

2016 NEEDS AND ASSETS REPORT

# **## FIRST THINGS FIRST**

Navajo/Apache Region

# Navajo/Apache Regional Partnership Council

# 2016

# **Needs and Assets Report**

### Prepared by

Community Research, Evaluation & Development (CRED)

The Frances McClelland Institute for Children, Youth, and Families

John & Doris Norton School of Family and Consumer Sciences

College of Agricultural and Life Sciences

The University of Arizona

# Funded by First Things First Navajo/Apache Regional Partnership Council

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### Letter from the Chair

February 10, 2017

Message from the Chair:

The past two years have been rewarding for the First Things First Navajo/Apache Regional Partnership Council, as we delivered on our mission to build better futures for young children and their families. During the past year, we have touched many lives of young children and their families.

The First Things First Navajo/Apache Regional Partnership Council will continue to advocate and provide opportunities as indicated throughout this report.

Our strategic direction has been guided by the Needs and Assets reports, specifically created for the Navajo/Apache Region in 2014 and the new 2016 report. The Needs and Assets reports are vital to our continued work in building a true integrated early childhood system for our young children and our overall future. The Navajo/Apache Regional Council would like to thank our Needs and Assets vendors, The University of Arizona, for their knowledge, expertise and analysis of the Navajo/Apache Region. The new report will help guide our decisions as we move forward for young children and their families within the Navajo/Apache Region.

Going forward, the First Things First Navajo/Apache Regional Partnership Council is committed to meeting the needs of young children by providing essential services and advocating for social change.

Thanks to our dedicated staff, volunteers and community partners, First Things First is making a real difference in the lives of our youngest citizens and throughout the entire State.

Thank you for your continued support.

Sincerely,

Kalman Mannis, Chair

Navajo/Apache Regional Partnership Council

# Navajo/Apache Regional Partnership Council

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# **Introductory Summary and Acknowledgments**

Ninety 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 l 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 Navajo/Apache 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 Navajo/Apache 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 Navajo/Apache 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, 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 Navajo/Apache 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**

### **Regional Description**

The First Things First Navajo/Apache Region encompasses the central areas of Navajo and Apache Counties, excluding the lands belonging to the Navajo Nation and the Hopi Tribe in the north and the land belonging to the White Mountain Apache Tribe in the south. The region also includes the Forest Lakes community in Coconino County, east of Heber-Overgaard. The region does not include the city of Winslow, which is in Navajo County but is assigned to the Coconino Region.

### **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.

### **Population Characteristics**

According to the U.S. Census, the Navajo/Apache Region had a population of 73,083 in 2010, of whom 6,166 (8%) were children under the age of six. Fifteen percent of households in the region included a young child. According to the Arizona Department of Administration, the population of young children in Apache County was expected to decrease by 2015, and then remain the same into 2020. Overall in Apache County, the population of young children is projected to decrease by 12 percent between 2010 and 2020. In Navajo County, the population of young children was expected to decrease by 2015 and then increase into 2020. The overall increase from 2010 to 2020 in the population of children under age 6 in Navajo County (3%) is projected to be lower than the state of Arizona's projected increase (12%).

Family characteristics for children in the Navajo/Apache Region differ somewhat compared to those in the two counties and the state. In the Navajo/Apache Region, 11 percent of children aged birth to 5 live with a foreign-born parent. Compared to the region, Apache and Navajo Counties have a lower percentage of young children living with a foreign-born parent (5% for both), whereas the proportion across the state (28%) is more than twice as high as in the region. There are a similar number of inter-generational households in the region and state; 13 percent of children 5 and under live in a grandparent's household in the region, compared to 14 percent across the state. The proportions in Apache and Navajo Counties are much higher however, with 32 percent of young children in Apache County living in a grandparent's household, and 27 percent in Navajo County with the same living arrangement. In spite of these differences, among children living in a grandparent's household, a similar percentage are in a grandparent's household with no parent present in the region (14%), Apache County (16%), Navajo County (14%), and the state (15%).

Differences also exist among the region, counties, and the state relating to race, ethnicity, and language. Twenty-three percent of children aged 0-4 years in the Navajo/Apache Region are Hispanic or Latino. This is a higher percentage of Hispanic/Latino children than in Apache County (8%) or Navajo County (15%), but a much lower proportion than across the state of Arizona (45%). In the region, the majority of young children are identified as white (65%), whereas in the counties, the majority of the young child population are identified as American Indian (Apache County 77%; Navajo County 52%). A smaller proportion of adults (those aged 18 and older) than children identify as Hispanic or Latino or American Indian across all geographic levels. In the region, 12 percent of adults (those aged 18 and older) identify as Hispanic or Latino, compared to five percent in Apache County, 10 percent in Navajo County and 25 percent across the state. Eighty percent of adults in the region identify as white, which is a much higher proportion than in either of the counties (Apache County 23%; Navajo County 48%). Household language use also reflects these demographic patterns; a smaller proportion of households in the region (19%) report speaking a language other than English compared to Apache County (68%), Navajo County (42%) and Arizona (27%).

#### **Economic Circumstances**

Nineteen percent of the total (all-age) population of the Navajo/Apache Region lives in poverty, which is lower than in Apache (36%) or Navajo (30%) Counties, but slightly higher than in the state (18%). The percentage of the population aged 0-5 in poverty in the Navajo/Apache Region (39%) is higher than the total population in the region in poverty (19%), but lower than the population of children aged 0-5 living in poverty across both counties (Apache County 51%; Navajo County 49%). The region does have a higher percentage of young children living in poverty (39%) than the state (28%). In addition to the families whose incomes fall below the federal poverty level, a substantial proportion of households in the region and counties are considered low income (i.e., near but not below the federal poverty level [FPL]). Six out of every ten families (60%) 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) compared to 70 percent in both counties and 48 percent across the state.

Other indicators related to poverty in the region also differ compared to both counties and the state. The unemployment rate in the state has been dropping since 2010, but peaked in 2012 in Apache County and 2009 in Navajo County. Both counties have also had consistently higher rates of unemployment than the state. The region and both counties have a much lower proportion of occupied housing units, and a higher proportion of vacant seasonal and non-seasonal housing units than across the state. In addition, a lower proportion of housing units in the region (31%), Apache County (20%), and Navajo County (27%), cost the owner or renter 30 percent or more of their income compared to housing units across the state (36%).

The percentages of children aged 5 and under receiving Temporary Assistance for Needy Families (TANF) from 2012 to 2014 were low for the region, counties, and the state, and across years; receipt of this benefit has been slightly lower in the Navajo/Apache Region than in the state. Other safety net programs, such as the Supplemental Nutrition Assistance Program (SNAP) and the school-based free or reduced-price lunch program, reached more children. For

SNAP, over-half of young children in the Navajo/Apache Region have received this benefit in the years 2012 through 2014, compared to over three-quarters of young children in both Apache County and Navajo County. Receipt of SNAP across the state as a whole is slightly lower than in the region, with just over half of young children across the state receiving this benefit between 2012 and 2014. For both TANF and SNAP, the percentage of young children receiving these benefits has decreased in the region, counties and state between 2012 and 2014. Over three-quarters of students in Apache County have been eligible for free or reduced-price lunch since 2012, with a slightly lower proportion (70-71%) eligible across years in Navajo County. At the same time, the percent across the state has remained at 57 or 58 percent.

#### **Educational Indicators**

Nineteen percent of adults aged 25 and older in the Navajo/Apache Region have a bachelor's degree or more, which is a higher proportion than across Apache County (10%) or Navajo County (15%), but lower than the proportion in Arizona (27%). Adults in the region (41%) are more likely to have had some college or professional training compared to the counties (32% Apache County; 38% Navajo County) or the state (34%). High school drop-out rates were slightly higher in Apache (4%) and Navajo (5%) Counties compared to the state of Arizona (3%) in FY 2014. In addition, four and five year graduation rates in 2013 in Apache County (66% and 70%, respectively) were lower than those across the state (75% and 79%); Navajo County's graduation rates (75% and 79%) were equivalent to those of the state.

Students are considered as passing Arizona's Instrument to Measure Standards (AIMS) test if they meet or exceed the standard. In Apache County, fewer than half (46%) of students passed the Math test and 60 percent passed the Reading test in 2014. Results in Navajo County were more similar to those statewide; 64 percent of students passed the Math test and 75 percent passed the Reading test. Across Arizona, 69 percent of third grade students passed the AIMS Math test and 78 percent passed the AIMS reading test. Only four percent of 3rd graders in Apache County, two percent in Navajo County and three percent across the state scored "falls far below" in reading, whereas in math, 20 percent of 3rd grade students in Apache County, 11 percent in Navajo County and 10 percent in Arizona received this score.

### **Early Learning**

In 2014, there were 28 licensed child care providers in the Navajo/Apache Region, licensed to serve 1,165 children. Most of these providers were classified as child care centers (n=21), followed by family child care providers (n=4) and group homes (n=3). The cost of care in Apache County and Navajo County varies by the type of care and the age of the child receiving care; the median cost in the county relative to the cost of like care across the state differs depending on the situation. For example, residents in Apache County and Navajo County tend to pay lower prices for child care centers but higher prices for approved family homes.

According to data from the American Community Survey, a higher proportion of children aged 3 and 4 were enrolled in nursery school, preschool, or kindergarten in the Navajo/Apache Region (47%) compared to Apache County (41%), Navajo County (44%), and the state of Arizona (35%).

The number of Division of Developmental Disabilities (DDD) service visits for children aged 0-2 increased from 2013 to 2014 in the region and Apache County, but decreased in Navajo County and the state. A similar pattern occurred for older children, with DDD service visits for children aged 3-5 increasing from 2013 to 2014 in the region and Apache County, but decreasing in Navajo County and across the state.

#### Child Health

Characteristics of mothers who gave birth in 2013 in the Navajo/Apache Region differed from those of mothers in Apache County, Navajo County, and across the state of Arizona. For example, five percent of women giving birth in the Navajo/Apache Region had fewer than five prenatal visits, compared to seven percent in Apache County, eight percent in Navajo County and five percent across the state overall. A higher proportion of mothers in the Navajo/Apache Region reported smoking during pregnancy (10%) than in Apache County (3%), Navajo County (6%) or the state (4%). The region does not meet the Healthy People 2020 objective related to the proportion of expectant mothers who receive prenatal care in the first trimester; at 26 percent, the region exceeds the Healthy People 2020 guideline of no more than 22.1 percent of mothers lacking prenatal care during that period. In addition, for the proportion of women who smoke while pregnant objective, the region falls far above the Healthy People 2020 goal of 1.4 percent.

The Navajo/Apache Region is, however, meeting Healthy People 2020 objectives around infant and child health. 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. In the region in 2013, seven percent of babies were low birth weight and eight percent were born preterm.

Unintentional injuries requiring emergency department visits for children under age six in Apache County and the state declined between 2012 and 2014. However, in Navajo County, the number of emergency department visits due to unintentional injuries for young children increased overall from 2012 to 2014.

A key factor in health care is health insurance, and young children in the Navajo/Apache Region were less likely to be uninsured (8%) compared to Apache County (19%), Navajo County (9%) and the state (10%). Compared to young children, members of the total (all ages) population of the region, county, and state were more likely to lack health insurance, however less of the total population in the Navajo/Apache Region was uninsured (16%) than in Apache County (26%), Navajo County (18%), or the state (17%).

While immunizations rates vary by vaccine, over 90 percent of children in child care in the Navajo/Apache Region had completed each of the three major (DTAP, polio, and MMR) vaccine series. The Healthy People 2020 target for vaccination coverage for children ages 19-35 months for these vaccines is 90 percent, suggesting the region is meeting this goal. 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. 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. Children in

kindergarten were vaccinated at similar, but slightly lower rates than children in child care for the region, and the region's rates of vaccine coverage for kindergarteners were below those at the county and state level. Religious (5.4%) or personal belief (6.0%) exemptions were more common in the region than in either county or the state.

#### Family Support and Literacy

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 Navajo/Apache Region, 110 people responded to the 2012 First Things First Family and Community Survey. 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. Parents in the Navajo/Apache Region were more likely to report reading to their children (52%), telling stories to their children (61%) and drawing with their child (50%) six or seven days a week compared to parents across the state (51%, 51% and 47%, respectively). Parents in the Navajo/Apache Region showed less of an understanding that brain development can be impacted prenatally or right from birth (66%) than did respondents across the state as a whole (80%).

### **Communication, Public Information and Awareness**

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 Navajo/Apache Region had higher levels of satisfaction with available information and resources, and agreement with ease of locating services, compared to the state. Almost half (48%) of Navajo/Apache 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. Seventy-seven percent of Navajo/Apache 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.

#### Systems Coordination among Early Childhood Programs and Services

The 2012 First Things First Family and Community Survey collected data on parents' perceptions regarding how well agencies that serve young children and their families coordinate and collaborate. One item from the survey addresses the issue of perceived early childhood system coordination. Respondents in both the region and the state were more likely to indicate satisfaction (46% in the region, 43% in the state) than dissatisfaction (24% in the region, 29% in the state) with how care providers and government agencies work together and communicate.

# The Navajo/Apache Region

### **Regional Description**

The First Things First regional boundaries were initially established in 2007, creating 31 regions which were designed to (a) reflect the view of families in terms of where they access services, (b) coincide with existing boundaries or service areas of organizations providing early childhood services, (c) maximize the ability to collaborate with service systems and local governments, and facilitate the ability to convene a Regional Partnership Council, and (d) allow for the collection of demographic and indicator data. The regional boundaries are reviewed every two years. In fiscal year 2015, the boundaries were modified using census blocks, creating 28 regions. This report uses the 2015 definition of the regional boundaries.

