# ## FIRST THINGS FIRST

Navajo Nation Region



# Navajo Nation Regional Partnership Council 2020 Needs and Assets Report

# Prepared by Community Research, Evaluation & Development (CRED) John & Doris Norton School of Family and Consumer Sciences

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The University of Arizona

# Funded by First Things First Navajo Nation Regional Partnership Council

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### Introduction

Ninety percent of a child's brain develops before kindergarten and the quality of a child's early experiences impacts whether their brain will develop in positive ways that promote learning. First Things First (FTF) was created by Arizonans to help ensure that Arizona children have the opportunity to arrive at kindergarten prepared to be successful. Understanding the critical role the early years play in a child's future success is crucial to our ability to foster each child's optimal development and, in turn, impact all aspects of wellbeing of our communities and our state.

This Needs and Assets Report for the FTF Navajo Nation Region helps community leaders and decision-makers understand the needs of young children, the resources available to meet those needs and gaps that may exist in those resources. Data collection and analysis for the 2020 report were completed prior to the COVID-19 pandemic and, therefore, do not reflect the impact of COVID-19 on families with young children and the services that support them. The report is organized by topic areas pertinent to young children in the region, such as the population characteristics or educational indicators. Within each topic area are sections that set the context for why the data found in the topic areas are important (Why it Matters), followed by a section that includes available data on the topic (What the Data Tell Us).

The FTF Navajo Nation 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. It is our sincere hope that this information also will help guide community conversations about how we can best support school readiness for all children in the Navajo Nation Region. To that end, this information may be useful to stakeholders in the 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 five years old throughout the region.

# **Acknowledgments**

The FTF Navajo Nation Regional Council wants to thank the Arizona Department of Economic Security, the Arizona Department of Health Services, the Arizona Department of Education and the U.S. Census Bureau, for their contributions of data for this report and their ongoing support and partnership with FTF on behalf of young children.

To the current and past members of the Navajo Nation Regional Council, your vision, dedication and passion have been instrumental in improving outcomes for young children and families within the region. Our future 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.

#### LETTER FROM THE CHAIR

May 8, 2020

Message from the Chair:

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

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

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

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

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

healthy and ready to succeed.
Thank you for your continued support.
Sincerely,
Dawn Yazzie, Chair

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# **Executive Summary**

#### **Regional Boundaries**

The boundaries of the First Things First Navajo Nation Regional Partnership Council are those of the Arizona-only portion of the Navajo Nation. The Navajo Nation is a sovereign nation that extends into the states of Arizona, New Mexico and Utah, covering 27,000 square miles. When First Things First was established by the passage of Proposition 203 in November 2006, the government-to-government relationship with federally-recognized tribes was acknowledged. Each tribe with tribal lands located in Arizona was given the opportunity to participate within a First Things First designated region or elect to be designated as a separate region. The Navajo Nation Region was one of ten tribes who chose to be designated as its own region. This decision must be ratified every two years, and the Navajo Nation has opted to continue to be designated as its own region.

#### **Population Characteristics**

According to the 2010 U.S. Census, the total population of the Navajo Nation Region was 101,835, of whom 10,894 were children ages birth to five years. About one-quarter (24%) of the 7,159 households in the region had one or more children ages birth to five years. The proportion of households with young children in the Navajo Nation Region is similar to all Arizona reservations combined (26%), but higher than Arizona (16%). The number of births per year in the region fluctuated slightly from 2013 to 2017, with 1,313 births in calendar year 2017.

Almost all young children (ages 0-4) in the Navajo Nation Region are American Indian (95%). This proportion is higher than that in all Arizona reservations combined (92%) and substantially higher than in the state (6%). Similarly, the majority of adults in the region are American Indian (95%), while in Arizona only four percent of adults are American Indian. In 2017, nearly all of the 1,313 births in the region (96%) were to mothers who identify as American Indian.

About two-thirds (68%) of individuals ages five or older in the region speak a language other than English or Spanish at home. This proportion is higher than that in all Arizona reservations combined (50%), and much higher than the state rate (6%). Nineteen percent of the population (five years and older) in the Navajo Nation Region speak another language at home and do not speak English "very well," a proportion that is higher than all Arizona reservations (13%). Similarly, nineteen percent of households in the region are considered "limited English speaking," compared to 12 percent of households in all Arizona reservations and just four percent of households in Arizona.

According to the First Things First Navajo Regional Partnership 2018 Needs and Assets Report, the share of the population that reports speaking Navajo varies across the region. Overall, the highest shares of Navajo speakers live in the northern part of the Navajo Nation in the Western, Northern, and Chinle Agencies. The distribution of children ages 5 to 17 pattern who report speaking Navajo at home is similar to that of the overall population, but in general there are smaller proportions of children who speak Navajo at home than the proportion of the overall population

The First Things First Navajo Nation Regional Partnership Council 2018 Needs and Assets Report also references the 2011-2012 Navajo Head Start Early Childhood Primary Language Questionnaire, which collected survey responses from nearly 1,500 parents and caregivers in the Chinle, Fort Defiance, Northern, and Western Head Start Agencies from both the center-based and home-based components of the program. Forty-nine percent of survey participants indicated that they speak both Navajo and English at home. Ninety-one percent, however, indicated that their *child* speaks only English at home, and nine percent reported that their child speaks both English and Navajo at home. No children were reported to speak only Navajo at home.

A similar proportion of young children in the Navajo Nation Region live in households with two parents or step-parents compared to children in all Arizona reservations combined (28% vs 27%). Almost two-thirds (65%) of young children in the region live with either one parent or step-parent. Of the 9,596 children (ages 0-17) living in a grandparent's household, more than half (52%) live with a grandparent who is responsible for them.

#### **Economic Circumstances**

Over half (51%) of young children (ages 0-5) in the Navajo Nation Region live in poverty. This rate is slightly lower than that of all Arizona reservations combined (54%) but substantially higher than the state (26%). Poverty rates for the overall population in the region (41%) are over twice that of the state (17%).

The median income for all families in the region is \$33,210, notably lower than the state of Arizona (\$63,812). Single female-headed families with children (ages 0-17) have a median income that is about 40 percent of the income of married couple families (\$20,120 and \$51,178, respectively).

Eligibility for some public assistance programs is determined by different poverty thresholds. For example, family income at or below 141 percent of the federal poverty threshold is one criterion for eligibility for the Arizona Health Care Cost Containment System (AHCCCS)<sup>i</sup> for

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<sup>&</sup>lt;sup>i</sup> AHCCCS is Arizona's Medicaid agency

children ages 1 to 5, and at or below 147 percent of the federal poverty threshold for children under 1 year old. In the Navajo Nation Region, the percentage of families with young children who may qualify for AHCCCS (those under 130% of FPL and between 130% and 149% of FPL) (65%) is similar to all Arizona reservations combined (67%) but substantially higher than in the state (38%). Note that this represents families with young children who may qualify, but are not necessarily enrolled in AHCCCS.

In the Navajo Nation the Temporary Assistance for Needy Families (TANF) program is known as the Navajo Nation Department of Self Reliance (NNDSR). According to the First Things First Navajo Nation Regional Partnership Council 2018 Needs and Assets Report, between 2015 and 2016, the average number of young children supported by the NNDSR program each month increased slightly from 1,269 to 1,292. Similarly, the average number of children of all ages supported by the NNDSR program increased from 3,748 to 3,845. The majority of children enrolled in NNDSR are in single-parent households where both the parent and child participate in the program. In addition to the families receiving support from through NNDSR, there are a few children in the Navajo Nation Region who receive TANF benefits through the state of Arizona. From 2015 to 2018, the number of young children receiving TANF benefits fluctuated, with the highest participation in 2016 (66 children) and the lowest participation in 2018 (between 22 and 30 children).

The number of families and young children receiving Supplemental Nutrition Assistance Program (SNAP) benefits steadily decreased in the Navajo Nation Region between 2015 and 2018. Despite this, the proportion of young children participating in SNAP in 2018 was much higher in the region (72%) than in Arizona (42%). From the 2015-2016 school year to the 2018-2019 school year, the proportion of students (all grades) eligible for free or reduced-price lunch in the Navajo Nation Region increased each year, with 94 percent of students eligible in 2018-2019. However, all school districts participate in the United States Department of Agriculture Community Eligibility Provision (CEP) program on the Navajo Nation. CEP is a non-pricing meal service option for schools and school districts in low-income areas. CEP allows districts to serve breakfast and lunch at no cost to all enrolled students without collecting household applications.

Sixty percent of young children in the Navajo Nation Region live in families with at least one parent in the labor force, compared to 67 percent in all Arizona reservations combined and 89 percent in the state. The proportion of children in the region who live with only one parent and such parent is not in the labor force (35%) is similar to all Arizona reservations (31%).

The average unemployment rate in the Navajo Nation Region for the 2013-2017 period was 18 percent, slightly lower than the estimated 21 percent in all Arizona reservations combined, but more than twice the average state rate of seven percent.

According to the Navajo Nation Comprehensive Economic Development Strategy (CEDS), 2009-2010 (the most recent available from the NNDED website), NNDED's estimated unemployment rate in the Navajo Nation in 2007 was 51 percent. The CEDS document highlights that even 51 percent might be an underestimate of the true unemployment in the Nation because it adjusts for the proportion of the population over 16 who are looking for a job during the past four months. Therefore, the NNDED estimates that a more accurate unemployment rate would be about 70 percent in 2007. Note that this estimate is prior to the large surge in unemployment seen across the state as an effect of the recession.

Fourteen percent of households in the region spend 30 percent or more of their income on housing-related costs. This rate is slightly lower than in all Arizona reservations (16%) and much lower than the state (31%). Even though housing costs are relatively low in the region, tribal areas face other housing-related challenges. A survey conducted by the Navajo Housing Authority in the spring of 2009 to assess the housing conditions and housing needs of residents in the Navajo Nation found that: almost half (46%) of the 11,466 housing units surveyed required serious repairs and another 13 percent are dilapidated. The remaining 41 percent of homes required only minor repairs or no repairs at all. Half (50%) of all children lived in overcrowded conditions. Eighty-nine percent of surveyed homes were heated by wood or pellets stoves and 31 percent of homes relied on off-site sources of water, which required transporting or hauling water for domestic use.

Data from the American Community survey (2013-2017) estimates that about one-quarter (26%) of households in the Navajo Nation Region have both a smartphone and computer, which is slightly lower than all Arizona reservations (30%) and significantly lower than the state of Arizona (67%). A lower proportion of residents in the Navajo Nation Region live in households with a computer and internet access compared to all Arizona reservations (30% vs 38%). Both proportions, however, are less than half of the state average (82%). A similar pattern is present in the percentage of children living in households with a computer and internet for the region, all Arizona reservations, and the state overall. Of people living in households with a computer and internet in the region, 25 percent rely solely on a cellular data plan.

#### **Educational Indicators**

The primary and secondary educational system in the Navajo Nation is comprised of grant schools, Bureau of Indian Education schools and schools managed by the Arizona Department of Education. The Navajo Nation Department of Diné Education (DODE) is the central administrative education agency within the Executive Branch of the Navajo Nation, and is vested with the authority and responsibility to implement and enforce the educational laws of the Navajo Nation. In the 2018-19 school year, there were a total of 3,427 children in the

Navajo Nation Region enrolled in kindergarten through third grade in public schools managed by the Arizona Department of Education.

From school year 2015-2016 to school year 2018-2019, chronic absence rates in the Navajo Nation Region were substantially higher than in the state. In 2018-2019, the combined chronic absence rate for children in grades K-3 was 28 percent, more than twice as high as that in Arizona (12%).

In school year 2017-2018, 922 third-grade students in the Navajo Nation Region completed the required Arizona's Measurement of Educational Readiness to Inform Teaching (AzMERIT) English Language test. Twenty-one percent of the students who completed AzMERIT in the region passed the English language arts assessment, which is about half of the state's rate (44%). For mathematics, 923 third-grade students in the region completed the AzMERIT assessment. Thirty-four percent of students in the region passed the test, compared to 53 percent in the state.

High school students in the Navajo Nation Region may attend one of 16 high schools and alternative public and charter schools in the region. In 2017, for the Navajo Nation Region, 80 percent of the high school graduates completed high school in five years, similar to the state five-year graduation rate of 82 percent. The four-year high school graduation rates for the Navajo Nation Region remained steady: 74 percent in 2015, 73 percent in 2016, and 75 percent in 2017. These graduation rates are similar to the state rates of 79 percent in 2015, 80 percent in 2016, and 78 percent in 2017. The high school dropout rate for the Navajo Nation Region remained steady, between 6 and 7 percent for the 2015-16, 2016-17, and 2017-18 school years. This dropout rate is very close to the state rate which ranged from four to five percent for the same school years.

Educational attainment among adults 25 and older in the Navajo Nation Region closely mirrors that in all Arizona reservations combined. In the Navajo Nation Region, 39 percent of adults have more than a high school education compared to 62 percent in Arizona. Thirty-five percent have a high-school education or a GED and 26 percent of the adult population in the region did not complete high school. Of the births in the region in 2017, almost half (49%) were to a mother with more than high-school education.

#### **Early Learning**

The early care and learning system in the Navajo Nation Region is comprised of a variety of center-based and home-based providers managed by a number of entities that include: Navajo Nation Child Care Development Fund, Navajo Nation Head Start and Early Head Start Program, Family and Child Education (FACE) Program, public school preschool programs, and private school preschool programs. The Navajo Nation Child Care Development Fund (CCDF) provides child care services through tribal child care centers or private providers for children who are: 12

years of age and younger, an enrolled member of the Navajo Nation or be eligible for enrollment, and residing within the same household as eligible parents or legal guardians. CCDF is comprised of five regions. Chinle Region, Fort Defiance Region, and Tuba City Region primarily serve Arizona communities. Navajo Head Start is a federally-funded early childhood development organization within the Executive Branch of the Navajo Nation government and it administers two programs offering center- and home-based services: Head Start and Early Head Start (EHS). Head Start provides services to children 3 to 5 years old, and comprises 109 program sites across four Head Start Regions. EHS services cater to pregnant women and infants and toddlers between the ages of birth to 36 months and operates two Arizona-based sites. Altogether, Navajo Head Start (including EHS) sites in the First Things First Navajo Nation Region have a total funded enrollment of 1,252 children. The Family and Child Education (FACE) is an early childhood and parental involvement program for American Indian families at Bureau of Indian Education (BIE)-funded schools. In Program Year 2017, FACE services and activities were administered at eight BIE-funded schools in the Arizona portion of the Navajo Nation. Altogether, the total unduplicated number of children ages birth to 5 enrolled in both centerand home-based programs in that program year was 375. The Navajo Nation Regional Partnership Council 2018 Needs and Assets Report also indicates that there are 13 school-based preschool programs in the Navajo Nation Region. Of these, one program was based in a private school. The remaining 12 preschool programs are public school-based, and collectively had a total enrollment of 478 children. Early childhood education enrollment in the Navajo Nation Region is slightly lower than in all Arizona reservations combined: thirty-eight percent of children ages three to four are enrolled in school (i.e. nursery school, preschool, or kindergarten) compared to 41 percent in all Arizona reservations.

In addition to the child care subsidies provided by the Navajo Nation Child Care Development Fund Program, some families in the Navajo Nation Region receive child care subsidies from the Arizona Department of Economic Security (DES). In the period between 2015 and 2018, the number of young children receiving DES subsidies in the region ranged from fewer than ten to 15. There were fewer than ten young children involved with the Department of Child Safety receiving DES child care subsidies in the region in 2015, 2016, 2017, and 2018. The proportion of eligible families not using DES child care subsidies in the Navajo Nation Region was substantially higher in 2018 (46%) compared to the previous two years (20%). At the state level there was only a slight increase in the number of families who did not use the subsidies in the same time period (from 6 percent in 2016 to 8 percent in 2018).

The Department of Economic Security (DES) defines early care and education "quality environments" as providers that are accredited by a national organization or providers that

have received a state-approved quality indicator that is recognized by the department.<sup>ii</sup> Between two and 18 young children in the region were served in quality environment settings, as defined by DES, in 2018. In State Fiscal Year 2019, a total of 23 child care providers in the Navajo Nation Region participated in Quality First, 17 (or 74%) of which were quality-level settings (public 3-5 stars). That same year, there were 708 children enrolled at a Quality First Site in the region, 66 percent of which were enrolled in quality-level settings (public 3-5 stars).

The number of children ages three to five enrolled in special education in schools overseen by the Arizona Department of Education in the Navajo Nation Region increased from 90 in school year 2015-2016 to 158 in school year 2016-2017 and remained stable in the two years thereafter. In school year 2018-2019, about half (51%) of the 144 children (3-5) enrolled in special education were diagnosed with a developmental delay and about one-third (31%) with a speech or language impairment. For students in 1st through 3rd grades, the proportion of those enrolled in special education increased from seven percent in school year 2015-2016, to 11 percent in 2016-2017, and decreased slightly in the two school years thereafter.

In the Navajo Nation, the Arizona Early Intervention Program (AzEIP) service provider is the tribally-operated Growing in Beauty program. In Fiscal Years 2016 and 2017 the percentage of children (ages 0-2) from the Navajo Nation Region who were referred to Growing in Beauty/AzEIP and were found eligible for services remained stable (40% and 38%, respectively). From 2017 to 2018, the number of active Growing in Beauty/AzEIP cases in the Navajo Nation Region increased by 11 percent. In addition, each Fiscal Year from 2015 to 2018, 11 children ages 0-2 received services by the Division of Developmental Disabilities (DDD). Fewer than ten children ages 3-5 received DDD services each year in the same time period.

#### Child Health

In the Navajo Nation Region, about one in four people (23%) lack health insurance coverage, a percent that is similar to that in all Arizona reservations (22%) but almost twice as high as in the state of Arizona (12%). While the proportion of uninsured young children (17%) is lower than that of the overall population in the region, it is still notably higher than the uninsured rate for young children in the state (7%). It is important to note that the U.S. Census Bureau does not consider coverage by the Indian Health Service (IHS) to be insurance coverage.

<sup>&</sup>quot;Providers are considered quality educational environments by the Arizona Department of Economic Security if they receive a Quality First three-star rating or higher (see below) or are accredited by a national organization, such as the Association for Early Learning Leaders or the National Association for the Education of Young Children (NAEYC).

In 2017, the most recent year for which data are available, Arizona Health Care Cost Containment Service (AHCCCS) paid for 81 percent of the 1,313 births in the region, while IHS paid for eight percent of births.

Almost one-third (30.5%) of births in the Navajo Nation Region in 2017 were to women who had no prenatal care in their first trimester, a percentage that is higher than the 26.4 percent in the state. Neither the region nor the state met the Healthy People 2020 target of no more than 22.1 percent. Additionally, 12 percent of births in the region were to women who had fewer than five prenatal visits, compared to eight percent in the state. In 2017, the Navajo Nation Region met the Healthy People 2020 target of no more than 7.8 percent of births being low birthweight (7.6%). The proportion of preterm births (i.e. less than 37 weeks) in the region (11.3%), however, did not meet the Healthy People 2020 target of 9.4 percent. The percentage of births in the region to mothers who used tobacco during pregnancy (1.5%) was substantially lower than in the state (4.7%) but slightly higher than the Healthy People 2020 target of 1.4 percent.

For the school year 2018-19, immunization rates for children enrolled in selected school-based preschool programs managed by the Arizona Department of Education (ADE) in the Navajo Nation Region were high, ranging from 98.9 percent to 100 percent, and met all Healthy People 2020 targets. In school year 2018-2019, kindergarten vaccination rates in the Navajo Nation Region were similarly high, and also met all Healthy People 2020 targets. From the 2016-2017 school year to the 2018-2019 school year, there were no religious exemptions or exemptions from all required vaccines in selected school-based preschool programs in the Navajo Nation Region. While personal belief exemptions and exemptions from all required vaccinations among kindergarteners in the region increased slightly between 2016-2017 and 2018-2019, exemption rates were still notably lower than the state overall.

From 2015 to 2018, there were 77 non-fatal inpatient hospitalizations of young children for unintentional injuries from the Navajo Nation Region. The most common reasons for hospitalization were burns (32%) and falls (16%). At the state level, the two most common reasons were falls (33%) and poisoning (15%). From 2015 to 2017, there were nine inpatient hospitalizations and 70 emergency room visits for asthma among young children from the region. The average length of stay was higher for children from the region (2.9 days) than children in the state (1.9 days).

Between 2015 and 2018, there were 1,657 emergency room visits for non-fatal incidents for young children (0-5) in the region. Reasons for these non-fatal emergency room visits were similar across the region and state, with falls (40%) and being 'struck by or against' an object or person (15%) the most common.

Between 2015 and 2017, there were 81 child deaths in the Navajo Nation Region, over half of which were young children (ages 0-4).

#### Family Support and Literacy

According to the First Things First Navajo Nation Regional Partnership Council 2018 Needs and Assets Report, home visitation services in the Navajo Nation Region are available through the Growing in Beauty Home Visiting program through the Navajo Nation Office of Special Education and Rehabilitation Services (NNOSERS). The Growing in Beauty Home Visiting program provides services to families with children prenatal to three years similar to the Family and Child Education (FACE) program, and both use the Parents as Teachers (PAT) model. The Navajo Nation administers these funds to seven Bureau of Indian Education-funded Navajo Nation schools in Arizona. As of May 2017, a total of 220 families and 240 children were enrolled in the Growing in Beauty programs at these seven schools. Another four schools also administer Growing in Beauty programs through funding received by the Navajo Nation from the state of Arizona. As of May 2017, a total of 43 families and 51 children were enrolled in the Growing in Beauty programs at these four schools. Cumulatively, the Growing in Beauty programs in the Navajo Nation region serve 263 families and 291 children.

More recent data for 2019 show that 157 families received First Things First-funded home visitation services in the Navajo Nation Region. During that same time period, 17 families graduated from the visitation program.

Child Welfare services in the Navajo Nation Region are overseen by the Navajo Nation Division of Social Services. According to the First Things First Navajo Nation Regional Partnership Council 2018 Needs and Assets Report in 2015 there were an average of 82 children (ages 0-17) removed from their homes by the Division of Social Services in any given month, which represented a slight increase from an average of 65 per month in 2014. In 2015, a total of 999 cases of child abuse or neglect were substantiated, down from 1,142 in 2014. In both 2014 and 2015, most of the children under the care of the Division of Social Services were placed with relatives. Over half of children in foster care (54%) in 2015 were placed with relatives, 24 percent were placed in Navajo Nation foster homes, 16 percent in contract foster homes, and 16 percent were placed in contract facilities. In 2015, there were 63 foster care homes available to care for children in out-of-home placement, an increase from the 46 homes available in 2014. All foster homes are located on the reservation.

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

The Navajo Nation Early Childhood Coalition has given early childhood partners an opportunity to connect and share resources to achieve the following outcomes in Navajo Nation:

- Increase knowledge and understanding of program and services provided by partners.
- Increase referrals and access to services and programs for families and children.
- Increase family engagement to enhance their capacity to support their child's early learning and development.
- Strengthen and unify the early intervention service delivery system in the region.

The coalition is starting to focus on systems-level change and has been meeting the past six months to create a strategic plan to clearly define their roles and responsibility in building the Navajo Nation early childhood system. With a more targeted focus on three goal areas, namely kindergarten transition, early intervention and parent resources, the coalition is striving to have a greater impact moving forward.

The most successful achievement in coordination and collaboration has occurred by partnering with the Navajo Nation Office of the President and Vice President, including the Office of the First Lady and Second Lady, to host the first Diné Early Childhood Summit. The goal of the summit was to start the initial work of identifying and eliminating barriers in the early childhood system by convening partners to address the needs of children and families in the region. Evaluations indicated 91 percent of attendees said the summit helped to increase their understanding of gaps, needs and challenges in the Navajo Nation early childhood system. A report, including key findings and recommendations, will be distributed to all early childhood stakeholders and serve as the guiding document for planning the annual summit with the broader, longer term goal of increased coordination, collaboration to continue early childhood system building.

As part of the Service Coordination Strategy, the regional council released the 2020 family resource guide for the region. Early childhood partners are being trained on its utilization and creating a referral process. This will begin to build bridges toward work on service delivery enhancement, community referrals and early intervention coordination.

Since implementation of the Service Coordination Strategy began, it has helped to establish or maintain relationships between the Navajo Nation Regional Partnership Council, tribal leadership and partners in the education, health and social service fields (tribal and non-tribal). Through these established and maintained partnerships, the regional council has increased communication and regular meetings with early childhood stakeholders within the region to address gaps in the system.

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

Since State Fiscal Year 2011, First Things First (FTF) has led a collaborative, concerted effort to build public awareness and support across Arizona employing integrated communications strategies that now include: strategic messaging and branding; community outreach;

community awareness; social media; digital content marketing; earned media and paid media advertising. Progress in these efforts can be measured by changes in awareness, attitudes and behaviors, as demonstrated through key results of a periodic statewide survey and through tactical impact measures. The most recent statewide survey conducted in September 2018 found that, compared to previous surveys in 2012 and 2016, there was increased agreement in the general public and parents of young children with statements about the importance of early childhood health and development. These include: increased agreement that the state should ensure all children have access to early childhood services (80% in 2012 to 84% in 201), that a child who received early education and healthcare services before age five is more likely to succeed in school and beyond (82% in 2012 to 88% in 2018), and that the state should put the same priority on early education as it does on K-12 education (62% in 2012 to 72% in 2018). However, the same survey showed a large portion of respondents (87%) and parents (66%) had never heard of First Things First.

Efforts to increase awareness include three annual statewide awareness campaigns that reached a large number of Arizonans, and can be measured through the total number of impressions, which directly impacts awareness. In 2019, First Things First secured 11 million advertising impressions through traditional media impressions including television, radio, cinema and billboard ads, and 76 million through digital strategies, including online ads on desktop and smartphone devices. Particular success has been seen in the growth of Facebook Page Likes for FTF, which grew from just 3,000 in 2012 to 142,600 in 2019. Additional digital marketing content in 2019 included 40 original, high-quality content pieces and the creation of an online searchable database of early childhood programs which logged over 24,187 visits in its first six months.

# The Navajo Nation Region

#### **Regional Boundaries**

The First Things First regional boundaries were established to create regions that (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, (d) facilitate the ability to convene a Regional Partnership Council, and (e) allow for the collection of demographic and indicator data.

The boundaries of the First Things First Navajo Nation Regional Partnership Council are those of the Arizona-only portion of the Navajo Nation. When First Things First was established by the passage of Proposition 203 in November 2006, the government-to-government relationship with federally-recognized tribes was acknowledged. Each tribe with tribal lands located in Arizona was given the opportunity to participate within a First Things First designated region or elect to be designated as a separate region. The Navajo Nation Region was one of ten Tribes who chose to be designated as its own region. This decision must be ratified every two years, and the Navajo Nation has opted to continue to be designated as its own region.

The Navajo Nation is a sovereign nation that extends into the states of Arizona, New Mexico and Utah, covering 27,000 square miles. The Navajo Nation is home to the Navajo people, also known as Diné, The People. Window Rock, Arizona, is the capital of the Navajo Nation from which three branches of government administer the Navajo Tribal Code. Local governmental authority lies with 110 Chapters in which local governmental business is conducted and tribal voting occurs.

Figure 1 shows the geographical area covered by the Navajo Nation 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.

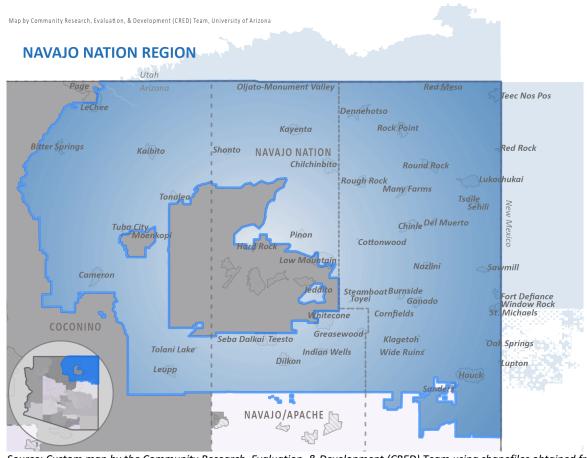


Figure 1. The First Things First Navajo Nation Region

Source: Custom map by the Community Research, Evaluation, & Development (CRED) Team using shapefiles obtained from First Things First and the U.S. Census Bureau 2019 TIGER/Line Shapefiles (<a href="https://www.census.gov/cgibin/geo/shapefiles/index.php">https://www.census.gov/cgibin/geo/shapefiles/index.php</a>).

#### **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 publicly available sources, including the 2010 U.S. Census, the American Community Survey (ACS), and the Arizona Department of Administration (ADOA). Where more recent data are not available, this report cites data from the First Things First Navajo Nation Regional Partnership Council 2018 Needs and Assets Report.

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. Census data presented in the report is drawn from the Census Geography for the Navajo Nation Reservation.

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 are available for the Navajo Nation Reservation Census Geography. 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 2013 to 2017. In general, the reliability of ACS estimates is greater for more populated areas. Statewide estimates, for example, are more reliable than county-level estimates or estimates for small tribal communities.

These data sources are important for the unique information they are able to provide about children and families across the United States, but both of them have acknowledged limitations for their use on tribal lands. Although the Census Bureau asserted that the 2010 Census count was quite accurate in general, they estimate that "American Indians and Alaska Natives living on reservations were undercounted by 4.9 percent." According to the State of Indian Country Arizona report there are particular challenges in using and interpreting ACS data from tribal communities and American Indians in general. There is no major outreach effort to familiarize the population with the survey (as is the case with the decennial census). Most important, the small sample size of the ACS makes it more likely that the survey may not accurately represent the characteristics of the population on a reservation. The State of Indian Country Arizona report indicates that at the National level, in 2010 the ACS failed to account for 14% of the American Indian/Alaska Native (alone, not in combination with other races) population that was actually counted in the 2010 decennial census. In Arizona the undercount was smaller (4%), but according to the State of Indian Country Arizona report, ACS may be particularly unreliable for the smaller reservations in the state.

While recognizing that estimates provided by ACS data may not be fully reliable, this report includes these estimates because they still are the most comprehensive publicly-available data that can help begin to describe the families that First Things First serve.

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 six. In addition, some data received from state agencies may be suppressed according to their own guidelines. The Arizona Department of Health Services does not report counts less than six; the Arizona Department of Economic Security does not report counts between one and nine; and the Arizona Department of

Education does not report counts less than eleven. Throughout this report, information which is not available because of suppression guidelines will be indicated by entries of "<6" or "<10" or "<11" for counts, or "DS" (data suppressed) for percentages. Data are sometimes not available for particular regions, either because a particular program did not operate in the region or because data are only available at the county level. Cases where data are not available will be indicated by an entry of "N/A."

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

In most of the tables in this report, the top row of data corresponds to the First Things First Navajo Nation Region. When available, the next rows show data that are useful for comparison purposes: the entire Navajo Nation (including the parts in Utah and New Mexico as well as Arizona), all Arizona reservations combined, and the state of Arizona. Please note that data are not always available for all of these geographies. Data labelled "All Arizona Reservations" come from either the 2010 U.S. Census or the 2013-2017 American Community Survey. These numbers are the totals for all residents of the 21 American Indian Areas within the state of Arizona. We include only the Arizona parts of the five reservations (Colorado River Indian Tribes, Fort Mojave, Fort Yuma, Navajo Nation, and Zuni) which have land in neighboring states.

# **Population Characteristics**

#### Why it Matters

To support the healthy development and learning of young children across Arizona, advocates and decision makers need to understand who those children and their families are. Although parents are a child's first and most important teachers, families of young children often use community resources to help them promote positive outcomes for their children. The number and characteristics of young children and families in a region can inform the range of services in a community, helping to guide where to locate child care, health care, and social services so that they are accessible to those who need them. The Iribal communities are often located in rural locations and often experience different economic conditions within the state such as access to jobs, food resources, schools, health care facilities and providers, and social services. These disparities have been associated with a number of poor outcomes for children including infant mortality and obesity, among others.

