## **井 FIRST THINGS FIRST**

White Mountain Apache Tribe Region



## **2020** NEEDS AND ASSETS REPORT

## White Mountain Apache Tribe Regional Partnership Council

## **2020 Needs and Assets Report**

Prepared by Community Research, Evaluation & Development (CRED) John & Doris Norton School of Family and Consumer Sciences College of Agricultural and Life Sciences The University of Arizona

Funded by

First Things First White Mountain Apache Tribe Regional Partnership Council

John & Doris Norton School of Family and Consumer Sciences College of Agricultural and Life Sciences The University of Arizona PO Box 210078 Tucson, AZ 85721-0462 Phone: (520) 621-8739 Fax: (520) 621-4979 <u>http://ag.arizona.edu/fcs/</u>

© 2020 Arizona Early Childhood Development and Health Board (First Things First) 4000 N. Central Ave., Ste. 800, Phoenix, AZ 85012 | 602.771.5100 Permission to copy, disseminate or otherwise use the information in this publication is granted, as long as appropriate acknowledgement is given.

## 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 White Mountain Apache Tribe 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 White Mountain Apache Tribe 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 White Mountain Apache Tribe 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 5 years old throughout the region.

## Acknowledgments

The FTF White Mountain Apache Tribe 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 White Mountain Apache Tribe 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 White Mountain Apache Tribe 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 White Mountain Apache Tribe Regional Council would like to thank our Needs and Assets vendor, University of Arizona, for their knowledge, expertise and analysis of the White Mountain Apache Tribe 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 White Mountain Apache Tribe 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 and our state.

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

Thank you for your continued support.

Sincerely,

Laurel Endfield, Chair

# WHITE MOUNTAN APACHE TRIBE REGIONAL PARTNERSHIP COUNCIL

1630 E. White Mountain Blvd., Suite C2 Pinetop, Arizona 85935 Phone: 928.532.5041

/	Laurel Enfield, Chair	
	Dawnafe Whitesinger, Vice Chair	
	Jandi Craig	
	Ardith Titla	
	Mary Kline	
	Andrea Woolridge	
	Terrie Parker	
	Derrick Leslie	
	Mona Lupe	
	Michelle Martinez	

Report Prepared by:

Community Research, Evaluation & Development (CRED) John & Doris Norton School of Family and Consumer Sciences College of Agricultural and Life Sciences The University of Arizona

#

## **Table of Contents**

Introduction	2
Acknowledgments	3
Letter from the Chair	4
Table of Contents	6
List of Tables	8
List of Figures1	1
Executive Summary12	
The White Mountain Apache Tribe Region	
Regional Boundaries22	2
Data Sources23	3
Population Characteristics	6
Why it Matters	
What the Data Tell Us28	8
Population, Race, and Ethnicity	
Language Use	3
Family and Household Composition	5
Economic Circumstances	7
Why it Matters	7
What the Data Tell Us42	1
Poverty	4
Food Insecurity4	7
Employment	
Housing Instability49	9
Educational Indicators	2
Why it Matters	
What the Data Tell Us54	
School Attendance and Absenteeism50	
Achievement on Standardized Testing58	
Graduation Rates and Adult Educational Attainment62	
Early Learning	3
Why it Matters	
What the Data Tell Us6	
Access to Early Care and Education70	
High Quality Early Care and Education72	
Young Children with Special Needs74	
Child Health7	
Why it Matters	
What the Data Tell Us	
Access to Health Services	
Maternal, Infant, and Child Health8	
Oral Health	6