The First Things First Navajo/Apache Region encompasses the central areas of Navajo and Apache Counties, excluding the lands belonging to the Navajo Nation and the Hopi Tribe in the north and the land belonging to the White Mountain Apache Tribe in the south. The region also includes the Forest Lakes community in Coconino County, east of Heber-Overgaard. The region does not include the city of Winslow, which is in Navajo County but is assigned to the Coconino Region.

Figure 1 below shows the geographical area covered by the Navajo/Apache Region. Additional information available at the end of this report includes a map of the region by zip code in Appendix 1, a table listing zip codes for the region in Appendix 2, and a map of school districts in the region in Appendix 3.

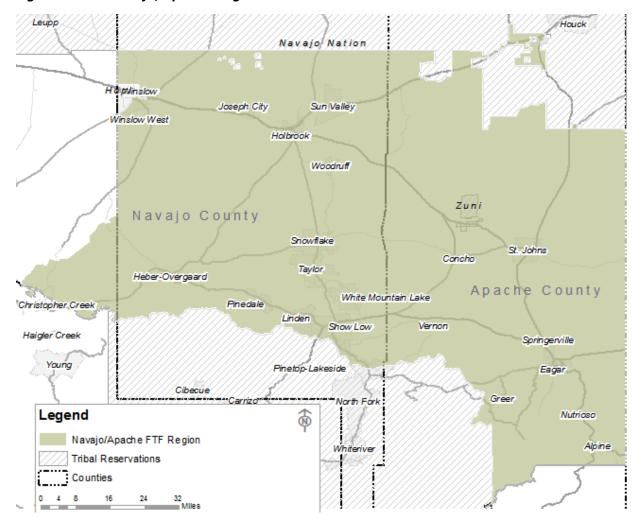


Figure 1. The Navajo/Apache Region

Source: U.S. Census Bureau (2010). TIGER/Line Shapefiles: TabBlocks, Streets, Counties, American Indian/Alaska Native Homelands. Retrieved from http://www.census.gov/geo/maps-data/data/tiger-line.html

#### **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.

The U.S. Census<sup>1</sup> 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 Navajo/Apache Region presented in this report were calculated by identifying each block in the region, and aggregating the data over all of those blocks. (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.)

The American Community Survey<sup>2</sup> 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 census tract. Arizona is divided into about 1,500 census tracts, with an average of about 4,200 people in each. The ACS data for the Navajo/Apache Region were calculated by aggregating over the census tracts which are wholly or partially contained in the region. The data from partial census tracts were apportioned according to the percentage of the 2010 Census population in that tract living inside the Navajo/Apache Region. The most recent and most reliable ACS data are averaged over the past five years; those are the data included in this report. They are based on surveys conducted from 2009 to 2013. In general, the reliability of ACS estimates is greater for more populated areas. Statewide estimates, for example, are more reliable than county-level estimates.

To protect the confidentiality of program participants, the First Things First Data Dissemination and Suppression 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 their own guidelines. 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 "N/A" in the data tables.

<sup>&</sup>lt;sup>1</sup> U.S. Census Bureau. (May, 2000). Factfinder for the Nation. Retrieved from http://www.census.gov/history/pdf/cff4.pdf

<sup>&</sup>lt;sup>2</sup> U.S. Census Bureau (April, 2013). *American Community Survey Information Guide*. Retrieved from http://www.census.gov/content/dam/Census/programs-surveys/acs/about/ACS\_Information\_Guide.pdf

# **Population Characteristics**

### Why it Matters

The characteristics of families living within a region can influence the availability of resources and supports for those families.<sup>3</sup> Population characteristics and trends in family composition are often considered by policymakers when making decisions about the type and location of services to be provided within a region such as schools, health care facilities and services, and social services and programs. As a result of these decisions, families with young children may have very different experiences within and across regions regarding access to employment, food resources, schools, health care facilities and providers, and social services. It is important, therefore, that decision-makers understand who their constituents are so that they can prioritize policies that address the needs of diverse families with young children. Accurate and up-to-date information about population characteristics such as the number of children and families in a geographic region, their ethnic composition, whether their parents were born abroad, living arrangements and languages spoken can support the development or continuation of resources that are linguistically, culturally, and geographically most appropriate for a given locale.

In addition to being affected by community resources, the likelihood of a child reaching his or her optimal development can also be affected by the supports and resources available within the family. <sup>4,5</sup> The availability of family resources can be influenced by the characteristics of the family structure, such as who resides in a household and who is responsible for a child's care. Children living with and being cared for by relatives or caregivers other than parents, is increasingly common. <sup>6</sup> Those providing this type of care, such as friends, aunts, uncles, siblings and grandparents, may be in need of special support. Raising or supporting young children may pose a particular challenge for aging grandparents, as they often lack information on resources,

<sup>&</sup>lt;sup>3</sup> U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau. (2014). *Child Health USA 2014. Population Characteristics*. Retrieved from: http://mchb.hrsa.gov/chusa14/population-characteristics.html

<sup>&</sup>lt;sup>4</sup> Center for American Progress. (2015). Valuing All Our Families. Progressive Policies that Strengthen Family Commitments and Reduce Family Disparities. Retrieved from: https://cdn.americanprogress.org/wp-content/uploads/2015/01/FamilyStructure-report.pdf

<sup>&</sup>lt;sup>5</sup> Kidsdata.org. (n.d.). Summary: Family Structure. Retrieved from: http://www.kidsdata.org/topic/8/family-structure/summary

<sup>&</sup>lt;sup>6</sup> U.S. Department of Health and Human Services. (2012). *ASPE Report. Children in Nonparental Care: A Review of the Literature and Analysis of Data Gaps*. Retrieved from http://aspe.hhs.gov/basic-report/children-nonparental-care-review-literature-and-analysis-data-gaps

support services, benefits and policies available to aid in their caregiving role. Often, grandparents take on child rearing responsibilities when parents are unable to provide care because of the parent's death, unemployment or underemployment, physical or mental illness, substance abuse, incarceration, or because of domestic violence or child neglect in the family. Caring for children who have experienced family trauma can pose an even greater challenge to grandparents, who may be in need of specialized assistance and resources to support their grandchildren.

Understanding language use in the region can also contribute to being better able to serve the needs of families with young children. Language preservation and revitalization have been recognized by the U.S. Department of Health & Human Services as keys to strengthening culture in Native communities and to encouraging communities to move toward social unity and self-sufficiency. Special consideration should be given to respecting and supporting the numerous Native languages spoken by families, particularly in tribal communities around the state. In addition, assuring that early childhood resources and services are available in Spanish is important in many areas of Arizona, given that five percent of the households in the state are limited English speaking households (that is, a household where none of the members speak English very well). Language barriers for these families can limit their access to health care and social services, and can provide challenges to communication between parents and their child's teachers, which can impact the quality of education children are able to receive.

### What the Data Tell Us

According to the U.S. Census, the Navajo/Apache Region had a population of 73,083 in 2010, of whom 6,166 (8%) were children under the age of six (see Table 1). Fifteen percent of households in the region included a young child. According to the Arizona Department of Administration, the population of young children in Apache County was expected to decrease by 2015, and then remain the same into 2020 (see Table 3). Overall in Apache County, the population of young children is projected to decrease by 12 percent between 2010 and 2020. In Navajo County, the population of young children was expected to decrease by 2015 and then increase into 2020. The overall increase from 2010 to 2020 in the population of children under

<sup>&</sup>lt;sup>7</sup> American Association for Marriage and Family Therapy. (2015). *Grandparents Raising Grandchildren*. Retrieved from http://www.aamft.org/imis15/AAMFT/Content/Consumer\_Updates/Grandparents\_Raising\_Grandchildren.aspx

<sup>&</sup>lt;sup>8</sup> Population Reference Bureau. (2012). *More U.S. Children Raised by Grandparents*. Retrieved from http://www.prb.org/Publications/Articles/2012/US-children-grandparents.aspx

<sup>&</sup>lt;sup>9</sup> U.S. Department of Health & Human Services, Administration for Native Americans. (n.d.). *Native Languages*. Retrieved from http://www.acf.hhs.gov/programs/ana/programs/native-language-preservation-maintenance

<sup>&</sup>lt;sup>10</sup> Shields, M. & Behrman, R. (2004). Children of immigrant families: Analysis and recommendations. *The Future of Children, 14*(2). Retrieved from: https://www.princeton.edu/futureofchildren/publications/docs/14\_02\_1.pdf

age 6 in Navajo County (3%) is projected to be lower than the state of Arizona's projected increase (12%).

Family characteristics for children in the Navajo/Apache Region differ somewhat compared to those in the two counties and the state. In the Navajo/Apache Region, only 11 percent of children aged birth to 5 live with a foreign-born parent. Compared to the region, Apache and Navajo Counties have a lower percentage of young children living with a foreign-born parent (5% for both), whereas the proportion across the state (28%) is more than twice as high as in the region (see Table 4). There are a similar number of inter-generational households in the region and state; 13 percent of children 5 and under live in a grandparent's household in the region, compared to 14 percent across the state. The proportions in Apache and Navajo Counties are much higher however, with 32 percent of young children in Apache County living in a grandparent's household, and 27 percent in Navajo County with the same living arrangement (see Table 5). In spite of these differences, among children living in a grandparent's household, a similar percentage are in a grandparent's household with no parent present in the region (14%), Apache County (16%), Navajo County (14%), and the state (15%) (see Table 6).

Differences also exist among the region, counties, and the state relating to race, ethnicity, and language. Twenty-three percent of children aged 0-4 years in the Navajo/Apache Region are Hispanic or Latino. This is a higher percentage of Hispanic/Latino children than in Apache County (8%) or Navajo County (15%), but a much lower proportion than across the state of Arizona (45%) (see Table 7). In the region, the majority of young children are identified as white (65%), whereas in the counties, the majority of the young child population are identified as American Indian (Apache County 77%; Navajo County 52%). A smaller proportion of adults (those aged 18 and older) than children identify as Hispanic or Latino or American Indian across all geographic levels. In the region, 12 percent of adults (those aged 18 and older) identify as Hispanic or Latino, compared to five percent in Apache County, 10 percent in Navajo County and 25 percent across the state (see Table 8). Eighty percent of adults in the region identify as white, which is a much higher proportion than in either of the counties (Apache County 23%; Navajo County 48%). Household language use also reflects these demographic patterns; a smaller proportion of households in the region (19%) report speaking a language other than English compared to Apache County (68%), Navajo County (42%) and Arizona (27%) (see Table 9).

# **Population and Households**

Table 1. Population and households, 2010

	TOTAL POPULATION	POPULATION (AGES 0-5)	TOTAL NUMBER OF HOUSEHOLDS	HOUSEHOLDS WI' OR MORE CHILDRE 0-5)	
Navajo/Apache Region	73,083	6,166	27,887	4,106	15%
Apache County	71,518	7,171	22,771	4,729	21%
Navajo County	107,449	10,550	35,658	7,011	20%
Arizona	6,392,017	546,609	2,380,990	384,441	16%

Source: U.S. Census Bureau (2010). 2010 Decennial Census, Summary File 1, Tables P1, P14, P20.

Retrieved from: http://factfinder.census.gov

Table 2. Population of children by single year-of-age, 2010

	AGES 0-5	AGE 0	AGE 1	AGE 2	AGE 3	AGE 4	AGE 5
Navajo/Apache Region	6,166	942	973	1,072	1,048	1,097	1,034
Apache County	7,171	1,174	1,128	1,165	1,228	1,265	1,211
Navajo County	10,550	1,665	1,691	1,833	1,784	1,766	1,811
Arizona	546,609	87,557	89,746	93,216	93,880	91,316	90,894

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

Retrieved from: http://factfinder.census.gov

Note: Children age 0 were born between April 2009 and March 2010; children age 5 were born between April 2004 and March 2005.

Table 3. State and county population projections, 2015 & 2020

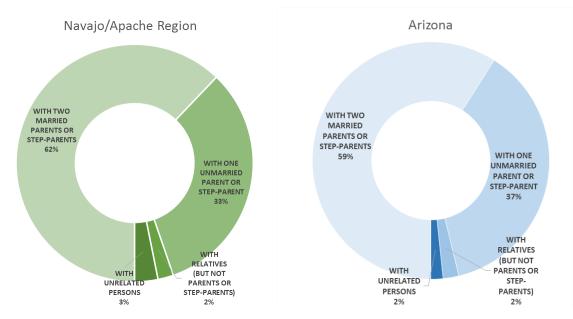
	POPULATION (AGES 0-5) IN 2010 CENSUS	PROJECTED POPULATION (AGES 0-5) IN 2015	PROJECTED POPULATION (AGES 0-5) IN 2020	PROJECTED CHANGE FROM 2010 TO 2020
Apache County	7,171	6,300	6,300	-12%
Navajo County	10,550	10,200	10,900	3%
Arizona	546,609	537,200	610,400	12%

Sources: Arizona Dept. of Administration (2015). 2012-2050 State and county population projections & U.S. Census Bureau (2010). 2010 Decennial Census, Summary File 1, Tables P1, P14. Retrieved from: http://factfinder.census.gov

Note: Regional data were not available for this indicator.

