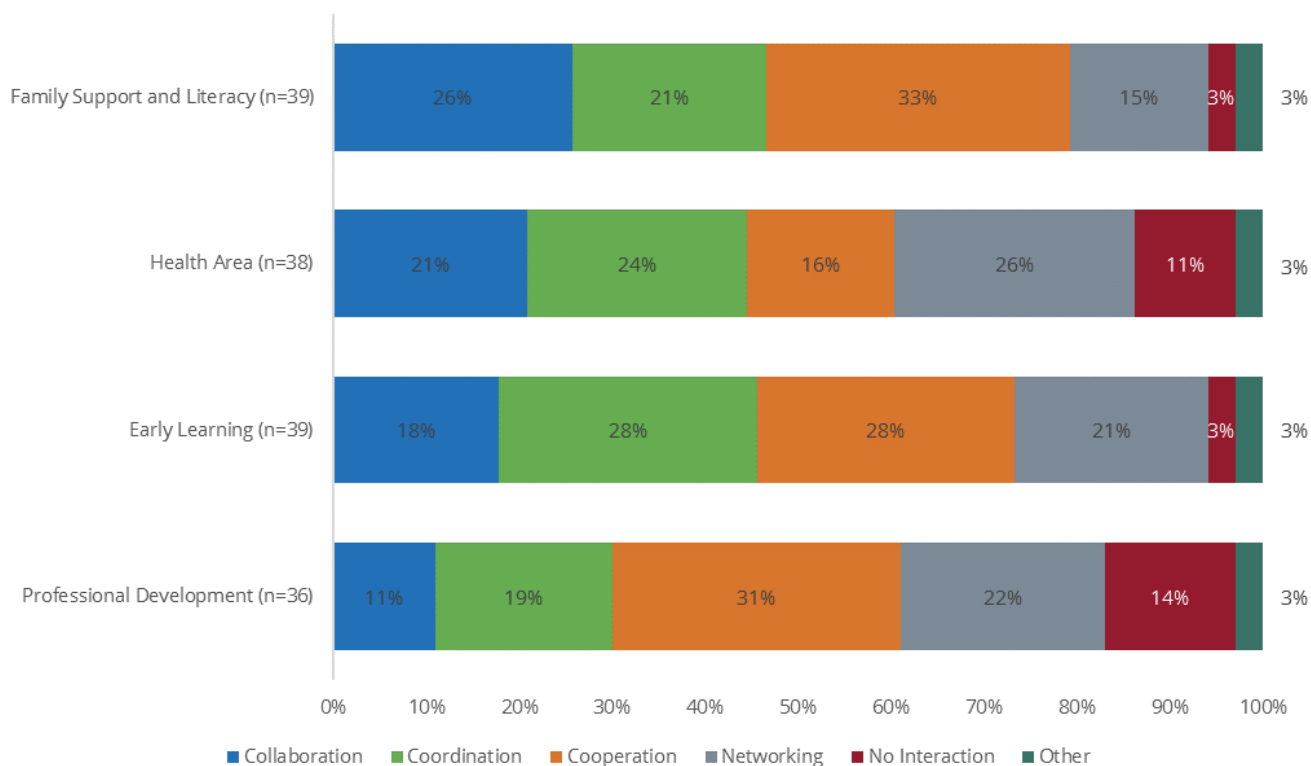
^{xxxii} Frey, B. B., Lohmeier, J. H., Lee, S. W., & Tollefson, N. (2006). Measuring collaboration among grant partners. *American Journal of Evaluation*, 27(3), 383-392.

- *Cooperation*: Characterized by short-term, informal relationships that exist without a clearly defined mission, structure, or planning effort. Cooperative partners share information only about the subject at hand. Each organization retains authority and keeps resources separate. There is very little risk associated with cooperation.
- *Coordination*: Involves more formal relationships in response to an established mission. Coordination involves some planning and division of roles and opens communication channels between organizations. Authority rests with individual organizations, however, risk increases. Resources are made available to participants and rewards are shared.
- *Collaboration*: Collaboration is characterized by a more durable and pervasive relationship. Participants bring separate organizations into a new structure, often with a formal commitment to a common mission. The collaborative structure determines authority and leadership roles. Risk is greater. Partners pool or jointly secure resources, and share the results and rewards.

Respondents were asked to refer to the Continuum of Collaboration and to indicate the level of collaboration that is occurring among partners in Maricopa County for each area of the early childhood system. In the Family Support and Literacy area (33%) and the Professional Development area (31%), the greatest proportion of respondents indicated that they perceived cooperation among system partners; a relationship characterized by short-term, informal relationships that exist without a clearly defined mission. In the area of Early Learning, equal proportions of participants selected Cooperation and Coordination (both at 28%). Coordination, a relationship of relatively high intensity, involves more formal planning and division of roles and opens communication channels between organizations. This is somewhat different from the Children's Health area, where respondents indicated Networking (26%) as the most prevalent mode of relationships between system partners. Networking is a relationship of low intensity, characterized by bringing individuals or organizations together for relationship building and information sharing (Figure 37).

A relatively large percentage of respondents in the Professional Development (14%) and Children's Health areas (11%) indicated that there is no interaction among system partners.

Figure 37. Continuum of Collaboration in the Early Childhood System Areas



Source: First Things First (2016). [2016 Coordination and Collaboration Survey dataset]. Unpublished data.

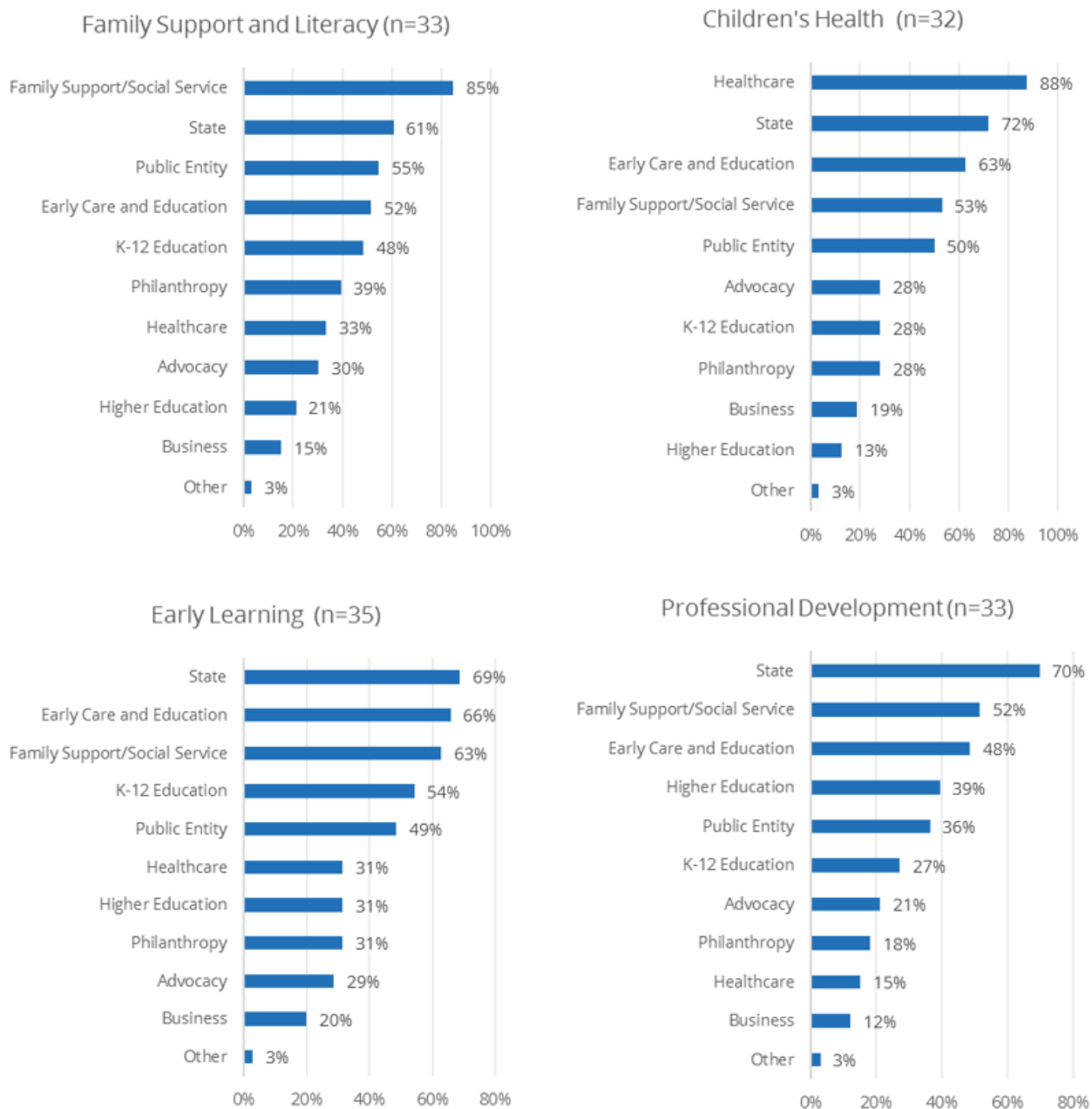
Sectors involved in the Early Childhood System Building