90
92
92
95
96
97
98
98
99
101
101
102
106
107
108
110
112

#### **List of Tables**

Table 1. Population and households, 2010 30
Table 2. Population of children by single year of age, 2010
Table 3. Race and ethnicity of the population of young children (ages 0-4), 201031
Table 4. Race and ethnicity of the adult population (ages 18 and older), 2010    32
Table 5. Race and ethnicity of mothers giving birth in calendar year 2017
Table 6. Children (ages 0-5) living with parents who are foreign-born
Table 7. Language spoken at home by persons ages 5 and older    33
Table 8. English-language proficiency for persons ages 5 and older
Table 9. Limited-English-speaking households    34
Table 10. Living arrangements for children (ages 0-5)
Table 11. Heads of households in which children (ages 0-5) live, 2010
Table 12. Children (ages 0-5) living in the household of a grandparent, 2010      36
Table 13. Grandparents responsible for grandchildren (ages 0-17) living with them
Table 14. Median annual family income44
Table 15. Families with young children (ages 0-5) living at various thresholds above poverty 45
Table 16. Number of children (ages birth to 5) receiving benefits from the Tribal Temporary Assistance to Needy Families (TANF) Program, January 2013 to July 2015
Table 17. Families participating in the SNAP program, Fiscal Years 2015 to 2018
Table 18. Children participating in the SNAP program, Fiscal Years 2015 to 2018      47
Table 19. Students (all grades) eligible for free or reduced-price lunch, 2015-16 to 2018-19 47
Table 20. Parents of young children (ages 0-5) who are or are not in the labor force
Table 21. Adult population (ages 16 and older) who are employed, unemployed, or not in thelabor force48
Table 22. Households who are paying thirty percent or more of their income for housing49
Table 23. Households with and without computers and smartphones    49
Table 24. Persons (all ages) in households with and without computers and internet      connectivity

Table 25. Children (ages 0-17) in households with and without computers and internet      connectivity
Table 26. Households by type of internet access (broadband, cellular data, and dial-up)51
Table 27. Students enrolled in preschool through third grade, 2018-19
Table 28. Chronic absence rates, Kindergarten through 3rd grade, 2015-16 to 2018-19
Table 29. Chronic absence rates, Kindergarten through 3rd grade, 2018-19
Table 30. Chronic absence rates for students by grade (Grade K-3), 2018-19
Table 31. AzMERIT Assessment Results: 3rd Grade English Language Arts, 2017-18
Table 32. AzMERIT Assessment Results: 3rd Grade Math, 2017-18
Table 33. Graduation and dropout rates, 201761
Table 34. Trends in four-year graduation rates, 2015 to 2017
Table 35. Trends in five-year graduation rates, 2015 to 2017
Table 36. Trends in 7th-12th grade dropout rates, 2015-16 to 2017-18
Table 37. Level of education for mothers giving birth during calendar year 2017      62
Table 38. School enrollment for children (ages 3 and 4)    70
Table 39. Children receiving DES child care subsidies, 2015 to 2018
Table 40. DCS-involved children receiving DES child care subsidies, 2015 to 2018
Table 41. Eligible families not using DES child care subsidies, 2015 to 2018
Table 42. First Things First Quality First child data, State Fiscal Year 2019
Table 43. First Things First Quality First child care provider data, State Fiscal Year 201972
Table 44. Children receiving DES child care subsidies in quality educational environments, 2017and 2018
Table 45. Children (ages 3-5) Enrolled in Special Education, 2015-16 to 2018-19
Table 46. Children (ages 3-5) Enrolled in Special Education by Type of Disability, 2018-1974
Table 47. Percent of Students (Grade 1-3) Enrolled in Special Education, 2015-16 to 2018-1974
Table 48. Children referred to and found eligible for AzEIP, Federal Fiscal Years 2016 and 2017
Table 49. AzEIP caseloads, 2017 and 2018