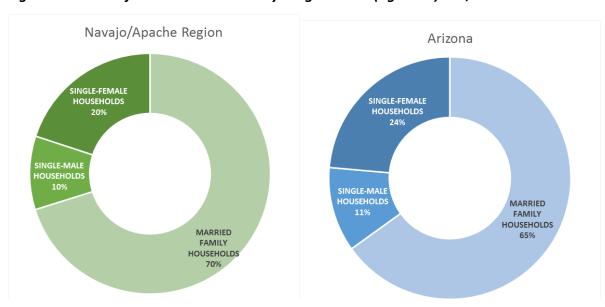
# **Living Arrangements for Young Children**

Figure 2. Living arrangements for children (ages 0-5), 2009-2013 five-year estimate



Source: American Community Survey, 5-year estimates (2009-2013), Tables B05009, B09001, B17006 Retrieved from: http://factfinder.census.gov

Figure 3. Heads of households in which young children (ages 0-5) live, 2010



Source: U.S. Census Bureau (2010). 2010 Decennial Census, Summary File 1, Tables P20, P32. Retrieved from: http://factfinder.census.gov

Table 4. Children (ages 0-5) living with one or two foreign-born parents, 2009-2013 five-year estimate

CHILDREN (0-5) LIVING WITH ONE OR TWO FOREIGN-BORN PARENTS

Navajo/Apache Region	11%
Apache County	5%
Navajo County	5%
Arizona	28%

Source: U.S. Census Bureau (2014). 2009-2013 American Community Survey 5 Year Estimates, Table B05009.

Retrieved from: http://factfinder.census.gov

Table 5. Children (ages 0-5) living in the household of a grandparent, 2010

CHILDREN (0-5) LIVING IN A GRANDPARENT'S HOUSEHOLD

Navajo/Apache Region	13%
Apache County	32%
Navajo County	27%
Arizona	14%

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

Retrieved from: http://factfinder.census.gov

Table 6. Grandparents responsible for grandchildren (ages 0-17) living with them, 2009-2013 five-year estimate

	GRANDCHILDREN (0-17)  LIVING WITH GRANDPARENT HOUSEHOLDER  GRANDPARENT RESPONSIBLE FOR OWN  HOUSEHOLDER GRANDCHILDREN (0-17)		GRANDPARENT HOUSEHOLDER RESPONSIBLE FOR OWN GRANDCHILDREN (0-17) WITH NO PARENT PRESENT		
Navajo/Apache Region	1,582	995	63%	220	14%
Apache County	5,024	2,785	55%	780	16%
Navajo County	5,386	3,756	70%	739	14%
Arizona	137,753	73,467	53%	20,102	15%

Source: U.S. Census Bureau (2014). 2009-2013 American Community Survey 5 Year Estimates, Table B10002.

Retrieved from: http://factfinder.census.gov

# Race, Ethnicity, and Language

Table 7. Race and ethnicity of the population of young children (ages 0-4), 2010

	TOTAL POPULATION (AGES 0-4)	HISPANIC OR LATINO	WHITE, NOT HISPANIC	BLACK OR AFRICAN AMERICAN	AMERICAN INDIAN	ASIAN OR PACIFIC ISLANDER
Navajo/Apache Region	5,132	23%	65%	1%	8%	1%
Apache County	5,960	8%	14%	0%	77%	0%
Navajo County	8,739	15%	31%	1%	52%	1%
Arizona	455,715	45%	40%	5%	6%	3%

Source: U.S. Census Bureau (2010). 2010 Decennial Census, Summary File 1, Tables P12A-H.

Retrieved from: http://factfinder.census.gov

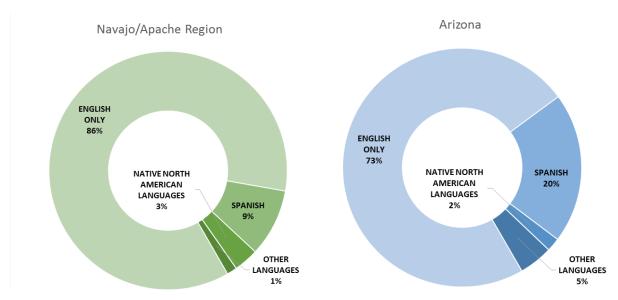
Table 8. Race and ethnicity of the adult population (ages 18 and older), 2010

			NOT HISPANIC OR LATINO				
	TOTAL POPULATION (AGES 18+)	HISPANIC OR LATINO	WHITE	BLACK OR AFRICAN AMERICAN	AMERICAN INDIAN	ASIAN OR PACIFIC ISLANDER	OTHER
Navajo/Apache Region	54,085	12%	80%	1%	5%	1%	1%
Apache County	48,858	5%	23%	0%	70%	0%	1%
Navajo County	75,476	10%	48%	1%	40%	1%	1%
Arizona	4,763,003	25%	63%	4%	4%	3%	1%

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

Retrieved from: http://factfinder.census.gov.

Figure 4. Language spoken at home, by persons ages 5 and older, 2009-2013 five-year estimate



Source: U.S. Census Bureau (2014). 2009-2013 American Community Survey 5 Year Estimates, Table B16001. Retrieved from: http://factfinder.census.gov

Table 9. Household use of languages other than English, 2009-2013 five-year estimate

	NUMBER OF HOUSEHOLDS	HOUSEHOLDS IN WHICH A LANGUAGE OTHER THAN ENGLISH IS SPOKEN	LIMITED ENGLISH SPEAKING HOUSEHOLDS (TOTAL)	LIMITED ENGLISH SPEAKING HOUSEHOLDS (SPANISH)	LIMITED ENGLISH SPEAKING HOUSEHOLDS (NOT SPANISH)
Navajo/Apache Region	26,599	19%	1%	1%	0%
Apache County	19,055	68%	11%	0%	11%
Navajo County	34,343	42%	6%	1%	5%
Arizona	2,370,289	27%	5%	4%	1%

Source: U.S. Census Bureau (2014). 2009-2013 American Community Survey 5 Year Estimates, Table B16002. Retrieved from: http://factfinder.census.gov

## **Economic Circumstances**

### Why it Matters

Many economic factors contribute to a child's well-being, including family income, parent employment status, and the availability of safety-net programs such as housing and nutrition assistance. <sup>11,12</sup> Understanding the economic context in which families with young children live is crucial when designing programs and policies intended to assist them.

Employment rates and income are common indicators of economic well-being. Unemployment and job loss often results in families having fewer resources to meet their regular monthly expenses and support their children's development. Family dynamics can be negatively impacted by job loss as reflected in higher levels of parental stress, family conflict and more punitive parental behaviors. Parental job loss can also impact children's school performance (shown by lower test scores, poorer attendance, higher risk of grade repetition, suspension or expulsion among children whose parents have lost their jobs.) Unemployment rates, therefore, can be an indicator of family stress, and are also an important indicator of regional economic vitality.

Employment rates and job opportunities contribute to the income families have available. It is estimated that families need an income of about twice the federal poverty level (FPL)<sup>15</sup> to meet basic needs.<sup>16</sup> Families earning less may experience unstable access to basic resources like food and housing. Food insecurity – the lack of reliable access to affordable, nutritious food – negatively impacts the health and well-being of children, including a heightened risk for developmental delays.<sup>17</sup> High housing costs, relative to income, are associated with increased risk for homelessness, overcrowding, poor nutrition, frequent moving, lack of supervision while

<sup>&</sup>lt;sup>11</sup> Annie E Casey Foundation. (2015). *Kids Count 2015 Data Book–State Trends in Child Well-being*. Retrieved from http://www.aecf.org/m/databook/aecf-2015kidscountdatabook-2015-em.pdf

<sup>&</sup>lt;sup>12</sup> Kalil, A. (2013). Effects of the great recession on child development. *The Annals of the American Academy of Political and Social Science*, 650(1), 232-250. Retrieved from http://ann.sagepub.com/content/650/1/232.full.pdf+html

<sup>&</sup>lt;sup>13</sup> Isaacs, J. (2013). *Unemployment from a child's perspective*. Retrieved from http://www.urban.org/UploadedPDF/1001671-Unemployment-from-a-Childs-Perspective.pdf

<sup>&</sup>lt;sup>14</sup> Ihid

<sup>&</sup>lt;sup>15</sup> The 2015 FPL for a family of four is \$24,250. Source: U.S. Department of Health and Human Services. (2015). *2015 Poverty Guidelines*. Retrieved from: http://aspe.hhs.gov/2015-poverty-guidelines

<sup>&</sup>lt;sup>16</sup> National Center for Children in Poverty. (2015). *Arizona Demographics of Low-income Children*. Retrieved from http://www.nccp.org/profiles/AZ profile 6.html

<sup>&</sup>lt;sup>17</sup> Rose-Jacobs, R., Black, M. M., Casey, P. H., Cook, J. T., Cutts, D. B., Chilton, M., Heeren, T., Levenson, S. M., Meyers, A. F., & Frank, D. A. (2008). Household food insecurity: Associations with at-risk infant and toddler development. *Pediatrics*, *121*(1), 65-72. Retrieved from http://pediatrics.aappublications.org/content/121/1/65.full.pdf

parents are at work, and low cognitive achievement. Poverty, especially among children, can have far reaching negative consequences, including an effect on brain development and later cognitive ability. 19

Public assistance programs are one way of combating the effects of poverty and providing supports to children and families in need. Temporary Assistance for Needy Families<sup>20</sup> (TANF, which has replaced previous welfare programs) provides cash assistance and services to the very poor and can help offset some of the economic circumstances of families that may have a detrimental effect on young children. Another safety net program, 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.<sup>21</sup> SNAP benefits support working families whose incomes simply do not provide for all their needs. For low-income working families, the additional income from SNAP is substantial. For example, for a three-person family with one person whose wage is \$10 per hour, SNAP benefits boost takehome income by ten to 20 percent.<sup>22</sup> Similarly, the National School Lunch Program<sup>23</sup> provides free and reduced-price meals at school for students whose families meet income criteria. These income criteria are 130 percent of the federal poverty level (FPL) for free lunch, and 185 percent of the FPL for reduced price lunch.

https://morrisoninstitute.asu.edu/sites/default/files/content/products/TANF.doc\_0.pdf; Floyd, I., Pavetti, L., and Schott, L. (2015). *How states use federal and state funds under the TANF block grant*. Retrieved from http://www.cbpp.org/research/family-income-support/how-states-use-federal-and-state-funds-under-the-tanf-block-grant;

<sup>&</sup>lt;sup>18</sup> The Federal Interagency Forum on Child and Family Statistics. (2015). *America's Children: Key National Indicators of Well-Being, 2015*. Retrieved from http://www.childstats.gov/pdf/ac2015/ac\_15.pdf

<sup>&</sup>lt;sup>19</sup> Noble, K.G., Houston, S.M., Brito, N.H., Bartsch, H. Kan E., et. al. (2015). Family income, parental education and brain structure in children and adolescents. *Nature Neuroscience*, *18*, 773–778. Retrieved from http://www.nature.com/neuro/journal/v18/n5/full/nn.3983.html#close

<sup>&</sup>lt;sup>20</sup> In Arizona, TANF eligibility is capped at \$335 per month, or \$4020 annually for a family of four, and has recently undergone significant changes. Beginning in 2016, Arizona will become the first and only state that limits a person's lifetime benefit to 12 months. 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 51<sup>st</sup>, 47<sup>th</sup>, and 46<sup>th</sup> 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. Sources: Reilly, T., and Vitek, K. (2015). *TANF cuts: Is Arizona shortsighted in its dwindling support for poor families?* Retrieved from

<sup>&</sup>lt;sup>21</sup> Food Research and Action Center. (2013). SNAP and Public Health: The Role of the Supplemental Nutrition Assistance Program in Improving the Health and Well-Being of Americans. Retrieved from http://frac.org/pdf/snap\_and\_public\_health\_2013.pdf

<sup>&</sup>lt;sup>22</sup> Ibid

<sup>&</sup>lt;sup>23</sup> United States Department of Agriculture, Food and Nutrition Service. (2015). *National School Lunch Program (NSLP)*. Retrieved from http://www.fns.usda.gov/nslp/national-school-lunch-program-nslp

### What the Data Tell Us

Nineteen percent of the total (all-age) population of the Navajo/Apache Region lives in poverty, which is lower than in Apache (36%) or Navajo (30%) Counties but slightly higher than in the state (18%) (see Figure 5). The percentage of the population aged 0-5 in poverty in the Navajo/Apache Region (39%) is higher than the total population in the region in poverty (19%), but lower than the population of children aged 0-5 living in poverty across both counties (Apache County 51%; Navajo County 49%). The region does have a higher percentage of young children living in poverty (39%) than the state (28%). In addition to the families whose incomes fall below the federal poverty level, a substantial proportion of households in the region and counties are considered low income (i.e., near but not below the federal poverty level [FPL]). Six out of every ten families (60%) in the region with children aged four and under live below 185 percent of the FPL (i.e., earned less than \$3,677<sup>24</sup> a month for a family of four) compared to 70 percent in both counties and 48 percent across the state (see Table 10).

Other indicators related to poverty in the region also differ compared to both counties and the state. The unemployment rate in the state has been dropping since 2010, but peaked in 2012 in Apache County and 2009 in Navajo County. Both counties have also had consistently higher rates of unemployment than the state (see Figure 7). The region and both counties have a much lower proportion of occupied housing units, and a higher proportion of vacant seasonal and non-seasonal housing units than across the state (see Table 12). In addition, a lower proportion of housing units in the region (31%), Apache County (20%), and Navajo County (27%), cost the owner or renter 30 percent or more of their income compared to housing units across the state (36%) (see Table 13).