Language use. Households with multiple languages spoken pose a unique balance of benefits for child learning and barriers to parental engagement, which counties with high rates of other languages spoken should specifically consider. Acknowledging and valuing linguistic heritage (such as through language preservation efforts) and recognizing needs for resources and services in languages other than English should remain important considerations for organizations and agencies across Arizona. 10,11,12,13 Awareness of the levels of English proficiency and of other home languages spoken within a region provides information about a community's assets and allows for identifying relevant supports. Young children can benefit from exposure to multiple languages; mastery of more than one language is an asset in school readiness and academic achievement, and offers cognitive and social-emotional benefits in early school and throughout their lifetime. 14,15,16,17 Although dual language learning is an asset, limited English speaking households (that is, households where none of the adult members speak English well) can face challenges. These families may experience barriers to accessing health care and social service information, as well as barriers to engaging in important parentteacher interactions, all of which can impede their child's health and development. 18,19 Providing information about resources and services in languages accessible to families in the region can help remove those barriers. Although Spanish is the most common second language spoken, Arizona is also home to a large number of Native communities, with Native languages spoken by families in those communities. Language preservation and revitalization are critical to strengthening culture in Native communities, addressing issues of educational equity, and to the promotion of social unity, community well-being, and Indigenous self-determination. <sup>20,21</sup>

Special consideration should be given to respecting and supporting the numerous Native American languages spoken, particularly in tribal communities around the state.

**Family and household composition.** In addition to growing racial, ethnic and social diversity, U.S. and Arizona families are becoming more diverse in terms of family structure. <sup>22,23,24,25</sup> Understanding the makeup of families in a region can help better prepare child care, school and agency staff to engage with families in ways that support positive interactions both within families and with staff to enhance each child's early learning and development. <sup>26</sup>

Multi-generational households, particularly those where grandparents live in the home with the child and parents, are common in some communities and cultures and can provide financial and social benefits.<sup>27</sup> The proportion of young children living in a grandparent's household in all Arizona reservations combined (40%) is more than double that of the state rate (14%).<sup>28</sup> It is important to note that these households may be multigenerational—i.e., the grandparent and the child's parent may live in the same household.<sup>iii</sup> However, parents are not always in the picture in these homes. Care of children by someone other than their parents, such as relatives or close friends, is known as kinship care and is increasingly common.<sup>29</sup> Children living in kinship care can also arrive in those situations for a variety of reasons, including a parent's absence for work or military service, chronic illness, drug abuse, or incarceration, or due to abuse, neglect, or homelessness. Understanding who is caring for children can help in identifying and creating specific supports for these families. Children in kinship care often face special needs as a result of trauma, and therefore these families often require additional support and assistance to help children adjust and provide the best possible home environment. 30 A child's risk of living in poverty is also higher for those living with grandparents, adding to the family stress. <sup>31</sup> These families are likely to require access to information on resources, support services, benefits, and policies available to aid in their caregiving role. 32 Though it varies from one Native community to another, extended, multigenerational families, and kinship care are common in Native communities. 33,34 The strengths associated with this family structure—mutual help and respect—can provide members of these families with a network of support which can be very valuable when dealing with socio-economic hardships. 35 Grandparents are often central to these multigenerational households, in many cases sharing and strengthening Native language, history, and culture. 36, 37

iii Note that there is difference between families/sub-families and householders in Census data. For example, a child living with their single mother in their grandparent's married household would be counted as living with a single parent in the living arrangements but as living in a married couple household in the composition of households table. That is, the living arrangements figure looks at the presence of a child's parents within the household (whether or not the parent is the householder).

#### What the Data Tell Us

#### Population, Race, and Ethnicity

- According to the 2010 U.S. Census, the total population of the Navajo Nation Region was 101,835, of whom 10,894 were children ages birth to five years. About one-quarter (24%) of the 7,159 households in the region had one or more children ages birth to five. The proportion of households with young children in the Navajo Nation Region is similar to all Arizona reservations combined (26%), but higher than Arizona (16%) (Table 1).
- The number of births per year in the region fluctuated slightly from 2013 to 2017, with 1,313 births in calendar year 2017 (Figure 2).
- Almost all young children (ages 0-4) in the Navajo Nation Region are American Indian (95%). This proportion is higher than that in all Arizona reservations combined (92%) and substantially higher than in the state (6%) (Table 3).
- Similarly, the majority of adults in the region are American Indian (95%), while in Arizona only four percent of adults are American Indian (Table 4).
- In 2017, nearly all of the 1,313 births in the region (96%) were to mothers who identify as American Indian (Table 5).

#### Language Use

- About two-thirds (68%) of individuals ages five or older in the region speak a language other than English or Spanish at home. This proportion is higher than that in all Arizona reservations combined (50%), and much higher than the state rate (6%) (Table 7). iv
- Nineteen percent of the population (five years and older) in the Navajo Nation Region speak another language at home and do not speak English "very well," a proportion that is higher than all Arizona reservations (13%) (Table 8).
- Similarly, nineteen percent of households in the region are considered "limited English speaking," compared to 12 percent of households in all Arizona reservations and just four percent of households in Arizona (Table 9).
- According to the First Things First Navajo Regional Partnership 2018 Needs and Assets Report, the share of the population that reports speaking Navajo varies across the

https://files.firstthingsfirst.org/regions/Publications/Regional%20Needs%20and%20Assets%20Report%20-%202018%20-%20Navajo%20Nation.pdf

iv Please note that the most recent estimates from the American Communities Surveys (ACS) no longer specify what those other languages are. Based on ACS data included in previous Needs and Assets Reports for the Navajo Nation Region, it is likely that the other languages spoken at home in the region are Native North American languages. See

- region. Overall, the highest shares of Navajo speakers live in the northern part of the Navajo Nation in the Western, Northern, and Chinle Agencies. The distribution of children ages 5 to 17 pattern who report speaking Navajo at home is similar to that of the overall population, but in general there are smaller proportions of children who speak Navajo at home than the proportion of the overall population.<sup>38</sup>
- The First Things First Navajo Nation Regional Partnership Council 2018 Needs and Assets Report also references the 2011-2012 Navajo Head Start Early Childhood Primary Language Questionnaire, which collected survey responses from nearly 1,500 parents and caregivers in the Chinle, Fort Defiance, Northern, and Western Head Start Agencies from both the center-based and home-based components of the program. Forty-nine percent of survey participants indicated that they speak both Navajo and English at home. Ninety-one percent, however, indicated that their child speaks only English at home, and nine percent reported that their child speaks both English and Navajo at home. No children were reported to speak only Navajo at home.

#### **Family and Household Composition**

- A similar proportion of young children in the Navajo Nation Region live in households with two parents or step-parents compared to children in all Arizona reservations combined (28% vs 27%). Almost two-thirds (65%) of young children in the region live with either one parent or step-parent (Table 10).
- Of the 9,596 children (ages 0-17) living in a grandparent's household, more than half (52%) live with a grandparent who is responsible for them (Table 13).

## Population, Race, and Ethnicity

Table 1. Population and households, 2010

			TOTAL	HOUSEHOLDS	PERCENT OF
			NUMBER OF	WITH ONE OR	HOUSEHOLDS WITH
	TOTAL	POPULATION	HOUSE-	MORE CHILDREN	ONE OR MORE
GEOGRAPHY	POPULATION	(AGES 0-5)	HOLDS	(AGES 0-5)	CHILDREN (AGES 0-5)
Navajo Nation Region	101,835	10,894	29,232	7,159	24%
Navajo Nation (entire)	173,667	18,335	49,946	12,124	24%
All Arizona Reservations	178,131	20,511	50,140	13,115	26%
Arizona	6,392,017	546,609	2,380,990	384,441	16%
United States	308,745,538	24,258,220	116,716,292	17,613,638	15%

Source: U.S. Census Bureau (2010). 2010 Decennial Census, Summary File 1, Tables P1, P4, & P20

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

GEOGRAPHY	POPULATION (AGES 0-5)	AGE 0	AGE 1	AGE 2	AGE 3	AGE 4	AGE 5
Navajo Nation Region	10,894	1,800	1,736	1,811	1,849	1,812	1,886
Navajo Nation (entire)	18,335	3,005	2,945	3,013	3,178	3,026	3,168
All Arizona Reservations	20,511	3,390	3,347	3,443	3,451	3,430	3,450
Arizona	546,609	87,557	89,746	93,216	93,880	91,316	90,894
United States	24,258,220	3,944,153	3,978,070	4,096,929	4,119,040	4,063,170	4,056,858

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

1,386 1,436 1,308 1,328 1,313 1,313 2014 2015 2016 2017

Figure 2. Number of births per calendar year in the Navajo Nation Region, 2013 to 2017

Source: ADHS Office of Disease Prevention and Health Promotion. (2019). Arizona Health Status and Vital Statistics.

Table 3. Race and ethnicity of the population of young children (ages 0-4), 2010

GEOGRAPHY	POPULATION (AGES 0-4)	HISPANIC	WHITE, NOT HISPANIC	BLACK OR AFRICAN- AMERICAN	AMERICAN INDIAN	ASIAN OR PACIFIC ISLANDER
Navajo Nation Region	9,008	4%	1%	<1%	95%	<1%
Navajo Nation (entire)	15,167	4%	1%	<1%	95%	<1%
All Arizona Reservations	17,061	9%	1%	<1%	92%	<1%
Arizona	455,715	45%	40%	5%	6%	3%
United States	20,201,362	25%	51%	14%	1%	5%

Source: U.S. Census Bureau (2010). 2010 Decennial Census, Summary File 1, Tables P12B-H

Table 4. Race and ethnicity of the adult population (ages 18 and older), 2010

GEOGRAPHY	POPULATION 18 YEARS AND OVER	HISPANIC	WHITE, NOT HISPANIC	BLACK OR AFRICAN- AMERICAN, NOT HISPANIC	AMERICAN INDIAN, NOT HISPANIC	ASIAN OR PACIFIC ISLANDER, NOT HISPANIC	OTHER, NOT HISPANIC
Navajo Nation Region	67,252	1%	3%	<1%	95%	<1%	1%
Navajo Nation (entire)	115,823	1%	2%	<1%	95%	<1%	1%
All Arizona Reservations	117,049	5%	5%	<1%	88%	<1%	1%
Arizona	4,763,003	25%	63%	4%	4%	3%	1%
United States	234,564,071	14%	67%	12%	1%	5%	1%

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

Table 5. Race and ethnicity of mothers giving birth in calendar year 2017

	TOTAL	MOTHER	MOTHER	MOTHER	MOTHER WAS	MOTHER
	NUMBER	WAS	WAS WHITE,	WAS BLACK	AMERICAN	WAS ASIAN
	OF BIRTHS	HISPANIC OR	NOT	OR AFRICAN-	INDIAN OR	OR PACIFIC
GEOGRAPHY	IN 2017	LATINA	HISPANIC	AMERICAN	ALASKAN	ISLANDER
Navajo Nation Region	1,313	1%	4%	DS	96%	DS
Arizona	81,664	41%	44%	6%	6%	4%

Source: ADHS Office of Disease Prevention and Health Promotion. (2019). Arizona Health Status and Vital Statistics.

Table 6. Children (ages 0-5) living with parents who are foreign-born

			PERCENT OF YOUNG
	YOUNG CHILDREN	YOUNG CHILDREN (AGES 0-5)	CHILDREN (AGES 0-5) LIVING
	(AGES 0-5) LIVING IN	LIVING IN FAMILIES OR	IN FAMILIES OR SUBFAMILIES
	FAMILIES OR	SUBFAMILIES WITH ONE OR	WITH ONE OR TWO FOREIGN-
GEOGRAPHY	SUBFAMILIES	TWO FOREIGN-BORN PARENTS	BORN PARENTS
Navajo Nation Region	8,798	148	2%
Navajo Nation (entire)	14,528	197	1%
All Arizona Reservations	16,902	457	3%
Arizona	498,102	130,705	26%
United States	22,939,897	5,730,869	25%

Source: U.S. Census Bureau (2018). American Community Survey five-year estimates 2013-2017, Table 05009

Note: Children living in subfamilies are children who live together with one or two of their parents in a relative's household (such as a grandparent or aunt or uncle).

### Language Use

Table 7. Language spoken at home by persons ages 5 and older

		PERCENT OF THE	PERCENT OF THE	PERCENT OF THE
	POPULATION	POPULATION (AGES	POPULATION (AGES	POPULATION (AGES 5+)
CEOCD A DLIV	(AGES 5 AND	5+) WHO SPEAK ONLY	5+) WHO SPEAK	WHO SPEAK OTHER
GEOGRAPHY	OLDER)	ENGLISH AT HOME	SPANISH AT HOME	LANGUAGES AT HOME
Navajo Nation Region	93,692	31%	1%	68%
Navajo Nation (entire)	162,177	33%	1%	66%
All Arizona Reservations	171,213	46%	4%	50%
Arizona	6,375,189	73%	21%	6%
United States	301,150,892	79%	13%	8%

Source: U.S. Census Bureau (2018). American Community Survey five-year estimates 2013-2017, Table C16001

Note: The most recent estimates from the American Community Survey (ACS) no longer specify the proportion of the population who speak Navajo for geographies smaller than the state. Based on ACS data included in previous Needs and Assets Reports for the Navajo Nation Region, it is likely that the other languages spoken at home in the region is primarily Navajo. See <a href="https://files.firstthingsfirst.org/regions/Publications/Regional%20Needs%20and%20Assets%20Report%20-%202018%20-%20Navajo%20Nation.pdf">https://files.firstthingsfirst.org/regions/Publications/Regional%20Needs%20and%20Assets%20Report%20-%202018%20-%20Navajo%20Nation.pdf</a>

Table 8. English-language proficiency for persons ages 5 and older

		PERCENT OF THE	PERCENT OF THE	PERCENT OF THE
		POPULATION	POPULATION (AGES 5+)	POPULATION (AGES 5+)
		(AGES 5+) WHO	WHO SPEAK ANOTHER	WHO SPEAK ANOTHER
	POPULATION	SPEAK ONLY	LANGUAGE AT HOME,	LANGUAGE AT HOME, BUT
	(AGES 5 AND	ENGLISH AT	AND SPEAK ENGLISH	DO NOT SPEAK ENGLISH
GEOGRAPHY	OLDER)	HOME	"VERY WELL"	"VERY WELL"
Navajo Nation	93,692	31%	50%	19%
Region	93,092	31/6	50%	15%
Navajo Nation (entire)	162,177	33%	52%	15%
All Arizona Reservations	171,213	46%	41%	13%
Arizona	6,375,189	73%	18%	9%
United States	301,150,892	79%	13%	9%

Source: U.S. Census Bureau (2018). American Community Survey five-year estimates 2013-2017, Table B16005

Table 9. Limited-English-speaking households

		NUMBER OF "LIMITED	PERCENT OF HOUSEHOLDS
	TOTAL NUMBER OF	ENGLISH SPEAKING"	WHICH ARE "LIMITED
GEOGRAPHY	HOUSEHOLDS	HOUSEHOLDS	ENGLISH SPEAKING"
Navajo Nation Region	26,723	4,986	19%
Navajo Nation (entire)	45,972	7,071	15%
All Arizona Reservations	49,638	5,955	12%
Arizona	2,482,311	108,133	4%
United States	118,825,921	5,305,440	4%

Source: U.S. Census Bureau (2018). American Community Survey five-year estimates 2013-2017, Table 16002

## **Family and Household Composition**

Table 10. Living arrangements for children (ages 0-5)

		CHILDREN (0-5)	CHILDREN (0-5)	CHILDREN (0-5)	
		LIVING WITH	LIVING WITH	LIVING WITH	CHILDREN (0-5)
	CHILDREN (0-5)	TWO PARENTS	ONE PARENT	RELATIVES	LIVING WITH
	LIVING IN	OR	OR	(NOT	NON-
GEOGRAPHY	HOUSEHOLDS	STEPPARENTS	STEPPARENT	PARENTS)	RELATIVES
Navajo Nation Region	9,459	28%	65%	6%	1%
Navajo Nation (entire)	15,575	28%	65%	6%	1%
All Arizona Reservations	18,635	27%	64%	8%	1%
Arizona	520,556	59%	37%	2%	2%
United States	23,817,787	62%	34%	2%	2%

Source: U.S. Census Bureau (2018). 2013-2017 American Community Survey 5-Year Estimates, Tables B05009, B09001, and B17006

Table 11. Heads of households in which children (ages 0-5) live, 2010

GEOGRAPHY	HOUSEHOLDS WITH ONE OR MORE CHILDREN (AGES 0-5)	MARRIED FAMILY HOUSEHOLDS	SINGLE-MALE HOUSEHOLDS	SINGLE-FEMALE HOUSEHOLDS
Navajo Nation Region	7,159	50%	12%	38%
Navajo Nation (entire)	12,124	50%	13%	37%
All Arizona Reservations	13,115	45%	13%	42%
Arizona	384,441	65%	11%	24%
United States	17,613,638	67%	9%	24%

Source: U.S. Census Bureau (2010). 2010 Decennial Census, Summary File 1, Tables P20 & P32

Note: The householder in this table may or may not be related to the child living in that household. For information about the living arrangements of young children and their relationship to the adults in the household please see Table 10 above

Table 12. Children (ages 0-5) living in the household of a grandparent, 2010

	POPULATION	CHILDREN (0-5) LIVING IN A GRANDPARENT'S	PERCENT OF CHILDREN (0-5) WHO LIVE IN A GRANDPARENT'S
GEOGRAPHY	(AGES 0-5)	HOUSEHOLD	HOUSEHOLD
Navajo Nation Region	10,894	4,298	39%
Navajo Nation (entire)	18,335	7,290	40%
All Arizona Reservations	20,511	8,239	40%
Arizona	546,609	74,153	14%
United States	24,258,220	2,867,165	12%

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

Table 13. Grandparents responsible for grandchildren (ages 0-17) living with them

	GRANDCHILDREN UNDER 18 LIVING	PERCENT OF GRANDCHILDREN UNDER 18 LIVING WITH A
	WITH GRANDPARENT	GRANDPARENT HOUSEHOLDER
GEOGRAPHY	HOUSEHOLDER	WHO IS RESPONSIBLE FOR THEM
Navajo Nation Region	9,596	52%
Navajo Nation (entire)	16,059	52%
All Arizona Reservations	18,864	55%
Arizona	147,707	51%
United States	5,781,786	49%

Source: U.S. Census Bureau (2018). American Community Survey five-year estimates 2013-2017, Table B10002

Note: This table includes both (a) grandchildren living with grandparents with no parent present and (b) grandchildren who live in multigenerational homes where the grandparent has assumed responsibility for the child, despite the presence of a parent.

## **Economic Circumstances**

## Why it Matters

A family's economic stability is a powerful predictor of child well-being and is one of the key social determinants of health.<sup>40</sup> Factors contributing to economic stability—or lack thereof—include **poverty**, **food insecurity**, **employment**, and **housing instability**.<sup>41</sup>

Economic circumstances in tribal communities can be much more complex than in other parts of the state. For many historical and legal reasons, economic development in tribal areas has followed a different trajectory than in other areas. Economic disparities between non-Native and Native communities have compounded over decades, affecting the poverty, employment, housing instability and food security in tribal areas. At the same time, it is common for tribal governments to be involved in community and economic development, investing in forestry, fisheries, gaming, and many other economic arenas to strengthen the social and economic conditions of their people. 43

**Poverty**. Childhood poverty can negatively affect the way children's bodies grow and develop, including fundamental changes to the architecture of the brain. Children raised in poverty are at a greater risk of a host of negative outcomes including low birth weight, lower school achievement, and poor health. A5,46,47,48,49 They are also more likely to remain poor later in life. As a benchmark, the 2019 Federal Poverty Guideline—the criterion used for establishing eligibility for some safety net programs—for a family of four was \$25,750. And estimates only what a family would need to earn to afford basic nutrition, without taking into account other costs of living; it is widely considered to be well below what a family actually needs to earn to make ends meet. The "self-sufficiency standard" attempts to estimate how much families need to earn to fully support themselves, accounting for local costs of housing, transportation, and childcare, and other budget items. The 2018 self-sufficiency standard for an Arizona family with two adults, one preschooler, and one school-age child was \$56,143—over twice the poverty threshold.

Public assistance programs are one way of counteracting the effects of poverty and providing supports to children and families in need. The Temporary Assistance for Needy Families (TANF) Cash Assistance program provides temporary cash benefits and support services to children and families. Eligibility is based on citizenship or qualified resident status, Arizona residency, and limits on resources and monthly income. In recognition of tribal sovereignty, federally-recognized tribes have the option to administer their own TANF program.

The Navajo Nation is one of the six Arizona tribes that operate a Tribal TANF program. Since tribes set their own priorities for their communities and many design their own social services, some Tribal TANF program requirements may differ from those in state programs (e.g., time limit on receipt of TANF cash assistance). Tribal TANF programs also have more flexibility in determining program requirements to meet the needs of their own communities. With a focus on self-sufficiency, tribal TANF programs can include community and social programs that are unique to their spiritual and cultural traditions.

Food insecurity. A limited or uncertain availability of food is negatively associated with many markers of health and well-being for children, including heightened risks for developmental delays,<sup>57</sup> and overweight and obesity.<sup>58</sup> The USDA defines food deserts as areas that are lowincome and have low access to sources of healthy food, specifically grocery stores and supermarkets. v,59 A large portion of tribal lands in Arizona are in food deserts, adding to food insecurity in tribal communities. <sup>60</sup> Sixty-five percent of populated tribal lands are considered food deserts, whereas only 17 percent of all populated areas in Arizona meet the definition of a food desert.<sup>61</sup> To help reduce food insecurity, there are a variety of federally-funded programs including the Supplemental Nutrition Assistance Program (SNAP),<sup>62</sup> the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), 63 the National School Lunch Program, 64 the School Breakfast Program, 65 the Summer Food Service Program, 66 and the Child and Adult Care Food Program (CACFP).<sup>67</sup> However, only about 58 percent of food insecure households nationwide report participating in federally-funded nutrition assistance programs.<sup>68</sup> Income-eligible American Indians residing on some reservations in Arizona may have access to the federal Food Distribution Program on Indian Reservations (FDPIR).<sup>69</sup> On rural Indian reservations, the FDPIR exists to distribute food to eligible Native residents who do not have access to SNAP offices or SNAP-approved businesses.<sup>70</sup>

*SNAP.* Administered by the Arizona Department of Economic Security and also referred to as "Nutrition Assistance" and "food stamps," SNAP has been shown to help reduce hunger and improve access to healthier food. <sup>71</sup> SNAP benefits support working families whose incomes simply do not provide for all their needs. For low-income working families, the additional funds available to access food from SNAP can help make a meaningful difference. For example, for a three-person family with one person who earns a minimum wage, SNAP benefits can boost take-home income by 10-20 percent. <sup>72</sup>

*WIC.* Administered by the Arizona Department of Health Services, this federally-funded program serves pregnant, postpartum, and breastfeeding women, as well as infants and young children (under the age of five) who are economically disadvantaged (i.e., family incomes at or

<sup>&</sup>lt;sup>v</sup> Low access is defined differently for urban (within ½-1 mile) and rural areas (within 10-20 miles).

below 185 percent of the federal poverty level). The program offers funds for nutritious food, breastfeeding and nutrition education, and referrals to health and social services.<sup>73</sup> Participation in WIC has been shown to be associated with healthier births, lower infant mortality, improved nutrition, decreased food insecurity, improved access to health care, and improved cognitive development and academic achievement for children.<sup>74</sup> The Navajo Nation as a sovereign nation administers their own WIC program with federal funding.

National School Lunch Program. Administered by the Arizona Department of Education, the National School Lunch Program provides free and reduced-price meals at school for students whose family incomes are at or less than 130 percent of the federal poverty level for free lunch, and 185 percent of the federal poverty level for reduced price lunch.

**Employment**. Unemployment and underemployment can affect a family's ability to meet the expenses of daily living, as well as their access to resources needed to support their children's well-being and healthy development. A parent's job loss can affect children's school performance, leading to poorer attendance, lower test scores, and higher risk of grade repetition, suspension, or expulsion.<sup>75</sup> Unemployment can also put families at greater risk for stress, family conflict, and homelessness.<sup>76</sup> Note that this does not include persons who have dropped out of the labor force entirely, including those who wanted to but could not find suitable work and thus have stopped looking for employment.<sup>77</sup> Due to many historical and legal reasons as well as differences in practical economic structures, employment rates in Native communities can vary greatly from state rates.<sup>78</sup>

**Housing instability**. Examining indicators related to housing quality, costs, and availability can reveal additional factors affecting the health and well-being of young children and their families in a region. Housing challenges such as issues paying rent or mortgage, overcrowded living conditions, unstable housing arrangements, and homelessness can have harmful effects on the physical, social-emotional, and cognitive development of young children. Traditionally, housing has been deemed affordable for a family if it costs less than 30 percent of their annual income. High housing costs, relative to family income, are associated with increased risk for overcrowding, frequent moving, poor nutrition, declines in mental health, and homelessness. On tribal lands, even when housing is affordable, housing *availability* is typically lower due to the legal complexities of land ownership and the lack of rental properties. These circumstances often lead to a shortage of safe, quality housing.

One increasingly critical need for modern homes is a reliable means of internet access. Families often rely on communication and information technologies to access information, connect socially, pursue an education, and apply for employment opportunities. Parents are also more likely to turn to online resources, rather than in-person resources, for information about obtaining health care and sensitive parenting topics including bonding, separation anxiety, and

managing parenting challenges.<sup>84</sup> The term "digital divide" refers to disparities in communication and information technologies, <sup>85</sup> and the lack of sustained access to information and communication technologies in low-income communities is associated with economic and social inequality.<sup>86</sup> Low-income households may experience regular disruptions to this increasingly important service when they cannot pay bills, repair or update equipment, or access public locations that may offer connectivity (e.g., computers at local libraries).<sup>87</sup> Nationally, Americans are increasingly reliant on smartphones as their sole source of internet access. Particularly for individuals who are younger, lower-income, and non-white, broadband service at home is less common and smartphone-only internet use is more common.<sup>88</sup> Households in rural areas typically experience more limited coverage from mobile networks and slower-speed internet services, as well as limited internet provider options which can result in higher monthly costs.<sup>89,90,91</sup> This is especially true of the more rural Native American communities in the state, where broadband services are sometimes non-existent.<sup>92,93</sup>

#### What the Data Tell Us

#### **Poverty**

- Over half (51%) of young children (ages 0-5) in the Navajo Nation Region live in poverty This rate is slightly lower than that of all Arizona reservations combined (54%) but substantially higher than the state (26%). Poverty rates for the overall population in the region (41%) are over twice that of the state (17%) (Figure 3).
- The median income for all families in the region is \$33,210, notably lower than the state of Arizona (\$63,812). Single female-headed families with children (ages 0-17) have a median income that is about 40 percent of the income of married couple families (\$20,120 and \$51,178, respectively) (Table 14).
- Eligibility for some public assistance programs is determined by different poverty thresholds. For example, family income at or below 141 percent of the federal poverty threshold is one criterion for eligibility for the Arizona Health Care Cost Containment System (AHCCCS)<sup>vi</sup> for children ages one to five, and at or below 147 percent of the federal poverty threshold for children younger than one year old.<sup>94</sup> In the Navajo Nation Region, the percentage of families with young children who may qualify for AHCCCS (those under 130% of FPL and between 130% and 149% of FPL) (65%) is similar to all Arizona reservations combined (67%) but substantially higher than in the state (38%). Note that this represents families with young children who may qualify, but are not necessarily enrolled in AHCCCS (Table 15 and Figure 4).
- In the Navajo Nation the Temporary Assistance for Needy Families (TANF) program is known as the Navajo Nation Department of Self Reliance (NNDSR), and its creation and establishment were influenced by traditional Navajo values and teachings. <sup>95</sup> According to the First Things First Navajo Nation Regional Partnership Council 2018 Needs and Assets Report, between 2015 and 2016, the average number of young children supported by the NNDSR program each month increased slightly from 1,269 to 1,292. Similarly, the average number of children of all ages supported by the NNDSR program increased from 3,748 to 3,845. The majority of children enrolled in NNDSR are in single-parent households where both the parent and child participate in the program <sup>96</sup> (Table 16).
- In addition to the families receiving support from through NNDSR, there are a few children in the Navajo Nation Region who receive TANF benefits through the state of Arizona. From 2015 to 2018, the number of young children receiving TANF benefits fluctuated, with the highest participation in 2016 (66 children) and the lowest

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vi AHCCCS is Arizona's Medicaid agency

participation in 2018 (between 22 and 30 children). Families participating in TANF showed a similar pattern of participation during this time (Table 17 & Table 18).

## **Food Insecurity**

- The number of families and young children receiving Supplemental Nutrition Assistance Program (SNAP) benefits steadily decreased in the Navajo Nation Region between 2015 and 2018. Despite this, the proportion of young children participating in SNAP in 2018 was much higher in the region (72%) than in Arizona (42%) (Table 19 & Table 20).
- From the 2015-2016 school year to the 2018-2019 school year, the proportion of students (all grades) eligible for free or reduced-price lunch in the Navajo Nation Region increased each year, with 94 percent of students eligible in 2018-2019 (Table 21). However, all school districts participate in the United States Department of Agriculture Community Eligibility Provision (CEP) program on the Navajo Nation. CEP is a non-pricing meal service option for schools and school districts in low-income areas. CEP allows districts to serve breakfast and lunch at no cost to all enrolled students without collecting household applications.

#### **Employment**

- Sixty percent of young children in the Navajo Nation Region live in families with at least one parent in the labor force, compared to 67 percent in all Arizona reservations combined and 89 percent in the state. The proportion of children in the region who live with only one parent and such parent is not in the labor force (35%) is similar to all Arizona reservations (31%) (Table 22).
- The average unemployment rate in the Navajo Nation Region for the 2013-2017 period was 18 percent, slightly lower than the estimated 21 percent in all Arizona reservations combined, but more than twice the average state rate of seven percent (Table 23).
- The First Things First Navajo Nation Regional Partnership Council 2018 Needs and Assets Report notes, however, that American Community Survey unemployment data are likely to overestimate the proportion of Navajo Nation residents who are employed for wages. Since 1991 the Navajo Nation Division of Economic Development (NNDED) has been collecting survey data with all employers in the Navajo Nation to produce its own unemployment estimates. According to the Navajo Nation Comprehensive Economic Development Strategy (CEDS), 2009-2010 (the most recent available from the NNDED website), NNDED's estimated unemployment rate in the Navajo Nation in 2007 was 51 percent. The CEDS document highlights that even 51 percent might be an underestimate of the true unemployment in the Nation because it adjusts for the proportion of the population over 16 who are looking for a job during the past four months. As indicated

in the CEDS 2009-2010 document, "this requirement generates a special problem for the Navajo people. The Navajo Nation does not have much employment opportunities; and hence, naturally, the Navajo people cannot be looking for something that does not exist. The result is that a vast majority of the young and able-bodied Navajo individuals are dropped out of the labor force. As these people are not in the labor force, they cannot be counted as unemployed either." Therefore, the NNDED estimates that a more accurate unemployment rate would be about 70 percent in 2007. Note that this estimate is prior to the large surge in unemployment seen across the state as an effect of the recession.<sup>97</sup>

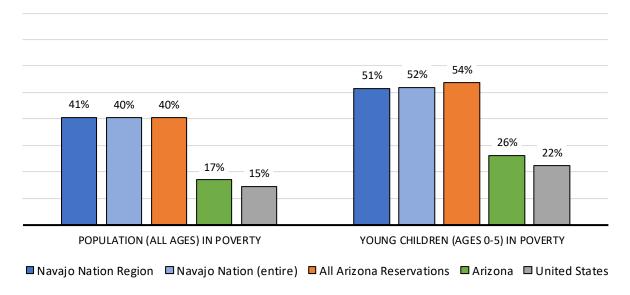
#### **Housing Instability**

- Fourteen percent of households in the region spend 30 percent or more of their income on housing-related costs. This rate is slightly lower than in all Arizona reservations (16%) and much lower than the state (31%) (Table 24).
- Even though housing costs are relatively low in the region, tribal areas face other housing-related challenges. The Navajo Nation Regional Partnership Council 2018 Needs and Assets Report highlights that despite high rates of home ownership, there are other pressing housing-related needs in the Nation. A survey conducted by the Navajo Housing Authority in the spring of 2009 to assess the housing conditions and housing needs of residents in the Nation found that: almost half (46%) of the 11,466 housing units surveyed required serious repairs and another 13 percent are dilapidated. The remaining 41 percent of homes required only minor repairs or no repairs at all. Five percent of all children in the Nation lived in housing units classified as "available shelter," which is defined as "non-typical and non-standard housing of the lowest quality" including cars, tents, shacks and other lower quality enclosures. Half (50%) of all children lived in overcrowded conditions. Eighty-nine percent of surveyed homes were heated by wood or pellets stoves, and nine percent area heated with natural gas or electricity. Fifty-six percent of houses had access to public water supply, but 31 percent of homes relied on off-site sources of water, which required transporting or hauling water for domestic use.98

- Data from the American Community survey (2013-2017) estimates that about one-quarter (26%) of households in the Navajo Nation Region have both a smartphone and computer, which is slightly lower than all Arizona reservations (30%) and significantly lower than the state of Arizona (67%) (Table 25).
- A lower proportion of residents in the Navajo Nation Region live in households with a computer and internet access compared to all Arizona reservations (30% vs 38%). Both proportions, however, are less than half of the state average (82%) (Table 26).
- A similar pattern is present in the percentage of children living in households with a computer and internet for the region, all Arizona reservations, and the state overall (Table 27).
- Of people living in households with a computer and internet in the region, 25 percent rely solely on a cellular data plan (Table 28).