Respondents were also asked to indicate which sectors are involved in systems building within each of the four areas of the Early Childhood System (see Figure 38). In the area of Family Support and Literacy, a majority (85%) of respondents noted the participation of Family Support/ Social Service Agencies in system building work in Maricopa County. Other sectors that the majority of respondents felt were contributing were State Agencies (61%), Local and Public Entities (55%), and Early Care and Education (52%, see Table 2). In the area of Children's Health, respondents indicated that the Health Care/ Medical Sector (88%), followed by State Agencies (72%), and the Early Care and Education (63%) were the most engaged in systems buildings.

In the area of Early Learning, there was less agreement around a primary sector. State Agencies (69%) and Early Care and Education (66%) play large roles, followed by the Family Support and Social Services (63%).

Finally, in the area of Professional Development, most participants (70%) indicated that State Agencies were involved, followed by the Family Support/ Social Services (52%) and Early Care and Education (48%).

Figure 38. Sectors Involved In/Engaged In System Building Work in Maricopa County



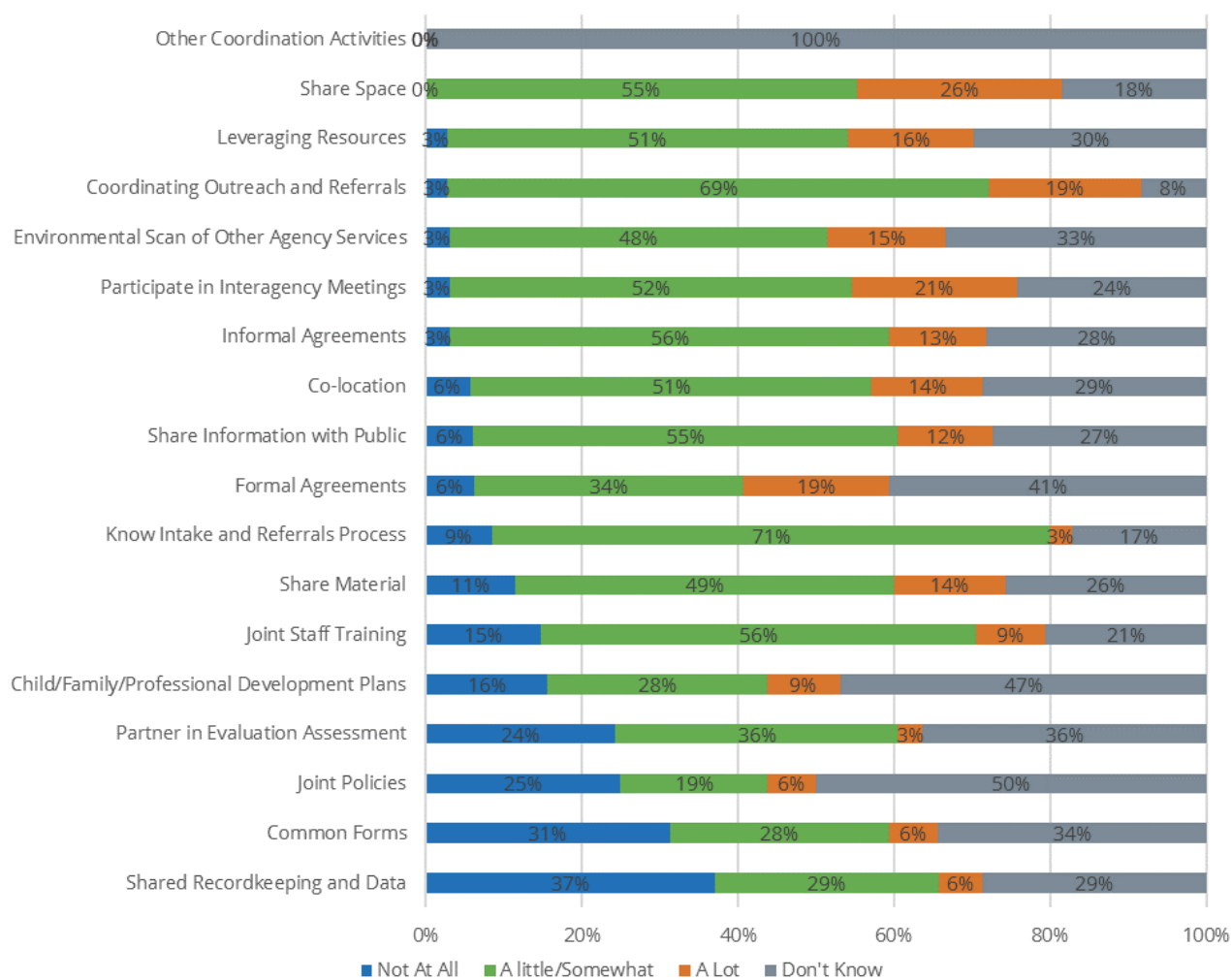
Source: First Things First (2016). [2016 Coordination and Collaboration Survey dataset]. Unpublished data.

The following data reflect questions asking respondents about how frequently key activities were occurring that are known indicators of collaborative work. It should be noted that many (29 or 41%) survey participants opted to not respond to this portion of the survey and that of those who did respond, many indicated that they did not know the answer for many activities.

Based on the answers of those who did respond (n=37), activities that system partners within Family Support and Literacy are using include: sharing facility space in some way, having some knowledge of other program's intake requirements and referral processes, and having some coordination of outreach and referrals (Figure 39). Participation in standing inter-agency committees is another key activity that system partners identified as happening in the county.

When thinking about activities along the continuum of collaboration, the types of activities that respondents indicated are occurring represent networking, cooperation, and coordination type activities within the continuum. Areas where a high number of respondents indicated that the activity was not happening at all (31% to 37%) was in the use of shared forms (e.g. common referral and intake forms) and shared record keeping and management of data information systems. These are key activities that align to a high level of collaboration between system partners and represent opportunities for continued growth for system partners.