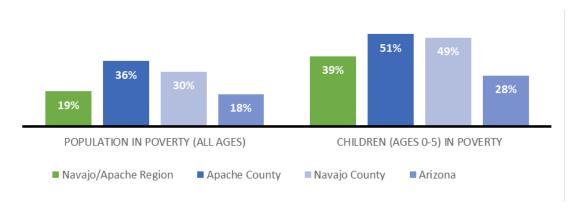
The percentages of children aged 5 and under receiving Temporary Assistance for Needy Families (TANF) from 2012 to 2014 were low for the region, counties, and the state, and across years; receipt of this benefit has been slightly lower in the Navajo/Apache Region than in the state (see Table 14). Other safety net programs, such as the Supplemental Nutrition Assistance Program (SNAP) and the school-based free or reduced-price lunch program, reached more children. For SNAP, over-half of young children in the Navajo/Apache Region have received this benefit in the years 2012 through 2014, compared to over three-quarters of young children in both Apache County and Navajo County. Receipt of SNAP across the state as a whole is slightly lower than in the region, with just over half of young children across the state receiving this benefit between 2012 and 2014 (see Table 15). For both TANF and SNAP, the percentage of young children receiving these benefits has decreased in the region, counties and state

<sup>&</sup>lt;sup>24</sup> Based on 2014 FPL Guidelines, see http://aspe.hhs.gov/2014-poverty-guidelines

between 2012 and 2014. Over three-quarters of students in Apache County have been eligible for free or reduced-price lunch since 2012, with a slightly lower proportion (70-71%) eligible across years in Navajo County (see Table 16). At the same time, the percent across the state has remained at 57 or 58 percent.

## **Poverty and Income**

Figure 5. Percent of population in poverty, 2009-2013 five-year estimate



Source: U.S. Census Bureau (2014). 2009-2013 American Community Survey 5 Year Estimates, Table B17001. Retrieved from: http://factfinder.census.gov

Table 10. Federal poverty levels for families with young children (ages 0-4), 2009-2013 five-year estimate

	_	FAMILIES WITH CHILDREN 0-4			
	FAMILIES WITH CHILDREN 0-4	BELOW POVERTY	BELOW 130% POVERTY	BELOW 150% POVERTY	BELOW 185% POVERTY
Navajo/Apache Region	2,600	34%	48%	55%	60%
Apache County	2,582	47%	58%	64%	70%
Navajo County	5,105	46%	58%	64%	70%
Arizona	307,126	26%	35%	40%	48%

Source: U.S. Census Bureau (2014). 2009-2013 American Community Survey 5 Year Estimates, Tables 17010 and 17022. Retrieved from: http://factfinder.census.gov

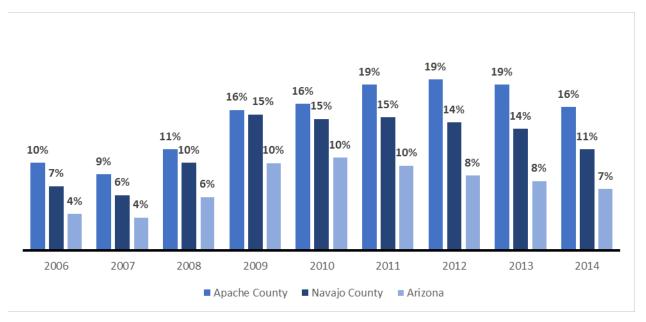
■ Apache County \$72,689 ■ Navajo County \$58,897 Arizona \$51,83<sup>\$54,420</sup> \$43,516 \$37,095 \$36,671 \$24,087 \$26,079 \$24,963 \$17,739 \$13,000 MARRIED COUPLES WITH ALL FAMILIES SINGLE MALE WITH SINGLE FEMALE WITH CHILDREN (0-17) CHILDREN (0-17) CHILDREN (0-17)

Figure 6. Median annual family incomes, 2009-2013 five-year estimate

Source: U.S. Census Bureau (2014). 2009-2013 American Community Survey 5 Year Estimates, Table B19126. Retrieved from: http://factfinder.census.gov

# **Employment and Housing**

Figure 7. Average annual unemployment rates, 2006-2014



Source: Arizona Labor Statistics (2015). Local Area Unemployment Statistics (LAUS). Retrieved from: https://laborstats.az.gov/local-area-unemployment-statistics

Table 11. Parents of young children (ages 0-5) who are or are not in the labor force, 2009-2013 five-year estimate

	ESTIMATED NUMBER OF	CHILDREN (0-5) LIVING WITH TWO PARENTS			CHILDREN (0-5) LIVING WITH ONE PARENT	
	CHILDREN (AGES 0-5) LIVING WITH ONE OR TWO PARENTS	BOTH PARENTS IN LABOR FORCE	ONE PARENT IN LABOR FORCE	NEITHER PARENT IN LABOR FORCE	PARENT IN LABOR FORCE	PARENT NOT IN LABOR FORCE
Navajo/Apache Region	5,762	26%	38%	1%	26%	8%
Apache County	6,693	16%	20%	3%	35%	25%
Navajo County	9,349	19%	23%	2%	35%	21%
Arizona	517,766	31%	29%	1%	29%	10%

Source: U.S. Census Bureau (2014). 2009-2013 American Community Survey 5 Year Estimates, Table B23008.

Retrieved from: http://factfinder.census.gov

Note: Persons who are unemployed but looking for work are considered to be "in the labor force."

Table 12. Vacant and occupied housing units, 2009-2013 five-year estimate

	TOTAL HOUSING UNITS	OCCUPIED HOUSING UNITS	VACANT HOUSING UNITS (NON- SEASONAL)	VACANT HOUSING UNITS (SEASONAL)
Navajo/Apache Region	48,544	55%	11%	35%
Apache County	32,541	59%	17%	24%
Navajo County	57,046	60%	11%	28%
Arizona	2,859,768	83%	10%	7%

Source: U.S. Census Bureau (2014). 2009-2013 American Community Survey 5 Year Estimates, Table B25002, B25106.

Retrieved from: http://factfinder.census.gov

Note: Seasonal units are intended for use only in certain seasons or for weekends or other occasional use.

Table 13. Occupied housing units, costs relative to income, and foreclosures, 2009-2013 fiveyear estimate

	NUMBER OF OCCUPIED HOUSING UNITS	UNITS WHICH COST THE OW MORE THAN 30% OF TH		FORECLOSURE RATE (PER 10,000 HOUSING UNITS)
Navajo/Apache Region	26,599	8,218	31%	8.1
Apache County	19,055	3,742	20%	6.4
Navajo County	34,343	9,181	27%	7.5
Arizona	2,370,289	847,315	36%	7.2

Source: U.S. Census Bureau (2014). 2009-2013 American Community Survey 5 Year Estimates, Table B25002, B25106. RealtyTrac (2015). Real Estate Trend & Market Info.

Retrieved from: http://factfinder.census.gov; http://www.realtytrac.com/statsandtrends/az

# **Economic Supports**

Table 14. Children (ages 0-5) receiving Temporary Assistance to Needy Families (TANF), 2012-2014

	OFNIGUE 2040	CHILDREN (AGES 0-5) RECEIVING TANF			CHANGE
	CENSUS 2010 POPULATION (AGES 0-5)	2012	2013	2014	FROM 2012 TO 2014
Navajo/Apache Region	6,166	4%	3%	2%	-40%
Apache County	7,171	2%	1%	1%	-39%
Navajo County	10,550	4%	4%	3%	-32%
Arizona	546,609	5%	5%	4%	-26%

Source: The Arizona Department of Economic Security (July 2015). [SNAP/TANF Dataset]. Unpublished data.

Note: The data reflect unduplicated counts of children served during each calendar year.

Table 15. Children (ages 0-5) in the Supplemental Nutrition Assistance Program (SNAP), 2012-2014

		CHILDREN (AGES 0-5) RECEIVING SNAP			CHANGE
	CENSUS 2010 POPULATION (AGES 0-5)	2012	2013	2014	FROM 2012 TO 2014
Navajo/Apache Region	6,166	59%	57%	55%	-7%
Apache County	7,171	87%	84%	79%	-8%
Navajo County	10,550	79%	78%	75%	-5%
Arizona	546,609	54%	53%	51%	-7%

 $Source: The \ Arizona \ Department \ of \ Economic \ Security \ (July \ 2015). \ [SNAP/TANF \ Dataset]. \ Unpublished \ data.$ 

Note: The data reflect unduplicated counts of children served during each calendar year.

Table 16. Students eligible for free or reduced-price lunch, 2012-2014

	STUDENTS ELIGIBLE FOR FREE OR REDUCED- PRICE LUNCH			
	2012	2013	2014	
Apache County	76%	76%	77%	
Navajo County	70%	71%	70%	
Arizona	57%	57%	58%	

Source: The Arizona Department of Education (July 2015). [Education Dataset]. Unpublished data. Note: Regional data were not available for this indicator.

# **Educational Indicators**

### Why it Matters

Characteristics of educational involvement and achievement in a region, such as school attendance, standardized tests scores, graduation rates, and the overall level of education of adults, all impact the developmental and economic resources available to young children and their families. Education, in and of itself, is an important factor in how able parents and caregivers are to provide for the children in their care. Parents who graduate from high school earn more and are less likely to rely on public assistance programs than those without high school degrees. <sup>25,26</sup> Higher levels of education are associated with better housing, neighborhood of residence, and working conditions, all of which are important for the health and well-being of children. <sup>27,28</sup>

Early school attendance and performance can set the stage for later achievement. Absenteeism in kindergarten is already an indicator of the likelihood of higher rates of absences later in a student's school career, as well as lower achievement in reading and math.<sup>29</sup> By third grade, reading ability is strongly associated with high school completion. One in six third graders who do not read proficiently will not graduate from high school on time, and the rates are even higher (23%) for children who were both not reading proficiently in third grade and living in poverty for at least a year.<sup>30</sup> In recognition of the importance of assuring that children are reading by the third grade, legislators enacted the Arizona Revised Statute §15-701 (also known as the *Move on When Reading* law) which states that as of school year 2013-2014 a student shall not be promoted from the third grade if the student obtains a score on the statewide reading assessment "that demonstrates that the pupil's reading falls far below the

<sup>&</sup>lt;sup>25</sup> Planty, M., Hussar, W., Snyder, T., Provasnik, S., Kena, G., Dinkes, R., KewalRamani, A., & Kemp, J. (2008). *The Condition of Education 2008* (NCES 2008-031). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education, Washington, D.C. Retrieved from: http://nces.ed.gov/pubs2008/2008031.pdf

<sup>&</sup>lt;sup>26</sup> Waldfogel, J., Garfinkel, I., & Kelly, B. (2007). Welfare and the costs of public assistance. In C.R. Belfield and H.M. Levin (Eds.). *The price we pay: Economic and social consequences for inadequate education*. Washington, DC: The Brookings Institution, 160-174.

<sup>&</sup>lt;sup>27</sup> Annie E. Casey Foundation. (2013). *The First Eight Years. Giving kids a foundation for lifelong success*. Retrieved from http://www.aecf.org/m/resourcedoc/AECF-TheFirstEightYearsKCpolicyreport-2013.pdf

<sup>&</sup>lt;sup>28</sup> Lynch, J., & Kaplan, G. (2000). Socioeconomic position (pp. 13-35). In *Social Epidemiology*. Berkman, L. F. & Kawachi, I. (Eds.). New York: Oxford University Press.

<sup>&</sup>lt;sup>29</sup> Romero, M., & Lee, Y. (2007). *A National Portrait of Chronic Absenteeism in the Early Grades*. New York, NY: The National Center for Children in Poverty. Retrieved from http://www.nccp.org/publications/pdf/text\_771.pdf

<sup>&</sup>lt;sup>30</sup> Hernandez, D. (2011). *Double jeopardy: How third-grade reading skills and poverty influence high school graduation*. The Annie E. Casey Foundation. Retrieved from http://files.eric.ed.gov/fulltext/ED518818.pdf.

third-grade level." 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 of students in the public elementary schools in the state has been measured by Arizona's Instrument to Measure Standards (AIMS).<sup>31</sup> AIMS scores were used to meet the requirement of *Move on When Reading*.

However, a new summative assessment system which reflects Arizona's K-12 academic standards, Arizona's Measurement of Educational Readiness to Inform Teaching (AzMERIT), was implemented in the 2014-2015 school year.<sup>32</sup> This assessment replaced the reading and mathematics portions of the AIMS test. Although it is not a graduation requirement, it will still be used to determine promotion from the third grade in accordance with Arizona Revised Statute §15-701.<sup>33</sup>

AIMS results are included in this report, but future reports will use AzMERIT scores as they become available.

In order for children to be prepared to succeed on tests such as the AIMS or 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.<sup>34</sup>

### What the Data Tell Us

Nineteen percent of adults aged 25 and older in the Navajo/Apache Region have a bachelor's degree or more, which is a higher proportion than across Apache County (10%) or Navajo County (15%), but lower than the proportion in Arizona (27%) (see Figure 8). Adults in the region (41%) are more likely to have had some college or professional training compared to the counties (32% Apache County; 38% Navajo County) or the state (34%). High school drop-out rates were slightly higher in Apache (4%) and Navajo (5%) Counties compared to the state of Arizona (3%) in FY2014 (see Table 17). In addition, four and five year graduation rates in 2013 in Apache County (66% and 70% respectively) were lower than those across the state (75% and 79%); Navajo County's graduation rates (75% and 79%) were equivalent to those of the state.