Table 50. Children (ages 0-2) receiving services from DDD, State Fiscal Years 2015 to 201875
Table 51. Children (ages 3-5) receiving services from DDD, State Fiscal Years 2015 to 201876
Table 52. Health insurance coverage
Table 53. Payors for births during calendar year 2017 84
Table 54. Prenatal care for mothers giving birth during calendar year 2017      85
Table 55. Various risk factors for births during calendar year 2017    85
Table 56. Neonatal abstinence syndrome, calendar years 2016 and 2017
Table 57. First Things First oral health strategy data, State Fiscal Year 2019      86
Table 58. Cases of infectious diseases among young children (ages 0-5), 2015-2018 cumulative
Table 59. Vaccination rates and exemption rates for children in child care, 2015-16
Table 60. Kindergarteners with required immunizations, 2018-19
Table 61. Child care immunization exemption rates, 2016-17 to 2018-19      89
Table 62. Kindergarten immunization exemption rates, 2016-17 to 2018-19
Table 63. Non-fatal hospitalizations of young children (ages 0-5) for unintentional injuries,2015-2018 cumulative
Table 64. Asthma hospitalizations and emergency-room visits, 2015-2017 cumulative
Table 65. Non-fatal emergency-room visits by young children (ages 0-5) for unintentionalinjuries, 2015-2018 cumulative
Table 66. Infant mortality, calendar year 201791
Table 67. Child mortality, 2015-2017 cumulative 91
Table 68. First Things First-funded home visiting program data, State Fiscal Year 201996
Table 69. First Things First media awareness campaign impressions, SFY17-SFY19103
Table 70. FTF Engagement of Early Childhood Supporters and Champions, SFY19104
Table 71. Zip Code Tabulation Areas (ZCTAs) of the White Mountain Apache Tribe Region 107
Table 72. School Districts in the White Mountain Apache Tribe Region

### List of Figures

Figure 1. The First Things First White Mountain Apache Tribe Region
Figure 2. Number of births per calendar year in the White Mountain Apache Tribe Region, 2013 to 2017
Figure 3. Percent of population (all ages) and young children (ages 0-5) living in poverty 44
Figure 4. Families with young children (ages 0-5) living at various poverty thresholds
Figure 5. AzMERIT Assessment Results: 3rd Grade English Language Arts, 2017-1858
Figure 6. Trends in passing rates for 3rd-grade English Language Arts AzMERIT, 2015-16 to 2017-18
Figure 7. AzMERIT Assessment Results: 3rd Grade Math, 2017-1860
Figure 8. Trends in passing rates for 3rd-grade Math AzMERIT, 2015-16 to 2017-1860
Figure 9. Level of education for the adult population (ages 25 and older)
Figure 10. Cost of Full-Time Child Care as a Percentage of Median Income
Figure 11. Health insurance coverage for the population (all ages) and for young children (ages 0 to 5)
Figure 12. Placement of court wards, 2014 and 201597
Figure 13. Map of the ZIP codes in the White Mountain Apache Tribe Region
Figure 14. Map of the school districts in the White Mountain Apache Tribe Region

## **Executive Summary**

#### **Regional Boundaries**

The boundaries of the First Things First White Mountain Apache Tribe Regional Partnership Council are the same as the White Mountain Apache Reservation (sometimes called Fort Apache Indian Reservation). The region covers more than 2,500 square miles in Apache, Gila, and Navajo counties. 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 White Mountain Apache Tribe Region was one of ten tribes that chose to be designated as its own region. This decision must be ratified every two years, and since then, the White Mountain Apache Tribe 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 White Mountain Apache Tribe Region was 13,409, of whom 2,003 were children ages birth to five years. Over one-third (38%) of the 3,301 households in the region had one or more children in this age range. The proportion of households with young children in the region is higher than that in all Arizona reservations combined (26%) and Arizona (16%). The number of births per year in the region has gradually increased from 288 in calendar year 2013 to 314 births in calendar year 2017, the last year for which data are available.

Almost all children ages birth to four in the White Mountain Apache Tribe Region (97%) are American Indian. This proportion is higher than that in all Arizona reservations combined (92%) and substantially higher than in the state (6%). In addition, the majority of adults in the region (94%) are American Indian, compared to only four percent of Arizona adults who identify that way. In 2017, nearly all of the 314 births in the region (98%) were to mothers who identify as American Indian.