## **Poverty**

Figure 3. Percent of population (all ages) and young children (ages 0-5) living in poverty



Source: U.S. Census Bureau (2018). American Community Survey five-year estimates 2013-2017, Table B17001

Table 14. Median annual family income

		MEDIAN INCOME FOR	MEDIAN INCOME FOR	MEDIAN INCOME FOR
	MEDIAN	MARRIED COUPLE	FAMILIES WITH	FAMILIES WITH
	INCOME FOR	FAMILIES WITH	CHILDREN (0-17),	CHILDREN (0-17),
GEOGRAPHY	ALL FAMILIES	CHILDREN (0-17)	SINGLE MALE HEAD	SINGLE FEMALE HEAD
Navajo Nation Region	\$33,210	\$51,178	\$19,643	\$20,120
Navajo Nation (entire)	\$32,583	\$48,050	\$17,972	\$18,596
Arizona	\$63,812	\$80,533	\$38,650	\$26,907
United States	\$70,850	\$91,621	\$41,054	\$26,141

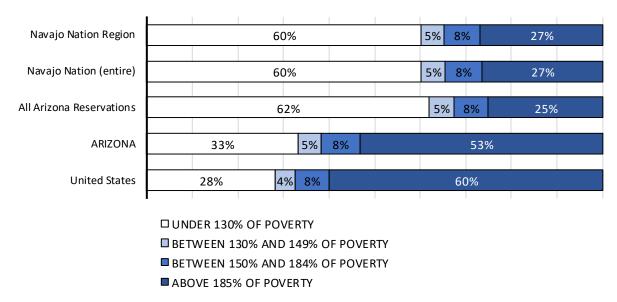
Source: U.S. Census Bureau (2018). American Community Survey five-year estimates 2013-2017, Table B19126

Table 15. Families with young children (ages 0-5) living at various thresholds above poverty

			PERCENT OF	PERCENT OF	
		DEDCENT OF	FAMILIES WITH	FAMILIES WITH	DEDCENT OF
	T0T41	PERCENT OF			PERCENT OF
	TOTAL	FAMILIES WITH	YOUNG	YOUNG	FAMILIES WITH
	NUMBER OF	YOUNG	CHILDREN	CHILDREN	YOUNG
	FAMILIES	CHILDREN	(AGES 0-5)	(AGES 0-5)	CHILDREN
	WITH YOUNG	(AGES 0-5)	BETWEEN 130%	BETWEEN 150%	(AGES 0-5)
	CHILDREN	UNDER 130%	AND 149% OF	AND 184% OF	ABOVE 185% OF
GEOGRAPHY	(AGES 0-5)	OF POVERTY	POVERTY	POVERTY	POVERTY
Navajo Nation Region	4,353	60%	5%	8%	27%
Navajo Nation Region Navajo Nation (entire)	<b>4,353</b> 7,133	<b>60%</b>	<b>5%</b>	<b>8%</b>	<b>27%</b> 27%
	•				
Navajo Nation (entire)	7,133	60%	5%	8%	27%

Source: U.S. Census Bureau (2018). American Community Survey five-year estimates 2013-2017, Tables B17001 & B17022 Note: Poverty refers to the poverty threshold used by the U.S. Census Bureau to determine whether or not a family lives in poverty based on their income. In 2017, the most recent year of ACS data used in this report, the poverty threshold for a family of four was \$24,848. For more information about poverty thresholds, see <a href="https://www.census.gov/topics/income-poverty/poverty/quidance/poverty-measures.html">https://www.census.gov/topics/income-poverty/poverty/quidance/poverty-measures.html</a>

Figure 4. Families with young children (ages 0-5) living at various poverty thresholds



Source: U.S. Census Bureau (2018). American Community Survey five-year estimates 2013-2017, Tables B17001 & B17022

Note: Poverty refers to the poverty threshold used by the U.S. Census Bureau to determine whether or not a family lives in poverty based on their income. In 2017, the most recent year of ACS data used in this report, the poverty threshold for a family of four was \$24,848. For more information about poverty thresholds, see <a href="https://www.census.gov/topics/income-poverty/poverty/quidance/poverty-measures.html">https://www.census.gov/topics/income-poverty/poverty/quidance/poverty-measures.html</a>

Table 16. Monthly average number of children served by the Navajo Nation Department for Self-Reliance (NNDSR, the tribal TANF program)

	MONTHLY AVERAGE FY2015 (AGES 0-18)	MONTHLY AVERAGE FY2016 (AGES 0-18)	MONTHLY AVERAGE FY2015 (AGES 0-5)	MONTHLY AVERAGE FY2016 (AGES 0-5)
Total	3,748	3,845	1,269	1,292
BY TYPE OF CASE				
Child Only	805	815	134	128
One-Parent	2,037	2,115	704	716
Two-Parent	906	915	431	448
BY NNDSR FIELD OFFICE				
Chinle	990	894	332	285
Crownpoint	362	322	150	142
Farmington	591	756	190	247
Gallup	378	417	134	140
Kayenta	411	367	135	128
St. Michaels	451	528	157	178
Tuba City	565	560	171	172
BY AGE OF CHILD				
0 Years	148	153		
1 Years	189	197		
2 Years	208	204		
3 Years	229	226		
4 Years	245	247		
5 Years	250	264		
6 to 10 Years	1,214	1,247		
11 to 15 Years	957	972		
16 to 18 Years	307	335		

Source: First Things First. (2018). Navajo Nation Regional Partnership Council 2018 Needs and Assets Report.

Table 17. Families receiving TANF benefits through the state of Arizona, Fiscal Years 2015 to 2018

	HOUSEHOLDS WITH ONE OR MORE CHILDREN	NUMBER OF FAMILIES PARTICIPATING IN TANF			PERCENT OF HOUSEHOLDS WITH YOUNG CHILDREN (0-5) PARTICIPATING	
GEOGRAPHY	(AGES 0-5)	FY 2015	FY 2016	FY 2017	FY 2018	IN TANF IN 2018
Navajo Nation Region	7,159	31	45	22 to 30	13 to 21	DS
Arizona	384,441	18,165	16,399	14,188	12,042	3%

Sources: U.S. Census Bureau (2010). 2010 Decennial Census, Summary File 1, Table P20 & Arizona Department of Economic Security (DES), Division of Benefits and Medical Eligibility (2019). Unpublished data received by request.

Table 18. Children receiving TANF benefits through the state of Arizona, Fiscal Years 2015 to 2018

	NUMBER OF YOUNG CHILDREN (AGES 0-5) IN THE	NUMBER OF CHILDREN PARTICIPATING IN TANF				PERCENT OF YOUNG CHILDREN (0-5) PARTICIPATING
GEOGRAPHY	POPULATION	FY 2015	FY 2016	FY 2017	FY 2018	IN TANF IN 2018
Navajo Nation Region	10,894	45	66	44	22 to 30	DS
Arizona	546,609	23,862	22,326	19,614	16,634	3%

Sources: U.S. Census Bureau (2010). 2010 Decennial Census, Summary File 1, Table P20 & Arizona Department of Economic Security (DES), Division of Benefits and Medical Eligibility (2019). Unpublished data received by request.

## **Food Insecurity**

Table 19. Families participating in the SNAP program, Fiscal Years 2015 to 2018

	HOUSEHOLDS WITH ONE OR MORE CHILDREN	NUMBER OF FAMILIES PARTICIPATING IN SNAP			PERCENT OF HOUSEHOLDS WITH YOUNG CHILDREN (0-5) PARTICIPATING	
GEOGRAPHY	(AGES 0-5)	FY 2015	FY 2016	FY 2017	FY 2018	IN SNAP IN 2018
Navajo Nation Region	7,159	5,707	5,671	5,550	5,170	72%
Arizona	384,441	179,988	172,014	164,092	151,819	39%

Sources: U.S. Census Bureau (2010). 2010 Decennial Census, Summary File 1, Table P20 & Arizona Department of Economic Security (DES), Division of Benefits and Medical Eligibility (2019). Unpublished data received by request.

Table 20. Children participating in the SNAP program, Fiscal Years 2015 to 2018

	NUMBER OF YOUNG CHILDREN (AGES 0-5) IN THE	NUMBER OF	CHILDREN P.	ARTICIPATIN	G IN SNAP	PERCENT OF YOUNG CHILDREN (0-5) PARTICIPATING
GEOGRAPHY	POPULATION	FY 2015	FY 2016	FY 2017	FY 2018	IN SNAP IN 2018
Navajo Nation Region	10,894	8,084	8,578	8,323	7,817	72%
Arizona	546,609	249,707	258,556	247,418	229,291	42%

Sources: U.S. Census Bureau (2010). 2010 Decennial Census, Summary File 1, Table P20 & Arizona Department of Economic Security (DES), Division of Benefits and Medical Eligibility (2019). Unpublished data received by request.

Table 21. Students (all grades) eligible for free or reduced-price lunch (ADE schools) 2015-16 to 2018-19

	STUDENTS ELIGIBLE	STUDENTS ELIGIBLE	STUDENTS ELIGIBLE	STUDENTS ELIGIBLE
	FOR FREE OR	FOR FREE OR	FOR FREE OR	FOR FREE OR
	REDUCED-PRICE	REDUCED-PRICE	REDUCED-PRICE	REDUCED-PRICE
GEOGRAPHY	LUNCH (2015-16)	LUNCH (2016-17)	LUNCH (2017-18)	LUNCH (2018-19)
Navajo Nation Region	84%	87%	93%	94%
Arizona	58%	57%	57%	56%

Source: Arizona Department of Education (2019). 2015-16 to 2018-19 Free & Reduced-Price Lunch Data. Custom tabulation of eligibility data.

### **Employment**

Table 22. Parents of young children (ages 0-5) who are or are not in the labor force

			WITH TWO			
	TOTAL NUMBER	WITH TWO	PARENTS,	WITH TWO		WITH ONE
	OF CHILDREN	PARENTS,	ONE IN	PARENTS,	WITH ONE	PARENT,
	(AGES 0-5) LIVING	BOTH IN	LABOR	NEITHER IN	PARENT, IN	NOT IN
	IN FAMILIES or	LABOR	FORCE AND	LABOR	LABOR	LABOR
GEOGRAPHY	SUBFAMILIES	FORCE	ONE NOT	FORCE	FORCE	FORCE
Navajo Nation Region	8,798	11%	15%	4%	34%	35%
Navajo Nation (entire)	14,528	12%	14%	4%	37%	33%
All Arizona Reservations	16,902	13%	14%	3%	40%	31%
Arizona	498,102	31%	29%	1%	29%	10%
United States	22,939,897	38%	26%	1%	27%	8%

Source: U.S. Census Bureau (2018). American Community Survey five-year estimates 2013-2017, Table B23008

Note: Note: The labor force includes all persons who are currently employed, including those on leave, furlough, or temporarily laid off. Persons who are unemployed but actively looking for work are also considered to be in the labor force. Persons who are not working or looking for work (e.g., retired persons, stay-at-home parents, students) are considered to be "not in the labor force" in the American Community Survey.

Table 23. Labor force participation rate and unemployment rate

	TOTAL POPULATION (AGES	LABOR FORCE	
GEOGRAPHY	16 AND OLDER)	PARTICIPATION RATE	UNEMPLOYMENT RATE
Navajo Nation Region	74,574	42%	18%
Navajo Nation (entire)	129,676	44%	19%
All Arizona Reservations	136,081	46%	21%
Arizona	5,371,341	60%	7%
United States	255,797,692	63%	7%

Source: U.S. Census Bureau (2018). American Community Survey five-year estimates 2013-2017, Table B23025

Note: The "labor force participation rate" is the estimated fraction of the population who are in the labor force, either currently working or looking for work. (Persons not in the labor force are neither working nor looking for work, such as retired persons, stay-at-home parents, students, and the disabled.) The "unemployment rate" is the fraction of the labor force who are unemployed but looking for work.

## **Housing Instability**

Table 24. Households who are paying thirty percent or more of their income for housing

GEOGRAPHY	TOTAL NUMBER OF OCCUPIED HOUSING UNITS	PERCENT OF HOUSING UNITS FOR WHICH HOUSING COSTS 30% OF INCOME OR MORE
Navajo Nation Region	26,723	14%
Navajo Nation (entire)	45,972	14%
All Arizona Reservations	49,638	16%
Arizona	2,482,311	31%
United States	118,825,921	32%

Source: U.S. Census Bureau (2018). American Community Survey five-year estimates 2013-2017, Table B25106

Table 25. Households with and without computers and smartphones

				PERCENT WITH	PERCENT WITH
		PERCENT WITH	PERCENT WITH	BOTH	NEITHER
		COMPUTER	SMARTPHONE	SMARTPHONE	SMARTPHONE
	TOTAL NUMBER	(BUT NO	(BUT NO	AND	NOR
GEOGRAPHY	OF HOUSEHOLDS	SMARTPHONE)	COMPUTER)	COMPUTER	COMPUTER
Navajo Nation Region	26,723	8%	11%	26%	55%
Navajo Nation (entire)	45,972	8%	12%	24%	57%
All Arizona Reservations	49,638	9%	14%	30%	47%
Arizona	2,482,311	12%	9%	67%	12%
United States	118,825,921	12%	9%	66%	13%

Source: U.S. Census Bureau (2018). American Community Survey five-year estimates 2013-2017, Table B28010

Note: In this table, "computer" includes both desktops and laptops.

Table 26. Persons (all ages) in households with and without computers and internet connectivity

	NUMBER OF	PERCENT IN	PERCENT IN	PERCENT IN
	PERSONS (ALL	HOUSEHOLDS	HOUSEHOLDS	HOUSEHOLDS
	AGES) LIVING IN	WITH COMPUTER	WITH COMPUTER	WITHOUT
GEOGRAPHY	HOUSEHOLDS	AND INTERNET	BUT NO INTERNET	COMPUTER
Navajo Nation Region	100,819	30%	22%	47%
Navajo Nation (entire)	173,974	29%	23%	49%
All Arizona Reservations	185,192	38%	21%	40%
Arizona	6,656,124	82%	9%	9%
United States	312,916,765	83%	9%	9%

Source: U.S. Census Bureau (2018). American Community Survey five-year estimates 2013-2017, Table B28005

Table 27. Children (ages 0-17) in households with and without computers and internet connectivity

CEOCRADIIV	NUMBER OF CHILDREN (AGES 0- 17) LIVING IN	PERCENT IN HOUSEHOLDS WITH COMPUTER AND INTERNET	PERCENT IN HOUSEHOLDS WITH COMPUTER BUT NO INTERNET	PERCENT IN HOUSEHOLDS WITHOUT
GEOGRAPHY	HOUSEHOLDS	AND INTERNET	BUT NO INTERNET	COMPUTER
Navajo Nation Region	30,683	35%	25%	40%
Navajo Nation (entire)	51,623	33%	25%	42%
All Arizona Reservations	57,156	41%	24%	35%
Arizona	1,619,346	83%	10%	8%
United States	73,392,369	85%	9%	5%

Source: U.S. Census Bureau (2018). American Community Survey five-year estimates 2013-2017, Table B28005

Table 28. Households by type of internet access (broadband, cellular data, and dial-up)

				PERCENT WITH	
	PEOPLE LIVING IN	PERCENT WITH	PERCENT WITH	CELLULAR	PERCENT
	HOUSEHOLDS	FIXED	FIXED BROADBAND	DATA PLAN,	WITH DIAL-
	WITH COMPUTER	BROADBAND	WITHOUT	WITHOUT	UP
	AND INTERNET	WITH CELLULAR	CELLULAR DATA	FIXED	INTERNET
GEOGRAPHY	(ALL AGES)	DATA PLAN	PLAN	BROADBAND	ONLY
Navajo Nation Region	30,609	24%	48%	25%	4%
Navajo Nation (entire)	50,065	21%	45%	29%	4%
All Arizona Reservations	71,139	29%	42%	25%	3%
Arizona	5,475,311	54%	35%	10%	1%
United States	258,531,929	55%	35%	10%	1%

Source: U.S. Census Bureau (2018). American Community Survey five-year estimates 2013-2017, Table B28008

## **Educational Indicators**

## Why it Matters

Measures of educational engagement and achievement in a community have important implications for the developmental and economic resources available to children and families in that region. Individuals with higher levels of education tend to live longer and healthier lives. 99 Indicators such as school attendance and absenteeism, achievement on standardized testing, high school graduation rates, and adult educational attainment can provide valuable information about a region's educational engagement and success. Early learning can set the stage for future educational achievement, and is discussed more fully in the following section.

**School attendance and absenteeism.** School attendance and academic engagement early in life can significantly impact the direction of a child's schooling trajectory. Chronic absenteeism is defined as missing more than ten percent of the school days within a school year, and it affects even the youngest children, with more than ten percent of U.S. kindergarteners and first graders considered chronically absent. Poor school attendance can cause children to fall behind, leading to lower proficiency in reading and math and increased risk of not being promoted to the next grade. Consistent school attendance is particularly important for children from economically disadvantaged backgrounds, the group of children most at risk for chronic absenteeism. October 20,103

Achievement on standardized testing. A child's third-grade reading comprehension skills have been identified as a critical indicator of future academic success. Students who are at or above grade level reading in third grade are more likely to go on to graduate high school and attend college. The link between poor reading skills and risk of dropping out of high school is even stronger for children living in poverty. More than a quarter (26%) of children who were living in poverty and not reading proficiently in third grade did not finish high school. This is more than six times the high school dropout rate of proficient readers. The six times the high school dropout rate of proficient readers.

In 2010, the Arizona legislature, recognizing the importance of early identification and targeted intervention for struggling readers, enacted *Move on When Reading* legislation. As of 2015, the statewide assessment tool for English language arts (ELA), including reading and writing, is Arizona's Measurement of Education Readiness to Inform Teaching (AzMERIT). VIII, 107 AzMERIT scores are used to determine promotion from the third grade in accordance with the *Move on When Reading* policy. *Move on When Reading* legislation states that a student shall not be promoted to fourth grade if their reading score falls far below the third-grade level, as

vii AzMERIT was renamed AzM2, a change that will take effect during the 2019-2020 school year.

established by the State Board of Education. <sup>108</sup> Exceptions exist for students identified with or being evaluated for learning disabilities and/or reading impairments, English language learners, and those who have demonstrated reading proficiency on alternate forms of assessment approved by the State Board of Education.

Graduation rates and adult educational attainment. Ultimately, adult educational attainment speaks to the assets and challenges of a community's workforce, including those who are working with or on behalf of young children and their families. Adults who have graduated from high school have better health and financial stability, lower risk for incarceration, and better socio-emotional outcomes compared to adults who dropped out of high school. 109,110 Children whose parents have higher levels of education are more likely to have positive outcomes related to school readiness and educational achievement, promoting academic success across generations. Given the cascading effect of early education on later academic achievement and success in adulthood, it is critical to provide substantial support for early education and promote policies and programs that encourage the persistence and success of Arizona's children.

### What the Data Tell Us

#### **School Attendance and Absenteeism**

- The primary and secondary educational system in the Navajo Nation is comprised of grant schools, Bureau of Indian Education schools and schools managed by the Arizona Department of Education. The Navajo Nation Department of Diné Education (DODE) is the central administrative education agency within the Executive Branch of the Navajo Nation, and is vested with the authority and responsibility to implement and enforce the educational laws of the Navajo Nation.<sup>112</sup>
- In the 2018-19 school year, there were a total of 3,427 children in the Navajo Nation Region enrolled in kindergarten through third grade in public schools managed by the Arizona Department of Education (Table 29).
- From school year 2015-2016 to school year 2018-2019, chronic absence rates in the Navajo Nation Region were substantially higher than in the state. In 2018-2019, the combined chronic absence rate for children in grades K-3 was 28 percent, more than twice as high as that in Arizona (12%) (Table 30 & Table 31).

#### **Achievement on Standardized Testing**

In school year 2017-2018, 922 third-grade students in the Navajo Nation Region completed the required statewide AzMERIT English Language test. Twenty-one percent of the students who completed AzMERIT in the region passed the English language arts assessment, which is about half of the state's rate (44%). For mathematics, 923 third-grade students in the region completed the AzMERIT assessment. Thirty-four percent of students in the region passed the test, compared to 53 percent in the state (Table 33 & Table 34).

#### **Graduation Rates and Adult Educational Attainment**

- High school students in the Navajo Nation Region may attend one of 16 high schools and
  alternative public and charter schools in the region. In 2017, for the Navajo Nation
  Region, 80 percent of the high school graduates completed high school in five years,
  similar to the state five-year graduation rate of 82 percent. The Navajo Nation Region's
  dropout rate in 2017 was six percent, similar to the state dropout rate of five percent.
- The four-year high school graduation rates for the Navajo Nation Region remained steady: 74 percent in 2015, 73 percent in 2016, and 75 percent in 2017. These graduation rates are similar to the state rates of 79 percent in 2015, 80 percent in 2016, and 78 percent in 2017 (Table 36).
- The high school dropout rate for the Navajo Nation Region remained steady, between six and seven percent for the 2015-2016, 2016-2017, and 2017-2018 school years. This

dropout rate is very close to the state rate which ranged from four to five percent for the same school years. Please note that these graduation and drop-out rates are only for students enrolled in public schools overseen by the Arizona Department of Education (Table 38).

- Educational attainment among adults 25 and older in the Navajo Nation Region closely mirrors that in all Arizona reservations combined. In the Navajo Nation Region, 39 percent of adults have more than a high school education compared to 62 percent in Arizona. Thirty-five percent have a high-school education or a GED. Twenty-six percent of the adult population in the region did not complete high school (Figure 9).
- Of the births in the region in 2017, almost half (49%) were to a mother with more than high-school education (Table 39).

### **School Attendance and Absenteeism**

Table 29. Students enrolled in ADE public schools preschool through third grade, 2018-19

GEOGRAPHY	PRESCHOOL	KINDERGARTEN	1ST GRADE	2ND GRADE	3RD GRADE
Navajo Nation Region	284	815	831	880	901
Arizona	21,238	79,990	81,913	81,951	83,037

Source: Source: Arizona Department of Education (2019). 2018-19 October 1 Enrollments. Custom tabulation of enrollment data facilitated by state agency staff.

Note: Data on this table reflect only students enrolled in public schools managed by the Arizona Department of Education. Data on enrollments were calculated at the district-level.

Table 30. Chronic absence rates, Kindergarten through 3rd Grade, 2018-19

		STUDENTS WITH	
GEOGRAPHY	TOTAL STUDENTS	CHRONIC ABSENCES	CHRONIC ABSENCE RATE
Navajo Nation Region	4,189	1,158	28%
Arizona	402,206	46,482	12%

Source: Arizona Department of Education (2019). 2018-19 Chronic Absenteeism Data. Unpublished data received by request.

Note: The definition of chronic absenteeism used in this table includes children who are absent due to chronic illness. The data in this table do not include absenteeism rates from Leupp Public School.

Table 31. Chronic absence rates, Kindergarten through 3rd grade, 2015-16 to 2018-19

	CHRONIC	CHRONIC	CHRONIC	CHRONIC
	ABSENCE RATE	ABSENCE RATE	ABSENCE RATE	ABSENCE RATE
GEOGRAPHY	(2015-16)	(2016-17)	(2017-18)	(2018-19)
Navajo Nation Region	21%	22%	24%	28%
Arizona	9%	10%	11%	12%

Source: Arizona Department of Education (2019). 2015-16 to 2018-19 Chronic Absenteeism Data. Unpublished data received by request.

Note: The definition of chronic absenteeism used in this table includes children who are absent due to chronic illness. The data in this table do not include absenteeism rates from Leupp Public School.

Table 32. Chronic absence rates for students by grade (Grade K-3), 2015-16 to 2018-19

		CHRONIC	CHRONIC	CHRONIC
	CHRONIC ABSENCE	ABSENCE RATE	ABSENCE RATE	ABSENCE RATE
GEOGRAPHY	RATE (KINDERGARTEN)	(1ST GRADE)	(2ND GRADE)	(3RD GRADE)
Navajo Nation Region	35%	29%	25%	23%
Arizona	13%	12%	11%	10%

Source: Arizona Department of Education (2019). 2015-16 to 2018-19 Chronic Absenteeism Data. Unpublished data received by request.

Note: The definition of chronic absenteeism used in this table includes children who are absent due to chronic illness. The data in this table do not include absenteeism rates from Leupp Public School.

## **Achievement on Standardized Testing**

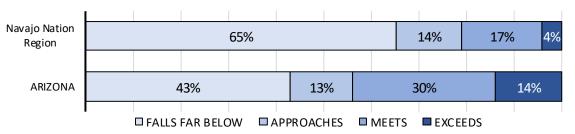
Table 33. AzMERIT Assessment Results: 3rd Grade English Language Arts, 2017-18

	STUDENTS	FALLS FAR				
GEOGRAPHY	TESTED	BELOW	APPROACHES	MEETS	EXCEEDS	PASSING
Navajo Nation Region	922	65%	14%	17%	4%	21%
Arizona	84,922	43%	13%	30%	14%	44%

Source: Arizona Department of Education (2019). 2017-18 Arizona's Measurement of Educational Readiness to Inform Teaching (AzMERIT) Assessment Results. Custom tabulation of assessment data.

Note: The data in this table do not include results from Leupp Public School.

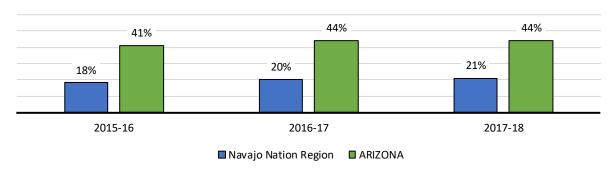
Figure 5. AzMERIT Assessment Results: 3rd Grade English Language Arts, 2017-18



Source: Arizona Department of Education (2019). 2017-18 Arizona's Measurement of Educational Readiness to Inform Teaching (AzMERIT) Assessment Results. Custom tabulation of assessment data.

Note: The data in this table do not include results from Leupp Public School.

Figure 6. Trends in passing rates for 3rd-grade English Language Arts AzMERIT, 2015-16 to 2017-18



Source: Arizona Department of Education (2019). 2015-16 to 2017-18 Arizona's Measurement of Educational Readiness to Inform Teaching (AzMERIT) Assessment Results. Custom tabulation of assessment data.

Note: The data in this table do not include results from Leupp Public School.

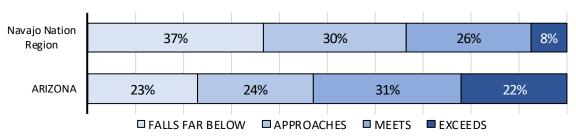
Table 34. AzMERIT Assessment Results: 3rd Grade Math, 2017-18

CEOCRADHY	NUMBER OF STUDENTS	FALLS FAR	ADDDOACHES	NACETO	EVCEEDS	DASSING
GEOGRAPHY Navajo Nation Region	TESTED 923	37%	APPROACHES 30%	26%	EXCEEDS 8%	PASSING 34%
Arizona	85,105	23%	24%	31%	22%	53%

Source: Arizona Department of Education (2019). 2017-18 Arizona's Measurement of Educational Readiness to Inform Teaching (AzMERIT) Assessment Results. Custom tabulation of assessment data.

Note: The data in this table do not include results from Leupp Public School.

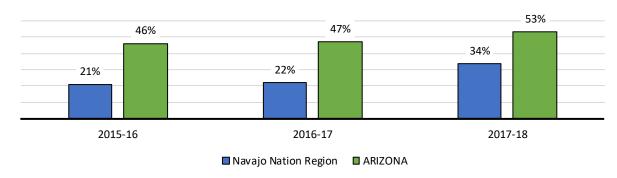
Figure 7. AzMERIT Assessment Results: 3rd Grade Math, 2017-18



Source: Arizona Department of Education (2019). 2017-18 Arizona's Measurement of Educational Readiness to Inform Teaching (AzMERIT) Assessment Results. Custom tabulation of assessment data.

Note: The data in this table do not include results from Leupp Public School.

Figure 8. Trends in passing rates for 3rd-grade Math AzMERIT, 2015-16 to 2017-18



Source: Arizona Department of Education (2019). 2015-16 to 2017-18 Arizona's Measurement of Educational Readiness to Inform Teaching (AzMERIT) Assessment Results. Custom tabulation of assessment data.

Note: The data in this table do not include results from Leupp Public School.

### **Graduation Rates and Adult Educational Attainment**

Table 35. Graduation and dropout rates, 2017

Arizona	84,802	66,363	78%	70,178	82%	5%
Navajo Nation Region	1,096	822	75%	883	80%	6%
GEOGRAPHY	COHORT	GRADUATES	RATE	GRADUATES	RATE	GRADES)
	SENIOR	FOUR-YEAR	GRADUATION	FIVE-YEAR	GRADUATION	TO 12TH
	YEAR		FOUR-YEAR		FIVE-YEAR	RATE (7TH
	FOUR-					DROPOUT

Source: Arizona Department of Education (2019). Cohort 2017 Four Year Graduation Rate Data, Cohort 2017 Five Year Graduation Rate Data, and Dropout Rates 2017. Retrieved from <a href="https://www.azed.gov/accountability-research/data/">https://www.azed.gov/accountability-research/data/</a>

Table 36. Trends in four-year graduation rates, 2015 to 2017

	FOUR-YEAR	FOUR-YEAR	FOUR-YEAR
	GRADUATION RATE	GRADUATION RATE	GRADUATION RATE
GEOGRAPHY	(2015)	(2016)	(2017)
Navajo Nation Region	74%	73%	75%
Arizona	79%	80%	78%

Source: Arizona Department of Education (2019). Cohort 2014-2017 Four Year Graduation Rate Data. Retrieved from <a href="https://www.azed.gov/accountability-research/data/">https://www.azed.gov/accountability-research/data/</a>

Table 37. Trends in five-year graduation rates, 2015 to 2017

	FIVE-YEAR	FIVE-YEAR	FIVE-YEAR
	GRADUATION RATE	GRADUATION RATE	GRADUATION RATE
GEOGRAPHY	(2015)	(2016)	(2017)
Navajo Nation Region	79%	79%	80%
Arizona	82%	83%	82%

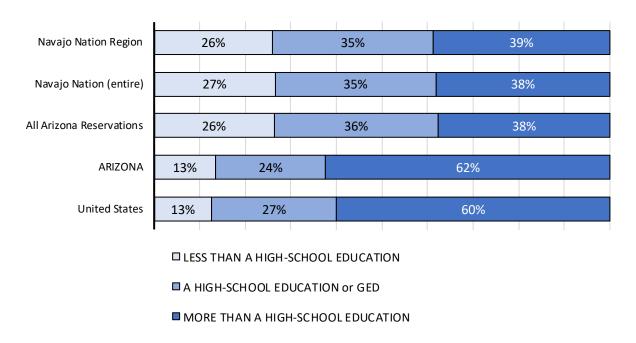
Source: Arizona Department of Education (2019). Cohort 2014-2017 Five Year Graduation Rate Data. Retrieved from <a href="https://www.azed.gov/accountability-research/data/">https://www.azed.gov/accountability-research/data/</a>

Table 38. Trends in 7th-12th grade dropout rates, 2015-16 to 2017-18

	DROPOUT RATE	DROPOUT RATE	DROPOUT RATE
GEOGRAPHY	(2015-16)	(2016-17)	(2017-18)
Navajo Nation Region	6%	7%	6%
Arizona	4%	5%	5%

Source: Arizona Department of Education (2019). Dropout Rates 2015-2018. Retrieved from <a href="https://www.azed.gov/accountability-research/data/">https://www.azed.gov/accountability-research/data/</a>

Figure 9. Level of education for the adult population (ages 25 and older)



Source: U.S. Census Bureau (2018). American Community Survey five-year estimates 2013-2017, Table B15002

Table 39. Level of education for mothers giving birth during calendar year 2017

		MOTHER HAD LESS		
		THAN A HIGH-	MOTHER HAD	MOTHER HAD
	TOTAL NUMBER	SCHOOL	HIGH-SCHOOL	MORE THAN HIGH-
GEOGRAPHY	OF BIRTHS IN 2017	EDUCATION	DIPLOMA OR GED	SCHOOL
Navajo Nation Region	1,313	18%	32%	49%
Arizona	81,664	17%	26%	56%

Source: ADHS Office of Disease Prevention and Health Promotion. (2019). Arizona Health Status and Vital Statistics.