<sup>&</sup>lt;sup>31</sup> For more information on the AIMS test, see http://arizonaindicators.org/education/aims

<sup>&</sup>lt;sup>32</sup> For more information on AzMERIT, see http://www.azed.gov/assessment/azmerit/

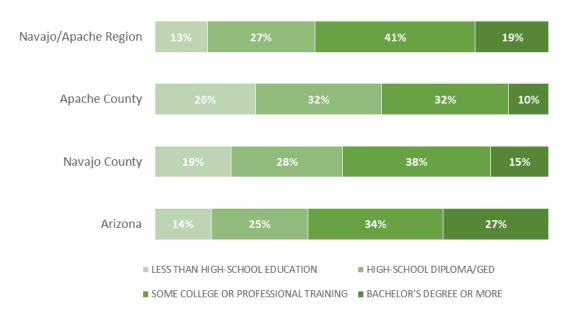
<sup>&</sup>lt;sup>33</sup> For more information on Move on When Reading, see http://www.azed.gov/mowr/

<sup>&</sup>lt;sup>34</sup> First Things First. (2012). *Read All About It: School Success Rooted in Early Language and Literacy*. Retrieved from http://www.azftf.gov/WhoWeAre/Board/Documents/Policy Brief Q1-2012.pdf

Students are considered as passing Arizona's Instrument to Measure Standards (AIMS) test if they meet or exceed the standard. In Apache County, fewer than half (46%) of students passed the Math test and 60 percent passed the Reading test in 2014 (see Figure 9 and Figure 10). Results in Navajo County were more similar to those statewide; 64 percent of students passed the Math test and 75 percent passed the Reading test. Across Arizona, 69 percent of third grade students passed the AIMS Math test and 78 percent passed the AIMS reading test. Only four percent of 3<sup>rd</sup> graders in Apache County, two percent in Navajo County and three percent across the state scored "falls far below" in reading, whereas in math, 20 percent of 3<sup>rd</sup> grade students in Apache County, 11 percent in Navajo County and 10 percent in Arizona received this score.

### **Educational Attainment of the Adult Population**

Figure 8. Level of education for the population ages 25 and older, 2009-2013 five-year estimate



Source: U.S. Census Bureau (2014). 2009-2013 American Community Survey 5 Year Estimates, Table B15002

## **Graduation and Drop-out Rates**

Table 17. Drop-out and graduation rates, 2012-2014

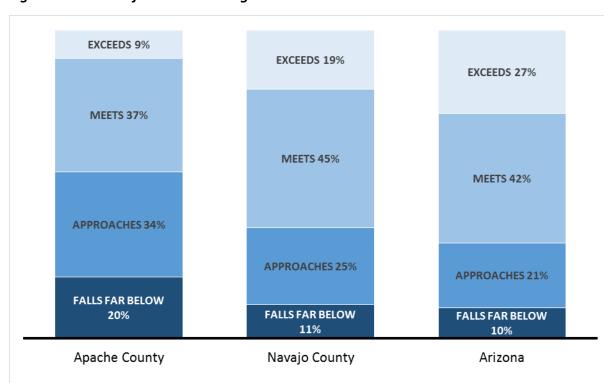
	DROPOUT RATE			FOUR-YEAR GRADUATION RATE			FIVE-YEAR GRADUATION RATE		
	FY 2012	FY 2013	FY 2014	2011 COHORT	2012 COHORT	2013 COHORT	2011 COHORT	2012 COHORT	2013 COHORT
Apache County	5%	5%	4%	70%	72%	66%	74%	76%	70%
Navajo County	5%	5%	5%	72%	77%	75%	76%	80%	79%
Arizona	4%	4%	3%	78%	77%	75%	81%	80%	79%

Source: The Arizona Department of Education (July 2015). [Education dataset]. Unpublished data.

Note: Regional data were not available for this indicator.

## **Third-grade Test Scores**

Figure 9. Results of the 2014 third-grade AIMS Math test



Source: Arizona Department of Education, Research and Evaluation (2015). AIMS Assessment Results. Retrieved from: www.azed.gov/research-evaluation/aims-assessment-results

EXCEEDS 3% **EXCEEDS 8% EXCEEDS 12% MEETS 57% MEETS 67% MEETS 66% APPROACHES 36% FALLS FAR APPROACHES 24% FALLS FAR FALLS FAR APPROACHES 20%** BELOW 4% BELOW 2% BELOW 3% Apache County Navajo County Arizona

Figure 10. Results of the 2014 third-grade AIMS Reading test

Source: Arizona Department of Education, Research and Evaluation (2015). AIMS Assessment Results. Retrieved from: www.azed.gov/research-evaluation/aims-assessment-results

### **Other Educational Indicators**

Table 18. Percent of students (Pre-K through 3rd grade) who were homeless, 2012-2014

	HOMELESS IN 2012	HOMELESS IN 2013	<b>HOMELESS IN 2014</b>
Apache County	0%	5%	1%
Navajo County	2%	2%	1%
Arizona	2%	2%	2%

Source: The Arizona Department of Education (July 2015). [Education dataset]. Unpublished data. Note: Regional data were not available for this indicator.

Table 19. Attendance rates for first-, second-, and third-graders, 2014

	FIRST-GRADE ENROLLMENT	FIRST-GRADE ATTENDANCE RATE	SECOND- GRADE ENROLLMENT	SECOND-GRADE ATTENDANCE RATE	THIRD-GRADE ENROLLMENT	THIRD-GRADE ATTENDANCE RATE
Apache County	811	93%	775	93%	773	94%
Navajo County	1,356	94%	1,246	94%	1,207	95%
Arizona	79,826	95%	76,666	95%	75,029	96%

 $Source: The \ Arizona \ Department \ of \ Education \ (July \ 2015). \ [Education \ dataset]. \ Unpublished \ data.$ 

Note: Regional data were not available for this indicator.

## **Early Learning**

## Why it Matters

Early childhood marks a time of peak plasticity in the brain, and early adversity can weaken the foundation upon which future learning will be built; in other words, positive developmental experiences in early life are crucial.<sup>35</sup> Research has shown that the experiences that children have from birth to five years of age influence future health and well-being, and that supporting children during this time has a great return on investment.<sup>36</sup> Investing in high-quality early childhood programs, particularly for disadvantaged children, provides substantial benefits to society through increased educational achievement and employment, reductions in crime, and better overall health of those children as they mature into adults.<sup>37,38</sup> Children whose education begins with high-quality preschool repeat grades less frequently, obtain higher scores on standardized tests, experience fewer behavior problems, and are more likely to graduate high school.<sup>39</sup>

The ability of families to access quality, affordable early care and education opportunities, however, can be limited. The annual cost of full-time center-based care for a young child in Arizona is only slightly less than a year of tuition and fees at a public college. Although the Department of Health and Human Services recommends that parents spend no more than 10 percent of their family income on child care, the cost of center-based care for a single infant, toddler, or 3-5 year old is an estimated 17, 15 and 11 percent, respectively, of an average Arizona family's income.

<sup>&</sup>lt;sup>35</sup> Center on the Developing Child at Harvard University. (2010). *The Foundations of Lifelong Health Are Built in Early Childhood*. Retrieved from http://developingchild.harvard.edu/wp-content/uploads/2015/05/Foundations-of-Lifelong-Health.pdf

<sup>&</sup>lt;sup>36</sup> Executive Office of the President of the United States. (2014). *The Economics of Early Childhood Investments*. Retrieved from https://www.whitehouse.gov/sites/default/files/docs/early\_childhood\_report1.pdf

<sup>&</sup>lt;sup>37</sup> The Heckman Equation. (2013). *The Heckman Equation Brochure*. Retrieved from http://heckmanequation.org/content/resource/heckman-equation-brochure-0

<sup>&</sup>lt;sup>38</sup> The Heckman Equation. (n.d.) *Research Summary: Abecedarian & Health.* Retrieved from http://heckmanequation.org/content/resource/research-summary-abecedarian-health

<sup>&</sup>lt;sup>39</sup> Annie E. Casey Foundation. (2013). *The First Eight Years. Giving kids a foundation for lifelong success*. Retrieved from http://www.aecf.org/m/resourcedoc/AECF-TheFirstEightYearsKCpolicyreport-2013.pdf

<sup>&</sup>lt;sup>40</sup> Child Care Aware® of America. (2014). *Parents and the High Cost of Child Care: 2014 Report*. Retrieved from https://www.ncsl.org/documents/cyf/2014\_Parents\_and\_the\_High\_Cost\_of\_Child\_Care.pdf

<sup>&</sup>lt;sup>41</sup> U.S. Department of Health and Human Services, Child Care Bureau (2008). *Child Care and Development Fund: Report of state and territory plans: FY 2008-2009*. Section 3.5.5 – Affordable co-payments, p. 89. Retrieved from http://www.researchconnections.org/childcare/resources/14784/pdf

<sup>&</sup>lt;sup>42</sup> The cost of center-based care as a percentage of income is based on the Arizona median annual family income of \$58,900.

Child care subsidies can help families who otherwise would be unable to access early learning services. <sup>43</sup> However, the availability of this type of support is also limited. The number of children receiving Child Care and Development Fund (CCDF) subsidies in Arizona is low. In 2014, only 26,685 children aged birth to 5 (about 5% of Arizona's children in this age range) received CCDF vouchers. 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.

The availability of services for young children with special needs is an ongoing concern across the state, particularly in more geographically remote communities. The services available to families include early intervention screening and intervention services provided through the Arizona Department of Education AZ FIND (Child Find), <sup>44</sup> the Arizona Early Intervention Program (AzEIP) <sup>45</sup> and the Division of Developmental Disabilities (DDD). <sup>46</sup> These programs help identify and assist families with young children who may need additional support to meet their potential. Timely intervention can help young children with, or at risk for, developmental delays improve language, cognitive, and social/emotional development. It also reduces educational costs by decreasing the need for special education. <sup>47,48,49</sup>

#### What the Data Tell Us

In 2014, there were 28 licensed child care providers in the Navajo/Apache Region, licensed to serve 1,165 children (see Table 20). Most of these providers were classified as child care centers (n=21), followed by family child care providers (n=4) and group homes (n=3). The cost of care in Apache County and Navajo County varies by the type of care and the age of the child receiving care; the median cost in the county relative to the cost of like care across the state differs depending on the situation. For example, residents in Apache County and Navajo County tend to pay lower prices for child care centers but higher prices for approved family homes (see Table 21).

<sup>&</sup>lt;sup>43</sup> For more information on child care subsidies see https://www.azdes.gov/child care/

<sup>&</sup>lt;sup>44</sup> For more information on AZ FIND see http://www.azed.gov/special-education/az-find/

<sup>&</sup>lt;sup>45</sup> For more information on AzEIP see https://www.azdes.gov/azeip/

<sup>&</sup>lt;sup>46</sup> For more information on DDD see https://www.azdes.gov/developmental\_disabilities/

<sup>&</sup>lt;sup>47</sup> The National Early Childhood Technical Assistance Center. (2011). *The Importance of Early Intervention for Infants and Toddlers with Disabilities and their Families*. Retrieved from http://www.nectac.org/~pdfs/pubs/importanceofearlyintervention.pdf

<sup>&</sup>lt;sup>48</sup> Hebbeler, K, Spiker, D, Bailey, D, Scarborough, A, Mallik, S, Simeonsson, R, Singer, M & Nelson, L. (2007). *Early intervention for infants and toddlers with disabilities and their families: Participants, services and outcomes. Final Report of the National Early Intervention Longitudinal Study (NEILS)*. Retrieved from http://www.sri.com/sites/default/files/publications/neils finalreport 200702.pdf

<sup>&</sup>lt;sup>49</sup> NECTAC Clearinghouse on Early Intervention and Early Childhood Special Education. (2005). *The long term economic benefits of high quality early childhood intervention programs*. Retrieved from http://ectacenter.org/~pdfs/pubs/econbene.pdf

According to data from the American Community Survey, a higher proportion of children aged 3 and 4 were enrolled in nursery school, preschool, or kindergarten in the Navajo/Apache Region (47%) compared to Apache County (41%), Navajo County (44%), and the state of Arizona (35%) (see Table 23).

The number of Division of Developmental Disabilities (DDD) service visits for children aged 0-2 increased from 2013 to 2014 in the region and Apache County, but decreased in Navajo County and the state (see Table 25). A similar pattern occurred for older children, with DDD service visits for children aged 3-5 increasing from 2013 to 2014 in the region and Apache County, but decreasing in Navajo County and across the state (see Table 26).

## **Early Care and Education**

Table 20. Child care providers, number of providers and total licensed capacity, 2014

	CHILD CA	ARE CENTERS	GRO	GROUP HOMES		FAMILY CHILD CARE		NANNY OR INDIVIDUAL		ES OF CARE
	NUM	LICENSED CAPACITY	LICENSED NUM CAPACITY		NUM	LICENSED NUM CAPACITY		LICENSED NUM CAPACITY		LICENSED CAPACITY
Navajo/Apache Region	21	1,119	3	30	4	16	0	0	28	1,165
Apache County	8	536	0	0	0	0	0	0	8	536
Navajo County	26	1,355	4	40	6	24	0	0	36	1,419
Arizona	2,020	219,482	272	2,683	833	3,312	54	211	3,179	225,688

Source: The Arizona Department of Economic Security (2015). [Child care dataset]. Unpublished data.