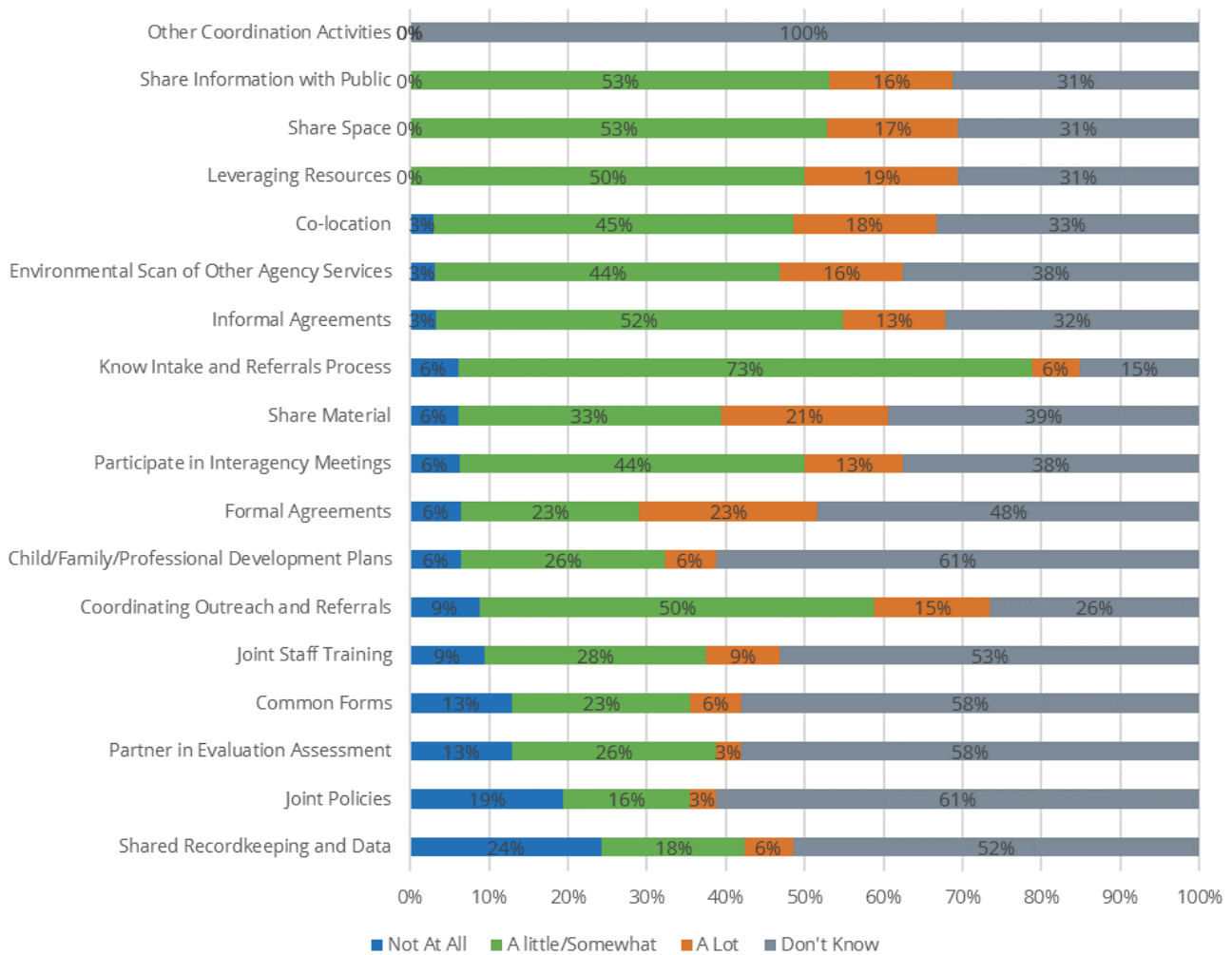
Figure 39. Frequency of Activities: Family Support & Literacy (n=37)



Source First Things First (2016). [2016 Coordination and Collaboration Survey dataset]. Unpublished data.:

Within the Children's Health area, the collaborative activity that greatest number (23%) of respondents saw a lot of use of was formal agreements; however, overall only 23 percent felt formal agreements were used a little/somewhat, and 6 percent felt they were not used at all (Figure 40). The activity that the most respondents felt had at least a little use was organizations having knowledge of other programs' intake requirements/referral process (79%). Areas where numerous respondents indicated a complete absence of activity include shared recordkeeping and data, joint policies, partnerships in program evaluation and/or assessment, and the use of common forms (e.g., intake and/or referral forms). These were also areas where large proportion of respondents indicated that they did not know whether the activity was occurring or not. These activities align to a high level of collaboration between system partners and represent opportunities for of continued growth for system partners.

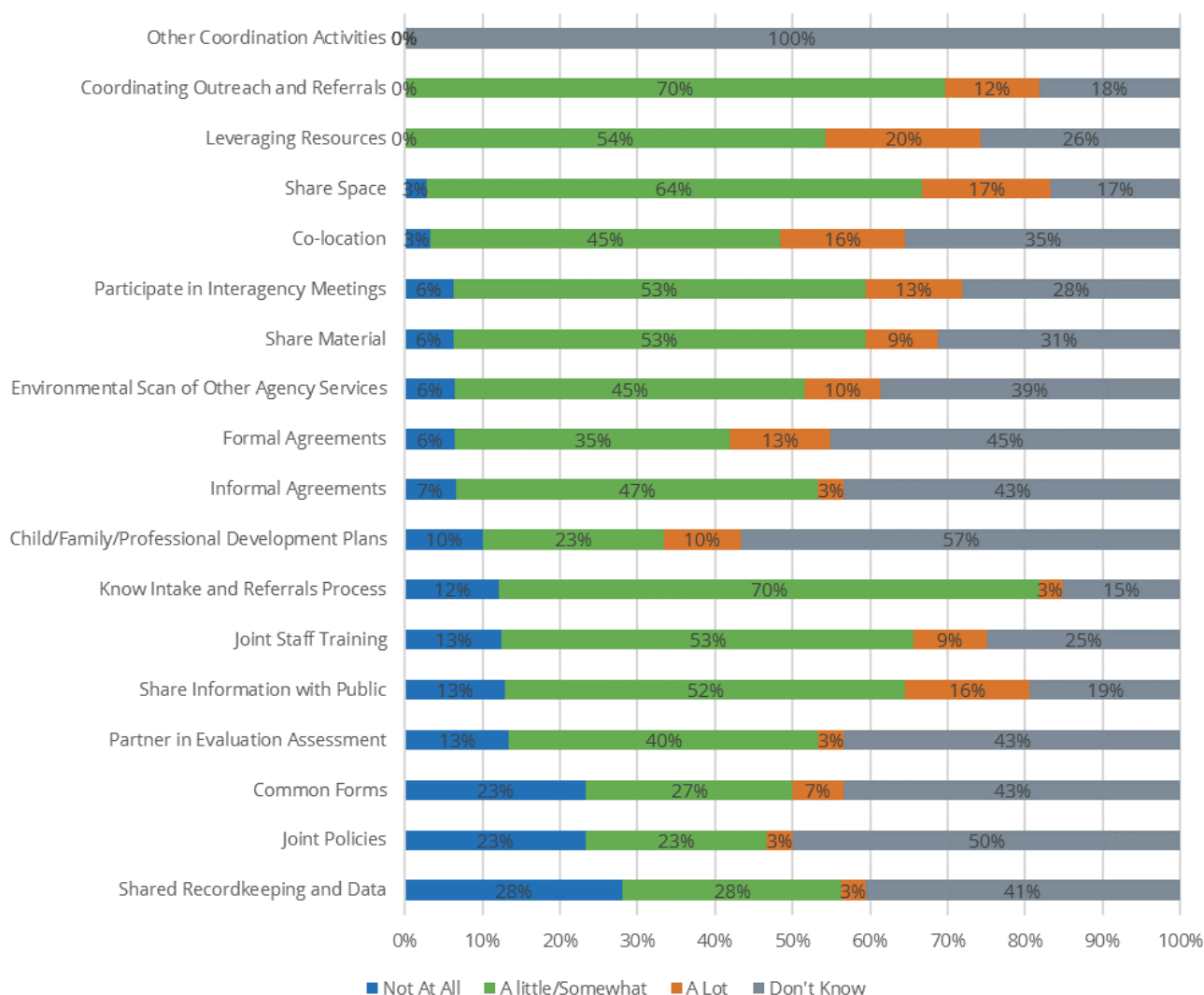
Figure 40. Frequency of Activities: Children's Health (n=36)



Source: First Things First (2016). [2016 Coordination and Collaboration Survey dataset]. Unpublished data.