Note: Due to a small number of births for which the mother's educational attainment is unknown, entries in this table may not sum to 100%.

# **Early Learning**

## Why it Matters

Early childhood is an exciting time of rapid physical, cognitive, and social-emotional development. The experiences young children have during these early years are critical for healthy brain development and set the stage for lifelong learning and well-being. <sup>113,114</sup> Just as rich, stimulating environments can promote development, early negative experiences can have lasting effects. For example, gaps in language development between children from disadvantaged backgrounds and their more advantaged peers can be seen by 18 months of age; <sup>115</sup> those disparities that persist until kindergarten tend to predict later academic problems. <sup>116</sup>

Access to early care and education. Though high-quality early care and education can promote development, families often face barriers in accessing these opportunities for their children. Families living in rural areas are more likely to face an inadequate child care supply, but Arizona families in both urban and rural areas face a gap between the number of young children and the availability of licensed child care. 117,118,119 In fact, Arizona has a deficit of about 22,230 licensed early care and education slots to meet the needs of working families, without accounting for parents continuing their own education, or those not in the workforce but seeking out early learning programs to help assure their preschool age children are able to make a strong start in school. 120 Even when early education is available, the cost can be prohibitive. According to the U.S. Department of Education, only 19 percent of four-year-olds in Arizona are enrolled in publicly-funded free or reduced cost preschool programs, compared to 41 percent nationally. 121 If not enrolled in publicly-funded programs, the annual cost of full-time center-based care for a young child in Arizona is nearly equal to the cost of a year at a public college. 122,123

Child care subsidies can be a support for families who have financial barriers to accessing early learning services. <sup>124</sup> In June 2019, for the first time since the Great Recession, the Arizona Department of Economic Security's (DES) child care subsidy waiting list was suspended, meaning all children who qualify for subsidies are able to receive them, assuming that they are able to find a provider. <sup>125</sup> This is due to \$56 million in additional federal funds from the Child Care and Development Fund (CCDF) that was authorized by the State Legislature, and the funding increase has also allowed DES to increase provider reimbursement rates, which may make it easier for families to use their child care subsidies. <sup>126</sup>

**High quality early care and education.** In addition to the early experiences children have in their homes, high quality early care and education services can also promote physical,

cognitive, and social-emotional development and health, particularly for children from disadvantaged backgrounds. <sup>127,128,129</sup> Children whose education begins in high quality preschool programs repeat grades less frequently, obtain higher scores on standardized tests, experience fewer behavior problems, and are more likely to graduate from high school. <sup>130</sup> This translates into a return on investment to society through increased educational achievement and employment, reductions in crime, and better overall health of children as they mature into adults. <sup>131,132</sup> Not only does access to affordable, quality child care make a positive difference for children's health and development, it also allows parents to maintain stable employment and support their families. <sup>133</sup> The early care education system in tribal communities often consists of a complex network of center-based and home-based care and education settings with funding from varied sources including tribal governments, federal grants, and the Arizona Department of Education. <sup>134</sup>

Establishing that available early care and education programs meet quality standards is important to ensure these early environments support positive outcomes for children's well-being, academic achievement, and success later in life. Providers are considered quality educational environments by the Arizona Department of Economic Security if they receive a Quality First three-star rating or higher (see below) or are accredited by a national organization, such as the Association for Early Learning Leaders or the National Association for the Education of Young Children (NAEYC). 136

High quality early education environments have teachers with more education, experience, and supports that increase their skills in developing positive teacher-child interactions, providing enriching age-appropriate experiences and guiding appropriate behaviors. These quality environments may be particularly important for children with challenging behaviors, because lower teacher-child ratios and access to professional development and early childhood mental health consultation can help avoid preschool expulsion. 138,139,140

Quality First is Arizona's Quality Improvement and Rating System (QIRS) for early child care and preschool providers. A Quality First Star Rating represents where along the continuum of quality (1 to 5 stars) a program was rated and how they are implementing early childhood best practices. One star indicates a program is participating in Quality First, is regulated, in good standing, and is making the commitment to work on quality improvement. Three stars indicate that a program is of good quality care, and families can be confident that children are well cared for in such an environment. Five stars indicate the highest level of quality attainable, where families will find low staff-child ratios and group sizes, highly educated personnel, and strong curriculum which optimizes children's comprehensive development. The number of providers across the state that meet quality standards (three-star rating or higher) has increased across the last 5 years such that 25 percent of the 857 participating providers in 2013

met or exceeded quality standards, and 76 percent of 1,032 participating providers in 2019 met or exceeded quality standards. 143

High quality early care and education practices, including lower teacher-child ratios, access to professional development, and early childhood mental health consultation, can help avoid preschool expulsion. Additionally, preschool expulsions and suspensions occur at high rates and disproportionately impact children of color, specifically young Black boys. Alean estimated 50,000 preschoolers were suspended and 17,000 preschoolers expelled nationwide, with Black children 2.2 times more likely to be suspended or expelled than other children. The U.S. Department of Education Office of Civil Rights began collecting data on preschool suspension and expulsion in 2011 and, as a result of federal changes to the Child Care Development Block Grant in 2014, Arizona began collecting provider-reported data on early learning environment expulsion in 2017. Solven the positive impact of early educational experiences on children's cognitive and emotional development and the negative impact of suspension and expulsion on educational outcomes, it is essential to identify areas with higher rates of expulsion to provide targeted supports.

As an alternative to expulsion, early education providers in Arizona have an opportunity to identify young children as being at risk for expulsion and to receive consultation from experts to help intervene in problem behaviors. Consultation is provided through on-site mental health consultation, available for Quality First and some non-Quality First providers in most but not all regions in the state, as well as through a statewide DES-managed hotline. If that child is then able to remain in the center, this is documented as a prevented expulsion and their case is closed out. The reported number of prevented expulsions of young children receiving subsidies increased from seven in 2017 to 45 in 2018.<sup>152</sup>

Young children with special needs. The availability of early learning opportunities and services for young children with special needs is an ongoing concern across the state, particularly in the more geographically remote communities and some tribal communities. Children with special health care needs are defined as "those who have or are at increased risk for a chronic physical, developmental, behavioral, or emotional condition and who also require health and related services of a type or amount beyond that required by children generally." According to the National Survey of Children's Health, children with special health care needs are more likely to experience more adverse childhood experiences (ACEs) viii than typically-developing children, 154

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viii ACEs include eight categories of traumatic or stressful life events experienced before the age of 18 years. The eight ACE categories are sexual abuse, physical abuse, emotional abuse, household adult mental illness, household substance abuse, domestic violence in the household, incarceration of a household member, and parental divorce or separation.

and are at an increased risk for maltreatment and neglect, <sup>155,156</sup> suggesting they may particularly benefit from high quality teacher-child interactions in classrooms. <sup>157,158</sup> Nationally, American Indian/Alaska Native children receive special education services at the highest rates (18%) of any racial/ethnic group, with notably higher rates of services than their white (14%) and Hispanic (13%) peers. <sup>159</sup> Almost half (46%) of families with a child with special needs in Arizona have incomes below 200 percent of the federal poverty level, suggesting that even if they can identify an appropriate provider, affording quality care is likely to be a burden. <sup>160</sup>

Ensuring all families have access to timely and appropriate screenings for children who may benefit from early identification of special needs can help improve outcomes for these children and their families. Timely intervention can help young children with, or at risk for, developmental delays improve language, cognitive, and socio-emotional development. If also reduces educational costs by decreasing the need for special education. If In Arizona, services available to families with children with special needs include those provided through the Arizona Early Intervention Program (AzEIP), If the Arizona Department of Education Early Childhood Special Education program, If and the Division of Developmental Disabilities (DDD).

## What the Data Tell Us

# **Access to Early Care and Education**

- The early care and learning system in the Navajo Nation Region is comprised of a variety
  of center-based and home-based providers managed by a number of entities that
  include: Navajo Nation Child Care Development Fund, Navajo Nation Head Start and
  Early Head Start Program, Family and Child Education (FACE) Program, public school
  preschool programs, and private school preschool programs.<sup>167</sup>
- According to the Navajo Nation Regional Partnership Council 2018 Needs and Assets Report, the Navajo Nation Child Care Development Fund (CCDF) provides child care services for parents and families who are working toward self-sufficiency. CCDF childcare services are available through tribal child care centers or private providers. CCDF provides child care for children who are: 12 years of age and younger, an enrolled member of the Navajo Nation or be eligible for enrollment, and residing within the same household as eligible parents or legal guardians. CCDF is comprised of five regions. Chinle Region, Fort Defiance Region, and Tuba City Region primarily serve Arizona communities. Crownpoint Region and Shiprock Region primarily serve New Mexico communities. Child care services are available in these regions through a combination of child care centers and home-based providers (Table 41).<sup>168</sup>
- Navajo Head Start is a federally-funded early childhood development organization within the Executive Branch of the Navajo Nation government and it administers two programs: Head Start and Early Head Start (EHS). Head Start provides services to children three to five years old, and comprises 109 program sites across four Head Start Regions: (1) Chinle Region, (2) Tuba City Region, (3) Fort Defiance Region, and (4) Crownpoint/Shiprock Region (predominantly serving New Mexico communities). EHS services cater to pregnant women and infants and toddlers between the ages of birth to 36 months. Three EHS sites are in operation on the Navajo Nation. The two Arizona-based sites are in Fort Defiance and on the Diné College Campus in Tsaile. Both programs offer services through center- and home-based program options. Altogether, Navajo Head Start (including EHS) sites in the First Things First Navajo Nation Region have a total funded enrollment of 1,252 children. The Navajo Head Start program as a whole (including the sites outside of Arizona) had a total funded enrollment of 2,100 children as of program year 2015-2016. 169
- The Family and Child Education (FACE) is an early childhood and parental involvement program for American Indian families at Bureau of Indian Education (BIE)-funded schools. In Program Year 2017, FACE services and activities were administered at eight BIE-funded schools in the Arizona portion of the Navajo Nation. Across the eight center-

based programs, the total number of children enrolled was 122, and the total number of adults enrolled was 160. The total number of children and adults enrolled in home-based programs was 262 and 274, respectively. Altogether, the total unduplicated number of children ages birth to five enrolled in both center- and home-based programs in that program year was 375.<sup>170</sup>

- The Navajo Nation Regional Partnership Council 2018 Needs and Assets Report indicates that there are 13 **school-based preschool programs** in the Navajo Nation Region. Of these, one program was based in a private school. The remaining 12 preschool programs are public school-based, and collectively had a total enrollment of 478 children.<sup>171</sup>
- The 2018 report also points out that despite all of these early care and learning options, availability of reliable child care services is a challenge to parents with young children, especially for families where both parents work outside of the home. Early childhood education enrollment in the Navajo Nation Region is slightly lower than in all Arizona reservations combined: thirty-eight percent of children ages three to four are enrolled in school (i.e. nursery school, preschool, or kindergarten) compared to 41 percent in all Arizona reservations (Table 40).
- In addition to the child care subsidies provided by the Navajo Nation Child Care
  Development Fund Program, some families in the Navajo Nation Region receive child
  care subsidies from the Arizona Department of Economic Security (DES). In the period
  between 2015 and 2018, the number of young children receiving DES subsidies in the
  region ranged from fewer than ten to 15 (Table 42).
- There were fewer than ten young children involved with the Department of Child Safety receiving DES child care subsidies in the region in 2015, 2016, 2017, and 2018 (Table 43).
- The proportion of eligible families not using DES child care subsidies in the Navajo Nation Region was substantially higher in 2018 (46%) compared to the previous two years (20%). At the state level there was only a slight increase in the number of families who did not use the subsidies in the same time period (from 6 percent in 2016 to 8 percent in 2018) (Table 44).

## **High Quality Early Care and Education**

• The Department of Economic Security (DES) defines early care and education "quality environments" as providers that are accredited by a national organization or providers that have received a state-approved quality indicator that is recognized by the

- department. ix Between two and eighteen young children in the region were served in quality environment settings, as defined by DES, in 2018 (Table 45).
- In State Fiscal Year 2019, a total of 23 child care providers in the Navajo Nation Region participated in Quality First, 17 (or 74%) of which were quality-level settings (public 3-5 stars). That same year, there were 708 children enrolled at a Quality First Site in the region, 66 percent of which were enrolled in quality-level settings (public 3-5 stars) (Table 46 & Table 47).

## **Young Children with Special Needs**

- The number of children ages three to five enrolled in special education in schools overseen by the Arizona Department of Education in the Navajo Nation Region increased from 90 in school year 2015-2016 to 158 in school year 2016-2017, and decreased slightly in the two years thereafter (Table 48).
- In school year 2018-2019, about half (51%) of the 144 children (ages 3-5) enrolled in special education were diagnosed with a developmental delay and about one-third (31%) with a speech or language impairment (Table 49).
- For students in grades one through three, the proportion of those enrolled in special education increased from seven percent in school year 2015-2016, to 11 percent in 2016-2017, and remained stable in the two school years thereafter (Table 50).
- In the Navajo Nation, the Arizona Early Intervention Program (AzEIP) service provider is the tribally-operated Growing in Beauty program. In Fiscal Years 2016 and 2017 the percentage of children (ages 0-2) from the Navajo Nation Region who were referred to Growing in Beauty/AzEIP and were found eligible for services remained stable (40% and 38%, respectively) (Table 51).
- From 2017 to 2018, the number of active Growing in Beauty/AzEIP cases in the Navajo Nation Region increased by 11 percent (Table 52).
- Each Fiscal Year from 2015 to 2018, 11 children ages birth to two received services by the Division of Developmental Disabilities (DDD). Fewer than ten children ages three to five received DDD services each year in the same time period (Table 53 & Table 54).

<sup>&</sup>lt;sup>ix</sup> More information about Arizona's quality educational environments can be found in the DES CCDF State Plan FY2019-FY2021, available at <a href="https://des.az.gov/documents-center">https://des.az.gov/documents-center</a>

# **Access to Early Care and Education**

Table 40. School enrollment for children (ages 3 and 4)

GEOGRAPHY	POPULATION OF CHILDREN (AGES 3-4)	NUMBER ENROLLED IN SCHOOL	PERCENT ENROLLED IN SCHOOL
	· · · · · · · · · · · · · · · · · · ·		
Navajo Nation Region	3,180	1,214	38%
Navajo Nation (entire)	5,264	2,175	41%
All Arizona Reservations	6,574	2,673	41%
Arizona	182,970	69,712	38%
United States	8,190,503	3,892,317	48%

Source: U.S. Census Bureau (2018). American Community Survey five-year estimates 2013-2017, Table B14003

Note: In this table, "school" may include nursery school, preschool, or kindergarten.

Table 41. Navajo Nation Child Care Development Fund (CCDF) centers and home-based providers by agency

	INFANT AND	PRESCHOOL-	TOTAL
	TODDLER	AGE	ENROLLMENT
NAME	ENROLLMENT	ENROLLMENT	(0-5)
CHINLE AGENCY			
Chinle CCDF Casework Unit Home Based Providers	N/A	N/A	<10
Cottonwood Child Care Center (closed)	_	_	_
Kii Doo Baa I Child Care Center	14	<10	23
Kii Doo Baa II Child Care Center	N/A	N/A	N/A
Many Farms Child Care Center	21	19	42
Nooseli Beolta Child Care Center	N/A	N/A	N/A
Pinon #1 Child Care Center	N/A	N/A	N/A
Pinon Child Care Center	N/A	N/A	N/A
Rough Rock (closed)	_	_	_
Tsaile Child Care Center	15	0	15
FORT DEFIANCE AGENCY			
Fort Defiance CCDF Casework Unit Home Based Providers	N/A	N/A	<10
Karigan Child Care Center	20	60	80
Little Miss Muffet	N/A	N/A	33
NORTHERN AGENCY			
Rock Point (closed)	_	_	_
Shiprock CCDF Casework Unit Home Based Providers	25	31	56
WESTERN AGENCY			
Leupp School	<10	14	DS
Tuba City CCDF Casework Unit Home Based Providers	N/A	N/A	<10

Source: First Things First. (2018). Navajo Nation Regional Partnership Council 2018 Needs and Assets Report.

Table 42. Children receiving DES child care subsidies, 2015 to 2018

	NUMBER OF	NUMBER OF	NUMBER OF	NUMBER OF
	CHILDREN	CHILDREN	CHILDREN	CHILDREN
	RECEIVING	RECEIVING	RECEIVING	RECEIVING
GEOGRAPHY	SUBSIDIES, 2015	SUBSIDIES, 2016	SUBSIDIES, 2017	SUBSIDIES, 2018
Navajo Nation Region	15	<10	14	10
Arizona	19,040	17,784	16,922	19,813

Source: Arizona Department of Economic Security (DES) (2019). 2015-2018 Child Care Assistance Data. Unpublished data received by request.

Note: This table reflects children receiving subsidies who are not Department of Child Safety (DCS)-involved.

Table 43. DCS-involved children receiving DES child care subsidies, 2015 to 2018

	NUMBER OF DCS CHILDREN RECEIVING SUBSIDIES				OF ELIGIBL		DREN	
GEOGRAPHY	2015	2016	2017	2018	2015	2016	2017	2018
Navajo Nation Region	<10	<10	<10	<10	DS	DS	DS	DS
Arizona	13,098	13,352	12,201	12,219	91%	89%	88%	82%

Source: Arizona Department of Economic Security (DES) (2019). 2015-2018 Child Care Assistance Data. Unpublished data received by request.

Table 44. Eligible families not using DES child care subsidies, 2015 to 2018

	FAMILIES NOT	FAMILIES NOT	FAMILIES NOT	FAMILIES NOT
	USING	USING	USING	USING
GEOGRAPHY	SUBSIDIES, 2015	SUBSIDIES, 2016	SUBSIDIES, 2017	SUBSIDIES, 2018
Navajo Nation Region	27%	20%	20%	46%
Arizona	6%	6%	7%	8%

Source: Arizona Department of Economic Security (DES) (2019). 2015-2018 Child Care Assistance Data. Unpublished data received by request.

# **High Quality Early Care and Education**

Table 45. Children receiving DES child care subsidies in quality educational environments, 2017 and 2018

	TOTAL NUMBER OF CHILDREN IN	TOTAL NUMBER OF CHILDREN IN
GEOGRAPHY	QUALITY ENVIRONMENTS, 2017	QUALITY ENVIRONMENTS, 2018
Navajo Nation Region	<10	2 to 18
Arizona	13,706	17,295

Source: Arizona Department of Economic Security (DES) (2019). Child Care Assistance Dataset. Unpublished data received by request.

Note: These data only reflect children receiving child care subsidies from DES. Quality educational environments are defined by the Department of Economic Security (DES) as providers that are accredited by a national organization or providers that have received a state-approved quality indicator that is recognized by the department. More information about Arizona's quality educational environments can be found in the DES CCDF State Plan FY2019-FY2021, available at <a href="https://des.az.gov/documents-center">https://des.az.gov/documents-center</a>

Table 46. First Things First Quality First child data, State Fiscal Year 2019

			NUMBER OF CHILDREN	PERCENT OF
	QUALITY FIRST	NUMBER OF	ENROLLED AT A QUALITY	CHILDREN IN A
	SCHOLARSHIPS:	CHILDREN ENROLLED	FIRST PROVIDER SITE	QUALITY-LEVEL
	NUMBER OF	AT A QUALITY FIRST	WITH A PUBLIC 3-5 STAR	SETTING
GEOGRAPHY	CHILDREN SERVED	PROVIDER SITE	RATING	(PUBLIC 3-5 STARS)
Navajo Nation	231	708	466	66%
Region		700	400	
Arizona	9,179	62,215	45,278	73%

Source: First Things First (2019). Quality First, a Signature Program of First Thing First. Unpublished data received by request

Note: These data reflect regionally-funded Quality First provider sites and statewide- funded Quality First Redesign provider sites. Data reflect children enrolled at provider sites with a public rating. Star ratings are not publicly available when provider sites decline to publish their initial rating or when a rating is not yet assigned.

Table 47. First Things First Quality First child care provider data, State Fiscal Year 2019

	NUMBER OF CHILD	NUMBER OF CHILD CARE	PERCENT OF CHILD CARE
	CARE PROVIDERS	PROVIDERS SERVED WITH	PROVIDERS SERVED WITH
GEOGRAPHY	SERVED	A PUBLIC 3-5 STAR RATING	A PUBLIC 3-5 STAR RATING
Navajo Nation Region	23	17	74%
Arizona	1,119	821	73%

Source: First Things First (2019). Quality First, a Signature Program of First Thing First. Unpublished data received by request

Note: These data reflect regionally-funded Quality First provider sites and statewide- funded Quality First Redesign provider sites. Data reflect children enrolled at provider sites with a public rating. Star ratings are not publicly available when provider sites decline to publish their initial rating or when a rating is not yet assigned.

# **Young Children with Special Needs**

Table 48. Children (ages 3-5) enrolled in Special Education (ADE schools), 2015-16 to 2018-19

Arizona	14,295	15,257	16,159	16,432
Navajo Nation Region	90	158	154	144
GEOGRAPHY	(2015-16)	(2016-17)	(2017-18)	(2018-19)
	EDUCATION	EDUCATION	EDUCATION	EDUCATION
	5) IN SPECIAL	5) IN SPECIAL	5) IN SPECIAL	5) IN SPECIAL
	CHILDREN (AGES 3-	CHILDREN (AGES 3-	CHILDREN (AGES 3-	CHILDREN (AGES 3-

Source: Arizona Department of Education (2019). 2015-16 to 2018-19 Special Education Enrollments. Unpublished data received by request.

Note: Data on this table reflect only those children enrolled in schools managed by the Arizona Department of Education located within the boundaries of the Navajo Nation Region.

Table 49. Children (ages 3-5) enrolled in Special Education (ADE schools) by type of disability, 2018-19

	CHILDREN			PRE-			
	(AGES 3-5)	DEVELOP-	SPEECH OR	SCHOOL		HEARING	
	IN SPECIAL	MENTAL	LANGUAGE	SEVERE		IMPAIR-	OTHER DIS-
GEOGRAPHY	EDUCATION	DELAY	IMPAIRMENT	DELAY	AUTISM	MENT	ABILITIES
Navajo Nation Region	144	51%	31%	15%	DS	DS	3%
Arizona	16,432	42%	39%	12%	3%	1%	3%

Source: Arizona Department of Education (2019). 2018-19 Special Education Enrollments. Unpublished data received by request.

Note: Data on this table reflect only those children enrolled in schools managed by the Arizona Department of Education located within the boundaries of the Navajo Nation Region.

Table 50. Percent of students (Grade 1-3) enrolled in Special Education (ADE schools), 2015-16 to 2018-19

	STUDENTS IN	STUDENTS IN	STUDENTS IN	STUDENTS IN
	SPECIAL EDUCATION	SPECIAL EDUCATION	SPECIAL EDUCATION	SPECIAL EDUCATION
GEOGRAPHY	(2015-16)	(2016-17)	(2017-18)	(2018-19)
Navajo Nation Region	7%	11%	12%	11%
Arizona	11%	11%	12%	12%

Source: Arizona Department of Education (2019). 2015-16 to 2018-19 Special Education Enrollments. Unpublished data received by request.

Note: Data in this table reflect only those children enrolled in schools managed by the Arizona Department of Education located within the boundaries of the Navajo Nation Region.

Table 51. Children referred to and found eligible for Growing in Beauty/AzEIP, Federal Fiscal Years 2016 and 2017

CEOCHARLIN	NUMBER OF CHILDREN (AGES 0-2) REFERRED TO AZEIP,	NUMBER OF CHILDREN (AGES 0-2) ELIGIBLE FOR AZEIP,	PERCENT OF REFERRALS FOUND ELIGIBLE,	NUMBER OF CHILDREN (AGES 0-2) REFERRED TO AZEIP,	NUMBER OF CHILDREN (AGES 0-2) ELIGIBLE FOR AZEIP,	PERCENT OF REFERRALS FOUND ELIGIBLE,
GEOGRAPHY Navajo Nation Region	FFY2016 <b>210</b>	FFY2016 <b>85</b>	FFY2016 40%	FFY2017 <b>261</b>	FFY2017 98	FFY2017 38%
Arizona	16,063	9,383	58%	16,344	9,770	60%

Source: Arizona Department of Economic Security (DES) (2019). Arizona Early Intervention Program (AzEIP) Service Dataset. Unpublished data received by request.

Table 52. Growing in Beauty/AzEIP caseloads, 2017 and 2018

GEOGRAPHY	CUMULATIVE ACTIVE AzEIP CASES, 2017	CUMULATIVE ACTIVE AZEIP CASES, 2018	PERCENT CHANGE IN AZEIP CASELOADS FROM 2017 TO 2018
Navajo Nation Region	134	149	+11%
Arizona	10,934	11,600	+6%

Source: Arizona Department of Economic Security (DES) (2019). Arizona Early Intervention Program (AzEIP) Service Dataset. Unpublished data received by request.

Table 53. Children (ages 0-2) receiving services from DDD, State Fiscal Years 2015 to 2018

	CHILDDEN	CHILDREN	CHIII DDENI	CHILDREN	
	CHILDREN	CHILDREN	CHILDREN	CHILDREN	
	(AGES 0-2)	(AGES 0-2)	(AGES 0-2)	(AGES 0-2)	
	RECEIVING DDD	RECEIVING DDD	RECEIVING DDD	RECEIVING DDD	PERCENT
	SERVICES,	SERVICES,	SERVICES,	SERVICES,	CHANGE FROM
GEOGRAPHY	SFY2015	SFY2016	SFY2017	SFY2018	2015 TO 2018
Navajo Nation	ā ā	44	44	44	00/
Region	11	11	11	11	0%
Arizona	3,948	4,095	4,505	5,012	+27%
, 120110	3,340	4,033	4,505	3,012	. 2770

Source: Arizona Department of Economic Security (DES) (2019). 2015-2018 Division Developmental Disabilities (DDD) Data. Unpublished data received by request.

Table 54. Children (ages 3-5) receiving services from DDD, State Fiscal Years 2015 to 2018

	CHILDREN	CHILDREN	CHILDREN	CHILDREN	
	(AGES 3-5)	(AGES 3-5)	(AGES 3-5)	(AGES 3-5)	
	RECEIVING DDD	RECEIVING DDD	RECEIVING DDD	RECEIVING DDD	PERCENT
	SERVICES,	SERVICES,	SERVICES,	SERVICES,	CHANGE FROM
GEOGRAPHY	SFY2015	SFY2016	SFY2017	SFY2018	2015 TO 2018
Navajo Nation Region	<10	<10	<10	<10	DS
Arizona	887	898	1,049	1,154	+30%

Source: Arizona Department of Economic Security (DES) (2019). 2015-2018 Division Developmental Disabilities (DDD) Data. Unpublished data received by request.

# **Child Health**

# Why it Matters

The physical and mental health of both children and their parents are important for optimal child development and well-being. Starting with the mother's health before pregnancy, many factors influence a child's health.<sup>173</sup> Exposures and experiences in utero, at birth, and during the early years set the stage for health and well-being throughout a child's life.<sup>174,175</sup> Access to health insurance and preventive care influence not only a child's current health, but long-term development and future health.<sup>176,177,178</sup> Various health care services, depending on the region, are available to members of federally-recognized Indian tribes from Indian Health Service (IHS) facilities and/or other tribally-administered health care facilities.<sup>179,180</sup>

Access to health services. The ability to obtain health care is critical for supporting the health of pregnant mothers and young children. Health care during pregnancy, or prenatal care, can reduce maternal and infant mortality and complications during pregnancy. 181,182 In the early years of a child's life, well-baby and well-child visits allow clinicians to assess and monitor the child's development and offer developmentally appropriate information and guidance to parents. 183 Families without health insurance are more likely to skip these visits, and are less likely to receive preventive care for their children, or care for health conditions and chronic diseases. 184,185 Thus, access to health insurance is an indicator of children's access to health services. Children who lack health insurance are also more likely to be hospitalized and to miss school. 186 Despite being eligible to receive health care services through IHS facilities and/or tribally-operated facilities, Native communities often struggle to access adequate, high quality care. Services and funding are often limited at IHS facilities, <sup>187</sup> and eligibility for IHS services alone does not meet the minimum essential coverage requirement under the Affordable Care Act. 188 Transportation is a challenge in many rural tribal regions, which can also limit access to care. Close to one in five households on tribal lands do not have a vehicle available (17%), which is more than double the proportion of households without a vehicle statewide (7%). 189

**Maternal, infant, and child health.** A number of factors occurring before conception and in utero influence child health, making characteristics of pregnant women important determinants of the birth and developmental outcomes of their children. Pregnancy during the teen years is associated with a number of health concerns for infants, including neonatal death, sudden infant death syndrome, and child abuse and neglect. <sup>190</sup> Teenaged mothers (and fathers) themselves are less likely to complete high school or college, and more likely to require public assistance and to live in poverty than their peers who are not parents. <sup>191,192,193</sup>

In addition to age, a mother's health status before, during, and after pregnancy influences her child's health. Women who are obese before they become pregnant are at a higher risk of birth complications and neonatal and infant mortality than women who are normal weight before pregnancy. Babies born to obese women are at risk for chronic conditions later in life such as diabetes and heart disease. Preterm birth, in addition to being associated with higher infant and child mortality, often results in longer hospitalization, increased health care costs, and longer-term impacts such as physical and developmental impairments. Babies born at a low-birth weight (less than 5 pounds, 8 ounces) are also at increased risk of infant mortality and longer-term health problems such as diabetes, hypertension and cardiac disease. 197

Maternal mental health is a factor for children's well-being as well. Maternal depression during and after pregnancy negatively influences the mother's ability to maintain a healthy pregnancy as well as meet the demands of motherhood and form a secure attachment with her baby. <sup>198</sup>, <sup>199</sup> Quality preconception counseling and early-onset prenatal care can help reduce some of these risks for poor prenatal and postnatal outcomes by providing information, conducting screenings, and supporting an expectant mother's health and nutrition. <sup>200</sup>

**Substance use disorders.** A mother's use of substances such as drugs and alcohol also has implications for her baby. Babies born to mothers who smoke are more likely to be born early (pre-term), have low birth weight, die from sudden infant death syndrome (SIDS) and have weaker lungs than babies born to mothers who do not smoke. Opiate use during pregnancy, either illegal or prescribed, has been associated with neonatal abstinence syndrome (NAS), a group of conditions that causes infants exposed to these substances in the womb to be born exhibiting withdrawal symptoms. This can create longer hospital stays, increase health care costs and increase complications for infants born with NAS. Infants exposed to cannabis (marijuana) in utero often have lower birth weights and are more likely to be placed in neonatal intensive care compared to infants whose mothers had not used the drug during pregnancy. Opiate used in the substance of the substance o

Parental substance abuse also has significant impacts on family wellbeing. According to the National Survey of Children's Health, young children in Arizona are more than twice as likely to live with someone with a problem with alcohol or drugs than children in the U.S. as a whole (9.8 percent compared to 4.5 percent). Children of parents with substance use disorders are more likely to be neglected or abused and face a higher risk of later mental health and behavioral health issues, including developing substance use disorders themselves. Substance abuse treatment and supports for parents and families grappling with these issues can help to ameliorate the short and long-term impacts on young children. Because of the impact of historical trauma and adverse childhood experiences (ACEs), in Native American communities, interventions to address substance use among youth and adults are often trauma-informed, culturally-grounded and community-based.

**Nutrition and weight status.** After birth, a number of factors have been associated with improved health outcomes for infants and young children. One factor is breastfeeding, which has been shown to reduce the risk of ear, respiratory and gastrointestinal infections, SIDS, overweight, and type 2 diabetes.<sup>210</sup> The American Academy of Pediatrics recommends exclusive breastfeeding for about 6 months, and continuing to breastfeed as new foods are introduced for one year or longer.<sup>211</sup> American Indians have the lowest breastfeeding rate nationwide. There is a movement to reclaim breastfeeding among Native women to benefit the health of the mother, child, and community. In one example of an effort to address this issue, the Indian Health Service (IHS) has been tasked to make all IHS birthing hospitals baby-friendly, which includes breastfeeding support as part of maternity care.<sup>212</sup>

A child's weight status can have long-term impacts on health and well-being. Nationwide, an estimated three percent of children ages 2-19 are underweight, 16.6 percent are overweight, and 18.5 percent are obese. Obesity can have negative consequences on physical, social, and psychological well-being that begin in childhood and continue into and throughout adulthood. Higher birth weight and higher infancy weight, as well as lower-socioeconomic status and low-quality mother-child relationships, have all been shown to be related to higher childhood weight and increased risk for obesity and metabolic syndrome (which is linked to an increase risk of heart disease, stroke, and diabetes). 1216, 217

Oral health. Oral health and good oral hygiene practices are important to children's overall health. Tooth decay and early childhood cavities can have short- and long-term consequences including pain, poor appetite, disturbed sleep, lost school days, and reduced ability to learn and concentrate. A national study showed that low-income children were more likely than higher income children to have untreated cavities. Despite high percentages of young Arizona children who have preventative dental care visits (68.4%) compared to the national average (57.8%), there is a relatively high percentage who have had decayed teeth or cavities (11.1%) compared to those across the nation overall (7.7%). Low-income children in Arizona, specifically, are more likely to have untreated cavities and less likely to have had an annual dental visit than their higher-income peers. According to a 2015 study, among kindergarteners, American Indian children in Arizona had significantly higher incidences of decay (75% AIAN versus 52% all races), and untreated decay (48% AIAN versus 24% all races), relative to all kindergarteners.