Note: "Licensed Capacity" refers to the number of children (of all ages) who may be served, according to the provider's license.

Table 21. Median daily charge for full-time child care, 2014

	MEDIAN DAILY CHARGE FOR FULL- TIME CHILD CARE IN LICENSED				MEDIAN DAILY CHARGE FOR FULL-TIME CHILD CARE IN			MEDIAN DAILY CHARGE FOR FULL- TIME CHILD CARE IN CERTIFIED		
	CHILD CARE CENTERS			APPROVED FAMILY HOMES			GROUP HOMES			
	INFANT	1 OR 2 YEAR OLD	3 TO 5 YEAR OLD	INFANT	1 OR 2 YEAR OLD	3 TO 5 YEAR OLD	INFANT	1 OR 2 YEAR OLD	3 TO 5 YEAR OLD	
Apache County	\$32	\$27.60	\$25.25	\$24	\$22	\$21	\$28	\$25	\$25.50	
Navajo County	\$32	\$27.60	\$25.25	\$24	\$22	\$21	\$28	\$25	\$25.50	
Arizona	\$42	\$38	\$33	\$22	\$20	\$20	\$27	\$25	\$25	

Source: Arizona Department of Economic Security (2015). Child Care Market Rate Survey. Received by request. Note: Regional data were not available for this indicator.

Note: Median daily charges for Apache and Navajo Counties are based on data from Apache, Coconino, Navajo, and Yavapai Counties.

Table 22. Cost of child care in a licensed center as a percentage of median family income

CHARGE FOR FULL-TIME CHILDCARE IN A LICENSED CHILDCARE CENTER AS A PERCENTAGE OF MEDIAN INCOME

			PERCENTAGE OF MEDIAN INC	OME
	MEDIAN ANNUAL FAMILY INCOME	INFANT	1 OR 2 YEAR OLD	3 TO 5 YEAR OLD
Apache County	\$37,100	21%	18%	16%
Navajo County	\$43,500	18%	15%	14%
Arizona	\$58,900	17%	15%	11%

Source: United State Census Bureau (2014). 2009-2013 American Community Survey 5 Year Estimates, Table B19126. Retrieved from http://factfinder.census.gov; Arizona Department of Economic Security (2015). [2014 Child care market rate survey data]. Received by request. Note: Regional data were not available for this indicator.

Table 23. Estimated number of children (ages 3 or 4) enrolled in nursery school, preschool, or kindergarten, 2009-2013 five-year estimate

ESTIMATED POPULATION (AGES 3-4) ENROLLED IN SCHOOL (AGES 3-4)

Navajo/Apache Region	2,147	1,012	47%
Apache County	2,523	1,027	41%
Navajo County	3,436	1,525	44%
Arizona	185,310	65,591	35%

Source: U.S. Census Bureau (2014). 2009-2013 American Community Survey 5 Year Estimates, Table B14003. Retrieved from: http://factfinder.census.gov

## **Families with Children Who Have Special Needs**

Table 24. AzEIP referrals and children served, 2014

	NUMBER OF A	AZEIP REFERRALS 014	DURING	NUMBER OF C	SERVED BY		
	FROM 13 TO FROM 25 TO				FROM 13 TO	FROM 25 TO	
	LESS THAN 1 24 MONTHS 35 MONTH		35 MONTHS	LESS THAN 1	24 MONTHS	35 MONTHS	
	YEAR OLD	OLD	OLD	YEAR OLD	OLD	OLD	
Navajo/Apache Region	N/A	25	N/A	N/A	N/A	N/A	
Apache County	N/A	30	N/A	N/A	N/A	29	

Navajo County	28	N/A	32	N/A	N/A	28
Arizona	2,651	3,669	5,421	746	1,659	2,843

Source: Arizona Department of Economic Security (July 2015). [Special needs dataset]. Unpublished data.

Note: Entries of "N/A" indicate percentages which cannot be reported because of data suppression, or are otherwise not available.

Table 25. Division of Developmental Disabilities (DDD) services to children (ages 0-2), 2013-2014

	CHILDREN (AGES 0-2) REFERRED TO DDD		CHILDREN (AGES 0-2) SCREENED BY DDD		CHILDREN (AGES 0-2) SERVED BY DDD		NUMBER OF DDD SERVICE VISITS TO CHILDREN (AGES 0-2)	
	FY 2013	FY 2014	FY 2013	FY 2014	FY 2013	FY 2014	FY 2013	FY 2014
Navajo/Apache Region	N/A	N/A	N/A	N/A	N/A	N/A	554	1,092
Apache County	N/A	N/A	0	0	N/A	N/A	351	773
Navajo County	N/A	N/A	N/A	N/A	26	N/A	760	725
Arizona	2,186	2,479	314	216	2,693	2,341	158,496	130,486

Source: Arizona Department of Economic Security (July 2015). [Special needs dataset]. Unpublished data.

Note: Entries of "N/A" indicate percentages which cannot be reported because of data suppression, or are otherwise not available.

Table 26. Division of Developmental Disabilities (DDD) services to children (ages 3-5), 2013-2014

	CHILDREN (AGES 3-5) REFERRED TO DDD		CHILDREN (AGES 3-5) SCREENED BY DDD		CHILDREN (AGES 3-5) SERVED BY DDD		NUMBER OF DDD SERVICE VISITS TO CHILDREN (AGES 3-5)	
	FY 2013	FY 2014	FY 2013	FY 2014	FY 2013	FY 2014	FY 2013	FY 2014
Navajo/Apache Region	N/A	N/A	N/A	N/A	N/A	N/A	1,584	1,699
Apache County	N/A	N/A	N/A	0	N/A	N/A	696	1,048
Navajo County	N/A	N/A	N/A	N/A	N/A	N/A	1,730	1,615
Arizona	1,401	1,804	731	727	2,600	2,533	374,440	367,590

Source: Arizona Department of Economic Security (July 2015). [Special needs dataset]. Unpublished data.

Note: Entries of "N/A" indicate percentages which cannot be reported because of data suppression, or are otherwise not available.

## **Child Health**

## Why it Matters

The Institute of Medicine defines children's health as the extent to which children are able or enabled to develop and realize their potential, satisfy their needs, and develop the capacities that allow them to successfully interact with their biological, physical, and social environments. Health therefore encompasses not only physical health, but also mental, intellectual, social, and emotional well-being. Children's health can be influenced by their mother's health and the environment into which they are born and raised. The health of a child in utero, at birth, and in early life can impact many aspects of a child's development and later life. Factors such as a mother's prenatal care, access to health care and health insurance, and receipt of preventive care such as immunizations and oral health care all influence not only a child's current health, but long-term development and success as well. As 3,54,55 In addition, nonfatal unintentional injuries substantially impact the well-being of children, and injuries are the leading cause of death in children in the United States.

Healthy People is a science-based government initiative which provides 10-year national objectives for improving the health of Americans. Healthy People 2020 targets are developed with the use of current health data, baseline measures, and areas for specific

<sup>&</sup>lt;sup>50</sup> National Research Council and Institute of Medicine. (2004). *Children's Health, the Nation's Wealth: Assessing and Improving Child Health*. Washington, DC: National Academies Press. Retrieved from http://www.ncbi.nlm.nih.gov/books/NBK92198/#ch2.s3

<sup>&</sup>lt;sup>51</sup> The Future of Children. (2015). *Policies to Promote Child Health, (25)*1. Retrieved from http://www.princeton.edu/futureofchildren/publications/docs/FOC-spring-2015.pdf

<sup>&</sup>lt;sup>52</sup> Center on the Developing Child at Harvard University. (2010). *The Foundations of Lifelong Health Are Built in Early Childhood*. Retrieved from http://developingchild.harvard.edu/wp-content/uploads/2015/05/Foundations-of-Lifelong-Health.pdf

<sup>&</sup>lt;sup>53</sup> Maternal and Child Health Bureau, Health Resources and Services Administration, U.S. Department of Health and Human Services. (n.d.) *Prenatal services*. Retrieved from http://mchb.hrsa.gov/programs/womeninfants/prenatal.html

<sup>&</sup>lt;sup>54</sup> Patrick, D. L., Lee, R. S., Nucci, M., Grembowski, D., Jolles, C. Z., & Milgrom, P. (2006). Reducing oral health disparities: A focus on social and cultural determinants. *BMC Oral Health*, *6*(Suppl 1), S4. Retrieved from http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2147600/

<sup>&</sup>lt;sup>55</sup> Council on Children With Disabilities, Section on Developmental Behavioral Pediatrics, Bright Futures Steering Committee, and Medical Home Initiatives for Children With Special Needs Project Advisory Committee. (2006). Identifying infants and young children with developmental disorders in the medical home: An algorithm for developmental surveillance and screening. *Pediatrics*, *118s*(1), 405-420. Retrieved from http://pediatrics.aappublications.org/content/118/1/405.full

<sup>&</sup>lt;sup>56</sup> Danesco, E.R., Miller, T.R., & Spicer, R. S. (2000). Incidence and costs of 1987-1994 childhood injuries: Demographic breakdowns. *Pediatrics*, 105(2), E27. Retrieved from http://pediatrics.aappublications.org/content/105/2/e27.long

<sup>&</sup>lt;sup>57</sup> Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. (2013). *10 Leading Causes of Death by Age Group, United States-2013*. Retrieved from http://www.cdc.gov/injury/images/lc-charts/leading\_causes\_of\_death\_by\_age\_group\_2013-a.gif

improvement. Understanding where Arizona mothers and children fall in relation to these national benchmarks can help highlight areas of strength in relation to young children's health and those in need of improvement in the state. The Arizona Department of Health Services monitors state level progress towards a number of maternal, infant and child health objectives for which data are available at the regional level, including increasing the proportion of pregnant women who receive prenatal care in the first trimester; reducing low birth weight; reducing preterm births; and increasing abstinence from cigarette smoking among pregnant women. Although not a target of a Healthy People 2020 objective, high-birth weight, or macrosomia, is also associated with health risks for both the mother and infant during birth. These children are also at increased risk for obesity and metabolic syndrome (which is linked to an increase risk of heart disease, stroke, and diabetes). 59

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. Without health insurance, each visit can be prohibitively expensive and may be skipped.<sup>60</sup>

#### What the Data Tell Us

Characteristics of mothers who gave birth in 2013 in the Navajo/Apache Region differed from those of mothers in Apache County, Navajo County and across the state of Arizona (see Table 27). For example, five percent of women giving birth in the Navajo/Apache Region had fewer than five prenatal visits, compared to seven percent in Apache County, eight percent in Navajo County and five percent across the state overall. A higher proportion of mothers in the Navajo/Apache Region reported smoking during pregnancy (10%) than in Apache County (3%), Navajo County (6%) or the state (4%). The region does not meet the Healthy People 2020 objective related to the proportion of expectant mothers who receive prenatal care in the first trimester; at 26 percent, the region exceeds the Healthy People 2020 guideline of no more than 22.1 percent of mothers lacking prenatal care during that period (see Figure 11). In addition,

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<sup>&</sup>lt;sup>58</sup> Arizona Department of Health Services. (2013). *Arizona Health Status and Vital Statistics 2013 Annual Report. Table 6A: Monitoring Progress Toward Arizona and Selected Healthy People 2020 Objectives: Statewide Trends* Retrieved from http://www.azdhs.gov/plan/report/ahs/ahs2013/pdf/6a1\_10.pdf

<sup>&</sup>lt;sup>59</sup> Mayo Clinic Staff. (2015). *Fetal macrosomia*. Retrieved from http://www.mayoclinic.org/diseases-conditions/fetal-macrosomia/basics/complications/con-20035423

<sup>&</sup>lt;sup>60</sup> Yeung, LF, Coates, RJ, Seeff, L, Monroe, JA, Lu, MC, & Boyle, CA. (2014). Conclusions and future directions for periodic reporting on the use of selected clinical preventive services to improve the health of infants, children, and adolescents—United States. *Morbidity and Mortality Weekly Report 2014*, *63*(Suppl-2), 99-107. Retrieved from http://www.cdc.gov/mmwr/pdf/other/su6302.pdf.

for the proportion of women who smoke while pregnant objective, the region falls far above the Healthy People 2020 goal of 1.4 percent.

The Navajo/Apache Region is, however, meeting Healthy People 2020 objectives around infant and child health. 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. In the region in 2013, seven percent of babies were low birth weight and eight percent were premature (see Figure 12).

Unintentional injuries, requiring emergency department visits, for children under age six in Apache County and the state declined between 2012 and 2014 (see Table 29). However, in Navajo County, the number of emergency department visits due to unintentional injuries for young children increased overall from 2012 to 2014.

A key factor in health care is health insurance, and young children in the Navajo/Apache Region were less likely to be uninsured (8%) compared to Apache County (19%), Navajo County (9%) and the state (10%) (see Figure 15). Compared to young children, members of the total (all ages) population of the region, county, and state were more likely to lack health insurance, however less of the total population in the Navajo/Apache Region was uninsured (16%) than in Apache County (26%), Navajo County (18%), or the state (17%).