As with other the other key areas, respondents were more likely to indicate that most activities within the Early Learning area (see Figure 41) were happening a little/somewhat, rather than a lot or not at all. Within the Early Learning area, the activities that the most respondents felt had at least a little use were (1) coordinating outreach and referrals (82%), (2) sharing space (81%), and 3) having knowledge of other programs' intake requirements/referral process (73% - although 12% also felt this activity was not happening at all). Areas where numerous respondents indicated a complete absence of activity include shared recordkeeping and data, joint policies, and the use of common forms (e.g., intake and/or referral forms). These areas were similar to those noted in the Child Health area, suggesting that work to enhance these capacities would benefit system partners in multiple sectors.

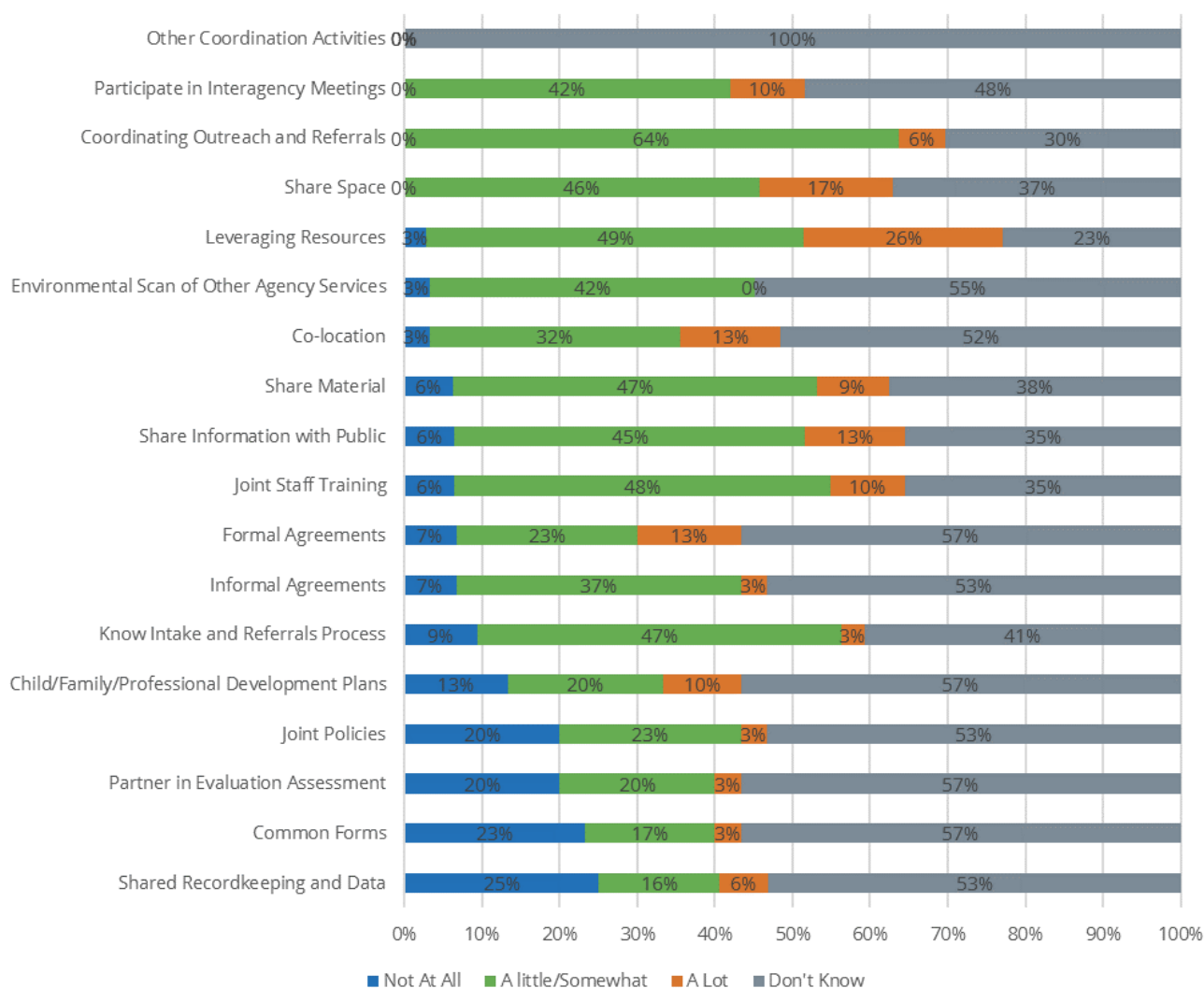
Figure 41. Frequency of Activities: Early Learning (n=35)



Source: First Things First (2016). [2016 Coordination and Collaboration Survey dataset]. Unpublished data.

Collaborative activities that system partners within the Professional Development area are most likely to be engaged in include leveraging resources/funding across partners and coordinating outreach and referrals across agencies. As in the other key areas, most of collaborative activities are used with relatively low frequency, if at all (Figure 42). Activities not in active use among many organizations include: shared recordkeeping and data, use of common forms, partnerships in program evaluation and/or assessment and the existence of joint policies. Again, these areas were similar to those noted in the other areas, suggesting that work to enhance these capacities would benefit system partners across all four key sectors.

Figure 42. Frequency of Activities: Professional Development (n=35)



Source: First Things First (2016). [2016 Coordination and Collaboration Survey dataset]. Unpublished data.

Barriers and Future Directions

Participants were also asked to reflect on barriers in moving the system forward with other Early Childhood System Partners in the East Maricopa Region. Many respondents pointed to a shortage of resources, noting that there is “so much need and resources haven’t matched the need.” The absence of Kids Care (the children’s health insurance program) for many years was one factor, and the issues of costly childcare and waitlists for scholarships and Quality First programs are ongoing issues. Another commonly cited barrier focused on the sheer volume of agencies and activities happening within Maricopa County. Respondents noted issues with duplication of efforts, fragmentation rather than cohesiveness across the different regions, and the climate of competition among grantees. Other

barriers related to human capital issues, such as staff turnover and limited opportunities for professional development for family child care providers and owners and directors of early childhood education facilities. In order to receive part time reimbursement for Quality First scholarships, FTF requires that Quality First participants provide a minimum of 48 hours of dosage per month. One respondent noted that the implementation of this 48 hour requirement in public education settings would be a major barrier to providing services going forward. One other concern raised was that services across the region were excessively targeted to certain ZIP codes, “which means we are missing a large demographic of people who are not affluent enough to pay for early learning programming for their child and not impoverished enough to receive services for free and or in their area.... When we are limited to providing services only in the high need areas many times we are not reaching all families who could use these services.”

Survey participants were then asked to reflect on the role of FTF Regional Partnership Councils (RPC) in supporting early childhood system building and collaboration efforts in the county. Noted contributions of the RPC included funding (including funding for Read On communities), providing leadership for the early childhood service community, and participating in the Read On Initiatives in Chandler, Tempe and Scottsdale.

Participants were also asked to provide suggestions for how the Regional Partnership Councils (these responses were not available at the regional level) can improve support of early childhood system building and partner collaboration efforts in Maricopa County. The most common suggestion focused on ways of increasing communication and coordination across both the FTF RPCs and agencies across the county. Concerns around duplication of effort, the complexities created when families move into a different region (“Even when strategies are the same, the programs funded may be different with different requirements (i.e. Home Visitation). This interrupts the “system” because it isn’t truly a system once families cross into a new council region.”), and competition for funding stymying support for collaboration (“organizations are competing against each other to obtain funding from FTF rather than finding a way to work together to serve families”) were raised. Respondents also felt there should be more possibilities to replicate successful strategies and share funding strategies across regions, and it was felt that the FTF RPCs could take a leadership role in orchestrating this coordination and collaboration.