First Things First's Oral Health strategy was able to provide 24,664 children birth to age five with a dental screening, and 16,837 children with a fluoride varnish in the Arizona State Fiscal Year 2019.<sup>223</sup> Many children had untreated tooth decay and other oral health needs identified through the screenings. Further, attempts were made to connect children to dental homes who either did not already have a dental home or who needed dental care.

**Childhood immunizations.** Immunization against preventable diseases protects children and the surrounding community from illness and potentially death. In order to ensure community immunity of preventable diseases, which helps to protect unvaccinated children and adults, rates of vaccination in a community need to remain high.<sup>224</sup>

Illness and injury. Asthma is the most common chronic illness affecting children<sup>225</sup>, and it is more prevalent among boys, Black children, American Indian or Alaska Native children, and children in low-income households.<sup>226,227</sup> The total healthcare costs of childhood asthma in the United States are estimated to be between \$1.4 billion and \$6.4 billion, but these costs could be reduced through better management of asthma to prevent hospitalizations.<sup>228</sup> Unintentional injuries are the leading cause of death for children in Arizona<sup>229</sup> and nationwide.<sup>230</sup> It is estimated that as many as ninety percent of unintentional injury- related deaths could be preventable through better safety practices, such as use of proper child restraints in vehicles and supervision of children around water.<sup>231</sup> Children in rural areas are at higher risk of unintentional injuries than those who live in more urban areas, as are children in Native communities, suggesting that injury prevention is an especially salient need in these areas.<sup>232,233</sup>

One useful metric for evaluating child health in Arizona are the Healthy People objectives. These science-based objectives define priorities for improving the nation's health and are updated every ten years. Understanding where Arizona mothers and children fall in relation to these current national benchmarks (Healthy People 2020) 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 county 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.<sup>234</sup>

## What the Data Tell Us

#### **Access to Health Services**

- In the Navajo Nation Region, about one in four people (23%) lack health insurance coverage, a percent that is similar to that in all Arizona reservations (22%) but almost twice as high as in the state of Arizona (12%). While the proportion of uninsured young children (17%) is lower than that of the overall population in the region, it is still notably higher than the uninsured rate for young children in the state (7%). It is important to note that the U.S. Census Bureau does not consider coverage by the Indian Health Service (IHS) to be insurance coverage (Table 55 & Figure 10).
- In 2017, the most recent year for which data are available, Arizona Health Care Cost Containment Service (AHCCCS) paid for 81 percent of the 1,313 births in the region, while the IHS paid for eight percent of births (Table 56).

## Maternal, Infant, and Child Health

- Almost one-third (30.5%) of births in the Navajo Nation Region in 2017 were to women
  who had no prenatal care in their first trimester, a percentage that is higher than the
  26.4 percent in the state. Neither the region nor the state met the Healthy People 2020
  target of no more than 22.1 percent. Additionally, twelve percent of births in the region
  were to women who had fewer than five prenatal visits, compared to eight percent in
  the state (Table 57).
- In 2017, the Navajo Nation Region met the Healthy People 2020 target of no more than 7.8 percent of births being low birthweight (7.6%). The proportion of preterm births (i.e. less than 37 weeks) in the region (11.3%), however, did not meet the Healthy People 2020 target of 9.4 percent. The percentage of births in the region to mothers who used tobacco during pregnancy (1.5%) was substantially lower than in the state (4.7%) but slightly higher than the Healthy People 2020 target of 1.4 percent (Table 58).

#### **Immunizations**

- For the school year 2018-19, immunization rates for children enrolled in selected school-based preschool programs managed by the Arizona Department of Education (ADE) in the Navajo Nation Region were high, ranging from 98.9 percent to 100 percent, and met all Healthy People 2020 targets (Table 59).
- In school year 2018-2019, kindergarten vaccination rates in the Navajo Nation Region were similarly high, and also met all Healthy People 2020 targets (Table 60).

- From the 2016-2017 school year to the 2018-2019 school year, there were no religious exemptions or exemptions from all required vaccines in selected school-based preschool programs in the Navajo Nation Region (Table 61).
- While personal belief exemptions and exemptions from all required vaccinations among kindergarteners in the region increased slightly between 2016-2017 and 2018-2019, exemption rates were still notably lower than the state overall (Table 62).

## Illness and Injury

- From 2015 to 2018, there were 77 non-fatal inpatient hospitalizations for unintentional injuries of young children from the Navajo Nation Region. The most common reasons for hospitalization were burns (32%) and falls (16%). At the state level, the two most common reasons were falls (33%) and poisoning (15%) (Table 63).
- From 2015 to 2017, there were nine inpatient hospitalizations and 70 emergency room visits for asthma among young children from the region. The average length of stay was higher for children from the region (2.9 days) than children in the state (1.9 days) (Table 64).
- Between 2015 and 2018, there were 1,657 non-fatal emergency room visits for young children (0-5) in the region. Reasons for these non-fatal emergency room visits were similar across the region and state, with falls (40%) and being 'struck by or against' an object or person (15%) the most common (Table 65).
- Between 2015 and 2017, there were 81 child deaths in the Navajo Nation Region, over half of which were young children (ages 0-4) (Table 66).

## **Access to Health Services**

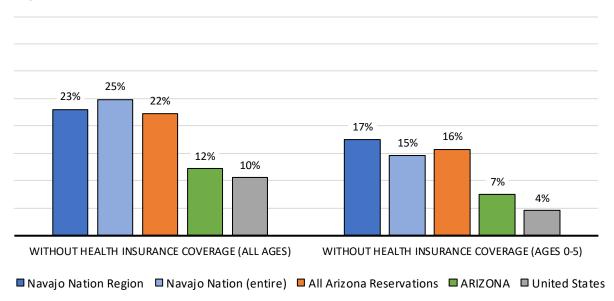
Table 55. Health insurance coverage

		PERCENT WITHOUT	POPULATION OF	PERCENT WITHOUT
	POPULATION	HEALTH INSURANCE	YOUNG CHILDREN	HEALTH INSURANCE
GEOGRAPHY	(ALL AGES)	COVERAGE (ALL AGES)	(AGES 0-5)	COVERAGE (AGES 0-5)
Navajo Nation Region	101,437	23%	9,467	17%
Navajo Nation (entire)	174,835	25%	15,583	15%
All Arizona Reservations	186,018	22%	18,649	16%
Arizona	6,701,990	12%	520,741	7%
United States	316,027,641	10%	23,832,080	4%

Source: U.S. Census Bureau (2018). American Community Survey five-year estimates 2013-2017, Table B27001

Note: This table excludes persons in the military and persons living in institutions such as college dormitories. People whose only health coverage is the Indian Health Service (IHS) are considered "uninsured" according to the U.S. Census Bureau.

Figure 10. Health insurance coverage for the population (all ages) and for young children (ages 0 to 5)



Source: U.S. Census Bureau (2018). American Community Survey five-year estimates 2013-2017, Table B27001

Note: This figure excludes persons in the military and persons living in institutions such as college dormitories. People whose only health coverage is the Indian Health Service (IHS) are considered 'uninsured' according to the U.S. Census Bureau.

Table 56. Payors for births during calendar year 2017

	TOTAL NUMBER OF	BIRTHS PAID	BIRTHS PAID	
GEOGRAPHY	BIRTHS IN 2017	BY AHCCCS	BY IHS	BIRTHS SELF-PAY
Navajo Nation Region	1,313	81%	8%	3%
Arizona	81,664	53%	1%	5%

Source: ADHS Office of Disease Prevention and Health Promotion. (2019). Arizona Health Status and Vital Statistics.

# Maternal, Infant, and Child Health

Table 57. Prenatal care for mothers giving birth during calendar year 2017

GEOGRAPHY	TOTAL NUMBER OF BIRTHS IN 2017	MOTHERS WHO HAD NO PRENATAL CARE	MOTHERS WHO HAD NO PRENATAL CARE IN FIRST TRIMESTER	MOTHERS WHO HAD FEWER THAN FIVE PRENATAL VISITS
Navajo Nation Region	1,313	3%	30.5%	12%
Arizona	81,664	3%	26.4%	8%
Healthy People 2020 target			22.1%	

Source: ADHS Office of Disease Prevention and Health Promotion. (2019). Arizona Health Status and Vital Statistics.

Table 58. Various risk factors for births during calendar year 2017

CEOCDADIN	TOTAL NUMBER OF BIRTHS IN	LOW BIRTH-	PRETERM (LESS THAN	NICU	MOTHER USED	MOTHER YOUNGER	MOTHER YOUNGER
GEOGRAPHY Navajo Nation Region	2017 1,313	7.6%	37 WEEKS) 11.3%	ADMISSIONS 5%	1.5%	THAN 18 4%	11%
Arizona	81,664	7.5%	9.3%	7%	4.7%	2%	6%
Healthy People 2020	targets	7.8%	9.4%		1.4%		

Source: ADHS Office of Disease Prevention and Health Promotion. (2019). Arizona Health Status and Vital Statistics.

## **Child Immunizations**

Table 59. Children in selected ADE preschool programs with required immunizations, 2018-19

GEOGRAPHY	NUMBER OF CHILDREN ENROLLED IN CHILD CARE	DTAP	POLIO	MMR	HIB	HEPATITIS-A	HEPATITIS-B	VARICELLA
Navajo Nation Region	183	98.9%	98.9%	100.0%	98.9%	98.9%	98.9%	100.0%
Arizona	86,829	92.4%	94.2%	94.9%	94.2%	85.5%	93.3%	94.7%
Healthy People 2	2020 targets	90.0%	90.0%	90.0%	90.0%	85.0%	90.0%	90.0%

Source: Arizona Department of Health Services (2019). 2018-19 Child Care Immunization Data. Custom data tabulation from requested data; Arizona Department of Health Services (2019). Childcare Immunization Coverage by County, 2018-2019 School Years. Retrieved from <a href="https://www.azdhs.gov/preparedness/epidemiology-disease-control/immunization/index.php#reports-immunization-coverage">https://www.azdhs.gov/preparedness/epidemiology-disease-control/immunization/index.php#reports-immunization-coverage</a>

Note: Data on this table reflect immunization rates for children enrolled in the following preschool programs managed by the Arizona Department of Education (ADE): Leupp Public School, Kin Dah Lichi'l Olta Charter Preschool, Many Farms Elementary School, Tuba City High Child Development Center, Tuba City Primary School, Tsaile Public School, Pinon Elementary School, and Red Mesa USD Preschool.

The Hepatitis A vaccine series (2 doses) is only required in Maricopa County child care settings, but is recommended in all other Arizona counties.

Table 60. Kindergarteners with required immunizations, 2018-19

	ENROLLED	DTAP	POLIO	MMR	HEPATITIS B	VARICELLA
GEOGRAPHY	(2018-19)	(2018-19)	(2018-19)	(2018-19)	(2018-19)	(2018-19)
Navajo Nation Region	612	97.5%	97.7%	95.8%	98.0%	98.7%
Arizona	79,981	92.7%	93.3%	93.0%	94.4%	95.6%

Source: Arizona Department of Health Services (2019). 2018-19 Kindergarten Immunization Data. Custom data tabulation from requested data; Arizona Department of Health Services (2019). Kindergarten Immunization Coverage by County, 2018-2019 School Years. Retrieved from <a href="https://www.azdhs.gov/preparedness/epidemiology-disease-control/immunization/index.php#reports-immunization-coverage">https://www.azdhs.gov/preparedness/epidemiology-disease-control/immunization/index.php#reports-immunization-coverage</a>

Note: Data on this table reflect immunization rates for children enrolled in the following kindergarten programs: Indian Wells Elementary, Little Singer Community School, Pinon Elementary School, Leupp Boarding School, Dilcon Community School, Pine Spring Day School, Hunters Point Boarding School, Saint Michael Indian School, Kin Dah Lichi'l Olta, Jeddito School, Jeehdeez'a Academy, Chinle Elementary School, Many Farms Public School, Dzil Libei Elementary School, Tuba City Elementary School, Tsinaabaas Habitiin Elementary School, Tsaile Elementary School, Many Farms Community School, Kaibeto Boarding School, Carrizo Mission School, Red Mesa Elementary School, and Red Mesa Junior High School.

Table 61. Immunization exemption rates for children in selected preschool programs, 2016-17 to 2018-19

GEOGRAPHY	RELIGIOUS EXEMPTION (2016-17)	RELIGIOUS EXEMPTION (2017-18)	RELIGIOUS EXEMPTION (2018-19)	EXEMPT FROM EVERY REQUIRED VACCINE (2017-18)	EXEMPT FROM EVERY REQUIRED VACCINE (2018-19)
Navajo Nation Region	0.0%	0.0%	0.0%	0.0%	0.0%
Arizona	3.9%	4.3%	4.5%	2.9%	3.0%

Source: Arizona Department of Health Services (2019). 2016-2017 to 2018-19 Child Care Immunization Data. Custom data tabulation from requested data; Arizona Department of Health Services (2019). Childcare Immunization Coverage by County, 2016-17 to 2018-2019 School Years. Retrieved from <a href="https://www.azdhs.gov/preparedness/epidemiology-disease-control/immunization/index.php#reports-immunization-coverage">https://www.azdhs.gov/preparedness/epidemiology-disease-control/immunization/index.php#reports-immunization-coverage</a>

Note: Data on this table reflect immunization rates for children enrolled in the following preschool programs): Leupp Public School, Kin Dah Lichi'l Olta Charter Preschool (2018-19 only), Many Farms Elementary School, Tuba City High Child Development Center (2018-29 only), Tuba City Primary School (2018-19 only), Tsaile Public School, Pinon Elementary School, Red Mesa USD Preschool (2017-18 & 2018-19 only), St Michael Indian School (2016-17 & 2017-18 only), Canyon de Chelly Elementary School (2017-18 only), Indian Wells Elementary School (2016-17 & 2017-18 only), and Kayenta Early Childhood Education (2016-17 only).

Table 62. Kindergarten immunization exemption rates, 2016-17 to 2018-19

	PERSONAL	PERSONAL	PERSONAL	EXEMPT FROM	EXEMPT FROM
	BELIEF	BELIEF	BELIEF	EVERY REQUIRED	<b>EVERY REQUIRED</b>
	EXEMPTION	EXEMPTION	EXEMPTION	VACCINE (2017-	VACCINE (2018-
GEOGRAPHY	(2016-17)	(2017-18)	(2018-19)	18)	19)
Navajo Nation Region	0.0%	0.1%	0.2%	0.1%	0.2%
Arizona	4.9%	5.4%	5.9%	3.5%	3.8%

Source: Arizona Department of Health Services (2019). 2016-2017 to 2018-19 Kindergarten Immunization Data. Custom data tabulation from requested data; Arizona Department of Health Services (2019). Kindergarten Immunization Coverage by County, 2016-17 to 2018-2019 School Years. Retrieved from <a href="https://www.azdhs.gov/preparedness/epidemiology-disease-control/immunization/index.php#reports-immunization-coverage">https://www.azdhs.gov/preparedness/epidemiology-disease-control/immunization/index.php#reports-immunization-coverage</a>

Note: Data on this table reflect immunization rates for children enrolled in the following kindergarten programs: Indian Wells Elementary, Little Singer Community School (2017-18 & 2018-19 only), Pinon Elementary School, Leupp Public School, Seba Dalkai Boarding School (2017-18 & 2018-19 only), Leupp Boarding School (2017-18 & 2018-19 only), Dilcon Community School (2017-18 & 2018-19 only), Pine Spring Day School, Hunters Point Boarding School, Saint Michael Indian School, Kin Dah Lichi'l Olta, Jeddito School (2017-18 & 2018-19 only), Jeehdeez'a Academy, Chinle Elementary School (2016-17 & 2018-19 only), Many Farms Public School, Dzil Libei Elementary School (2016-17 & 2018-19 only), Tuba City Elementary School (2016-17 & 2018-19 only), Tsaile Elementary School, Many Farms Community School (2017-18 & 2018-19 only), Kaibeto Boarding School (2018-19 only), Carrizo Mission School (2016-17 & 2018-19 only), Red Mesa Elementary School (2017-18 & 2018-19 only), Red Mesa Junior High School (2018-19 only), Ganado Primary School (2016-17 & 2017-18 only), Tsehootsooi Dine Bi'Olta' (2016-17 & 2017-18 only), Tsehootsooi Elementary School (2017-18 only), Canyon de Chelly Elementary School (2016-17 & 2017-18 only), Mesa View Elementary (2016-17 & 2017-18 only), Kayenta Community School (2017-18 only), Chinle Boarding School (2016-17 only), Rough Rock Community School (2016-17 only).

# **Illness and Injury**

Table 63. Non-fatal hospitalizations of young children (ages 0-5) for unintentional injuries, 2015-2018 cumulative

	NUMBER OF NON-FATAL INPATIENT	MOST COMMON	SECOND MOST
	HOSPITALIZATIONS FOR CHILDREN	REASON FOR	COMMON REASON
GEOGRAPHY	(AGES 0-5), 2015-2018 TOTALS	HOSPITALIZATION	FOR HOSPITALIZATION
Navajo Nation Region	77	Burns (32%)	Falls (16%)

Source: Arizona Department of Health Services (2019). 2015-2018 Hospital Discharge Data. Unpublished data received by request.

Note: According to the list of hospital in Arizona required to report into the ADHS Hospital Discharge Database, these numbers do not reflect hospitalizations or emergency-room visits at Indian Health Service or tribally-operated healthcare facilities.

Table 64. Asthma hospitalizations and emergency-room visits, 2015-2017 cumulative

Arizona			
Navajo Nation Region	9	2.9	70
GEOGRAPHY	2015-2017 TOTALS	2015-2017	2015-2017 TOTALS
	EXCEPT NEWBORNS),	5 EXCEPT NEWBORNS),	NEWBORNS),
	ASTHMA (AGES 0 TO 5,	HOSPITALIZATION (AGES 0-	(AGES 0 TO 5, EXCEPT
	HOSPITALIZATIONS FOR	(DAYS) FOR ASTHMA	ROOM VISITS FOR ASTHMA
	NUMBER OF INPATIENT	AVERAGE LENGTH OF STAY	NUMBER OF EMERGENCY

Source: Arizona Department of Health Services (2019). 2015-2017 Hospital Discharge Data. Unpublished data received by request.

Note: According to the list of hospital in Arizona required to report into the ADHS Hospital Discharge Database, these numbers do not reflect hospitalizations or emergency-room visits at Indian Health Service or tribally-operated healthcare facilities.

Table 65. Non-fatal emergency-room visits by young children (ages 0-5) for unintentional injuries, 2015-2018 cumulative

	NUMBER OF NON-FATAL EMERGENCY ROOM VISITS FOR CHILDREN (AGES 0-5),	MOST COMMON REASON FOR EMERGENCY ROOM	SECOND MOST COMMON REASON FOR EMERGENCY
GEOGRAPHY	2015-2018 TOTALS	VISIT	ROOM VISIT
Navajo Nation Region	1,657	Falls (40%)	Struck by or against (15%)
Arizona	181,068	Falls (46%)	Struck by or against (14%)

Source: Arizona Department of Health Services (2019). 2015-2018 Hospital Discharge Data. Unpublished data received by request.

Note: "Struck" denotes being struck by or against an object or person, not including vehicles.

According to the list of hospital in Arizona required to report into the ADHS Hospital Discharge Database, these numbers do not reflect hospitalizations or emergency-room visits at Indian Health Service or tribally-operated healthcare facilities.

Table 66. Child mortality, 2015-2017 cumulative

	TOTAL NUMBER OF CHILD DEATHS	TOTAL NUMBER OF CHILD DEATHS
GEOGRAPHY	(AGES 0-4), 2015 TO 2017	(AGES 0-17), 2015 TO 2017
Navajo Nation Region	47	81
Arizona	1,682	2,357

Source: Arizona Department of Health Services (2019). 2018 Child Mortality Data. Unpublished data received by request.

# **Family Support and Literacy**

# Why it Matters

Families and caregivers play a critical role as their child's first and most important teacher. Positive and responsive early relationships and interactions support optimal brain development during a child's earliest years and lead to better social, physical, academic, and economic outcomes later in life. <sup>235,236,237,238</sup> Parental and family involvement is positively linked to academic skills and literacy in preschool, kindergarten, and elementary school. <sup>239</sup> Children benefit when their families have the knowledge, resources, and support to use positive parenting practices, and support their child's healthy development, nutrition, early learning, and language acquisition. Specifically, knowledge of positive parenting practices and child development has been identified as one of five key protective factors that improve child outcomes and reduce the incidence of child abuse and neglect. <sup>x,240</sup>

Early literacy. Parental and family involvement is positively linked to academic skills and literacy in preschool, kindergarten and elementary school. <sup>241</sup> Early literacy promotion, through singing, telling stories, and reading together, is so central to a child's development that the American Academy of Pediatrics has emphasized it as a key issue in primary pediatric care, aiming to make parents more aware of their important role in literacy. <sup>242</sup> A child's reading skills when entering elementary school have been shown to strongly predict academic performance in later grades, emphasizing the importance of early literacy for future academic success. <sup>243,244</sup> Homebased literacy practices between parents and caregivers and young children, specifically, have been shown to improve children's reading and comprehension, as well as children's motivation to learn. <sup>245,246</sup> However, low-income families may face additional barriers to home-based literacy practices, including limited free time with children, limited access to books at home, and a lack of knowledge of kindergarten readiness. <sup>247</sup> Communities may employ many resources to support families in engaging with their children, including through targeted programs like home visitation programs and "stay and play" programs, or participating in larger initiatives like Read On Arizona or the national "Reach Out & Read" program. <sup>248</sup>

<sup>\*</sup> The Center for the Study of Social Policy developed Strengthening Families: A Protective Factors Framework™ to define and promote quality practice for families. The research-based, evidence-informed Protective Factors are characteristics that have been shown to make positive outcomes more likely for young children and their families, and to reduce the likelihood of child abuse and neglect. Protective factors include: parental resilience, social connections, concrete supports, knowledge of parenting and child development, and social and emotional competence of children.

Arizona children's reading scores are below the national average. Of all the students in Arizona, Native American students face the biggest need for improved literacy.<sup>249</sup> The Bureau of Indian Education (BIE)'s Family and Child Education (FACE) program was developed to address some of the unique early literacy needs of American Indian children. The program includes training for staff at child care centers, parenting education and support, Native American language and cultural learning, and reading and learning practices for the family and child.<sup>250</sup>

Adverse childhood experiences. Unfortunately, not all children are able to begin their lives in positive, stable environments. Experiences early in life can have lasting impacts on an individual's mental and physical health. Adverse Childhood Experiences (ACEs) have been linked to future risky health behaviors (such as smoking, drug use, and alcoholism), chronic health conditions (including diabetes, depression, and obesity), poorer life outcomes (such as lower educational achievement and increased lost work time), and early death.<sup>251</sup> Alternatively, Positive Childhood Experiences (PCEs), including positive parent-child relationships and feelings of safety and support, have been shown to have similarly cumulative, though positive, longterm impacts on mental and relational health.<sup>252</sup> Nationally and in Arizona, very young children are most at risk for child abuse, neglect, and fatalities from abuse and neglect. In 2017, children five years old and younger made up more than half (55%) of child maltreatment victims in Arizona.<sup>253</sup> Future poor health outcomes are also more likely as an individual's ACE score increases.<sup>254</sup> Children in Arizona are considerably more likely to have experienced two or more ACEs (27.3%), compared to children across the country (8.3%). 255 These children and their families may require specific, targeted resources and interventions in order to reduce harm and prevent future risk.<sup>256</sup> In Native American communities, where historical trauma compounds the effects of ACEs, healing may take place through an integration of healthcare-based interventions (physical, behavioral, and mental health), and interventions that build on the strength of culture and community. 257,258,259

Mental and behavioral health. Behavioral health supports, both for children and caregivers, are often needed to address exposure to adverse childhood events. Infant and toddler mental health development involves the young child's developing capacity to "experience, regulate and express emotions; form close interpersonal relationships; and explore the environment and learn." When young children experience stress and trauma they often suffer physical, psychological, and behavioral consequences and have limited responses available to react to those experiences. Understanding the behavioral health of mothers is also important for the well-being of Arizona's young children. Mothers dealing with behavioral health issues such as depression may not be able to perform daily caregiving activities, form positive bonds with their children, or maintain relationships that serve as family supports. <sup>261</sup>

Child removals and foster care. There are situations where the harm in remaining with their family is determined to be too great to a child and they are removed from their home, either temporarily or permanently. Children involved in foster care systems often have physical and behavioral health issues, in addition to the social-emotional needs brought on by being removed from a parent's care. 262 Foster parents often need education, support and resources to ensure they are able to successfully care for foster children who may have these added health needs. According to a 2015 Arizona Department of Child Safety Independent Review, focusing on evidence-based targeted interventions for families at risk of child removal including home visitation, positive parenting programs, and family-based therapy—may help lower this risk, thus reducing placements in the foster care system.<sup>263</sup> In accordance with the Indian Child Welfare Act of 1978 (ICWA), many tribal governments manage their own child welfare systems and state systems must work cooperatively with them.<sup>264</sup> ICWA established federal guidelines that are to be followed when an Indian child enters the welfare system in all state custody proceedings. Under ICWA, an Indian child's family and tribe are able and encouraged to be actively involved in the decision-making that takes place regarding the child, and may petition for tribal jurisdiction over the custody case. ICWA also mandates that states make every effort to preserve Indian family units by providing family services before an Indian child is removed from his or her family, and after an Indian child is removed through family reunification efforts.<sup>265</sup>

## What the Data Tell Us

### **Home Visitation**

- According to the First Things First Navajo Nation Regional Partnership Council 2018 Needs and Assets Report, home visitation services in the Navajo Nation Region are available through the Growing in Beauty Home Visiting program through the Navajo Nation Office of Special Education and Rehabilitation Services (NNOSERS). The Growing in Beauty Home Visiting program provides services to families with children prenatal to three years similar to the Family and Child Education (FACE) program, and both use the Parents as Teachers (PAT) model. The Navajo Nation administers these funds to seven Bureau of Indian Education-funded Navajo Nation schools in Arizona. As of May 2017, a total of 220 families and 240 children were enrolled in the Growing in Beauty programs at these seven schools.<sup>266</sup>
- Another four schools (Dilcon Community School, Nazlini Community School, Shonto Preparatory School, and Rock Point Community School) also administer Growing in Beauty programs through funding received by the Navajo Nation from the state of Arizona. This funding stems from a federal grant awarded to the Arizona Department of Health Services (ADHS) through the federal Maternal, Infant, and Early Childhood Home Visitation (MIECHV) Program. As of May 2017, a total of 43 families and 51 children were enrolled in the Growing in Beauty Home Visiting Program at these four schools. Cumulatively, the Growing in Beauty program in the Navajo Nation Region serve 263 families and 291 children.<sup>267</sup>
- More recent data for 2019 show that 157 families received First Things First-funded home visitation services in the Navajo Nation Region. During that same time period, 17 families graduated<sup>xi</sup> from the visitation program (Table 67).

## **Child Removals and Foster Care**

• Child Welfare services in the Navajo Nation Region are overseen by the Navajo Nation Division of Social Services. According to the First Things First Navajo Nation Regional Partnership Council 2018 Needs and Assets Report in 2015 there were an average of 82 children (ages 0-17) removed from their homes by the Division of Social Services in any given month, which represented a slight increase from an average of 65 per month in 2014. In 2015, a total of 999 cases of child abuse or neglect were substantiated, down from 1,142 in 2014. In both 2014 and 2015, most of the children under the care of the

xi Graduation rates do not necessarily reflect those retained in the program. Families who did not graduate may still be continuing in the program.

Division of Social Services were placed with relatives. Over half of children in foster care (54%) in 2015 were placed with relatives, 24 percent were placed in Navajo Nation foster homes, 16 percent in contract foster homes, and 16 percent were placed in contract facilities. In 2015, there were 63 foster care homes available to care for children in out-of-home placement, an increase from the 46 homes available in 2014. All foster homes are located on the reservation (Table 68).<sup>268</sup>

## **Home Visitation**

Table 67. First Things First-funded home visiting program data, State Fiscal Year 2019

GEOGRAPHY	AU INADED OF FAMILIES SEDVED	FAMILIES SUCCESSFULLY GRADUATED FROM HOME
GEOGRAPHY	NUMBER OF FAMILIES SERVED	VISITATION PROGRAMS
Navajo Nation Region	157	17
Arizona	4,106	241

Source: First Things First. (2019). Home Visitation Program Data. Unpublished data received by request

Note: This is an unduplicated count of families who received home visitation services since the beginning of the contract year. Families are only counted one time during the year even if they enrolled in home visitation multiple times. Graduation rates do not necessarily reflect those retained in the program. Families who did not graduate may still be continuing in the program. Program completion/graduation is defined differently by home visitation models: PAT: Services are offered for 2 years or until the child ages out (age 6). HFAZ: Services are offered until the child is at least three years old and can continue up to age five. NFP: Services are offered prenatally until the child's 2nd birthday.

# **Child Removals and Foster Care**

Table 68. Child welfare: Removals and placements, children in care, foster care availability, 2014 and 2015

	2014	2015
REMOVALS AND PLACEMENTS		
Children (0-17) Removed by Tribal CPS	Average 65	Average 82
Substantiated Cases of Child Abuse or Neglect (0-17)	1,142	999
Children (0-17) In ICWA Placements	1,185	1,131
CHILDREN IN CARE		
Wards in Contract Facilities (Foster Homes)	483	505
Wards in Contract Facilities (RTCs)	1,734	1,911
Wards Placed with Relatives	2,834	4,290
Wards in Navajo Nation Foster Homes	924	1,308
FOSTER CARE AVAILABILITY		
Foster Care Homes Licensed by the Navajo Nation (On Reservation)	46	63
Foster Care Homes Licensed by the Navajo Nation (Off Reservation)	0	0
Foster Care Beds in Homes Licensed by the Navajo Nation (Off Reservation)	0	0

Source: First Things First. (2018). Navajo Nation Regional Partnership Council 2018 Needs and Assets Report.

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

# Why it Matters

From November 2016 to June 2017, First Things First convened the second Arizona Early Childhood Task Force, comprised of diverse leaders from across the state. The goal of the task force was to create an ambitious, yet attainable, statewide five-year plan for First Things First and Arizona's early childhood system. Building from the model early-childhood system developed in 2010, the task force identified six desired outcomes, one of which is "when the early childhood system is successful, everyone will benefit from living in communities where the early childhood system is high-quality, centered on children and families, coordinated, integrated and comprehensive." First Things First's role in building this system is to foster cross-system collaboration among local, state, federal, and tribal organizations to improve the coordination and integration of programs, services, and resources for young children and their families.

Through system building, First Things First connects various components of the early childhood system to create a more holistic system that promotes shared results for children and families. Agencies that work together are often easier for families to access, and the services they provide are more responsive to those families' needs. Coordination efforts may also increase agencies' capacity to deliver services by identifying and addressing 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 system of early-childhood service delivery that enhances children's overall development and that is timely, culturally responsive, family driven, and community based. Determining how these efforts are affecting each of the 28 regions and their families can help inform services, programs, and policy decisions to benefit families and young children throughout the state.

## What the Data Tell Us

## **Navajo Nation Early Childhood Coalition**

The Navajo Nation Early Childhood Coalition has given early childhood partners an opportunity to connect and share resources to achieve the following outcomes in Navajo Nation:

- Increase knowledge and understanding of program and services provided by partners.
- Increase referrals and access to services and programs for families and children.
- Increase family engagement to enhance their capacity to support their child's early learning and development.
- Strengthen and unify the early intervention service delivery system in the region.