While immunizations rates vary by vaccine, over 90 percent of children in child care in the Navajo/Apache Region had completed each of the three major (DTAP, polio, and MMR) vaccine series (see Table 31). The Healthy People 2020 Target for vaccination coverage for children ages 19-35 months for these vaccines is 90 percent, <sup>61</sup> suggesting the region is meeting this goal. 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. <sup>62</sup> 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. Children in kindergarten were vaccinated at similar, but slightly lower rates than children in child care for the region, and the region's rates of vaccine coverage for kindergarteners were

<sup>&</sup>lt;sup>61</sup> U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. (2015). *Immunization and Infectious Diseases*. Washington, DC. Retrieved from: https://www.healthypeople.gov/2020/topics-objectives/topic/immunization-and-infectious-diseases/objectives

<sup>&</sup>lt;sup>62</sup> 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 (Diptheria, 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

below those at the county and state level (see Table 32). Religious (5.4%) or personal belief (6.0%) exemptions were more common in the region than in either county or the state.

## **Mothers Giving Birth**

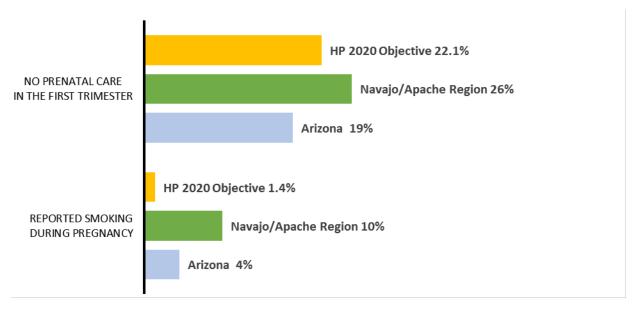
Table 27. Selected characteristics of mothers giving birth, 2013

	TOTAL NUMBER BIRTHS TO ARIZONA- RESIDENT MOTHERS, 2013	HAD FEWER THAN 5 PRENATAL VISITS	HAD NO PRENATAL CARE IN FIRST TRI- MESTER	MOTHER REPORTED SMOKING DURING PREG- NANCY	MOTHER REPORTED DRINKING DURING PREG- NANCY	MOTHER HAD LESS THAN A HIGH SCHOOL- EDU- CATION	MOTHERS YOUNGER THAN 20 YEARS OLD	MOTHERS YOUNGER THAN 18 YEARS OLD	BIRTH WAS PAID FOR BY AHCCCS OR IHS (PUBLIC PAYOR)
Navajo/Apache Region	902	5%	26%	10%	N/A	14%	9%	N/A	62%
Apache County	951	7%	31%	3%	N/A	14%	12%	N/A	87%
Navajo County	1,554	8%	29%	6%	1%	18%	12%	N/A	79%
Arizona	84,963	5%	19%	4%	0%	18%	9%	2%	55%

Source: Arizona Department of Health Services (July 2015). [Vital statistics dataset]. Unpublished data.

Note: Entries of "N/A" indicate percentages which cannot be reported because of data suppression, or are otherwise not available.

Figure 11. Healthy People 2020 objectives for mothers, compared to 2013 region and state data



Source: Arizona Department of Health Services (July 2015). [Vital statistics dataset]. Unpublished data. Arizona Department of Health Services (2015). Status on Healthy People 2020 Objectives, Table 6A. Retrieved from http://www.azdhs.gov/plan/menu/info/status.php

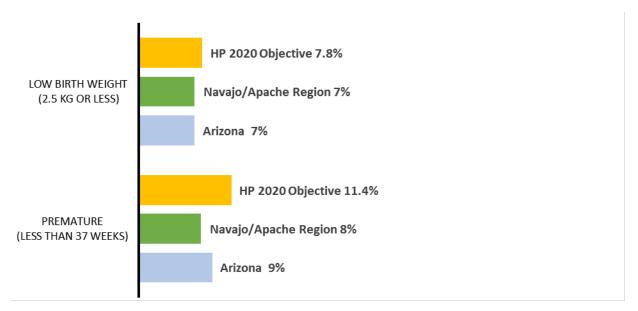
### **Infant Health**

Table 28. Selected characteristics of babies born, 2013

	TOTAL NUMBER OF BIRTHS TO ARIZONA- RESIDENT MOTHERS, 2013	BABY HAD LOW BIRTH WEIGHT (2.5 kg OR LESS)	BABY HAD HIGH BIRTH WEIGHT (4 kg OR MORE)	BABY WAS PREMATURE (LESS THAN 37 WEEKS)	BABY WAS IN NEONATAL INTENSIVE CARE
Navajo/Apache Region	902	7%	6%	8%	3%
Apache County	951	6%	9%	8%	N/A
Navajo County	1,554	8%	6%	9%	4%
Arizona	84,963	7%	8%	9%	5%

Source: Arizona Department of Health Services (July 2015). [Vital statistics dataset]. Unpublished data.

Figure 12. Healthy People 2020 objectives for babies, compared to 2013 region and state data



Source: Arizona Department of Health Services (July 2015). [Vital statistics dataset]. Unpublished data. Arizona Department of Health Services (2015). Status on Healthy People 2020 Objectives, Table 6A. Retrieved from http://www.azdhs.gov/plan/menu/info/status.php

Table 29. Unintentional injuries to children (ages 0-5), 2012-2014

	NON-FATAL IN	PATIENT HOSPITA	LIZATIONS	NON-FATAL EMERGENCY DEPARTMENT VISITS			
	2012	2013	2014	2012	2013	2014	
Apache County	25	N/A	N/A	360	324	316	
Navajo County	N/A	N/A	27	557	527	590	
Arizona	1,306	1,049	901	49,453	46,407	46,033	

Source: Arizona Department of Health Services (June 2015). [Injury report]. Received by request.

Note: Regional data were not available for this indicator.

Note: Entries of "N/A" indicate percentages which cannot be reported because of data suppression, or are otherwise not available.

Figure 13. Regular visits at the same doctor's office (Family and Community Survey, 2012)

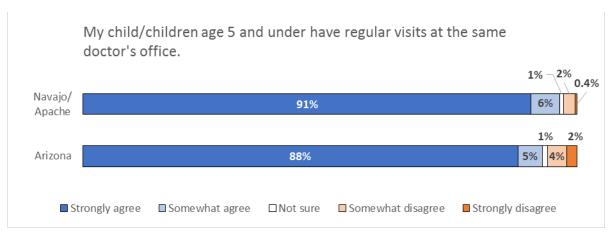
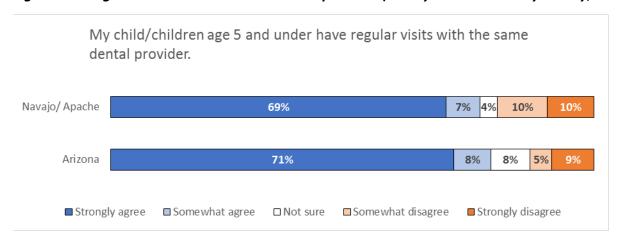


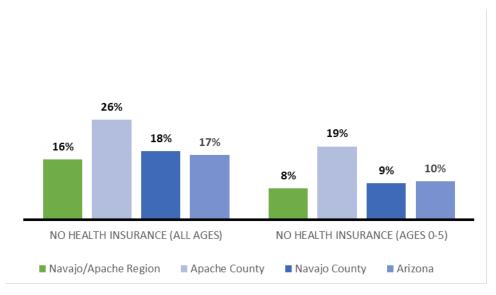
Figure 14. Regular visits with the same dental provider (Family and Community Survey, 2012)



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

#### **Health Insurance**

Figure 15. Estimated percent of population without health insurance, 2009-2013 five-year estimate



Source: U.S. Census Bureau (2014). 2009-2013 American Community Survey 5 Year Estimates, Table B27001. Retrieved from: http://factfinder.census.gov

Table 30. Number of children (all ages) enrolled in KidsCare, 2005-2014

	JAN 2005	JAN 2006	JAN 2007	JAN 2008	JAN 2009	JAN 2010	JAN 2011	JAN 2012	JAN 2013	JAN 2014
Apache County	671	755	644	855	816	730	356	165	599	886
Navajo County	1,186	1,350	1,373	1,546	1,421	1,124	537	242	839	1,168
Arizona	48,075	55,996	58,612	63,527	61,198	45,809	22,943	12,837	34,127	42,686

Source: Arizona Health Care Cost Containment System (2014). KidsCare Population Reports

Note: Regional data were not available for this indicator.

## **Immunizations**

Table 31. Immunizations for children in child care, school year 2014-2015

	NUMBER OF STUDENTS	DTAP (DIPHTHERIA, TETANUS, PERTUSSIS), 4 OR MORE DOSES	POLIO, 3 OR MORE DOSES	MMR (MEASLES, MUMPS, RUBELLA), 1 OR MORE DOSES	RELIGIOUS BELIEFS EXEMPTIONS	MEDICAL EXEMPTIONS
Navajo/Apache Region	958	92%	94%	95%	5.4%	0.4%
Apache County	250	95%	96%	96%	4.4%	0.8%
Navajo County	1,398	95%	97%	97%	3.0%	0.2%
Arizona	84,778	93%	95%	96%	3.6%	0.5%

Source: Arizona Department of Health Services (2015). [Regional immunization dataset]. Unpublished data. Arizona Department of Health Services (2015). Arizona childcare immunization coverage. Retrieved from: http://azdhs.gov/preparedness/epidemiology-disease-control/immunization/index.php#reports-immunization-coverage

Table 32. Immunizations for children in kindergarten, school year 2014-2015

	NUMBER OF STUDENTS	DTAP (DIPHTHERIA, TETANUS, PERTUSSIS), 4 OR MORE DOSES	POLIO, 3 OR MORE DOSES	MMR (MEASLES, MUMPS, RUBELLA), 1 OR MORE DOSES	PERSONAL BELIEFS EXEMPTIONS	MEDICAL EXEMPTIONS
Navajo/Apache Region	1,136	92%	91%	92%	6.0%	1.7%
Apache County	997	97%	96%	96%	2.2%	0.6%
Navajo County	1,239	94%	94%	94%	4.5%	1.2%
Arizona	84,651	94%	95%	94%	4.6%	0.3%

Source: Arizona Department of Health Services (2015). [Regional immunization dataset]. Unpublished data. Arizona Department of Health Services (2015). Arizona kindergarten immunization coverage. Retrieved from: http://azdhs.gov/preparedness/epidemiology-disease-control/immunization/index.php#reports-immunization-coverage

## **Family Support and Literacy**

## Why it Matters

Parents and families have a crucial role in providing nurturing and stable relationships for optimal brain development during their child's first years. 63,64,65 When children experience nurturing, responsive caregiving, they face better life prospects across a number of social, physical, academic and economic outcomes. 66,67 Consequently, healthy development depends on positive relationships between children and their caregivers from an early age. For parents of young children, reading aloud, singings songs, practicing nursery rhymes, and engaging in conversation primes children to reach their full potential. Such interactions not only support literacy skills, but also offer exposure to a range of ideas, including recognizing and naming emotions, an important socio-emotional skill. Parents and family are children's first teachers; the most rapid expansion in vocabulary happens between ages one and three. In fact, literacy promotion is so central to a child's development that the American Academy of Pediatrics has recently focused on it as a key issue in primary pediatric care, aiming to make parents more aware of their important role in literacy.

Data on the amount and quality of the interaction parents typically have with their children can be useful to inform programs and policies to encourage positive engagement. Communities may employ many resources to support families in engaging with their children. Examples of these opportunities include: home visitation programs; "stay and play" programs featuring

<sup>&</sup>lt;sup>63</sup> Evans, G. W., & Kim, P. (2013). Childhood poverty, chronic stress, self-regulation, and coping. *Child Development Perspectives,* 7(1), 43-48. Retrieved from http://onlinelibrary.wiley.com/doi/10.1111/cdep.12013/abstract

<sup>&</sup>lt;sup>64</sup> Shonkoff, J. P., & Fisher, P. A. (2013). Rethinking evidence-based practice and two-generation programs to create the future of early childhood policy. *Development and Psychopathology, 25*, 1635- 1653. Retrieved from http://journals.cambridge.org/download.php?file=%2FDPP%2FDPP25\_4pt2%2FS0954579413000813a.pdf&code=aeb62de3e0e a8214329e7a33e0a9df0e

<sup>&</sup>lt;sup>65</sup> Shonkoff, J. P. & Phillips, D. A. (2000). *From Neurons to Neighborhoods: The Science of Early Childhood Development*. Washington, D.C.: National Academy Press. Retrieved from http://www.nap.edu/read/9824/chapter/1

<sup>&</sup>lt;sup>66</sup> Magnuson, K. & Duncan, G. (2013). Parents in poverty (95-121) In Bornstein, M. *Handbook of Parenting: Biology and Ecology of Parenting Vol. 4: Social Conditions and Applied Parenting*. New Jersey: Lawrence Erlbaum.