Additional ideas for ways that the RPC could support early childhood system building and partner collaboration efforts in Maricopa County included:

- Focus on strategic plans. Specifically, convene strategic planning sessions with local stakeholders to get broader perspectives and invigorated approaches
 - Establish deliberate guidelines for all recipients of FTF funding, i.e. skills and knowledge for ECD professionals; what collaboration will encompass; expectations and avenues to accomplish them
- More listening sessions; more input from families/communities - particularly those of high need
- Greater commitment to serving the African American community
- More interaction with grantees (e.g., site visits, volunteering at events)
- Facilitate networking (e.g., introduce grantees to each other and to church groups/schools/businesses, as appropriate)

- Promote and encourage participation in the Early Childhood system among business and agencies outside the existing grantee agencies, especially among those organizations that are not traditionally involved in the system
- Encourage and facilitate partnerships between these organizations and FTF grantees
- More resources, more staff, and more support from state leaders
- Recognize the value in the school districts extending into early learning by creating policies that strengthen the ability of districts to support our youngest students

Current System Coordination Efforts

While the survey results demonstrate that there is still work to be done to improve the early childhood system in Maricopa County, the FTF Regional Councils in Maricopa County have come together to increase and coordinate resources and supports available to families and providers. The regions throughout Maricopa County fund a variety of countywide initiatives to enhance the early childhood system, including:

- *FindHelpPhoenix*
Maricopa County Department of Public Health created FindHelpPhx.org and its Spanish partner site EncuentraAyudaPhx.org, as an easy-to-use, bilingual, mobile friendly website that empowers residents of Maricopa County to find the help they need for themselves. FindHelpPhx (EncuentraAyudaPhx) lists approximately 2,000 low-cost and free healthcare and social service resources including mental health, housing, parenting, and food/clothing services. With only two “clicks” (“touches” for mobile users), visitors are able to locate a specific resource, displaying an easy-to-read description of the organization, its services, cost, eligibility requirements and directions to the point of service. New resources are added routinely and verified annually for accuracy.
- *Family Resource Network*
Established in 2011, the Family Resource Network is a collaboration of more than 35 Family Resource Centers working together to supply parents and caregivers with referrals to connect them with community resources and provide them with the tools they need to support the learning and healthy development of their young children. The objectives of the Network are as follows: increase awareness and availability of services for families and children; improve service delivery to adequately address the needs of families; build capacity throughout the regions to deliver highly effective and efficient family resource centers services; share expertise and training resources; and foster a learning community across community organizations, health clinics, public entities and other groups. The long-term goal of the Network is that all families in Arizona have access to the resources and information they need to support their child’s health, development, and education.
- *First Teeth First*
First Teeth First is a countywide initiative designed to provide best practice approaches that enhance the oral health status of young children through the prevention of tooth decay, reduction of the prevalence of early childhood tooth decay, and the elimination of the associated risks for pain and infections that can lead to lifelong complications for health and wellbeing. Maricopa County’s Office of Oral Health, in partnership with Dignity Health, administers First Teeth First. Services provided through this program include: oral health

screenings, fluoride varnish applications, education and referrals for children 0 through 5 years of age and pregnant women. The program provides services at Women, Infant and Children (WIC) clinics, Immunization clinics, child care centers, preschools and community events. The program also offers professional development and outreach to medical and dental providers to increase awareness and services for young children.

- *Parent Partners Plus*

Southwest Human Development's Parent Partners Plus program is a coordinated referral system that provides families with a single entry point to access home visitation programs. Parent Partners Plus is also responsible for assessing families' needs and referring them to the most appropriate program. The coordinated referral system simplifies and streamlines the referral process for families and for home visitation providers. The coordinated referral also provides a feedback loop for referring agencies and assists, as needed, with linking families to ancillary family support services. This single system that processes referrals increases coordination among programs, limits duplication of services, and improves the utilization of available resources. All home visitation providers in Maricopa County, representing 14 organizations, as well as other social service providers, participate in this system and also work together to coordinate marketing, outreach and recruitment.

SUMMARY AND CONCLUSIONS

Assets

This Needs and Assets Report is the sixth biennial assessment of the challenges and opportunities facing children birth to age 5 and their families in the First Things First East Maricopa Region. In addition to providing an overview of the region, this report looks more closely at some of the community-level variation within it.

It is clear that the region has substantial strengths. We base this conclusion on the quantitative data reported here. A summary of identified regional assets is included below.

Population Characteristics

About two-thirds of young children live in two-parent households.

About 13 percent of residents speak multiple languages proficiently.

In the Fort McDowell Yavapai Nation community, a native language is the second most common language spoken among residents age 5 and older (17%), representing an asset for cultural preservation and strengthening children's sense of identity.

Economic Characteristics

Lower rates of poverty for both the total population (11%) and young children (17%) in the East Maricopa Region than in Arizona as a whole (18%, 29%).

Unemployment rates in the Region's cities and towns are historically lower than the statewide or county rates (with the exception of the town of Guadalupe).

Educational Indicators

The proportions of third-grade students passing the AzMERIT Math and English Language Arts Assessments were higher than those of the state; 55% passed math and 57% passed ELA in the region.

Several school districts (Paradise Valley, Cave Creek, and Chandler) have four-year graduation rates at or above 90%.

The East Maricopa Region has high human capital with regard to the proportion of adults holding bachelor's degrees (46%), relative to the rest of the state (27%).

Relatively more adults (ages 25 and up) in the East Maricopa Region (78%) than in the state (61%) have at least some education beyond the high-school level.

Early Learning

It is estimated that about half (52%) of children ages 3 and 4 are enrolled in school.

There are 74 providers participating in the Quality First program, of which 36 have a 3-star rating or higher.

Pre-kindergarten in Arizona Department of Education (ADE) schools serves many children with special-education needs.

Arizona Early Intervention Program (AzEIP) served nearly twice as many children in 2015 (965) as it did in years prior, providing an important benefit to young children at risk for developmental delay.

Child Health

The vast majority of young children (93%) have health insurance (although rates in some communities are much lower).

The majority (86%) of babies are born to mothers who received at least 9 prenatal care visits.

Mothers giving birth in the East Maricopa Region are much more likely to be college-educated (48%) than in the state (23%).

Premature births declined between 2009 and 2013 (though did increase again slightly in 2014), and most babies are born at a healthy weight.

Family Support and Literacy

10 domestic violence shelters exist in Maricopa County to serve women and families in need.

Read On communities of Chandler, Tempe, and Scottsdale are working to increase parent awareness of the importance of early literacy, expanding early literacy initiatives, and increasing access to quality early literacy experiences and environments.

Communication, Public Information and Awareness

An estimated 73 percent of survey respondents in the East Maricopa Region reported being very or somewhat satisfied with the availability of information and resources pertaining to child development and child health.

An estimated 72 percent of survey respondents in the East Maricopa Region agreed that it is easy to locate needed or wanted services.

In fiscal years 2014 to 2016, there were 2,057 friends, 354 supporters, and 39 champions.

System Coordination among Early Childhood Programs and Services

A large majority (83%) of partners in the Maricopa County early childhood system felt that the system functioned in a coordinated way.

In the areas of Family Support and Literacy and Early Learning, over 90% of respondents reported that partners in Maricopa County are engaged in some level of collaborative activities.

Challenges

Despite these regional assets, there continue to be challenges to fully serving the needs of families with young children throughout the region. It is particularly important to recognize that there is considerable variability in the needs of families across the region. The landscape of available services looks quite different for children growing up in Paradise Valley and Guadalupe, for example.

Many of these needs have been recognized as ongoing issues by the East Maricopa Regional Partnership Council and are being addressed by current First Things First-supported strategies in the region. These needs include:

- A need for **affordable, high quality and accessible child care** – The capacity of early care and education slots available compared to the number of young children in the region point to a shortage of affordable and accessible early care and learning opportunities in the region. Families in East Maricopa are paying 13-17 percent of their income, depending on the child's age, for a child care slot; this exceeds the recommended 10 percent of annual income. Continued regional investment in Quality First Scholarships, Quality First, Professional Development for Early Childhood Professionals, and Child Care Health Consultation strategies may help address this issue, especially with a focus toward communities with the greatest need for early care and education providers.
- A need for additional **resources for children with special needs** –Quantitative data on early intervention referrals and numbers served point to the need for additional resources for children with developmental, behavioral, and physical health care needs. Early intervention can not only improve the developmental trajectory of individual children, but it can also reduce burdens on school districts by decreasing the need for special education services once children reach school age. The East Maricopa Regional Partnership Council has recognized this need and is supporting Mental Health Consultation and Care Coordination as strategies.
- A need for facilities, policies, and activities that **promote healthy lifestyles**. Obesity is an issue for both child and adult populations in the East Maricopa Region.
- A need to ensure high levels of **vaccine coverage**. East Maricopa has above-average rates of parents filing for personal and religious exemptions to policies requiring vaccinations. Research shows that higher exemption rates from vaccines at the school-level have been associated with school-based outbreaks of preventable diseases such as measles and pertussis.
- A need for enhanced **collaboration across the different programs** working within the region and the many Maricopa-based regions. Participants in the Coordination and Collaboration Survey raised concerns around duplication of effort, the complexities created when families move into a different region, and competition for funding stymying support for collaboration.