Nearly half (49%) of individuals ages five or older in the region speak a language other than English or Spanish at home. This proportion is comparable to that in all Arizona reservations combined (50%), but notably higher than the state rate (6%). The region also has a high Englishlanguage proficiency. Only five percent of the population (ages 5 and older) speak another language at home and do not speak English "very well," compared to all Arizona reservations combined (13%). Similarly, the percentage of limited English-speaking households in the region (5%) is lower than in all Arizona reservations combined (12%). About half of young children in the White Mountain Apache Tribe Region (52%) live in households with either one parent or stepparent. A higher proportion of young children in the region live in households with two parents or step-parents compared to children in all Arizona reservations combined (37% vs 27%). Of the 1,628 children (ages 0-17) living in a grandparent's household, about two-thirds (65%) live with a grandparent who is responsible for them, a higher proportion that in all Arizona reservations (55%) and the state (51%).

#### Economic Circumstances

More than half (54%) of young children (ages 0-5) in the White Mountain Apache Tribe Region live in poverty. This rate is the same as that of all Arizona reservations combined (54%) but substantially higher than the state (26%). The poverty rate for the overall population in the region (45%), while lower than the rate for young children, is higher than all Arizona reservations (40%) and the state (17%).

The median income for all families in the region is \$30,025, which is less than half of the median income for the state of Arizona (\$63,812). Single female-headed families with children (ages 0-17) in the region have a median income that is less than half of the income in married couple families.

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 children ages one to five, and at or below 147 percent of the federal poverty threshold for children under 1 year old. In the White Mountain Apache Tribe 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) (69%) is substantially higher than in the state (38%) and slightly higher than in all Arizona reservations combined (67%).

According to the White Mountain Apache Tribe Regional Partnership Council 2018 Needs and Assets Report, the number of young children who participated in the Temporary Assistance for Needy Families (TANF) program fell from 378 children in January 2013 to 259 children in January 2015, a 31 percent decrease. The number of families participating in the Supplemental Nutrition Assistance Program (SNAP) in the region also decreased, from 1,251 in 2015, to 1,086 in 2018. In this last year, an estimated 86 percent of households with young children in the region participated in SNAP, a proportion that is notably higher than in Arizona (39%). Similarly, in 2018 an estimated 85 percent of young children in the region received SNAP benefits. In addition, between the 2015-2016 and 2018-2019 school years, the percent of students in the

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

White Mountain Apache Tribe Region who qualified for free or reduced-price lunches ranged from 95 to 100 percent, with 100 percent of students qualifying for this benefit in the 2018-2019 school year. This proportion is notably higher than the proportion at the state level (56%).

Seventy-four percent of young children in the White Mountain Apache Tribe 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 who live with only one parent and such parent is not in the labor force is lower in the region compared to all Arizona reservations (22% and 31%, respectively).

The average unemployment rate in the White Mountain Apache Tribe Region for the 2013-2017 period was 20 percent, twice the unemployment rate in all Arizona reservations combined (10%), and five times the average state rate of four percent. Forty-six percent of the population in the region is not in the labor force (i.e. they are neither employed nor looking for work), a proportion that is higher than that in the state (40%), but lower than all Arizona reservations combined (54%).

Fifteen percent of households in the region spend 30 percent or more of their income on housing-related costs. This percentage 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 such as housing availability. The White Mountain Apache Tribe Regional Partnership Council 2018 First Things First Regional Needs and Assets Report for the region identified a shortage of housing on the reservation resulting in the large proportion of multi-generational and multi-family homes.

Twenty-nine percent of households in the region have both a smartphone and computer, which is comparable to all Arizona reservations (30%) but significantly lower than the state of Arizona (67%). Over one-third (38%) of residents in the White Mountain Apache Tribe Region and all Arizona reservations live in households with both a computer and internet. This proportion, however, is much lower than in the state overall (82%). The percentage of children (ages 0-17) living in households with a computer and internet is also similar in the region (43%) and all Arizona reservations combined (41%), but substantially lower than in the state (83%). Of people living in households with a computer and internet in the region, 30 percent rely solely on a cellular data plan.