<sup>&</sup>lt;sup>67</sup> Center on the Developing Child at Harvard University. (2010). *The Foundations of Lifelong Health Are Built in Early Childhood*. Retrieved from http://www.developingchild.harvard.edu

<sup>&</sup>lt;sup>68</sup> National Scientific Council on the Developing Child. (n.d.). Category: Working Papers. Retrieved from http://developingchild.harvard.edu/resourcecategory/working-papers/

<sup>&</sup>lt;sup>69</sup> Read On Arizona. (n.d.). As a parent what can I do at home to support early literacy? Retrieved from http://readonarizona.org/about-us/faq/

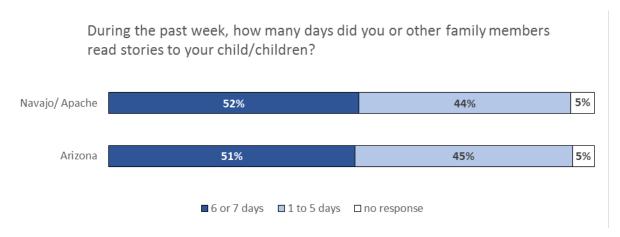
<sup>&</sup>lt;sup>70</sup> American Academy of Pediatrics. (n.d.). *Pediatric Professional Resource: Evidence Supporting Early Literacy and Early Learning*. Retrieved from https://www.aap.org/en-us/Documents/booksbuildconnections\_evidencesupportingearlyliteracyandearlylearning.pdf

developmentally appropriate activities for children and their parents; Read On Arizona, a program that promotes early literacy; and the national "Reach Out & Read" program, in which nearly 200 clinics and pediatric practices across the state seeing children for a well-child visit provide them with a book to take home.<sup>71</sup>

#### What the Data Tell Us

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 Navajo/Apache Region, 110 people responded to the 2012 First Things First Family and Community Survey. 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. Parents in the Navajo/Apache Region were more likely to report reading to their children (52%), telling stories to their children (61%) and drawing with their child (50%) six or seven days a week compared to parents across the state (51%, 51% and 47% respectively) (see Figure 16, Figure 17 and Figure 18). Parents in the Navajo/Apache Region showed less of an understanding that brain development can be impacted prenatally or right from birth (66%) than did respondents across the state as a whole (80%) (see Figure 19).

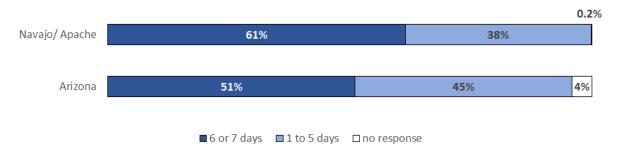
Figure 16. Reading stories to young children (Family and Community Survey, 2012)



<sup>&</sup>lt;sup>71</sup> Reach Out and Read. (n.d.). *Programs Near You*. Retrieved from http://www.reachoutandread.org/resource-center/find-a-program/

Figure 17. Telling stories or singing songs to young children (Family and Community Survey, 2012)

During the past week, how many days did you or other family members tell stories or sing songs to your child/children?



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

Figure 18. Drawing and scribbling with young children (Family and Community Survey, 2012)

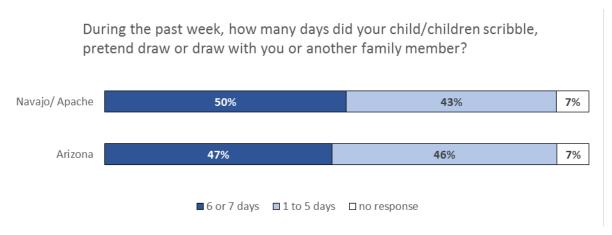
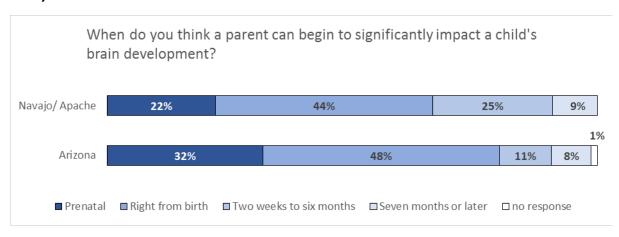


Figure 19. Understanding of prenatal brain development (Family and Community Survey, 2012)



## **Communication, Public Information and Awareness**

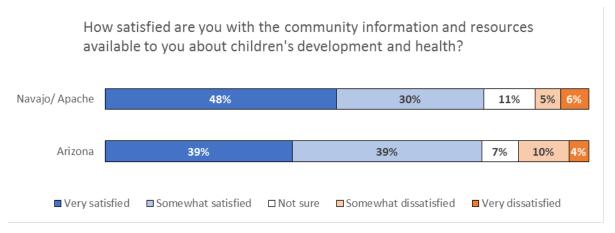
## Why it Matters

To create a strong, comprehensive, and sustainable early childhood system, communities need an awareness of the importance of the first five years in a child's life, and a commitment to align priorities and resources to programs and policies affecting these first years. Supporting public awareness by providing accessible information and resources on early childhood development and health, and educating community members about the benefits of committing resources to early childhood, are key to supporting and growing this system. Assessing the reach of these educational and informational efforts in First Things First regions across the state can help early childhood leadership and stakeholders refine, expand or re-direct these efforts.

#### What the Data Tell Us

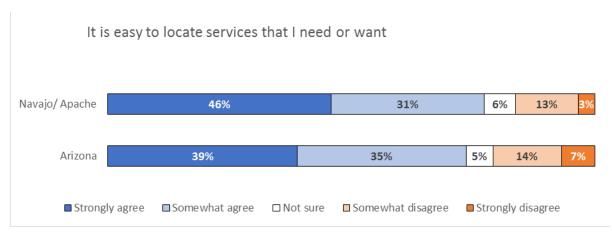
In addition to measuring parent knowledge, skills, and behaviors related to their young children, the 2012 First Things First Family and Community Survey collected data on parents' perceptions regarding resources available to young children and their families across Arizona. Results from the survey demonstrated that residents in the Navajo/Apache Region had higher levels of satisfaction with available information and resources, and agreement with ease of locating services, compared to the state. Almost half (48%) of Navajo/Apache 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 (see Figure 20). Seventy-seven percent of Navajo/Apache Region respondents "strongly agreed" or "somewhat agreed" that "it is easy to locate services that I want or need," compared to 74 percent of respondents across the state (see Figure 21).

Figure 20. Satisfaction with information and resources (Family and Community Survey, 2012)



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

Figure 21. Ease of locating needed services (Family and Community Survey, 2012)



# Systems Coordination among Early Childhood Programs and Services

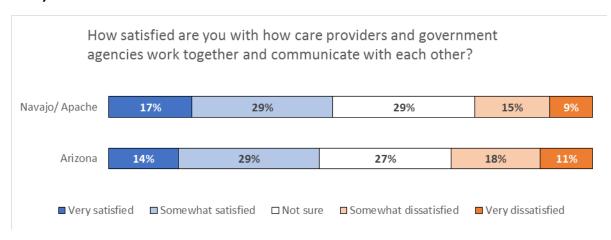
## **Why it Matters**

Through system-building, First Things First is focused on developing approaches to connect various components of the early childhood system. This is done in an effort to create a more holistic system that operates to promote shared results for children and families. Agencies that work together and achieve a high level of coordination and collaboration are often easier for families to access and the services provided are more responsive to the needs of the families. Coordination efforts may also result in an increased capacity to deliver services because of the work that organizations do to identify and address gaps in the service delivery continuum. By supporting a variety of coordination efforts, First Things First aims to create a high quality, interconnected, and comprehensive early childhood service delivery system that is timely, culturally responsive, family driven, community based, and directed toward enhancing children's overall development. Determining how these efforts are impacting regions and the families within them can help inform service, program and policy decisions that will benefit families and young children across the state.

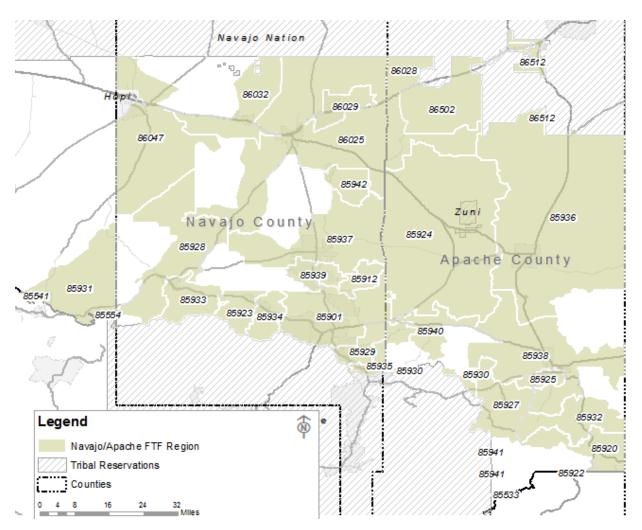
#### What the Data Tell Us

The 2012 First Things First Family and Community Survey collected data on parents' perceptions regarding how well agencies that serve young children and their families coordinate and collaborate. One item from the survey addresses the issue of perceived early childhood system coordination. Respondents in both the region and the state were more likely to indicate satisfaction (46% in the region, 43% in the state) than dissatisfaction (24% in the region, 29% in the state) with how care providers and government agencies work together and communicate (see Figure 22).

Figure 22. Satisfaction with coordination and communication (Family and Community Survey, 2012)



## Appendix 1: Map of zip codes of the Navajo/Apache Region



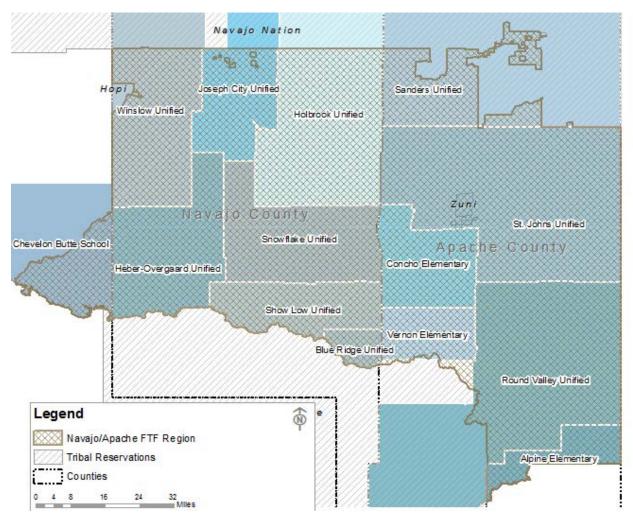
Source: U.S. Census Bureau (2010). TIGER/Line Shapefiles: ZCTAs, Counties, American Indian/Alaska Native Homelands. Retrieved from http://www.census.gov/geo/maps-data/data/tiger-line.html

## **Appendix 2: Zip codes of the Navajo/Apache Region**

ZIP CODE TABULATION AREA (ZCTA)	TOTAL POPULATION	POPULATION (AGES 0-5)	TOTAL NUMBER OF HOUSEHOLDS	HOUSEHOLDS WITH ONE OR MORE CHILDREN (AGES 0-5)	PERCENT OF ZCTA'S TOTAL POPULATION LIVING IN THE NAVAJO/APACHE REGION	THIS ZCTA IS SHARED WITH
Navajo/Apache Region	73,083	6,166	27,887	4,106		
85901	17,207	1,289	7,009	883	100%	
85912	178	12	80	10	100%	
85920	464	14	236	11	100%	
85923	621	61	214	39	100%	
85924	2,683	121	1,232	79	100%	
85925	4,893	503	1,740	344	100%	
85927	176	2	89	2	100%	
85928	1,102	98	423	56	100%	
85929	8,308	631	3,304	459	99.8%	White Mountain Apache Tribe
85931	203	6	104	3	98%	Coconino
85932	364	10	179	9	100%	
85933	3,033	156	1,428	94	100%	
85934	574	43	228	28	100%	
85935	4,432	290	1,830	199	94%	White Mountain Apache Tribe
85936	4,293	365	1,404	237	100%	
85937	7,638	838	2,613	525	100%	
85938	2,366	235	935	157	100%	
85939	4,400	515	1,390	334	100%	
85940	1,443	104	559	74	100%	
85942	80	11	32	4	100%	
86025	5,593	540	1,846	362	99%	Navajo Nation
86028	47	2	29	1	100%	
86029	320	18	91	13	100%	
86032	1,463	199	453	113	97%	Navajo Nation
86047	692	61	249	41	5%	Coconino & Navajo Nation
86502	87	7	34	5	6%	Navajo Nation
86512	422	35	155	24	17%	Navajo Nation
Other	1	0	1	0		

Source: U.S. Census Bureau (2010). 2010 Decennial Census, Summary File 1, Tables P1, P14, P20.

# **Appendix 3: Map of Elementary and Unified School Districts in the Navajo/Apache Region**



Source: U.S. Census Bureau (2015). TIGER/Line Shapefiles: Elementary School Districts, Unified School Districts. Retrieved from <a href="http://www.census.gov/geo/maps-data/data/tiger-line.html">http://www.census.gov/geo/maps-data/data/tiger-line.html</a>

 $Note: The\ children\ within\ the\ Chevelon\ Butte\ school\ district\ attend\ schools\ in\ the\ Heber-Overgaard\ Unified\ school\ district.$ 

## **Appendix 4: Data Sources**

- Arizona Department of Administration, Office of Employment and Population Statistics (December 2012): "2012-2050 State and county population projections." Retrieved from http://www.workforce.az.gov/population-projections.aspx
- Arizona Department of Administration, Office of Employment and Population Statistics (2014).

  Local area unemployment statistics (LAUS). Retrieved from

  https://laborstats.az.gov/local-area-unemployment-statistics
- Arizona Department of Economic Security (2015). Child Care Market Rate Survey 2014. Data received from the First Things First State Agency Data Request
- Arizona Department of Economic Security (2015). [Attendance data set]. Unpublished raw data received from the First Things First State Agency Data Request
- Arizona Department of Economic Security (2015). [AzEIP Data]. Unpublished raw data received through the First Things First State Agency Data Request
- Arizona Department of Economic Security (2015). [DDD Data]. Unpublished raw data received through the First Things First State Agency Data Request
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