The coalition is starting to focus on systems-level change and has been meeting the past six months to create a strategic plan to clearly define their roles and responsibility in building the Navajo Nation early childhood system. With a more targeted focus on three goal areas, namely kindergarten transition, early intervention and parent resources, the coalition is striving to have a greater impact moving forward.

#### **Service Coordination**

The most successful achievement in coordination and collaboration has occurred by partnering with the Navajo Nation Office of the President and Vice President, including the Office of the First Lady and Second Lady, to host the first Diné Early Childhood Summit. The goal of the summit was to start the initial work of identifying and eliminating barriers in the early childhood system by convening partners to address the needs of children and families in the region. The summit convened stakeholders from Navajo Nation Office of the President and Vice President, Navajo Nation Council, Navajo Nation Head Start, Navajo Nation Division of Social Services, Navajo Nation Child Care and Development Fund, Navajo Nation Department of Behavioral Health and Mental Health Services, Navajo Nation Treatment Centers for Children and Families, Navajo Nation Women, Infants and Children, Indian Health Service/638 health care centers, public schools and First Things First grant partners to have conversations on how to better serve children and families.

Evaluations indicated that 91 percent of attendees said the summit helped to increase their understanding of gaps, needs and challenges in the Navajo Nation early childhood system. A report, including key findings and recommendations, will be distributed to all early childhood stakeholders. The report will serve as the guiding document for planning the annual summit with the broader, longer term goal of increased coordination, collaboration to continue early childhood system building.

As part of the Service Coordination Strategy, the regional council released the 2020 family resource guide for the region. Early childhood partners are being trained on its utilization and creating a referral process. This will begin to build bridges toward work on service delivery enhancement, community referrals and early intervention coordination.

Since implementation of the Service Coordination Strategy began, it has helped to establish or maintain relationships between the Navajo Nation Regional Partnership Council, tribal leadership and partners in the education, health and social service fields (tribal and non-tribal). Through these established and maintained partnerships, the regional council has increased communication and regular meetings with early childhood stakeholders within the region to address gaps in the system.

# **Communication, Public Information and Awareness**

# Why it Matters

Public awareness of the importance of early childhood development and health is critical in building a comprehensive, effective early childhood system in Arizona. Building public awareness and support for early childhood impacts individual behaviors as well as the broader objectives of system building. For the general public, information and awareness is the first step in taking positive action in support of children birth to five. This could include a range of actions—from influencing their personal networks by sharing early childhood information to actively encouraging community leaders to support programs and services for young children. For parents and other caregivers, awareness is the first step to engaging in programs or behaviors that will better support their child's health and development.

There is no single communications strategy that will achieve the goal of making early childhood an issue that more Arizonans value and prioritize. Therefore, integrated strategies that complement and build on each other are key to any successful strategic communications effort. Employing a range of communications strategies to share information—from traditional broadbased tactics such as paid media advertising to grassroots, community-based tactics such as community outreach—ensures that diverse audiences are reached more effectively across multiple media platforms. A thoughtful and disciplined combination of methods of delivering information is required to ensure multiple messaging touch-points for diverse audiences: families, civic organizations, faith communities, businesses, local leaders, and others.

## What the Data Tell Us

Since State Fiscal Year 2011, First Things First (FTF) has led a collaborative, concerted effort to build public awareness and support across Arizona employing integrated communications strategies that now include:

- strategic messaging and branding
- community outreach
- community awareness
- social media
- digital content marketing
- earned media
- paid media advertising

Progress toward building support for children birth to age five can be measured by changes in awareness, attitudes and behaviors, as demonstrated through key results of a periodic statewide survey and through tactical impact measures. The most recent statewide survey was conducted in September 2018 and included a general phone survey as well as an online survey of parents of young children. Key results include the following:

- Those who agree that the state should ensure all children have access to early childhood services increased from 80 percent in 2012 to 84 percent in 2018.
  - Among parents, this measure increased from 81 percent in 2016 (the first available parent survey results) to 87 percent in 2018.
- Those who agree that a child who received early education and healthcare services before age 5 is more likely to succeed in school and beyond increased from 82 percent in 2012 to 88 percent in 2018.
  - Among parents, agreement increased from 85 percent in 2016 to 87 percent in 2018.
- Those who agree that the state should put the same priority on early education as it does on K-12 education increased from 62 percent in 2012 to 72 percent in 2018.
  - Among parents, agreement increased from 69 percent in 2016 to 74 percent in 2018.

While understanding and supporting early childhood in general is critical, it's also important that Arizonans have a trustworthy source of early childhood resources and know about the availability of early childhood resources, programs and tools. For this reason, building

awareness of FTF as a credible source is critical. Results of the most recent statewide survey show that, while some progress has been made, there is still more to be done to increase awareness about FTF.

- In the 2018 general survey, 87 percent of respondents had never heard of FTF, compared to 89 percent in 2012.
  - Among parents specifically, more had heard of FTF, with 66 percent stating they had never heard of FTF, compared to 69 percent in 2016.

While this statewide survey offers a measure of broad changes in attitudes and awareness, specific tactical measures of awareness and support-building strategies employed by FTF offer another point of information. These include:

- FTF implemented three annual statewide awareness campaigns since the last regional needs and assets reporting period. The SFY17-SFY18 campaign—Help Them Get There shared messaging about the importance of the early years for future school and life success and that parents' everyday positive interactions with babies, toddlers and preschoolers promote healthy development. The SFY19 campaign—Givers of Care focused specifically on the important role of caregivers and quality early learning environments.
- These paid campaigns reached a large number of Arizonans, measured through the total number of impressions, which directly impacts awareness. Traditional media impressions refer to television, radio, cinema and billboard ads while digital media impressions refer to online ads which appear on both desktop and smartphone devices. These statewide impressions—which measure the estimated number of views of FTF ads—are detailed below.

Table 69. First Things First media awareness campaign impressions, SFY17-SFY19

	SFY17	SFY18	SFY19
Traditional media impressions	10 million	17 million	11 million
Digital media impressions	66 million	100 million	76 million

Source: First Things First (2019). Communications Strategy Data. Unpublished data received by request

 In addition, targeted digital advertising allows geographically-based targeting of audiences within regions with the ability to measure the number of click-throughs that digital ads garnered. The click-throughs delivered viewers to the FTF website. In SFY19, in the Navajo Nation Region, digital advertising led to a total of 16,554 click-throughs to the FTF website where families could access more information and resources.

- In the area of social media, engagement with FTF early childhood online platforms has grown over the years. Particular success has been seen in the growth of Facebook Page Likes for FTF, which grew from just 3,000 in 2012 to 142,600 in 2019. Content is also distributed through Twitter, LinkedIn and Instagram.
- Since inception in SFY17, FTF's digital content marketing strategy which targets parents
  and families with engaging and informative video and blog posts via website, social
  media and email has expanded its reach. In SFY19, 40 original, high-quality content
  pieces were published.
- In SFY19, an online searchable database of early childhood programs funded by FTF in all the regions launched. In the first six months, over 24,187 visits were logged.

In addition, FTF began a community engagement effort in SFY14 to recruit, motivate and support community members to take action on behalf of young children. The community engagement program is led by community outreach staff in regions which fund the FTF Community Outreach strategy. This effort focuses on engaging individuals across sectors—including business, faith, K-12 educators, and civic organizations—in the work of spreading the word about the importance of early childhood as trusted, credible messengers in their communities.

Focused efforts to engage parents' most trusted messengers—which include pediatricians—included creating and distributing a toolkit for health providers to help them better understand and share information on the statewide free Birth to 5 Helpline. This toolkit was also distributed to attendees of the annual conference of the Arizona Chapter of the American Academy of Pediatrics. Other statewide awareness partnerships included creation and distribution of a grocery list tip pad for parents and caregivers sharing Read On Arizona's Smart Talk tips, a digital content sharing partnership with Expect More Arizona and partnering with the Arizona Association for the Education of Young Children on a social media campaign promoting Week of the Young Child.

Because Arizona is so vast—with more than 500,000 children under age six and nearly 400,000 households with kids under age six—engaging others in spreading the word about early childhood is critical to reaching across diverse geographic areas and expanding our reach. Supporters and Champions—who are trained in early childhood messaging and effective ways to share early childhood information—reported a total of 940 positive actions taken on behalf of young children throughout Arizona in SFY19. These actions range from leading presentations in support of early childhood to sharing FTF's early childhood resources with parents at

community events. The table below shows total recruitment of Supporters and Champions through SFY19 and actions taken in SFY19.

Table 70. FTF Engagement of Early Childhood Supporters and Champions, SFY19

GEOGRAPHY	NUMBER OF SUPPORTERS	NUMBER OF CHAMPIONS	NUMBER OF SUPPORTER AND CHAMPION ACTIONS DURING FY2019
Navajo Nation Region	276	50	23
Arizona	6,258	1,170	940

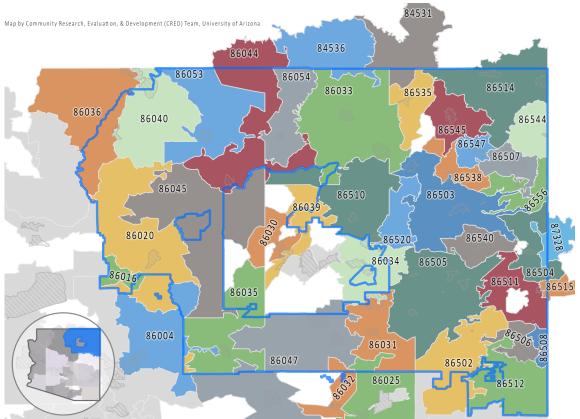
Source: First Things First. (2019). Communications data. Unpublished data received by request

First Things First has also led a concerted effort to build awareness among policymakers at all levels (federal, tribal, state and municipal) of the importance of early childhood. This includes: in-office meetings with elected leaders to provide general information on early childhood, as well as discuss the impact of proposed legislation; regular communication to policymakers with updates on early childhood research and the work of FTF (such as a quarterly email newsletter for policymakers and their staff); and site tours of FTF-funded programs to allow policymakers to see the impact of early childhood investments in their area. In SFY19, FTF also launched ACT4KIDS, a text-based system that alerts participants to timely developments in early childhood policy and opportunities to engage with policymakers. In its first nine months of implementation, more than 700 Arizonans had signed up to participate in ACT4KIDS.

In addition, FTF actively participates in the Arizona Early Childhood Alliance—comprised of more than 50 early childhood system leaders like the United Ways, the state affiliates of the National Association for the Education of Young Children, Southwest Human Development, Children's Action Alliance, Read On Arizona, Stand for Children, Expect More Arizona and the Helios Foundation—represent the united voice of the early childhood community in advocating for early childhood programs and services. For the past three years, the Alliance has also led an annual Early Childhood Day at the Legislature, which have drawn hundreds of Arizonans to the state Capitol to engage with policymakers and show their support for early childhood development and health.

## **Appendix 1: Map of Zip Codes of the Navajo Nation Region**

Figure 11. Map of the ZIP codes in the Navajo Nation Region



Custom map by the Community Research, Evaluation, & Development (CRED) Team using shapefiles obtained from First Things First and the U.S. Census Bureau 2019 TIGER/Line Shapefiles (<a href="https://www.census.gov/cqi-bin/qeo/shapefiles/index.php">https://www.census.gov/cqi-bin/qeo/shapefiles/index.php</a>).

## **Appendix 2: Zip Codes of the Navajo Nation Region**

Table 71. Zip Code Tabulation Areas (ZCTAs) of the Navajo Nation Region

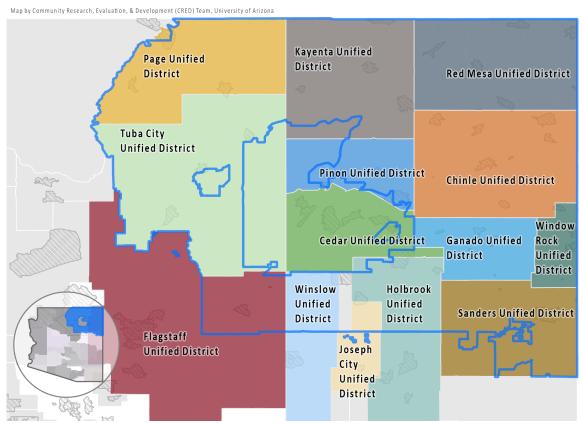
				HOUSEHOLDS WITH ONE OR	PERCENT OF ZCTA'S TOTAL POPULATION LIVING IN THE	
ZIP CODE TABULATION	TOTAL	POPULATION	TOTAL NUMBER OF	MORE CHILDREN	NAVAJO NATION	THIS ZCTA IS
AREA (ZCTA)	POPULATION	(AGES 0-5)	HOUSEHOLDS	(AGES 0-5)	REGION	SHARED WITH
Navajo Nation Region	101,835	10,894	29,232	7,159		
84531	20	0	9	0	100%	
84536	280	21	74	18	100%	
86003	23	0	12	0	100%	
86004	207	14	68	6	1%	Coconino
86016	56	4	25	2	90%	Coconino
86020	1,889	181	544	120	97%	Coconino
86025	83	7	24	6	1%	Navajo/Apache
86030	226	21	69	16	16%	Coconino
86031	1,856	183	509	113	100%	
86032	46	4	15	3	3%	Navajo/Apache
86033	7,834	890	2,219	595	100%	Coconino
86034	1,667	165	501	118	73%	Coconino
86035	1,749	144	499	93	97%	Coconino
86036	147	15	42	10	38%	Coconino
86039	796	71	239	48	54%	Coconino
86040	2,645	297	671	188	26%	Coconino
86044	3,825	423	1,028	264	100%	
86045	10,344	1,194	2,732	775	91%	Coconino
86047	4,128	400	1,136	273	28%	Coconino & Navajo/Apache
86053	2,311	295	566	192	100%	

					PERCENT OF	
				HOLICEHOLDC	ZCTA'S TOTAL	
				HOUSEHOLDS	POPULATION	
				WITH ONE OR	LIVING IN THE	
ZIP CODE			TOTAL	MORE	NAVAJO	
TABULATION	TOTAL	POPULATION	NUMBER OF	CHILDREN	NATION	THIS ZCTA IS
AREA (ZCTA)	POPULATION	(AGES 0-5)	HOUSEHOLDS	(AGES 0-5)	REGION	SHARED WITH
86054	1,935	189	579	125	100%	
86502	1,377	130	414	78	94%	Navajo/Apache
86503	10,714	1,225	3,100	790	100%	
86504	5,835	600	1,754	416	100%	
86505	7,682	772	2,312	499	100%	
86506	1,321	122	440	81	100%	
86507	2,340	268	697	183	100%	
86508	752	68	238	51	100%	
86510	5,350	600	1,548	395	100%	Coconino
86511	3,694	371	1,118	219	100%	
86512	2,017	221	593	140	83%	Navajo/Apache
86514	3,011	292	930	201	100%	
86515	2,894	313	882	217	100%	
86520	1,793	181	550	125	100%	
86535	1,199	130	325	89	100%	
86538	2,338	285	682	189	100%	
86540	1,088	103	318	64	100%	
86544	1,267	122	403	77	100%	
86545	1,650	187	446	120	100%	
86547	1,171	132	313	87	100%	
86556	2,090	238	549	162	100%	
87328	185	16	59	11	100%	

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

# **Appendix 3: Map of School Districts in the Navajo Nation Region**

Figure 12. Map of the school districts in the Navajo Nation Region



Custom map by the Community Research, Evaluation, & Development (CRED) Team using shapefiles obtained from First Things First and the U.S. Census Bureau 2019 TIGER/Line Shapefiles (<a href="https://www.census.gov/cgi-bin/geo/shapefiles/index.php">https://www.census.gov/cgi-bin/geo/shapefiles/index.php</a>).

Table 72. School Districts in the Navajo Nation Region

GEOGRAPHY	SCHOOLS IN DISTRICT	K-3RD GRADE STUDENTS IN DISTRICT	PERCENT OF K- 3RD GRADES STUDENTS IN REGION	THIS DISTRICT IS SHARED WITH
Navajo Nation Region	40	3,636		
Holbrook Unified School District	5	493	39%	Navajo/Apache
Window Rock Unified District	5	485	100%	
Ganado Unified School District	4	298	100%	
Chinle Unified District	7	1,103	100%	
Red Mesa Unified District	5	98	100%	
Tuba City Unified School District #15	6	393	100%	
Pinon Unified District	3	293	100%	
Cedar Unified District	1	58	100%	
Kayenta Unified School District #27	3	415	100%	
Flagstaff Unified School District	16	2,801	3%	Coconino

Source: Arizona Department of Education (2019). FY 2018 & FY 2019 Enrollment Data. Custom tabulation facilitated by agency staff.

Note: This table only contains Districts/LEAs with enrolled K-3rd grade students physically located within regional boundaries. It does not reflect the residence of students that attend these schools. It does not include high school districts. These are the districts and charter operators from which data on preschool to 3rd grade students were drawn for the tables and figures presented in this report. The percentage shown in the "Percent of K-3rd grade students in the region" column was used to apportion district-level enrollment counts to the region. All other data were aggregated at the school level. The "Schools in district/LEA" and "K-3rd grade students in district/LEA" columns reflect totals for the district, not only the portion within the region. Joseph City Unified School District overlaps the lands of the Navajo Nation Region but does not have any K-3 serving schools located within the region.

### **Appendix 4: Data Sources**

- Arizona Department of Administration, Office of Employment and Population Statistics. (2019).

  Local area unemployment statistics (LAUS). Retrieved from

  https://laborstats.az.gov/local-area-unemployment-statistics
- Arizona Department of Economic Security (2019). 2018 Child Care Market Rate Survey. Unpublished data received by request.
- Arizona Department of Economic Security. (2019). 2018 Child Care Market Rate Survey Report. Retrieved from https://des.az.gov/file/14277/download.
- Arizona Department of Economic Security (2019). Child Care Assistance Dataset. Unpublished data received by request.
- Arizona Department of Economic Security. (2019). Child Care Market Rate Survey 2018. Data received from the First Things First State Agency Data Request
- Arizona Department of Economic Security. (2019). [AzEIP Data]. Unpublished raw data received through the First Things First State Agency Data Request
- Arizona Department of Economic Security. (2019). [Child Care Assistance Data]. Unpublished raw data received through the First Things First State Agency Data Request
- Arizona Department of Economic Security. (2019). [DDD Data]. Unpublished raw data received through the First Things First State Agency Data Request
- Arizona Department of Economic Security. (2015). [SNAP data set]. Unpublished raw data received from the First Things First State Agency Data Request
- Arizona Department of Economic Security. (2015). [TANF data set]. Unpublished raw data received from the First Things First State Agency Data Request
- Arizona Department of Education (2019). 2015-16 to 2018-19 Special Education Enrollments. Unpublished data received by request.
- Arizona Department of Education (2019). AzMERIT Results, 2015-2018. Retrieved from <a href="https://www.azed.gov/accountability-research/data/">https://www.azed.gov/accountability-research/data/</a>; Arizona Department of Education (2019). AzMERIT Results, 2015-2018. Custom tabulation of unpublished data.
- Arizona Department of Education. (2019). [Chronic Absence data set]. Custom tabulation of unpublished data.
- Arizona Department of Education. (2019). [Graduation & Dropout data set]. Custom tabulation of unpublished data.

- Arizona Department of Education. (2019). Percentage of children approved for free or reducedprice lunches, July 2015. Unpublished raw data received from the First Things First State Agency Data Request
- Arizona Department of Health Services. (2019). [Immunizations Dataset]. Unpublished raw data received from the First Things First State Agency Data Request
- Arizona Department of Health Services, Bureau of Public Health Statistics. (2019). [Vital Statistics Dataset]. Unpublished raw data received from the First Things First State Agency Data Request
- Arizona Department of Health Services, Office of Injury Prevention. (2019). [Injuries Dataset].

  Data received from the First Things First State Agency Data Request
- First Things First (2019). Communications Strategy Data. Unpublished data received by request
- First Things First. (2019). Home Visitation Program Data. Unpublished data received by request
- First Things First (2019). Oral Health Strategy Data. Unpublished data received by request
- First Things First (2019). Quality First, a Signature Program of First Thing First. Unpublished data received by request
- First Things First. (2018). Navajo Nation Regional Partnership Council 2018 Needs and Assets Report.
- Office of Infectious Disease Services, Division of Public Health Preparedness, AZ Department of Health Services
- U.S. Census Bureau. (2010). 2010 Decennial Census, Tables P1, P4, P11, P12A, P12B, P12C, P12D, P12E, P12F, P12G, P12H, P14, P20, P32, P41. Retrieved from <a href="http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml">http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml</a>
- U.S. Census Bureau. (2018). American Community Survey 5-Year Estimates, 2013-2017, Table B05009, B09001, B10002, B14003, B15002, B16001, B16002, B16005, B17001, B17002, B17006, B17022, B19126, B23008, B23025, B25002, B25106, B27001, B28005, B28008, B28010. Retrieved from http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml
- U.S. Census Bureau. (2019). 2019, 2017, & 2010 Tiger/Line Shapefiles prepared by the U.S. Census. 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>

#### References

http://www.census.gov/content/dam/Census/programs-surveys/acs/about/ACS\_Information\_Guide.pdf

<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

<sup>&</sup>lt;sup>3</sup> "Estimates of Undercount and Overcount in the 2010 Census" (May 22, 2012). www.census.gov/newsroom/releases/archives/2010\_census/cb12-95.html

<sup>&</sup>lt;sup>4</sup> Inter Tribal Council of Arizona, Inc., ASU Office of the President on American Indian Initiatives, ASU Office of Public Affairs (2013). *The State of Indian Country Arizona. Volume 1.* Retrieved from <a href="http://outreach.asu.edu/sites/default/files/SICAZ">http://outreach.asu.edu/sites/default/files/SICAZ</a> report 20130828.pdf

<sup>&</sup>lt;sup>5</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 <a href="https://mchb.hrsa.gov/chusa14/population-characteristics.html">https://mchb.hrsa.gov/chusa14/population-characteristics.html</a>

<sup>&</sup>lt;sup>6</sup> National Academies of Sciences, Engineering, and Medicine. (2016). *Parenting Matters: Supporting Parents of Children Ages 0-8*. Washington, DC: The National Academies Press. <a href="https://doi.org/10.17226/21868">https://doi.org/10.17226/21868</a>.

<sup>&</sup>lt;sup>7</sup> National Academies of Sciences, Engineering, and Medicine. (2017). *Promoting the Educational Success of Children and Youth Learning English: Promising Futures.* Washington, DC: The National Academies Press. https://doi.org/10.17226/24677.

<sup>&</sup>lt;sup>8</sup> Arizona Department of Health Sciences. (2015). *Arizona Maternal Child Health Needs Assessment*. Retrieved from <a href="http://azdhs.gov/documents/prevention/womens-childrens-health/reports-fact-sheets/title-v/needs-assessment2015.pdf">http://azdhs.gov/documents/prevention/womens-childrens-health/reports-fact-sheets/title-v/needs-assessment2015.pdf</a>

<sup>&</sup>lt;sup>9</sup> Ibid.

<sup>&</sup>lt;sup>10</sup> U.S. Department of Health and Human Services, Administration for Children and Families, Office of Head Start. (n.d.). *The benefits of bilingualism*. Retrieved from <a href="https://eclkc.ohs.acf.hhs.gov/hslc/tta-system/cultural-linguistic/docs/benefits-of-being-bilingual.pdf">https://eclkc.ohs.acf.hhs.gov/hslc/tta-system/cultural-linguistic/docs/benefits-of-being-bilingual.pdf</a>

<sup>&</sup>lt;sup>11</sup> National Academies of Sciences, Engineering, and Medicine. (2017). *Promoting the Educational Success of Children and Youth Learning English: Promising Futures.* Washington, DC: The National Academies Press. <a href="https://doi.org/10.17226/24677">https://doi.org/10.17226/24677</a>.

<sup>&</sup>lt;sup>12</sup> U.S. Department of Health and Human Services, Administration for Children and Families, Office of Head Start. (n.d.). *The benefits of bilingualism*. Retrieved from <a href="https://eclkc.ohs.acf.hhs.gov/hslc/tta-system/cultural-linguistic/docs/benefits-of-being-bilingual.pdf">https://eclkc.ohs.acf.hhs.gov/hslc/tta-system/cultural-linguistic/docs/benefits-of-being-bilingual.pdf</a>

<sup>&</sup>lt;sup>13</sup> National Academies of Sciences, Engineering, and Medicine. (2017). *Promoting the Educational Success of Children and Youth Learning English: Promising Futures*. Washington, DC: The National Academies Press. <a href="https://doi.org/10.17226/24677">https://doi.org/10.17226/24677</a>.

<sup>&</sup>lt;sup>14</sup> U.S. Department of Health and Human Services, Administration for Children and Families, Office of Head Start. (n.d.). *The benefits of bilingualism*. Retrieved from <a href="https://eclkc.ohs.acf.hhs.gov/hslc/tta-system/cultural-linguistic/docs/benefits-of-being-bilingual.pdf">https://eclkc.ohs.acf.hhs.gov/hslc/tta-system/cultural-linguistic/docs/benefits-of-being-bilingual.pdf</a>

- <sup>15</sup> National Academies of Sciences, Engineering, and Medicine. (2017). *Promoting the Educational Success of Children and Youth Learning English: Promising Futures*. Washington, DC: The National Academies Press. <a href="https://doi.org/10.17226/24677">https://doi.org/10.17226/24677</a>
- <sup>16</sup> U.S. Department of Health and Human Services, Administration for Children and Families, Office of Head Start. (n.d.). *The benefits of bilingualism*. Retrieved from <a href="https://eclkc.ohs.acf.hhs.gov/hslc/tta-system/cultural-linguistic/docs/benefits-of-being-bilingual.pdf">https://eclkc.ohs.acf.hhs.gov/hslc/tta-system/cultural-linguistic/docs/benefits-of-being-bilingual.pdf</a>
- <sup>17</sup> National Academies of Sciences, Engineering, and Medicine. (2017). *Promoting the Educational Success of Children and Youth Learning English: Promising Futures*. Washington, DC: The National Academies Press. https://doi.org/10.17226/24677.
- 18 Ibid.
- <sup>19</sup> National Center for Children in Poverty. (2012, October). *Young children at risk.* Retrieved from <a href="http://www.nccp.org/publications/pub">http://www.nccp.org/publications/pub</a> 1073.html
- <sup>20</sup> McCarty, T.L., & Nicholas, S.E. (2014). Reclaiming Indigenous Languages: A Reconsideration of the Roles and Responsibilities of Schools. *Review of Research in Education*, *38*(1), 106-136.
- <sup>21</sup> U.S. Department of Health & Human Services, Administration for Native Americans. (n.d.). *Native Languages*. For more information, visit <a href="http://www.acf.hhs.gov/programs/ana/programs/native-language-preservation-maintenance">http://www.acf.hhs.gov/programs/ana/programs/native-language-preservation-maintenance</a>
- <sup>22</sup> National Academies of Sciences, Engineering, and Medicine 2016. *Parenting Matters: Supporting Parents of Children Ages 0-8*. Washington, DC: The National Academies Press. <a href="https://doi.org/10.17226/21868">https://doi.org/10.17226/21868</a>.
- <sup>23</sup> Pew Research Center. (2018). *The changing profile of unmarried parents*. Retrieved from <a href="https://www.pewsocialtrends.org/2018/04/25/the-changing-profile-of-unmarried-parents/">https://www.pewsocialtrends.org/2018/04/25/the-changing-profile-of-unmarried-parents/</a>
- <sup>24</sup> Vandivere, S., Yrausquin, A., Allen, T., Malm, K., & McKlindon, A. (2012). *Children in nonparental care: A review of the literature and analysis of data gaps*. Washington, DC: U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation. Retrieved from <a href="http://aspe.hhs.gov/basic-report/children-nonparental-care-review-literature-and-analysis-data-gaps">http://aspe.hhs.gov/basic-report/children-nonparental-care-review-literature-and-analysis-data-gaps</a>
- <sup>25</sup> Cohn, D., & Passel, J.S. (2018). *A record 64 Million Americans live in multigeneration households*. Fact Tank: News in the Numbers, 5 April 2018. Pew Research Center. Retrieved from: <a href="https://www.pewresearch.org/fact-tank/2018/04/05/a-record-64-million-americans-live-in-multigenerational-households/">https://www.pewresearch.org/fact-tank/2018/04/05/a-record-64-million-americans-live-in-multigenerational-households/</a>
- <sup>26</sup> Halgunseth, L. (2009). Family engagement, diverse families and early childhood education programs: An integrated review of the literature. *Young Children, 64*(5), pp. 56-68.
- <sup>27</sup> Barnett, M.A., Yancura, L., Wilmoth, J., Sano, Y. (2016). Wellbeing Among Rural Grandfamilies in Two Multigenerational Household Structures. *GrandFamilies: The Contemporary Journal of Research, Practice and Policy, 3*(1). Retrieved from: <a href="http://scholarworks.wmich.edu/grandfamilies/vol3/iss1/4">http://scholarworks.wmich.edu/grandfamilies/vol3/iss1/4</a>
- <sup>28</sup> First Things First. (2018). *Navajo Nation Regional Partnership Council 2018 Needs and Assets Report*. Retrieved from <a href="https://files.firstthingsfirst.org/regions/Publications/Regional%20Needs%20and%20Assets%20Report%20%202018%20-%20Navajo%20Nation.pdf">https://files.firstthingsfirst.org/regions/Publications/Regional%20Needs%20and%20Assets%20Report%20%202018%20-%20Navajo%20Nation.pdf</a>
- <sup>29</sup> Vandivere, S., Yrausquin, A., Allen, T., Malm, K., & McKlindon, A. (2012). *Children in nonparental care: A review of the literature and analysis of data gaps*. Washington, DC: U.S. Department of Health and Human Services, Office of

the Assistant Secretary for Planning and Evaluation. Retrieved from <a href="http://aspe.hhs.gov/basic-report/children-nonparental-care-review-literature-and-analysis-data-gaps">http://aspe.hhs.gov/basic-report/children-nonparental-care-review-literature-and-analysis-data-gaps</a>

- <sup>30</sup> Department of Health and Human Services, Administration for Children and Families, and Children's Bureau. (2016). *Site visit report: Arizona Kinship Navigator Project*. Retrieved from <a href="https://www.childwelfare.gov/pubPDFs/azkinship.pdf">https://www.childwelfare.gov/pubPDFs/azkinship.pdf</a>
- <sup>31</sup> Ellis, R., & Simmons, T. (2014). *Coresident Grandparents and Their Grandchildren: 2012.* Current Population Reports, P20-576, U.S. Census Bureau: Washington, DC.
- <sup>32</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>33</sup> Harrison, A.O., Wilson, M.N., Pine, C. J., Chan, S.Q., & Buriel, R. (1990). Family ecologies of ethnic minority children. *Child Development*, *61*(2), 347-362; Robbins R., Robbins S., Stennerson B. (2013). Native American Family Resilience. In: Becvar D. (eds) *Handbook of Family Resilience*. Springer, New York, NY.
- <sup>34</sup> Red Horse, J. (1997). Traditional American Indian family systems. *Families, Systems, & Health*, 15(3), 243.
- <sup>35</sup> Hoffman, F. (Ed.). (1981). *The American Indian Family: Strengths and Stresses*. Isleta, NM: American Indian Social Research and Development Associates.
- <sup>36</sup> Mutchler, J.E., Baker, L.A., Lee, S. (2007). Grandparents Responsible for Grandchildren in Native-American Families. *Social Science Quarterly*, *88*(4), 990.
- <sup>37</sup> Byers, L. (2010). Native American grandmothers: Cultural tradition and contemporary necessity. *Journal of Ethnic & Cultural Diversity in Social Work, 19*(4), 305-316.
- <sup>38</sup> First Things First. (2018). Navajo Nation Regional Partnership Council 2018 Needs and Assets Report. Retrieved from <a href="https://files.firstthingsfirst.org/regions/Publications/Regional%20Needs%20and%20Assets%20Report%20-%202018%20-%20Navajo%20Nation.pdf">https://files.firstthingsfirst.org/regions/Publications/Regional%20Needs%20and%20Assets%20Report%20-%202018%20-%20Navajo%20Nation.pdf</a>
- 39 Ibid.
- <sup>40</sup> Healthy People 2020. (n.d.). *Social determinants of health*. Washington, DC: U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Retrieved from https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health
- <sup>41</sup> Ibid.
- <sup>42</sup> Cornell, S., and Kalt, J.P. (2010). American Indian Self-Determination. The Political Economy of a Successful Policy. *JOPNA Working Papers*. Native Nations Institute and Harvard Project on American Indian Economic Development.
- 43 Ibid.
- <sup>44</sup> Child Trends. (2014, January 8). *5 Ways Poverty Harms Children*. Retrieved from <a href="https://www.childtrends.org/child-trends-5/5-ways-poverty-harms-children">https://www.childtrends.org/child-trends-5/5-ways-poverty-harms-children</a>
- <sup>45</sup> Brooks-Gunn, J., & Duncan, G. (1997). The effects of poverty on children. *Children and Poverty*, 7(2), 55-71.