Population Characteristics

Relatively high percentage of children in the Carefree area are living with one parent (67%), compared to the East Maricopa Region (29%) or state (38%).

Relatively high percentages of children (ages 0-17) living with a responsible grandparent with no parent present in Cave Creek (45%) and Rio Verde-Fort McDowell-Goldfield Ranch (32%), and Ahwatukee (28%) areas, compared to the East Maricopa Region (18%) or state (14%). These families may have unique needs for support.

Relatively high percentages of the population (ages 5 and up) do not speak English very well in the Guadalupe (10%) and Tempe (8%) areas, compared to the East Maricopa Region (5%), creating a need for service providers with the ability to serve clients in languages other than English.

Economic Characteristics

Much of the Region is affluent, but there are several neighborhoods in which families with young children have greater need (including South Scottsdale, Guadalupe, downtown Chandler, central Tempe, and Fort McDowell); lower incomes, lack of transportation, language barriers, and greater frequency of moving from one place to another.

There have been sharp declines in the numbers of children participating in the TANF program. These decreases are more likely because of policy changes which have reduced eligibility—not because of any decrease in need.

Over half of families in the region with children younger than 5 live below 185 percent of the Federal Poverty Level (FPL) in Guadalupe, Fort McDowell, and Tempe.

In the Rio Verde-Fort McDowell-Goldfield Ranch and Fort McDowell sub-regions, over half of children live in families where no parents are in the labor force.

A quarter of children are food insecure in the county, and over two-thirds of children are likely eligible for nutrition assistance, but rates of enrollment in nutrition assistance programs (e.g., WIC, school meal programs) are not nearly that high for young children.

Unemployment in Guadalupe is nearly twice as high as elsewhere in Maricopa County.

Across the region, about 21 percent of people had moved from one place to another in the prior year. Mobility across regional, county, and state boundaries can make continuity of services challenging.

Educational Indicators

Over a quarter of students in grades 1-3 were chronically absent in all the East Maricopa districts, and in most districts chronic absenteeism worsened between 2014 and 2015.

In 2015, the drop-out rate in East Maricopa schools doubled from prior years, and was higher than the rate across the state.

The 29 charter schools in the region appear to have the greatest problems with student drop-out and graduation.

Early Learning

The cost of child care in Maricopa County tends to be higher than in the rest of the state, especially for infants and toddlers, according to the Child Care Resource & Referral survey.

The cost of childcare for one child surpasses the Department of Health and Human Services' recommended threshold of 10% of a family's income (based on median income and median child care costs).

There are many more children ages 0 to 5 than there are available child care slots.

There are waitlists for scholarships and Quality First programs, limiting the reach of high-quality early education.

About 4 percent of children in the region received early intervention services whereas research suggests that 13 percent of children likely have special needs. Thus, a large number of children in the region may have special needs but do not receive services.

Child Health

Several communities (i.e., Chandler Central, Tempe North, and South Mountain Village & Guadalupe) have relatively few health care providers given their population.

Rates of pre-pregnancy obesity—which can be associated with problems during pregnancy and birth—have been rising among women in the East Maricopa Region, according to data from the WIC program

Breastfeeding rates among WIC mothers in the Region are well under the Healthy People 2020 target of 81.9%.

Relatively high exemption rates for vaccination in the East Maricopa Region (6.1% in childcare, 6.4% in kindergarten), compared to the state (4.0% in childcare, 4.8% in kindergarten).

Childhood obesity rates in East Maricopa have consistently been slightly higher than the rate across the state and have not met the Healthy People 2020 goal of no more than 9.4% of children having obesity.

Family Support and Literacy

The decreases in mothers and children receiving behavioral health services have been greater in the Region (down 32% for mothers, down 19% for children) than in the state (down 24% for mothers, up 10% for children).

Less than one percent of young children in poverty in the East Maricopa Region (compared to about 9.5 percent of young children in poverty receiving services statewide) received behavioral health services in 2015. It is estimated that about 13 percent of low-income children aged 6 to 11 years old covered by Medicaid have mental health problems, suggesting that there may be an unmet need for services.^{xxxiii}

System Coordination among Early Childhood Programs and Services

About 17 percent of partners surveyed about the early childhood system in Maricopa County reported that the system was a collection of isolated, uncoordinated, separate entities.

Partners perceive a shortage of resources that limits their ability to meet client needs.

Given the sheer volume of agencies and activities happening within Maricopa County, there are concerns about duplication of efforts, fragmentation rather than cohesiveness across the different regions, and the climate of competition among grantees.

Successfully addressing the needs outlined in this report will require the continued concentrated effort of collaboration among First Things First and other state agencies, the East Maricopa Regional Partnership Council, local providers, and other community stakeholders in the region. Although there are many challenges for families, leveraging unique opportunities for community collaboration, resource-sharing, and collective impact through both funded and unfunded strategies can help support the health, welfare, and development of the diverse families and young children of the East Maricopa Region.

^{xxxiii} Howell, E. (2004). *Access to Children's Mental Health Services under Medicaid and SCHIP*. Washington, DC: Urban Institute.

Regional Strategies

East Maricopa Regional Partnership Council Planned Strategies for Fiscal Year 2017

Strategy	Strategy description
Child Care Health Consultation	The intent of this evidence based strategy is to provide statewide health and safety consultation specific to early care and education settings for children birth to age 5. The expected results are improved overall quality of care, reduced illness, and increased school readiness by supporting best practices that increase provider knowledge and promote behavior change, policy development and improvements in program environments.
Mental Health Consultation	<p>The intent of this evidence informed strategy is to build the skills and capacity of early childhood education professionals to interact with children and their families. The expected result is the prevention, early identification, and reduction of challenging classroom behaviors and improved teacher skills. Further expected results are a decrease in negative outcomes for children, such as expulsion from preschool programs.</p> <p>Consultants are mental health professionals with expertise in children's social and emotional development working with early care and education providers. They engage in activities that promote enhanced early childhood practices and problem-solving through collaborative relationships with staff that interact with families and children. One primary focus is working within licensed child care centers or homes; however, services can also be provided to home visitation programs and contribute to professional development for family friend and neighbor (FFN) programs. Whether these expanded services are provided depends on strategy decisions made by a First Things First (FTF) Regional Partnership Council.</p>
Quality First Scholarships	The intent of this promising practice strategy is to provide financial support through scholarships for children to attend quality early care and education programs in order to assist low income families (200% of Federal Poverty Level and below) to afford a quality early care and education setting. The expected result is that more children will receive quality early childhood programs and services that will impact their learning and development and promote readiness for kindergarten.
Professional Development for Early Childhood Professionals	The intent of this evidence informed strategy is to provide high quality professional development for those that teach and care for young children. Implementation of this strategy must include both theory/topic presentation and theory into practice/practical application. The expected results of the implementation of this strategy include: participants increasing their knowledge base of early childhood and changing their practice in supporting young children's development and learning; and, participants receiving higher education credit for these learning opportunities that will articulate into a degree or certificate program.
Home Visitation	The intent of this evidence based strategy is to provide personalized support for families with young children, particularly as part of a comprehensive and coordinated system. Services may include developmental screenings, weekly home visits, linking families with needed community-based services, and advocacy and support services that empower families. Expected results that are common to home visitation programs include: improved child health and development, increase in children's school readiness, enhancement of parents' abilities to support their children's development; decreased incidence of child maltreatment; and improved family economic self-sufficiency and stability (US Department of Health and Human Services, 2014).
Parenting Education	The intent of this evidence based strategy is to offer learning activities designed to increase the knowledge and skills and promote positive parenting practices for parents and caregivers that result in enhanced child health and development when utilized by parents and caregivers. The expected results of effective parenting education programs are increased parental knowledge of child development and parenting skills, improved parent and child interactions, and more effective parental monitoring and guidance, decreased rates of child maltreatment, and better physical, cognitive and emotional development in children (Lundahl, Nimer & Parsons, 2012).
Parenting Outreach and Awareness	The intent of this promising practice strategy is to increase families' awareness of positive parenting; child development including health, nutrition, early learning and language acquisition; and, knowledge of available services and supports to support their child's overall development. The expected result is an increase in knowledge and a change in specific behaviors addressed through the information and activities provided.
Family Resource Centers	The intent of this promising practice strategy is to provide a community hub for connecting families with children birth to age 5 to the information, resources, and services they need to support their child's optimal health and development. The expected results are improved parenting skills and social supports for families; increased knowledge of child development; and support for their child's school readiness.