#### **Educational Indicators**

There are six public schools in the White Mountain Apache Tribe Region in two public school districts. In the Whiteriver Unified School District (WUSD) Whiteriver Elementary School serves students in preschool through fifth grade. Seven Mile Elementary School and Cradleboard Elementary school serve children Kindergarten through fifth grade. Canyon Day Junior High

School serves students in sixth through eighth grade, while Alchesay High School enrolls high school students. McNary Elementary School in the McNary Elementary District enrolls students in preschool through eighth grade. In the 2018-19 school year, there were a total of 866 children enrolled in preschool through third grade in the public school district schools. In addition to public schools, students may enroll in Dishchii'bikoh Community (Cibecue Community) School, Theodore Roosevelt School, or John F. Kennedy Day School, which are operated by the Bureau of Indian Education. Dishchii'bikoh Community (Cibecue Community) School also has a preschool. There is one private religious school in the region, East Fork Lutheran School, which serves students in kindergarten through eighth grade.

From school year 2015-2016 to school year 2018-2019, chronic absence rates for children in kindergarten through third grade in the White Mountain Apache Tribe Region were about twice than those in the state. In 2018-2019, the combined chronic absence rate for children in grades K-3 was 26 percent, more than twice as high as that in Arizona (12%). These rates reflect data from students enrolled in schools at WUSD and McNary Elementary District.

In school year 2017-2018, 220 third-grade students from schools at WUSD and McNary Elementary District completed the English Language Arts portion of the required Arizona's Measurement of Educational Readiness to Inform Teaching (AzMERIT) test. The passing rate for third-graders in the region (12%) was substantially lower than the state rate (44%). Passing rates in the two previous school years (2015-2016 and 2016-2017) were similar in both the region and the state. Of the 213 third-graders who completed the math portion of the test in school year 2017-2018, less than one-quarter (23%) attained a passing score, a substantially lower rate than in the state (53%). Compared to the two previous school years, however, the math passing rate in the region was notably higher in 2017-18 in the region, and also slightly higher in the state.

In 2017, the four-year graduation rate for the students attending schools within the boundaries of the White Mountain Apache Tribe Region was 56 percent, and the five-year graduation rate was 60 percent. Between 2015 and 2016, the four-year graduation rate in the region declined from 61 percent to 54 percent, and then remained stable between 2016 and 2017. In all three years, the rate has been lower in the region than in the state. In school year 2017-2018 the 7th-12th grade dropout rate for students attending school within the boundaries of the White Mountain Apache Tribe Region was 14 percent, almost three times the state rate (5%). This rate is lower than in the previous school year (20%) but higher than in 2015-2016.

Educational attainment among adults 25 and older in the White Mountain Apache Tribe Region somewhat mirrors that in all Arizona reservations combined. Thirty-four percent of adults in the region have more than a high school education compared to 38 percent in all Arizona reservations. Both of these rates are lower than the 62 percent in Arizona. In 2017, fifty-eight

percent of births in the region were to mothers who had at least a high school diploma or higher educational attainment, compared to 82 percent in Arizona.

#### Early Learning

Child care and early education opportunities in the White Mountain Apache Tribe Region include Chaghache Day Care and Alchesay Beginnings Child Development Center (also known as ABC Day Care), the Family and Child Education (FACE) program at John F. Kennedy Day School, the White Mountain Apache Head Start, and Dishchii'bikoh Community School. Thirty-seven percent of children ages three to four are enrolled in school (i.e. nursery school, preschool, or kindergarten) in the White Mountain Apache Region, a lower proportion than that in all Arizona reservations combined (41%).