- <sup>46</sup> McLoyd, V. (1998). Socioeconomic disadvantage and child development. *American Psychologist*, *53*(2), 185-204. doi: 10.1037/0003-066X.53.2.185
- <sup>47</sup> Ratcliffe, C., & McKernan, S. (2012). Child poverty and its lasting consequences. *Low-Income Working Families Series*, The Urban Institute. Retrieved from <a href="http://www.urban.org/research/publication/child-poverty-and-its-lasting-consequence/view/full\_report">http://www.urban.org/research/publication/child-poverty-and-its-lasting-consequence/view/full\_report</a>
- <sup>48</sup> Duncan, G., Ziol-Guest, K., & Kalil, A. (2010). Early-childhood poverty and adult attainment, behavior, and health. *Child Development*, *81*(1), 306-325. Retrieved from <a href="http://onlinelibrary.wiley.com/doi/10.1111/j.1467-8624.2009.01396.x/full">http://onlinelibrary.wiley.com/doi/10.1111/j.1467-8624.2009.01396.x/full</a>
- <sup>49</sup> Gupta, R., de Wit, M., & McKeown, D. (2007). The impact of poverty on the current and future health status of children. *Pediatrics & Child Health, 12(8)*, 667-672.
- <sup>50</sup> Wagmiller, R., & Adelman, R. (2009). *Children and intergenerational poverty: The long-term consequences of growing up poor.* New York, NY: National Center for Children in Poverty. Retrieved from <a href="http://www.nccp.org/publications/pub-909.html">http://www.nccp.org/publications/pub-909.html</a>
- <sup>51</sup> Duncan, G., Ziol-Guest, K., & Kalil, A. (2010). Early-childhood poverty and adult attainment, behavior, and health. *Child Development, 81*(1), 306-325. Retrieved from <a href="http://onlinelibrary.wiley.com/doi/10.1111/j.1467-8624.2009.01396.x/full">http://onlinelibrary.wiley.com/doi/10.1111/j.1467-8624.2009.01396.x/full</a>
- <sup>52</sup> U.S. Department of Health & Human Services Office of the Assistant Secretary for Planning and Evaluation. (2019). *2019 Poverty Guidelines*. Retrieved from <a href="https://aspe.hhs.gov/2019-poverty-guidelines">https://aspe.hhs.gov/2019-poverty-guidelines</a>
- <sup>53</sup> U.S. Department of Health, Education, and Welfare, (1976). *The Measure of Poverty: A Report to Congress as Mandated by the Education Amendments of 1974.*
- <sup>54</sup> Pearce, D.M. (2019). *The Self-Sufficiency Standard*. Retrieved from <a href="http://www.selfsufficiencystandard.org/the-standard">http://www.selfsufficiencystandard.org/the-standard</a>
- 55 Ibid.
- <sup>56</sup> Pearce, D.M. (2019). *The Self-Sufficiency Standard for Arizona 2018*. Available online at: https://www.womengiving.org/wp-content/uploads/2019/08/AZ18\_SSS\_Update-1.pdf
- <sup>57</sup> Rose-Jacobs, R., Black, M., Casey, P., Cook, J., Cutts, D., Chilton, M., Heeren, T., Levenson, S., Meyers, A., & Frank, D. (2008). Household food insecurity: Associations with at-risk infant and toddler development. *Pediatrics, 121*(1), 65-72. Retrieved from <a href="http://pediatrics.aappublications.org/content/121/1/65.full.pdf">http://pediatrics.aappublications.org/content/121/1/65.full.pdf</a>
- <sup>58</sup> Ryan-Ibarra, S., Sanchez-Vaznaugh, E., Leung, C., & Induni, M. (2016). The relationship between food insecurity and overweight/obesity differs by birthplace and length of residence. *Public Health Nutrition*, 1-7. Retrieved from <a href="https://www.cambridge.org/core/journals/public-health-nutrition/article/div-classtitlethe-relationship-between-food-insecurity-and-overweightobesity-differs-by-birthplace-and-length-of-us-residencediv/4BEE4D6C09F9FFCABEE404F9E313BE7C</a>
- <sup>59</sup> Economic Research Service (ERS), U.S. Department of Agriculture (USDA). Food Access Research Atlas. Retrieved from <a href="https://www.ers.usda.gov/data-products/food-access-research-atlas/">https://www.ers.usda.gov/data-products/food-access-research-atlas/</a>
- <sup>60</sup> A food desert is defined as an area where there is a low-income population and low access to food within 1 mile in urban areas and 10 miles in rural areas. See, Arizona Department of Health Services. (n.d). AZ Food Deserts. *GIS Applications*. Retrieved from <a href="https://azdhs.gov/gis/az-food-deserts/index.php">https://azdhs.gov/gis/az-food-deserts/index.php</a>

- <sup>61</sup> U.S. Census Bureau (2016). *2015 American Indian Area Geography & Census Tracts [shapefiles]*. Retrieved from <a href="https://www.census.gov/geographies/mapping-files/time-series/geo/tiger-line-file.2015.html">https://www.census.gov/geographies/mapping-files/time-series/geo/tiger-line-file.2015.html</a>; U.S. Department of Agriculture (2016). *Food Access Research Atlas [dataset]*. Retrieved from <a href="https://www.ers.usda.gov/data-products/food-access-research-atlas/">https://www.ers.usda.gov/data-products/food-access-research-atlas/</a>; Custom analysis run by Kara Haberstock Tanoue, Community Research, Evaluation, & Development (CRED) Team, University of Arizona.
- <sup>62</sup> Food and Nutrition Service, U.S. Department of Agriculture. (n.d.). *Supplemental Nutrition Assistance Program (SNAP)*. Retrieved from https://www.fns.usda.gov/snap/supplemental-nutrition-assistance-program
- <sup>63</sup> Food and Nutrition Service, U.S. Department of Agriculture. (n.d.). *Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)*. Retrieved from <a href="https://www.fns.usda.gov/wic">https://www.fns.usda.gov/wic</a>
- <sup>64</sup> Food and Nutrition Service, U.S. Department of Agriculture. (n.d.). *National School Lunch Program*. Retrieved from <a href="https://www.fns.usda.gov/nslp">https://www.fns.usda.gov/nslp</a>
- <sup>65</sup> Food and Nutrition Service, U.S. Department of Agriculture. (n.d.). *School Breakfast Program*. Retrieved from <a href="https://www.fns.usda.gov/sbp/school-breakfast-program">https://www.fns.usda.gov/sbp/school-breakfast-program</a>
- <sup>66</sup> Food and Nutrition Service, U.S. Department of Agriculture. (n.d.). *Summer Food Service Program*. Retrieved from https://www.fns.usda.gov/sfsp/summer-food-service-program
- <sup>67</sup> Food and Nutrition Service, U.S. Department of Agriculture. (n.d.) *Child and Adult Care Food Program*. Retrieved from <a href="https://www.fns.usda.gov/cacfp/child-and-adult-care-food-program">https://www.fns.usda.gov/cacfp/child-and-adult-care-food-program</a>
- <sup>68</sup> Coleman-Jensen, A., Rabbitt, M.P., Gregory, C.A., & Singh, A. (2018). *Household food security in the United States in 2017, ERR-256*. U.S. Department of Agriculture, Economic Research Service.
- <sup>69</sup> Finegold, K., Pindus, N., Levy, D., Tannehill, T., and Hillabrant, W. (2009). *Tribal Food Assistance: A Comparison of the Food Distribution Program on Indian Reservations and the Supplemental Nutrition Assistance Program*. The Urban Institute.
- <sup>70</sup> Ibid.
- <sup>71</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 <a href="http://frac.org/pdf/snap">http://frac.org/pdf/snap</a> and <a href="public health">public health</a> 2013.pdf
- <sup>72</sup> Ibid.
- 73 For more information on the Arizona WIC Program, visit http://azdhs.gov/prevention/azwic/
- <sup>74</sup> Carlson, S., & Neuberger, Z. (2015). *WIC Works: Addressing the nutrition and health needs of low-income families for 40 years*. Washington, DC: Center on Budget and Policy Priorities. Retrieved from <a href="http://www.cbpp.org/research/food-assistance/wic-works-addressing-the-nutrition-and-health-needs-of-low-income-families">http://www.cbpp.org/research/food-assistance/wic-works-addressing-the-nutrition-and-health-needs-of-low-income-families</a>
- <sup>75</sup> National Center for Children in Poverty. (2014). *Arizona demographics for low-income children*. Retrieved from http://www.nccp.org/profiles/AZ profile 6.html
- <sup>76</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>77</sup> For a discussion of current trends in labor force participation versus employment, see Uchitelle, L. (July 11, 2019). "Unemployment Is Low, but That's Only Part of the Story." Retrieved from <a href="https://www.nytimes.com/2019/07/11/business/low-unemployment-not-seeking-work.html">https://www.nytimes.com/2019/07/11/business/low-unemployment-not-seeking-work.html</a>
- <sup>78</sup> Cornell, S., and Kalt, J.P. (2010). American Indian Self-Determination. The Political Economy of a Successful Policy. *JOPNA Working Papers*. Native Nations Institute and Harvard Project on American Indian Economic Development.
- <sup>79</sup> McCoy-Roth, M., Mackintosh, B., & Murphey, D. (2012). When the bough breaks: The effects of homelessness on young children. *Child Health, 3*(1). Retrieved from: <a href="http://www.childtrends.org/wp-content/uploads/2012/02/2012-08EffectHomelessnessChildren.pdf">http://www.childtrends.org/wp-content/uploads/2012/02/2012-08EffectHomelessnessChildren.pdf</a>
- <sup>80</sup> Herbert, C., Hermann, A., & McCue, D. (2018). *Measuring Housing Affordability: Assessing the 30 Percent of Income Standard*. Cambridge, MA: Joint Center for Housing Studies of Harvard University. Retrieved from: <a href="https://www.jchs.harvard.edu/sites/default/files/Harvard\_JCHS\_Herbert\_Hermann\_McCue\_measuring\_housing\_affordability.pdf">https://www.jchs.harvard.edu/sites/default/files/Harvard\_JCHS\_Herbert\_Hermann\_McCue\_measuring\_housing\_affordability.pdf</a>
- <sup>81</sup> Gabriel, S., & Painter, G. (2017). "Why Affordability Matters," 4-23. Presentation at Housing Affordability: Why Does It Matter, How Should It Be Measured, and Why Is There an Affordability Problem? American Enterprise Institute, 5-6 April 2017. Retrieved from: <a href="https://www.aei.org/wp-content/uploads/2017/04/CHA-Panel-1.pdf">https://www.aei.org/wp-content/uploads/2017/04/CHA-Panel-1.pdf</a>
- <sup>82</sup> Federal Interagency Forum on Child and Family Statistics. (2015). *America's children: Key national indicators for well-being, 2015*. Washington, DC: U.S. Government Printing Office. Retrieved from <a href="https://www.childstats.gov/pdf/ac2015/ac\_15.pdf">https://www.childstats.gov/pdf/ac2015/ac\_15.pdf</a>
- <sup>83</sup> Housing Assistance Council (2013). *Housing on Native American Lands*. Retrieved from <a href="http://www.ruralhome.org/storage/documents/rpts">http://www.ruralhome.org/storage/documents/rpts</a> pubs/ts10 native lands.pdf
- <sup>84</sup> Kinsner, K., Parlakian, R., Sanchez, G., Manzano, S., & Baretto, M. (2018). Millennial Connections: Findings from ZERO TO THREE's 2018 Parent Survey Executive Summary. *ZERO TO THREE*. Retrieved from <a href="https://www.zerotothree.org/resources/2475-millennial-connections-executive-summary">https://www.zerotothree.org/resources/2475-millennial-connections-executive-summary</a>
- <sup>85</sup> OECD. (2001). Understanding the digital divide. Paris, France: OECD Publications.
- 86 Ibid.
- <sup>87</sup> Gonzales, A. (2016). The contemporary US digital divide: from initial access to technology maintenance, Information. *Communication & Society, 19*(2), pp. 234-248.
- <sup>88</sup> Pew Research Center. (2019, June 12). *Internet/Broadband Fact Sheet*. Retrieved from <a href="https://www.pewresearch.org/internet/fact-sheet/internet-broadband/">https://www.pewresearch.org/internet/fact-sheet/internet-broadband/</a>
- <sup>89</sup> Prieger, J.E. (2013). The broadband digital divide and the economic benefits of mobile broadband for rural areas. *Telecommunications Policy*, *37*(6-7), 483-502.
- <sup>90</sup> Sallet, J. (2017). *Better together: Broadband deployment and broadband competition*. Retrieved from <a href="https://www.brookings.edu/blog/techtank/2017/03/15/better-together-broadband-deployment-and-broadband-competition/">https://www.brookings.edu/blog/techtank/2017/03/15/better-together-broadband-deployment-and-broadband-competition/</a>
- <sup>91</sup> Federal Communications Commission. (2015). 2015 BROADBAND PROGRESS REPORT AND NOTICE OF INQUIRY ON IMMEDIATE ACTION TO ACCELERATE DEPLOYMENT. Federal Communications Commission. Retrieved from <a href="https://apps.fcc.gov/edocs-public/attachmatch/DOC-342358A1.pdf">https://apps.fcc.gov/edocs-public/attachmatch/DOC-342358A1.pdf</a>

96 Ibid.

<sup>97</sup> Ibid.

98 Ibid.

- <sup>102</sup> Ready, D.D. (2010). Socioeconomic disadvantage, school attendance, and early cognitive development: The differential effects of school exposure. *Sociology of Education*, *83*(4), 271-286.
- <sup>103</sup> Robert Wood Johnson Foundation. (2016, September). *The relationship between school attendance and health.* Retrieved from <a href="https://www.rwjf.org/en/library/research/2016/09/the-relationship-between-school-attendance-and-health.html">https://www.rwjf.org/en/library/research/2016/09/the-relationship-between-school-attendance-and-health.html</a>
- <sup>104</sup> Lesnick, J., Goerge, R., Smithgall, C., & Gwynne, J. (2010). *Reading on grade level in third grade: How is it related to high school performance and college enrollment?* Chicago, IL: Chapin Hall at the University of Chicago. Retrieved from <a href="https://www.chapinhall.org/sites/default/files/Reading">https://www.chapinhall.org/sites/default/files/Reading</a> on Grade Level 111710.pdf

105 Ibid.

<sup>&</sup>lt;sup>92</sup> Jorgensen, M., Morris, T., & Feller, S. (2014). *Digital Inclusion in Native Communities: The Role of Tribal Libraries*. Oklahoma City, OK: Association of Tribal Archives, Libraries, and Museums.

<sup>&</sup>lt;sup>93</sup> Morris, T., & Meinrath, S. (2009). *New Media, Technology, and Internet Use in Indian Country: A Quantitative and Qualitative Analysis*. Washington, DC: New America Foundation.

<sup>&</sup>lt;sup>94</sup> For more information about AHCCCS eligibility visit https://www.azahcccs.gov/Members/Downloads/EligibilityRequirements.pdf

<sup>&</sup>lt;sup>95</sup> First Things First. (2018). *Navajo Nation Regional Partnership Council 2018 Needs and Assets Report*. Retrieved from <a href="https://files.firstthingsfirst.org/regions/Publications/Regional%20Needs%20and%20Assets%20Report%20%202018%20-%20Navajo%20Nation.pdf">https://files.firstthingsfirst.org/regions/Publications/Regional%20Needs%20and%20Assets%20Report%20%202018%20-%20Navajo%20Nation.pdf</a>

<sup>&</sup>lt;sup>99</sup> Healthy People 2020. (n.d.). *Social determinants*. Washington, DC: U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Retrieved from <a href="https://www.healthypeople.gov/2020/leading-health-indicators/2020-lhi-topics/Social-Determinants">https://www.healthypeople.gov/2020/leading-health-indicators/2020-lhi-topics/Social-Determinants</a>

<sup>&</sup>lt;sup>100</sup> Robert Wood Johnson Foundation. (2016, September). *The relationship between school attendance and health.* Retrieved from <a href="https://www.rwjf.org/en/library/research/2016/09/the-relationship-between-school-attendance-and-health.html">https://www.rwjf.org/en/library/research/2016/09/the-relationship-between-school-attendance-and-health.html</a>

<sup>&</sup>lt;sup>101</sup> Dahlin, M., & Squires, J. (2016). *Pre-K attendance: Why it's important and how to support it*. Center on Enhancing Early Learning Outcomes. Retrieved from <a href="http://nieer.org/wp-content/uploads/2016/09/ceelo">http://nieer.org/wp-content/uploads/2016/09/ceelo</a> fastfact state ece attendance 2016 02 01 final for web.pdf

<sup>&</sup>lt;sup>106</sup> Hernandez, D. (2011). Double jeopardy: *How third-grade reading skills and poverty influence high school graduation*. New York, NY: The Annie E. Casey Foundation. Retrieved from <a href="http://files.eric.ed.gov/fulltext/ED518818.pdf">http://files.eric.ed.gov/fulltext/ED518818.pdf</a>

<sup>&</sup>lt;sup>107</sup> Arizona Department of Education. (n.d.). *Assessment: AzMERIT*. Retrieved from http://www.azed.gov/assessment/azmerit/

<sup>&</sup>lt;sup>108</sup> For more information on Move on When Reading, visit <a href="http://www.azed.gov/mowr/">http://www.azed.gov/mowr/</a>

- <sup>109</sup> National Research Council. 2012. *Key National Education Indicators: Workshop Summary*. Washington, DC: The National Academies Press. <a href="https://doi.org/10.17226/13453">https://doi.org/10.17226/13453</a>.
- <sup>110</sup> Healthy People 2020. (n.d.). *Adolescent health*. Washington, DC: U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Retrieved from <a href="https://www.healthypeople.gov/2020/topics-objectives/topic/Adolescent-Health">https://www.healthypeople.gov/2020/topics-objectives/topic/Adolescent-Health</a>
- <sup>111</sup> Child Trends Data Bank. (2015). *Parental education: Indicators on children and youth.* Retrieved from <a href="http://www.childtrends.org/wp-content/uploads/2012/04/67-Parental\_Education.pdf">http://www.childtrends.org/wp-content/uploads/2012/04/67-Parental\_Education.pdf</a>
- <sup>112</sup> First Things First. (2018). *Navajo Nation Regional Partnership Council 2018 Needs and Assets Report*. Retrieved from <a href="https://files.firstthingsfirst.org/regions/Publications/Regional%20Needs%20and%20Assets%20Report%20-%202018%20-%20Navajo%20Nation.pdf">https://files.firstthingsfirst.org/regions/Publications/Regional%20Needs%20and%20Assets%20Report%20-%202018%20-%20Navajo%20Nation.pdf</a>
- <sup>113</sup> Center on the Developing Child at Harvard University. (2010). *The foundations of lifelong health are built in early childhood*. Retrieved from <a href="http://developingchild.harvard.edu/wp-content/uploads/2010/05/Foundations-of-Lifelong-Health.pdf">http://developingchild.harvard.edu/wp-content/uploads/2010/05/Foundations-of-Lifelong-Health.pdf</a>
- <sup>114</sup> Kuhl, P.K. (2011). Early language learning and literacy: Neuroscience implications for education. *Mind, Brain, and Education*, *5*(3), 128-142.
- <sup>115</sup> Fernald, A., Marchman, V., & Weisleder, A. (2013). SES differences in language processing skill and vocabulary are evident at 18 months. *Developmental Science*, *16*(2), 234-248. Retrieved from: <a href="http://onlinelibrary.wiley.com/doi/10.1111/desc.12019/pdf">http://onlinelibrary.wiley.com/doi/10.1111/desc.12019/pdf</a>
- <sup>116</sup> Lee., V., & Burkam, D. (2002). *Inequality at the Starting Gate: Social background Differences in Achievement as Children Begin School*. Washington, DC: Economic Policy Institute.
- <sup>117</sup> Malik, R., Hamm, K., Adamu, M., & Morrissey, T. (2016). *Child care deserts: An analysis of child care centers by ZIP code in 8 states*. Center for American Progress. Retrieved from <a href="https://www.americanprogress.org/issues/early-childhood/reports/2016/10/27/225703/child-care-deserts/">https://www.americanprogress.org/issues/early-childhood/reports/2016/10/27/225703/child-care-deserts/</a>
- <sup>118</sup> Tanoue, K.H., DeBlois, M., Daws, J., & Walsh, M. (2017). *Child Care and Early Education Accessibility in Tucson (White Paper No. 5)*. Retrievable from Making Action Possible in Southern Arizona (MAP Dashboard) website: <a href="https://mapazdashboard.arizona.edu/article/child-care-and-early-education-accessibility-tucson">https://mapazdashboard.arizona.edu/article/child-care-and-early-education-accessibility-tucson</a>
- <sup>119</sup> Child Care Aware® of America. (2018). *Mapping the gap: Exploring the child care supply & demand in Arizona*. Arlington, VA: Child Care Aware of America. Retrieved from <a href="http://usa.childcareaware.org/wp-content/uploads/2017/10/Arizona-Infant-Toddler-Brief1.pdf">http://usa.childcareaware.org/wp-content/uploads/2017/10/Arizona-Infant-Toddler-Brief1.pdf</a>
- 120 Ibid.
- <sup>121</sup> U.S. Department of Education. (2015). *A matter of equity: Preschool in America*. Retrieved from https://www2.ed.gov/documents/early-learning/matter-equity-preschool-america.pdf
- <sup>122</sup> Child Care Aware® of America. (2017). *The US and the High Cost of Child Care: Arizona*. Arlington, VA: Child Care Aware of America. Retrieved from <a href="https://usa.childcareaware.org/advocacy-public-policy/resources/research/costofcare/">https://usa.childcareaware.org/advocacy-public-policy/resources/research/costofcare/</a>
- <sup>123</sup> Child Care Aware® of America. (2018). *Arizona Cost of Child Care*. Retrieved from <a href="https://usa.childcareaware.org/wp-content/uploads/2018/10/Arizona2018.pdf">https://usa.childcareaware.org/wp-content/uploads/2018/10/Arizona2018.pdf</a>

- <sup>124</sup> For more information on child care subsidies see https://www.azdes.gov/child care/
- <sup>125</sup> Arizona Department of Economic Security. (n.d.) *Child Care Waiting List*. Retrieved on 7/28/19 from https://des.az.gov/services/child-and-family/child-care/child-care-waiting-list
- <sup>126</sup> Machelor, P. (2019, June 17). Arizona suspends child-care waiting list, increases provider reimbursements. *Arizona Daily Star.* Retrieved from <a href="https://tucson.com/news/local/arizona-suspends-child-care-waiting-list-increases-provider-reimbursements/article">https://tucson.com/news/local/arizona-suspends-child-care-waiting-list-increases-provider-reimbursements/article</a> a91a641f-5817-5e0d-a8c5-caaf530551ce.html
- <sup>127</sup> NICHD Early Child Care Research Network. (2002). Early child care and children's development prior to school entry: Results from the NICHD study of early child care. *American Educational Research Journal*, *39*(1), 133–164. Retrieved from <a href="http://www.jstor.org/stable/3202474">http://www.jstor.org/stable/3202474</a>
- <sup>128</sup> Yoshikawa, H., Weiland, C., Brooks-Gunn, J., Burchinal, M., Espinosa, L., Gormley, W., ... Zaslow, M. (2013). *Investing in our future: The evidence base on preschool education*. Ann Arbor, MI: Society for Research in Child Development. Retrieved from <a href="https://www.fcd-us.org/assets/2013/10/Evidence20Base20on20Preschool20Education20FINAL.pdf">https://www.fcd-us.org/assets/2013/10/Evidence20Base20on20Preschool20Education20FINAL.pdf</a>
- <sup>129</sup> U.S. Department of Education. (2015). *A matter of equity: Preschool in America*. Retrieved from https://www2.ed.gov/documents/early-learning/matter-equity-preschool-america.pdf
- <sup>130</sup> The Annie E. Casey Foundation. (2013). *The first eight years: Giving kids a foundation for lifetime success.* Retrieved from <a href="http://www.aecf.org/m/resourcedoc/AECF-TheFirstEightYearsKCpolicyreport-2013.pdf">http://www.aecf.org/m/resourcedoc/AECF-TheFirstEightYearsKCpolicyreport-2013.pdf</a>
- <sup>131</sup> White House Council of Economic Advisors. (2014). *The economics of early childhood investments*. Retrieved from <a href="https://obamawhitehouse.archives.gov/sites/default/files/docs/early-childhood-report update-final-non-embargo.pdf">https://obamawhitehouse.archives.gov/sites/default/files/docs/early-childhood-report update-final-non-embargo.pdf</a>
- <sup>132</sup> Campbell, F., Conti, G., Heckman, J., Moon, S., Pinto, R., Pungello, L., & Pan, Y. (2014). Abecedarian & health: Improve adult health outcomes with quality early childhood programs that include health and nutrition. University of Chicago: The Heckman Equation. Retrieved from <a href="http://heckmanequation.org/content/resource/research-summary-abecedarian-health">http://heckmanequation.org/content/resource/research-summary-abecedarian-health</a>
- <sup>133</sup> Montes, G., & Halterman, J.S. (2011). The impact of child care problems on employment: Findings from a national survey of US parents. *Academic Pediatrics*, *11*(1):80-87.
- <sup>134</sup> Fleming, C., Moorea, L., Sarchea, M., Charles, T., McNicholas, D., Rackliff, S., Redbird-Post, M., & Sprague, M. (2016). *Tribal Grantee Plans from the 2014-2015 Child Care Development Fund*. A Report by The Child Care Community of Learning. Tribal Early Childhood Research. Centers for American Indian and Alaska Native Health. Colorado School of Public Health. Retrieved from
- http://www.ucdenver.edu/academics/colleges/PublicHealth/research/centers/CAIANH/trc/trcresearch/communitiesoflearning/tribalchildcaredevelopmentfundplanreportcol/Documents/An%20analysis%20of%20data%20from%20Tribal%20CCDF%20Grantee%20Plans.V2.pdf
- <sup>135</sup> National Research Council. (2012). *Key National Education Indicators: Workshop Summary*. Steering Committee on Workshop on Key National Education Indicators, A. Beatty and J.A. Koenig, Rapporteurs. Board on Testing and Assessment and Committee on National Statistics, Division of Behavioral and Social Sciences and Education. Washington, DC: The National Academies Press.

- <sup>136</sup> More information about Arizona's quality educational environments can be found in the DES CCDF State Plan FY2019-FY2021, available at <a href="https://des.az.gov/documents-center">https://des.az.gov/documents-center</a>
- <sup>137</sup> Wechsler, M., Melnick, H., Maier, A., & Bishop, J. (2016). *The Building Blocks of High-Quality Early Childhood Education Programs (policy brief)*. Palo Alto, CA: Learning Policy Institute.
- <sup>138</sup> Gilliam, W.S., Maupin, A.N., & Reyes, C.R. (2016). Early childhood mental health consultation: Results of a statewide random-controlled evaluation. *Journal of the American Academy of Child & Adolescent Psychiatry*, *55*(9), 754-761.
- 139 U.S. Department of Health and Human Services, Administration for Children and Families, Office of Head Start. (n.d.). *Understanding and eliminating expulsion in early childhood programs*. Retrieved from <a href="https://eclkc.ohs.acf.hhs.gov/publication/understanding-eliminating-expulsion-early-childhood-programs">https://eclkc.ohs.acf.hhs.gov/publication/understanding-eliminating-expulsion-early-childhood-programs</a>
- <sup>140</sup> Donoghue, E. (2017). Quality early education and child care from birth to kindergarten. *Pediatrics*, 140(2).
- <sup>141</sup> Epstein, D., Hegseth, D., Friese, S., Miranda, B., Gebhart, T., Partika, A., & Tout, K. (2018). *Quality First: Arizona's early learning quality improvement and rating system implementation and validation study.* Retrieved from <a href="https://www.firstthingsfirst.org/wp-content/uploads/2018/02/AZ\_QF\_Exec-Summary.pdf">https://www.firstthingsfirst.org/wp-content/uploads/2018/02/AZ\_QF\_Exec-Summary.pdf</a>
- 142 Ibid
- <sup>143</sup> Arizona Early Childhood Development and Health Board (First Things First). (2018). *2018 Annual Report*. Phoenix, AZ: First Things First. Retrieved from <a href="http://www.azftf.gov/WhoWeAre/Board/Documents/FY2016">http://www.azftf.gov/WhoWeAre/Board/Documents/FY2016</a> Annual Report.pdf
- <sup>144</sup> Gilliam, W.S., Maupin, A.N., & Reyes, C.R. (2016). Early childhood mental health consultation: Results of a statewide random-controlled evaluation. *Journal of the American Academy of Child & Adolescent Psychiatry*, *55*(9), 754-761.
- 145 U.S. Department of Health and Human Services, Administration for Children and Families, Office of Head Start. (n.d.). *Understanding and eliminating expulsion in early childhood programs*. Retrieved from <a href="https://eclkc.ohs.acf.hhs.gov/publication/understanding-eliminating-expulsion-early-childhood-programs">https://eclkc.ohs.acf.hhs.gov/publication/understanding-eliminating-expulsion-early-childhood-programs</a>
   146 Ibid.
- <sup>147</sup> U.S. Department of Education Office for Civil Rights. (2014). *Data Snapshot: Early Childhood Education*. Retrieved from <a href="https://www2.ed.gov/about/offices/list/ocr/docs/crdc-early-learning-snapshot.pdf">https://www2.ed.gov/about/offices/list/ocr/docs/crdc-early-learning-snapshot.pdf</a>
- <sup>148</sup> Malik, R. (2017, November 6). *New Data Reveal 250 Preschoolers Are Suspended or Expelled Every Day*. Center for American Progress. Retrieved from <a href="https://www.americanprogress.org/issues/early-childhood/news/2017/11/06/442280/new-data-reveal-250-preschoolers-suspended-expelled-every-day/">https://www.americanprogress.org/issues/early-childhood/news/2017/11/06/442280/new-data-reveal-250-preschoolers-suspended-expelled-every-day/</a>
- <sup>149</sup> U.S. Department of Education Office for Civil Rights. (2014). *CIVIL RIGHTS DATA COLLECTION Data Snapshot: Early Childhood Education*. Retrieved from <a href="https://www2.ed.gov/about/offices/list/ocr/docs/crdc-early-learning-snapshot.pdf">https://www2.ed.gov/about/offices/list/ocr/docs/crdc-early-learning-snapshot.pdf</a>
- <sup>150</sup> U.S. Department of Health and Human Services and Education (2015). *Policy statement on expulsion and suspension policies in early childhood settings.*
- <sup>151</sup> Lamont, J.H., Devore, C.D., Allison, M., Ancona, R., Barnett, S.E., Gunther, R., ... Young, T. (2013). Out-of-school suspension and expulsion. *Pediatrics*, *131*(3), e1000-e1007.