Oral Health	The intent of this evidence-based strategy is to provide best practice approaches that enhance the oral health status of children birth through age 5. The expected results are prevention of tooth decay and reduction in the prevalence of early childhood tooth decay and the associated risks for pain and infections that can lead to lifelong complications to health and wellbeing. The approaches for this strategy include: oral health screening for children and expectant mothers with referrals to oral health providers for follow up care as needed; fluoride varnishes for children; oral health education for families and other caregivers; and, outreach to families, other caregivers including early learning and care providers, and oral health and medical professionals.
Care Coordination/Medical Home	The intent of the evidence-based Care Coordination/Medical Home strategy is to embed a care coordinator into a clinical practice to assist at-risk families with young children to navigate the complex health care and social service systems. The expected result of effective care coordination is that children receive well child visits, the services that they need, and that they use services efficiently to avoid duplication and unnecessary stress on their families. An important component of care coordination is its association with a medical clinic that is designated as a “medical home” for the child and their family.
Quality First	Quality First – a signature program of First Things First – partners with regulated early childhood providers to make quality improvements that research proves help children birth to 5 thrive, such as education for teachers to expand their expertise in working with young children. It also supports parents with information about what to look for in quality early childhood programs that goes beyond health and safety to include a nurturing environment that supports their child's learning. Quality First includes multiple components to support early care and education program quality improvement, including: valid and reliable program assessment, on-site technical assistance, and financial incentives. The Quality First Academy is included to support the assessors and technical assistance providers in their work with program staff.

Source: First Thing First. SFY2017 Regional Funding Plan. East Maricopa Regional Partnership Council.

Methods and Data Sources

Data Sources

The data contained in this report come from a variety of sources. Some data were provided to First Things First by state agencies, such as the Arizona Department of Economic Security (DES), the Arizona Department of Education (ADE), and the Arizona Department of Health Services (ADHS). Other data were obtained from publically available sources, including the 2010 U.S. Census, the American Community Survey (ACS), the Arizona Department of Administration (ADOA), and the Arizona Health Care Cost Containment System (AHCCCS). In addition, regional data from the 2012 First Things first Family and Community Survey (FCS) are included.

U.S. Census and American Community Survey Data

The U.S. Census¹⁸⁶ is an enumeration of the population of the United States. It is conducted every ten years, and includes information about housing, race, and ethnicity. The 2010 U.S. Census data are available by census block. There are about 115,000 inhabited blocks in Arizona, with an average population of 56 people each. The Census data for the East Maricopa Region presented in this report were calculated by identifying each block in the region, and aggregating the data over all of those 10,904 blocks. (Blocks with zero population were ignored.) Note that the Census 2010 data in the current report may vary to a small degree from census data reported in previous Needs & Assets reports. The reason is that in the previous reports, the Census 2010 data were aggregated by zip code; the current report uses aggregation by census blocks, which is more precise.

The American Community Survey¹⁸⁷ is a survey conducted by the U.S. Census Bureau each month by mail, telephone, and face-to-face interviews. It covers many different topics, including income, language, education, employment, and housing. The ACS data are available by zip code tabulation area (ZCTA). There are 406 ZCTAs in the state of Arizona, with an average population of about 15,750 each.

The ACS data for the East Maricopa Region were calculated by aggregating over the 34 ZCTAs which are wholly (19) or partially (15) contained in the region. The data from partial ZCTAs were apportioned according to the percentage of the 2010 Census population in that tract living inside the East Maricopa Region. The data included in this report are most recent and most reliable ACS data available; they have been averaged over the past five years, from surveys conducted between 2010 to 2014. In general, the reliability of ACS estimates is greater for more populated areas. Statewide estimates, for example, are more reliable than county-level estimates. For sub-region data, estimates based on a sample of fewer than 50 were excluded from the report.

Data Suppression

Data which are obtained from state agencies are subject to the First Things First Data Dissemination and Suppression Guidelines to protect the confidentiality of program participants. These guidelines preclude our reporting social service and early education programming data if the count is less than ten, and preclude our reporting data related to health or developmental delay if the count is less than twenty-five. In addition, some data received from state agencies may be suppressed according to guidelines set by that agency. The Arizona Department of Health Services, for example, does not report counts less than six. Throughout this report, information which is not available because of suppression guidelines will be indicated by entries of “<10” or “<25” for counts or “DS” for percentages in the data tables.

For some data, an exact number was not available because it was the sum of several numbers provided by a state agency, and some numbers were suppressed in accordance with agency guidelines. In these cases, a range of possible numbers is provided, where the true number lies within that range. For example, for data from the sum of a suppressed number of children ages 0-12 months, 13 children ages 13-24 months, and 12 children ages 25-35 months, the entry in the table would read “26 to 34.” This is because the suppressed number of children ages 0-12 months is between one and nine, so the possible range of values is the sum of the two known numbers plus one to the sum of the two known numbers plus nine. Ranges that include numbers below the suppression threshold of less than ten or twenty-five may still be included if the upper limit of the range is above ten or twenty-five. Since a range is provided rather than an exact number, the confidentiality of program participants is preserved.

Reporting Data over Time

To show changes over time, a percent change between two years is sometimes reported to show the relative increase or decrease during that period. Percent change between two years is calculated using the following formula:

$$\text{Percent change} = [(\text{Number in year 2}) - (\text{Number in year 1})] \div (\text{Number in year 1})$$

School District Data

A number of educational indicators were included in this report based on data received from ADE at the school level. These data were then aggregated by region (e.g., the sum of all students in special education preschool in the region) and by regional portions of districts (e.g., the sum all students in special education preschool in a particular school district in the region) as well as by the county and state. Since ADE school districts do not follow FTF regional boundaries, district data may not represent the school district as a whole but rather the portion of that district which falls within a given region.

School districts that cross regional boundaries can be identified in Figure 12. For these districts, only the data for schools within the regional boundaries was included in the district calculation. Data for charter schools were aggregated to a single number for all charter school located within the region.

Child Care Capacity Calculations

One key indicator used in this report is the overall childcare and early education capacity in the region. This measure was calculated by summing the childcare and early education slots available in the region. However, some child care and early education providers may appear in multiple data source (for example, a provider may be listed with both Quality First and the Child Care Resource and Referral guide). To avoid duplication of providers, a table with exclusive columns proceeding from left to right was created. Since high quality early education is a priority in the region, the number and capacity of Quality First providers has been included as the first category of provider. Each column from left to right excludes any provider already accounted for in a preceding column. Thus, the Head Start column counts all Head Start centers that are not Quality First providers (since all Quality First-enrolled Head Starts were counted in the Quality First column). The Public School provider column similarly excludes all Head Start centers operating in public schools and all Quality First-enrolled public school early care programs. The Other Child Care provider column provides the balance of child care and preschool providers that are listed in the Child Care Resource and Referral (CCRR) guide that are not Quality First providers, Head Start centers, or Public School providers. Unlicensed or unregulated care providers could not be included in calculations of child care capacity as information on the location and capacity of these providers is not collected in a systematic way at a county or state level.