- <sup>152</sup> Arizona Department of Economic Security (2019). 2016-2018 Child Care Assistance Data. Unpublished data received by request.
- <sup>153</sup> U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau. (2013). *The national survey of children with special health care needs: Chartbook 2009-2010.* Rockville, MD: U.S. Department of Health and Human Services. Retrieved from <a href="https://mchb.hrsa.gov/cshcn0910/more/pdf/nscshcn0910.pdf">https://mchb.hrsa.gov/cshcn0910/more/pdf/nscshcn0910.pdf</a>

154 Ibid.

- <sup>155</sup> Austin, A., Herrick, H., Proescholdbell, S., & Simmons, J. (2016). Disability and exposure to high levels of adverse childhood experiences: Effect on health and risk behavior. *North Carolina Medical Journal*, 77(1), 30-36. doi: <a href="https://www.ncmedicaljournal.com/content/77/1/30.full.pdf+html">http://www.ncmedicaljournal.com/content/77/1/30.full.pdf+html</a>
- <sup>156</sup> Kistin, C., Tompson, M., Cabral, H., Sege, R., Winter, M., & Silverstein, M. (2016). Subsequent maltreatment in children with disabilities after an unsubstantiated report for neglect. *JAMA 2016*, *315*(1), 85-87. doi: 10.1001/jama.2015.12912.
- <sup>157</sup> Mortenson, J.A. & Barnett, M.A. (2016). The role of child care in supporting the emotion regulatory needs of maltreated infants and toddlers. *Children and Youth Services Review, 64,* 73-81.
- <sup>158</sup> Dinehart, L.H., Manfra, L., Katz, L.F., & Hartman, S.C. (2012). Associations between center-based care accreditation status and the early educational outcomes of children in the child welfare system. *Children and Youth Services Review, 34*, 1072-1080.
- <sup>159</sup> McFarland, J., Hussar, B., Zhang, J., Wang, X., Wang, K., Hein, S., Diliberti, M., Forrest Cataldi, E., Bullock Mann, F., and Barmer, A. (2019). *The Condition of Education 2019* (NCES 2019-144). U.S. Department of Education. Washington, DC: National Center for Education Statistics. Retrieved from <a href="https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2019144">https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2019144</a>
- <sup>160</sup> Arizona Department of Health Sciences. (2015). *Arizona Maternal Child Health Needs Assessment*. Retrieved from <a href="http://azdhs.gov/documents/prevention/womens-childrens-health/reports-fact-sheets/title-v/needs-assessment2015.pdf">http://azdhs.gov/documents/prevention/womens-childrens-health/reports-fact-sheets/title-v/needs-assessment2015.pdf</a>
- <sup>161</sup> The National Early Childhood Technical Assistance Center. (2011). *The importance of early intervention for infants and toddlers with disabilities and their families*. Office of Special Education Programs and U.S. Department of Education. Retrieved from <a href="http://www.nectac.org/~pdfs/pubs/importanceofearlyintervention.pdf">http://www.nectac.org/~pdfs/pubs/importanceofearlyintervention.pdf</a>
- <sup>162</sup> Hebbeler, K., Spiker, D., Bailey, D., Scarborough, A., Mallik, S., Simeonsson, ... Nelson, L. (2007). *Early intervention for infants and toddlers with disabilities and their families: Participants, services, and outcomes.* Menlo Park, CA: SRI International. Retrieved from

https://www.sri.com/sites/default/files/publications/neils finalreport 200702.pdf

- <sup>163</sup> Diefendorf, M., & Goode, S. (2005). *The long term economic benefits of high quality early childhood intervention programs*. Chapel Hill, NC: National Early Childhood Technical Assistance Center (NECTAC), and Early Intervention & Early Childhood Special Education. Retrieved from <a href="http://ectacenter.org/~pdfs/pubs/econbene.pdf">http://ectacenter.org/~pdfs/pubs/econbene.pdf</a>
- <sup>164</sup> For more information on AzEIP, visit <a href="https://www.azdes.gov/azeip/">https://www.azdes.gov/azeip/</a>

- <sup>165</sup> For more information on ADE's Early Childhood Special Education program, visit <a href="http://www.azed.gov/ece/early-childhood-special-education/">http://www.azed.gov/ece/early-childhood-special-education/</a> and <a href="http://www.azed.gov/special-education/az-find/">http://www.azed.gov/special-education/az-find/</a>
- <sup>166</sup> For more information on DDD, visit https://www.azdes.gov/developmental\_disabilities/
- <sup>167</sup> First Things First. (2018). *Navajo Nation Regional Partnership Council 2018 Needs and Assets Report*. Retrieved from <a href="https://files.firstthingsfirst.org/regions/Publications/Regional%20Needs%20and%20Assets%20Report%20-%202018%20-%20Navajo%20Nation.pdf">https://files.firstthingsfirst.org/regions/Publications/Regional%20Needs%20and%20Assets%20Report%20-%202018%20-%20Navajo%20Nation.pdf</a>
- <sup>168</sup> Ibid.
- 169 Ibid.
- 170 Ibid.
- 171 Ibid.
- 172 Ibid.
- <sup>173</sup> Center on the Developing Child at Harvard University. (2010). The foundations of lifelong health are built in early childhood. Retrieved from <a href="http://developingchild.harvard.edu/wp-content/uploads/2010/05/Foundations-of-Lifelong-Health.pdf">http://developingchild.harvard.edu/wp-content/uploads/2010/05/Foundations-of-Lifelong-Health.pdf</a>
- <sup>174</sup> The Future of Children. (2015). Policies to promote child health. *Policies to Promote Child Health, 25*(1), Spring 2015. Woodrow Wilson School of Public and International Affairs at the Princeton University and the Brookings Institution. Retrieved from <a href="http://futureofchildren.org/publications/docs/FOC-spring-2015.pdf">http://futureofchildren.org/publications/docs/FOC-spring-2015.pdf</a>
- <sup>175</sup> Center on the Developing Child at Harvard University. (2010). *The foundations of lifelong health are built in early childhood.* Retrieved from <a href="http://developingchild.harvard.edu/wp-content/uploads/2010/05/Foundations-of-Lifelong-Health.pdf">http://developingchild.harvard.edu/wp-content/uploads/2010/05/Foundations-of-Lifelong-Health.pdf</a>
- <sup>176</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 <a href="http://mchb.hrsa.gov/programs/womeninfants/prenatal.html">http://mchb.hrsa.gov/programs/womeninfants/prenatal.html</a>
- <sup>177</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>178</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*, *118*(1), 405-420. Doi: <a href="https://pediatrics.aappublications.org/content/118/1/405.full">10.1542/peds.2006-1231</a>. Retrieved from <a href="https://pediatrics.aappublications.org/content/118/1/405.full">https://pediatrics.aappublications.org/content/118/1/405.full</a>
- <sup>179</sup> As a result of the Indian Self-Determination and Education Assistance Act (PL-93-638) (ISDEAA), federally recognized tribes have the option to receive the funds that the Indian Health Service (IHS) would have used to provide health care services to their members. The tribes can then utilize these funds to directly provide services to tribal members. This process is often known as 638 contracts or compacts. Rainie, S., Jorgensen, M., Cornell, S., & Arsenault, J. (2015). The Changing Landscape of Health Care Provision to American Indian Nations. *American Indian Culture and Research Journal*, *39*(1), 1-24.

- <sup>180</sup> Zuckerman, S., Haley, J., Roubideaux, Y., & Lillie-Blanton, M. (2004). Health Service Access, Use, and Insurance coverage Among American Indians/Alaska Natives and Whites: What Role does the Indian Health Service Play? *American Journal of Public Health*, *94*(1), 53-59.
- <sup>181</sup> Centers for Disease Control and Prevention. (2006). Recommendations to improve preconception health and health care—United States: A report of the CDC/ATSDR Preconception Care Work Group and the Select Panel on Preconception Care. United States. *Morbidity and Mortality Weekly Report, 55*(RR-06):1-23
- <sup>182</sup> U.S. Department of Health and Human Service. (2017). *What is prenatal care and why is it important?* Retrieved from https://www.nichd.nih.gov/health/topics/pregnancy/conditioninfo/prenatal-care
- <sup>183</sup> Yeung, L., Coates, R., Seeff, L., Monroe, J., Lu, M., & Boyle, C. (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 <a href="http://www.cdc.gov/mmwr/pdf/other/su6302.pdf">http://www.cdc.gov/mmwr/pdf/other/su6302.pdf</a>
- 184 Ibid.
- <sup>185</sup> The Henry J. Kaiser Family Foundation (2016). *Key facts about the uninsured population*. The Kaiser Commission on Medicaid and the Uninsured. Retrieved from <a href="http://kff.org/uninsured/fact-sheet/key-facts-about-the-uninsured-population/">http://kff.org/uninsured/fact-sheet/key-facts-about-the-uninsured-population/</a>
- <sup>186</sup> Child Trends Databank. (2016). Health care coverage: Indicators on children and youth. *Health Care Coverage*, 2016. Retrieved from <a href="http://www.childtrends.org/wp-content/uploads/2016/05/26">http://www.childtrends.org/wp-content/uploads/2016/05/26</a> Health Care Coverage.pdf
- <sup>187</sup> Zuckerman, S., Haley, J., Roubideaux, Y., & Lillie-Blanton, M. (2004). Health Service Access, Use, and Insurance coverage Among American Indians/Alaska Natives and Whites: What Role does the Indian Health Service Play? *American Journal of Public Health*, *94*(1), 53-59.
- <sup>188</sup> For more information about IHS visit <a href="https://www.ihs.gov/aca/index.cfm/thingstoknow/">https://www.ihs.gov/aca/index.cfm/thingstoknow/</a>
- <sup>189</sup> First Things First. (2018). *Navajo Nation Regional Partnership Council 2018 Needs and Assets Report*. Retrieved from <a href="https://files.firstthingsfirst.org/regions/Publications/Regional%20Needs%20and%20Assets%20Report%20-%202018%20-%20Navajo%20Nation.pdf">https://files.firstthingsfirst.org/regions/Publications/Regional%20Needs%20and%20Assets%20Report%20-%202018%20-%20Navajo%20Nation.pdf</a>
- <sup>190</sup> Hoffman, S.D., & Maynard, R.A. (Eds.). (2008). *Kids having kids: Economic costs and social consequences of teen pregnancy (2nd ed.).* Washington, DC: Urban Institute Press.
- <sup>191</sup> Centers for Disease control and Prevention. (n.d.). *Teen Pregnancy. About Teen Pregnancy*. Retrieved from <a href="http://www.cdc.gov/teenpregnancy/aboutteenpreg.htm">http://www.cdc.gov/teenpregnancy/aboutteenpreg.htm</a>
- <sup>192</sup> Diaz, C., & Fiel, J. (2016). The effect(s) of teen pregnancy: Reconciling theory, methods, and findings. *Demography, 53*(1), 85-116. doi: <a href="http://link.springer.com/article/10.1007/s13524-015-0446-6">10.1007/s13524-015-0446-6</a>. Retrieved from <a href="http://link.springer.com/article/10.1007/s13524-015-0446-6">http://link.springer.com/article/10.1007/s13524-015-0446-6</a>.
- <sup>193</sup> Youth.gov. (2016). *Pregnancy prevention: Adverse effects*. Retrieved from <a href="http://youth.gov/youth-topics/teen-pregnancy-prevention/adverse-effects-teen-pregnancy">http://youth.gov/youth-topics/teen-pregnancy-prevention/adverse-effects-teen-pregnancy</a>
- <sup>194</sup> Declercq, E., MacDorman, M., Cabral, H., & Stotland, N. (2016). Prepregnancy body mass index and infant mortality in 38 U.S. States, 2012-2013. *Obstetrics and Gynecology, 127*(2), 279-287. doi:
  10.1097/AOG.000000000001241. Retrieved from <a href="https://www.ncbi.nlm.nih.gov/pubmed/26942355">https://www.ncbi.nlm.nih.gov/pubmed/26942355</a>

- <sup>195</sup> Tyrrell, J., Richmond, R., Palmer, T., Feenstra, B., Rangarajan, J., Metrustry, S., ... Freathy, R. (2016). Genetic evidence for causal relationships between maternal obesity-related traits and birth weight. *JAMA 2016, 315*(11), 1129-1140. doi:10.1001/jama.2016.1975. Retrieved from http://jamanetwork.com/journals/jama/fullarticle/2503173
- <sup>196</sup> Mayo Clinic. (n.d.). In-depth: How could obesity affect my baby? *Healthy Lifestyle*, Pregnancy week by week. Retrieved from <a href="http://www.mayoclinic.org/healthy-lifestyle/pregnancy-week-by-week/in-depth/pregnancy-and-obesity/art-20044409?pg=2">http://www.mayoclinic.org/healthy-lifestyle/pregnancy-week-by-week/in-depth/pregnancy-and-obesity/art-20044409?pg=2</a>
- <sup>197</sup> Arizona Department of Health Sciences. (2015). *Arizona Maternal Child Health Needs Assessment*. Retrieved from <a href="http://azdhs.gov/documents/prevention/womens-childrens-health/reports-fact-sheets/title-v/needs-assessment2015.pdf">http://azdhs.gov/documents/prevention/womens-childrens-health/reports-fact-sheets/title-v/needs-assessment2015.pdf</a>
- <sup>198</sup> Healthy People 2020. (n.d.). *Maternal, infant, and child health: Life stages & determinants*. U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Retrieved from <a href="https://www.healthypeople.gov/2020/leading-health-indicators/2020-lhi-topics/Maternal-Infant-and-Child-Health/determinants">https://www.healthypeople.gov/2020/leading-health-indicators/2020-lhi-topics/Maternal-Infant-and-Child-Health/determinants</a>
- 199 Center for Disease Control and Prevention. (2018). *Maternal and infant health: Pregnancy complications*. Retrieved from <a href="https://www.cdc.gov/reproductivehealth/maternalinfanthealth/pregnancy-complications.html?CDC">https://www.cdc.gov/reproductivehealth/maternalinfanthealth/pregnancy-complications.html?CDC</a> AA refVal=https%3A%2F%2Fwww.cdc.gov%2Freproductivehealth%2Fmaternalinfanthealth%2Fpregcomplications.htm
- <sup>200</sup> Centers for Disease Control and Prevention. (2006). Recommendations to improve preconception health and health care—United States: A report of the CDC/ATSDR Preconception Care Work Group and the Select Panel on Preconception Care. *Morbidity and Mortality Weekly Report, 55*(RR-06):1-23.
- <sup>201</sup> U.S. Department of Health and Human Service. (2010). *A Report of the Surgeon General: How Tobacco Smoke Causes Disease: What It Means to You*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. Retrieved from <a href="https://www.ncbi.nlm.nih.gov/books/NBK53017/">https://www.ncbi.nlm.nih.gov/books/NBK53017/</a>
- <sup>202</sup> Anderson, T.M., Lavista Ferres, J.M., You Ren, S., Moon, R.Y., Goldstein, R.D., Ramirez, J., Mitchell, E.A. (2019). Maternal smoking before and during pregnancy and the risk of sudden unexpected infant death. *Pediatrics*, 143(4). PMID: 30848347
- <sup>203</sup> Arizona Department of Health Services. (2015). *Arizona Maternal Child Health Needs Assessment*. Retrieved from <a href="http://azdhs.gov/documents/prevention/womens-childrens-health/reports-fact-sheets/title-v/needs-assessment2015.pdf">http://azdhs.gov/documents/prevention/womens-childrens-health/reports-fact-sheets/title-v/needs-assessment2015.pdf</a>
- <sup>204</sup> Gunn, J., Rosales, C., Center, K., Nunez, A., Gibson, S., Christ, C., & Ehiri, J. (2016). Prenatal exposure to cannabis and maternal and child health outcomes: A systematic review and meta-analysis. *BMJ Open*, 6(4). PMID: 27048634.
- <sup>205</sup> Child and Adolescent Health Measurement Initiative (2018). *National Survey of Children's Health 2016-2017*. Data Resource Center for Child and Adolescent Health supported by the U.S. Department of Health and Human Services, Health Resources and Services Administration (HRSA), Maternal and Child Health Bureau (MCHB). Retrieved on 08 July 2019 from <a href="https://www.childhealthdata.org">www.childhealthdata.org</a>

- <sup>206</sup> Young, N.K., Boles, S.M., & Otero, C. (2007). Parental Substance Use Disorders and child maltreatment: overlap, gaps, and opportunities. *Child Maltreatment*, 12(2): 137-149.
- <sup>207</sup> Smith, V. & Wilson. R. (2016). Families affected by parental substance use. *Pediatrics*, 138(2). PMID: 27432847 <sup>208</sup> Ibid.
- <sup>209</sup> Lechner, A., Cavanaugh, M., & Blyler, C. (2016). *Addressing Trauma in American Indian and Alaska Native Youth.*Report. (24 August 2016). Mathematica Policy Research. Retrieved from https://aspe.hhs.gov/pdfreport/addressing-trauma-american-indian-and-alaska-native-youth
- <sup>210</sup> Arizona Department of Health Sciences. (2015). *Arizona Maternal Child Health Needs Assessment*. Retrieved from <a href="http://azdhs.gov/documents/prevention/womens-childrens-health/reports-fact-sheets/title-v/needs-assessment2015.pdf">http://azdhs.gov/documents/prevention/womens-childrens-health/reports-fact-sheets/title-v/needs-assessment2015.pdf</a>
- <sup>211</sup> Eidelman, A., Schanler, R., Johnston, M., Landers, S., Noble, L., Szucs, K., & Viehmann, L. (2012). Breastfeeding and the use of human milk. *Pediatrics*, *129*(*3*), e827-e841.
- <sup>212</sup> W.K. Kellogg Foundation. [n.d.] *Reclaiming Breastfeeding in Indian Country*. Retrieved from <a href="https://www.wkkf.org/what-we-do/featured-work/bringing-breastfeeding-back-to-indian-country">https://www.wkkf.org/what-we-do/featured-work/bringing-breastfeeding-back-to-indian-country</a>
- <sup>213</sup> Fryar, C., Carroll, M., & Ogden, C. (2018). *Prevalence of underweight among children and adolescents aged 2-19 years: United States, 1963-1965 through 2015-2016.* National Center for Health Statistics: Health E-Stats. Retrieved from https://www.cdc.gov/nchs/data/hestat/underweight child 15 16/underweight child 15 16.pdf
- <sup>214</sup> Fryar, C., Carroll, M., & Ogden, C. (2018). *Prevalence of Overweight, Obesity, and Severe Obesity Among Children and Adolescents Aged 2-19 Years: United States, 1963-1965 Through 2015-2016.* National Center for Health Statistics: Health E-Stats. Retrieved from

https://www.cdc.gov/nchs/data/hestat/obesity child 15 16/obesity child 15 16.pdf

- <sup>215</sup> Chaput, J.P., & Tremblay, A. (2012). *Obesity at an early age and its impact on child development*. Child Obesity: Encyclopedia on Early Childhood Development. Retrieved from <a href="http://www.child-encyclopedia.com/sites/default/files/textes-experts/en/789/obesity-at-an-early-age-and-its-impact-on-child-development.pdf">http://www.child-encyclopedia.com/sites/default/files/textes-experts/en/789/obesity-at-an-early-age-and-its-impact-on-child-development.pdf</a>
- <sup>216</sup> Robert Wood Johnson Foundation. (2016). The impact of the first 1,000 days on childhood obesity. *Healthy Eating Research: Building evidence to prevent childhood obesity*. Retrieved from <a href="http://healthyeatingresearch.org/wp-content/uploads/2016/03/her\_1000\_days\_final-1.pdf">http://healthyeatingresearch.org/wp-content/uploads/2016/03/her\_1000\_days\_final-1.pdf</a>
- <sup>217</sup> Center on the Developing Child at Harvard University. (2010). *The foundations of lifelong health are built in early childhood.* Retrieved from <a href="http://developingchild.harvard.edu/wp-content/uploads/2010/05/Foundations-of-Lifelong-Health.pdf">http://developingchild.harvard.edu/wp-content/uploads/2010/05/Foundations-of-Lifelong-Health.pdf</a>
- <sup>218</sup> Çolak, H., Dülgergil, Ç.T., Dalli, M., & Hamidi, M.M. (2013). Early childhood caries update: A review of causes, diagnoses, and treatments. *Journal of Natural Science, Biology, and Medicine, 4*(1), 29-38. http://doi.org/10.4103/0976-9668.107257
- <sup>219</sup> Gupta, N., Vujicic, M., Yarbrough, C., & Harrison, B. (2018). Disparities in untreated caries among children and adults in the US, 2011-2014. *BMC Oral Health*, *18*(1), 30.
- <sup>220</sup> First Things First. (2020). *Arizona State Needs and Assets Report*.

- <sup>221</sup> First Things First. (2016). *TAKING A BITE OUT OF SCHOOL ABSENCES Children's Oral Health Report 2016.* First Things First. Retrieved from <a href="http://azftf.gov/WhoWeAre/Board/Documents/FTF">http://azftf.gov/WhoWeAre/Board/Documents/FTF</a> Oral Health Report 2016.pdf
- <sup>222</sup> Arizona Department of Health Services. (2015). *Healthy Smiles Healthy Bodies Survey 2015. The Oral Health of Arizona's Kindergarten and Third Grade Children*. Retrieved from <a href="https://www.azdhs.gov/documents/prevention/womens-childrens-health/reports-fact-sheets/oral-health/healthy-smiles-healthy-bodies-data-brief-2015.pdf">https://www.azdhs.gov/documents/prevention/womens-childrens-health/reports-fact-sheets/oral-health/healthy-smiles-healthy-bodies-data-brief-2015.pdf</a>
- <sup>223</sup> First Things First. (2019). *Impacting Young Lives Throughout Arizona—2019 Annual Report*. First Things First. Retrieved from https://www.firstthingsfirst.org//wp-content/uploads/2019/09/FY2019 Annual Report.pdf
- <sup>224</sup> Arizona Department of Health Sciences. (2015). *Arizona Maternal Child Health Needs Assessment*. Retrieved from <a href="http://azdhs.gov/documents/prevention/womens-childrens-health/reports-fact-sheets/title-v/needs-assessment2015.pdf">http://azdhs.gov/documents/prevention/womens-childrens-health/reports-fact-sheets/title-v/needs-assessment2015.pdf</a>
- <sup>225</sup> Miller, G., Coffield, E., Leroy, Z., & Wallin, R. (2016). Prevalence and costs of five chronic conditions in children. *The Journal of School Nursing*, 32(5):357-364. PMID: 27044668.
- <sup>226</sup> Zahran, H.S., Bailey, C.M., Damon, S.A., Garbe, P.L., & Breysse, P.N. (2018). Vital Signs: Asthma in Children—United States, 2001-2016. *Morbidity and Mortality Weekly Report*, 67(5): 149-155. PMID: 29420459
- <sup>227</sup> Brim, S.N., Rudd, R.A., Funk, R.H., & Callahan. (2008). Asthma prevalence among US children in underrepresented minority populations: American Indian/Alaska Native, Chinese, Filipino, and Asian Indian. *Pediatrics*, *122*(1):e217-222.
- <sup>228</sup> Perry, R., Braileanu, G., Pasmer, T. & Stevens, P. (2019). The economic burden of pediatric asthma in the United States: Literature review of current evidence. *PharmacoEconomics*, 37(2): 155-167.
- <sup>229</sup> Arizona Department of Health Services (2018). *Arizona Injury Data Report 2016*. Retrieved from <a href="https://www.azdhs.gov/prevention/womens-childrens-health/reports-fact-sheets/index.php#injury-prevention">https://www.azdhs.gov/prevention/womens-childrens-health/reports-fact-sheets/index.php#injury-prevention</a>
- <sup>230</sup> Centers for Disease Control and Prevention, National Center for Injury Prevention and Control (2018). *10 Leading causes of death by age group, United States—2017*. Retrieved from https://www.cdc.gov/injury/wisqars/LeadingCauses.html
- <sup>231</sup> Rimsza, M.E., Shackner, R.A., Bowen, K.A., & Marshall, W. (2002). Can child deaths be prevented? The Arizona Child Fatality Review Program experience. *Pediatrics*, 110(1 Pt 1): e11. PMID: 12093992
- <sup>232</sup> Danseco, E.R., Miller, T.R., & Spicer, R.S. (2000). Incidence and Cost of 1987-1994 Childhood Injuries: Demographic breakdowns. *Pediatrics*, *105*(2): E27. PMID: 10654987.
- <sup>233</sup> Möller, H., Falster, K., Ivers, R., & Jorm, L. (2015). Inequalities in unintentional injuries between indigenous and non-indigenous children: a systematic review. *Injury Prevention*, 21:e144-e152. PMID: 24871959.
- <sup>234</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>235</sup> Evans, G. & Kim, P. (2013). Childhood poverty, chronic stress, self-regulation, and coping. *Child Development Perspectives*, *7*(1), 43-48. Retrieved from <a href="http://onlinelibrary.wiley.com/doi/10.1111/cdep.12013/abstract">http://onlinelibrary.wiley.com/doi/10.1111/cdep.12013/abstract</a>

- <sup>236</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 <a href="http://journals.cambridge.org/download.php?file=%2FDPP%2FDPP25">http://journals.cambridge.org/download.php?file=%2FDPP%2FDPP25</a> 4pt2%2FS0954579413000813a.pdf&code=a eb62de3e0ea8214329e7a33e0a9df0e
- <sup>237</sup> Magnuson, K. & Duncan, G. (2013). Parents in poverty. In Bornstein, M., *Handbook of Parenting: Biology and Ecology of Parenting vol. 4: Social Conditions and Applied Parenting*. New Jersey: Lawrence Erlbaum.
- <sup>238</sup> Center on the Developing Child at Harvard University. (2010). The foundations of lifelong health are built in early childhood. Retrieved from <a href="http://developingchild.harvard.edu/wp-content/uploads/2010/05/Foundations-of-Lifelong-Health.pdf">http://developingchild.harvard.edu/wp-content/uploads/2010/05/Foundations-of-Lifelong-Health.pdf</a>
- Van Voorhis, F., Maier, M., Epstein, J., & Lloyd, C. (2013). The impact of family involvement on the education of children ages 3 to 8: A focus on the literacy and math achievement outcomes and social-emotional skills. *MDRC: Building Knowledge to Improve Social Policy.* Retrieved from http://www.p2presources.com/uploads/3/2/0/2/32023713/family\_outcomes.pdf
- <sup>240</sup> Browne, C. (2014). The Strengthening Families Approach and Protective Factors Framework: Branching Out and Reaching Deeper. Center for the Study of Social Policy. Retrieved from

https://cssp.org/wp-content/uploads/2018/11/Branching-Out-and-Reaching-Deeper.pdf

- <sup>241</sup> Van Voorhis, F., Maier, M., Epstein, J., & Lloyd, C. (2013). *The impact of family involvement on the education of children ages 3 to 8: A focus on the literacy and math achievement outcomes and social-emotional skills.* MDRC: Building Knowledge to Improve Social Policy. Retrieved from
- http://www.p2presources.com/uploads/3/2/0/2/32023713/family\_outcomes.pdf
- <sup>242</sup> American Academy of Pediatrics. (n.d.). *Pediatric Professional Resource: Evidence Supporting Early Literacy and Early Learning*. Retrieved from
- https://www.aap.org/enus/Documents/booksbuildconnections\_evidencesupportingearlyliteracyandearlylearning.pdf
- <sup>243</sup> Duncan, G.J., Dowsett, C.J., Claessens, A., Magnuson, K., Huston, A.C., Klebanov, P., ... Sexton, H. (2007). School readiness and later achievement. *Developmental Psychology*, *43*(6), 1428.
- <sup>244</sup> Bernstein, S., West, J., Newsham, R., & Reid, M. (2014). *Kindergartners' skills at school entry: An analysis of the ECLS-K*. Mathematica Policy Research.
- <sup>245</sup> Hood, M., Conlon, E., & Andrews, G. (2008). Preschool home literacy practices and children's literacy development: A longitudinal analysis. *Journal of Educational Psychology*, 100, 252–271.
- <sup>246</sup> Fantuzzo, J., McWayne, C., Perry, M.A., & Childs, S. (2004). Multiple dimensions of family involvement and their relations to behavioral and learning competencies for urban, low-income children. *School Psychology Review*, 33, 467–480.
- <sup>247</sup> Peterson, J., Bruce, J., Patel, N., & Chamberlain, L. (2018). Parental attitudes, behaviors, and barriers to school readiness among parents of low-income Latino children. *International Journal of Environmental Research and Public Health*, 15(2), 188.
- <sup>248</sup> Reach Out and Read. (n.d.). *Programs Near You*. Retrieved from <a href="http://www.reachoutandread.org/resource-center/find-aprogram/">http://www.reachoutandread.org/resource-center/find-aprogram/</a>

- <sup>249</sup> U.S. Department of Education. (2017). *2017 Reading State Snapshot Report, Arizona*. https://nces.ed.gov/nationsreportcard/subject/publications/stt2017/pdf/2018039AZ4.pdf
- <sup>250</sup> Yarnell, V., Lambson, T., & Pfannenstiel, J. (2018). *BIE Family and Child Education Program 2017 Report*. Retrieved from https://www.bie.edu/cs/groups/xbie/documents/document/idc2-084604.pdf
- <sup>251</sup> Centers for Disease Control and Prevention. (n.d.). *Division of Violence Prevention: About adverse childhood experiences*. Retrieved from <a href="https://www.cdc.gov/violenceprevention/acestudy/about">https://www.cdc.gov/violenceprevention/acestudy/about</a> ace.html
- <sup>252</sup> Bethell, C., Jones, J., Gombojav, N., Linkenbach, J., & Sege, R. (2019). Positive childhood experiences and adult mental and relational health in a statewide sample: Associations across adverse childhood experiences levels. *JAMA pediatrics*, *173*(11), e193007-e193007.
- <sup>253</sup> U.S. Department of Health & Human Services, Administration for Children & Families, Children's Bureau (2019). Child Welfare Outcomes Report Data for Arizona. Retrieved from https://cwoutcomes.acf.hhs.gov/cwodatasite/childrenReports/index
- <sup>254</sup> Hughes, K., Bellis, M.A., Hardcastle, K.A., Sethi, D., Butchart, A., Mikton, C., ... Dunne, M.P. (2017). The effect of multiple adverse childhood experiences on health: a systematic review and meta-analysis. *The Lancet Public Health*, 2(8), e356-e366.
- <sup>255</sup> Keating, K., Daily, S., Cole, P., Murphey, D., Pina, G., Ryberg, R., Moron, L., & Laurore, J. (2019). *State of Babies Yearbook: 2019.* Washington, DC: ZERO TO THREE and Bethesda MD: Child Trends.
- <sup>256</sup> Centers for Disease Control and Prevention. (n.d.). *Preventing child abuse & neglect*. Retrieved from https://www.cdc.gov/violenceprevention/childabuseandneglect/fastfact.html
- <sup>257</sup> Anderson, K.M., & Olsen, S. (2013). *Leveraging Culture to address Health Inequalities. Examples from Native Communities. Workshop Summary of Roundtable on the Promotion of Health Equity and the elimination of Health Disparities.* Washington, DC: The National Academies Press.
- <sup>258</sup> Brown-Rice, K. (2013). Examining the Theory of Historical Trauma Among Native Americans. *The Professional Counselor*, 3(3), 117-130.
- <sup>259</sup> Tift, N. (2018). Addressing Adverse Childhood Experiences in Native American Communities. *Understanding Impacts and Implementing Strategies*. Retrieved from <a href="https://www.pcaaz.org/wp-content/uploads/2018/07/B13-ACEs-in-Native-American-Families.pdf">https://www.pcaaz.org/wp-content/uploads/2018/07/B13-ACEs-in-Native-American-Families.pdf</a>
- <sup>260</sup> Zero to Three Infant Mental Health Task Force Steering Committee, 2001.
- <sup>261</sup> Healthy People 2020. (n.d.). *Maternal, infant, and child health: Life stages and determinants*. Retrieved from <a href="https://www.healthypeople.gov/2020/leading-health-indicators/2020-lhi-topics/Maternal-Infant-and-Child-Health/determinants">https://www.healthypeople.gov/2020/leading-health-indicators/2020-lhi-topics/Maternal-Infant-and-Child-Health/determinants</a>
- <sup>262</sup> Turney, K., & Wildeman, C. (2016). Mental and physical health of children in foster care. *Pediatrics*, 138(5), e20161118.
- <sup>263</sup> Ibid.

<sup>264</sup> Starks, R.R., Smith, A.T., Jäger, M.B., Jorgensen, M., & Cornell, S. (2016). *Tribal Child Welfare Codes as Sovereignty in Action: A Guide for Tribal Leaders*. Prepared for 2016 NICWA Annual Conference. Tucson, AZ: Native Nations Institute, and Portland, OR: National Indian Child Welfare Association. Retrieved 28 Aug. 2019 from <a href="http://nni.arizona.edu/application/files/9214/7042/9035/2016\_child\_welfare\_nicwa\_conference\_paper\_final.pdf">http://nni.arizona.edu/application/files/9214/7042/9035/2016\_child\_welfare\_nicwa\_conference\_paper\_final.pdf</a>

<sup>267</sup> Ibid.

<sup>268</sup> Ibid.

<sup>&</sup>lt;sup>265</sup> Frichner, T.G. (2010). *The Indian Child Welfare Act: A National Law Controlling the Welfare of Indigenous Children*. American Indian Law Alliance.

<sup>&</sup>lt;sup>266</sup> First Things First. (2018). *Navajo Nation Regional Partnership Council 2018 Needs and Assets Report*. Retrieved from <a href="https://files.firstthingsfirst.org/regions/Publications/Regional%20Needs%20and%20Assets%20Report%20-%202018%20-%20Navajo%20Nation.pdf">https://files.firstthingsfirst.org/regions/Publications/Regional%20Needs%20and%20Assets%20Report%20-%202018%20-%20Navajo%20Nation.pdf</a>