Child care and early education sites were assigned to regions by loading them into a GIS. Locations were determined using latitude and longitude pairs where available or addresses. Locations for tribal and rural communities where addresses may be less than accurate were corrected using satellite imagery and local knowledge. For centers from the CCRR dataset, centers were located through address geocoding using the Google Maps platform. Once the centers were loaded in the GIS, they were assigned to region and subregion using the ArcGIS Identity tool and a set of sub-regional shapefiles, regional shapefiles, and county shapefiles. These centers were then summed by region, sub-region, county, and state.

2018 Report Process

In the fall of 2016, a participatory Data Interpretation Session was held to review preliminary results of the data received, compiled and analyzed as of June 2016. Regional Partnership Council members and other participating key stakeholders were involved in facilitated discussion to allow them to share their local knowledge and perspective in interpreting the available data. On October 19, 2016, a participatory Data Interpretation Session was held in Scottsdale to review preliminary results of the data received, compiled and analyzed as of June 2016. Regional Partnership Council members and other participating key stakeholders were involved in facilitated discussion to allow them to share their local knowledge and perspective in interpreting the available data.

Additional Methodology^{xxxiv}

Oral Health Survey Methodology

The *Healthy Smiles Healthy Bodies Survey* was designed to obtain information on the prevalence and severity of tooth decay among Arizona's kindergarten children.^{xxxv} In addition, the survey collected information on behavioral and demographic characteristics associated with this condition. *Healthy Smiles Healthy Bodies* included the following primary components – (1) a dental screening and (2) an optional parent/caregiver questionnaire. During the 2014–2015 school year, *Healthy Smiles Healthy Bodies* collected information from children at 84 non-reservation district and charter schools throughout Arizona.^{xxxvi} A total of 3,630 kindergarten children in Arizona received a dental screening. In the five Maricopa regions, 292 children received a dental screening.

Sampling

Healthy Smiles Healthy Bodies sampled children in kindergarten and third grade. District and charter elementary schools with at least 20 children in kindergarten were included in the sampling frame. The following were excluded from the sampling frame: (1) alternative, detention, and state schools for the deaf and the blind plus (2) schools located in tribal communities (based on the Arizona Department of Health Services list of tribal communities). To ensure a representative sample from every county and FTF region, the sampling frame was initially stratified by county. Where a county included more than one FTF region (Maricopa and Pima), the sampling frame was further stratified by FTF region. This resulted in 21 sampling strata; 13 county-level strata, 2 FTF strata within Pima County, and 6 FTF strata within Maricopa County. Within each stratum, schools were ordered by their National School Lunch Program (NSLP) participation rate. A systematic probability proportional to size sampling scheme was used to select a sample of five schools per stratum.^{xxxvii} Three counties (Apache, Greenlee, and La Paz) had fewer than five schools in the sampling frame. For these counties, all schools in the sampling frame were asked to participate. If a selected school did not have kindergarten or third grade, the appropriate feeder school was added to the sample. A systematic sampling scheme was used to select 99 schools. Of these, five did not have kindergarten or third grade so five feeder schools were added to the sample resulting in 104 schools representing 99 sampling intervals, of which 84 agreed to participate.

Survey Limitations

Although the original sample was representative of the state, not all schools participated, which may bias the results. The percentage of children eligible for the NSLP was 58% for schools in the sampling frame but was 72% for schools that participated, suggesting that lower income schools were more likely to participate. Given that lower income children have more disease; this survey may overestimate the prevalence of disease in the non-tribal communities in the state. Another limitation

^{xxxiv} This section was supplied by First Things First.

^{xxxv} Using another funding source, ADHS expanded data collection to include third-grade children but that information is not included in this report.

^{xxxvi} Schools serving children with special needs and schools located in tribal communities were excluded.

^{xxxvii} Probability proportional to size sampling: a sampling technique where the probability that a particular school will be chosen in the sample is proportional to the enrollment size of the school

was the exclusion of tribal communities resulting in small sample sizes for the American Indian/Alaska Native population.

The parent/caregiver questionnaire was optional and was returned for only 44% (N=1,583) of the children screened. Because of this, information obtained from the questionnaire may not be representative of the state. In addition, the information was self-reported and may be affected by both recall and social desirability bias. Because of small sample sizes, caution should be taken when interpreting results at the regional and county level.

Family Caregiver Survey 2012 Survey Methodology

The Family and Community Survey was designed to measure many critical areas of parent knowledge, skills, and behaviors related to their young children. The survey contained over sixty questions, some of which were drawn from the national survey, *What Grown-Ups Understand about Child Development*^{xxxviii}. Survey items explored multiple facets of parenting. The FTF Family and Community Survey had six major areas of inquiry:

- Early childhood development
- Developmentally appropriate child behavior
- Child care and sources of parenting advice and support
- Family literacy activities
- Perceptions of early childhood services
- Perceptions of early childhood policies

A total of 3,708 parents with children under six (FTF's target population) responded to the 2012 survey. The majority of respondents (83%) were the child's parent. The remaining respondents were grandparents (13%) or other relatives (4%). In the East Maricopa Region, 351 respondents participated in the survey, the majority (92%) being the child's parent. Approximately half of the respondents were selected from the former Northeast Maricopa Region and the other half were selected from the former Central Maricopa Region.

The sample data were weighted so that the sample would match the population of the state on four characteristics: Family income, Educational attainment, Sex, and Race-Ethnicity. Data were weighted at both the statewide level to arrive at the Arizona results and at the regional level to arrive at the regional results. Please note that regional estimates are necessarily less precise than the state estimates; i.e. small differences observed might easily be due to sampling variability.

Coordination and Collaboration Survey Methods

System partners in 18 First Things First county-based regions were asked by First Things First to participate in the Coordination and Collaboration Survey in an effort to learn more about how system partners view their role in the region's early childhood system and to what extent they collaborate and coordinate with other system partners. Ten regions elected to conduct region-specific surveys including, Cochise, Coconino, Gila, Graham/Greenlee, La Paz Mohave, Navajo Apache, Pinal, Santa

xxxviii CIVITAS Initiative, ZERO TO THREE, and BRIO Corporation, Researched by DYG, Inc. 2000. *What Grown-ups Understand About Child Development: A National Benchmark Survey*. Online, INTERNET, 06/20/02.
http://www.civitasinitiative.com/html/read/surveypdf/survey_public.htm

Cruz, Yavapai, and Yuma. Additionally, the six FTF regions in Maricopa County (i.e., Phoenix North, Phoenix South, East Maricopa, Northwest Maricopa, Southeast Maricopa, and Southwest Maricopa), and the two FTF regions in Pima County (Pima North and Pima South), elected to conduct combined county-wide surveys. Partners located on tribal lands will be surveyed at a later date after tribal approvals are requested and received.

FTF regional staff identified potential respondents of the survey. Each region was asked to determine who (across the categories listed below) the early childhood system stakeholders were in their communities that would be able to speak to their experience in the system. If there were no stakeholders representing a category, it was acceptable to not have representation from that category. Surveys on tribal lands were not conducted because tribal approvals for this survey have not yet been requested. Thus, the list of possible respondents was not a systematic or exhaustive list of potential respondents, and the pool of system partners who were invited to participate is not necessarily comparable across different regions.

Possible stakeholder areas:

- Higher Education
- K-12 Education
- Community Family Support Programs
- Public/Community Health Programs
- Child Care/Early Learning/Head Start programs
- Professional Development
- State/City/County Governments
- Public Library
- Philanthropy/Foundations
- Faith Based Organizations
- Military
- Coalition/Networking groups (including Read On)
- Community Service Groups
- FTF Grant Partner
- Other

Prospective participants received an email invitation to participate from the First Things First Regional Directors in October of 2016 and given three weeks to respond. Potential respondents were also contacted to remind them about the participation via either email and/or phone call.

Responses were collected via Survey Monkey. Data were then cleaned and compiled by region by the First Things First Evaluation team.

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