According to the White Mountain Apache Tribe Regional Partnership Council 2018 Needs and Assets Report, Alchesay Beginnings Child Development Center has the capacity to serve 102 children ages two weeks to five years of age, with an additional capacity of 20 for after school care of children ages six to twelve. Depending on attendance and availability, drop-in child care services are also available for a fee. To be eligible for services, parents or caregivers must be employed, in school, or in training. Chaghache Day Care has the capacity to enroll 90 children ages six months to twelve years of age. Chaghache Day Care has a waiting list with 20 infants, 15 toddlers, and fewer than 10 preschoolers on the list.

The White Mountain Apache Tribe Head Start has funded enrollment for 252 children. Over the course of the 2014-2015 school year, this program enrolled a total of 262 four-year old children throughout the year at three centers: Whiteriver, Cibecue, and McNary. In order to enroll in the program, families must meet income eligibility requirements, and Head Start is one of the few programs in the region that is free for low-income families. According to the 2018 Needs and Assets Report, White Mountain Apache Tribe Head Start had been under-enrolled, and as of August 2016, there were 236 children enrolled in the program.

The Family and Child Education (FACE) program is based at John F. Kennedy Day School in Cedar Creek and it has both a center-based and home-based component. In the 2015-2016 school year there were 35 children participating in the home-based component of the program, 19 of whom were age two or younger. In the 2015-2016 school year, 20 three- and four-year-old children were enrolled in the center-based classroom, with five students on the waiting list.

In terms of cost associated with the early care and learning centers in the White Mountain Apache Tribe Region, as noted earlier, participation in the White Mountain Apache Head Start program is cost-free for all children enrolled. Similarly, children with special needs enrolled in Whiteriver Elementary School receive services at no cost to their families. The 2018 Needs and Assets Report also noted that families in the White Mountain Apache Tribe Region who do not qualify for child care assistance pay more than the recommended ten percent of the family income on child care (between 12 and 16 percent of the median family income, depending on the child's age).

In addition to the child care subsidies provided through the tribally-operated child care centers, some families in the White Mountain Apache Tribe Region also receive subsidies from the Arizona Department of Economic Security (DES). The number of young children receiving DES subsidies in the region declined from 23 in 2015, to fewer than ten in 2018. The number of young children involved with the Department of Child Safety (DCS) who received child care subsidies from DES remained relatively stable between 2015 and 2018, when 21 children received this benefit. In the same period of 2015-2018, nearly all of the children involved with DCS who were eligible for DES child care subsidies used them.

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> In 2017 fewer than ten young children receiving child care subsidies from DES in the region were served in quality environment settings, as defined by DES. There were no children in quality environment settings in the region in 2018.

In State Fiscal Year 2019, a total of six child care providers in the White Mountain Apache Tribe Region participated in Quality First, two of which were quality-level settings (i.e. had a public 3-5 stars rating). That same year, there were 353 children enrolled at a Quality First Site in the region, 204 (or 58%) of whom were enrolled in quality-level settings.

The number of children ages 3-5 enrolled in special education in the White Mountain Apache Tribe Region was similar in school years 2015-2016 and 2016-2017 (49 and 51 children, respectively) and decreased in the two school years that followed, to 33 in 2018-2019. The percentage of students in grades 1-3 enrolled in special education in the region remained stable from school year 2015-2016 to school year 2018-2019 at about 10 percent. The proportion of children ages birth to two who were referred to the Arizona Early Intervention Program (AzEIP) and were found eligible for services in the region was similar in Fiscal Years 2016 and 2017 (50% and 52%, respectively). The total number of active AzEIP cases in the region increased by eight percent from 2017 to 2018. The number of children ages birth to two from the White Mountain Apache Tribe Region receiving services by the Division of Developmental Disabilities (DDD) increased from fewer than ten in Fiscal Year 2015 to 27 in Fiscal Year 2018. No children ages

<sup>&</sup>lt;sup>ii</sup> Providers are considered quality educational environments by the Arizona Department of Economic Security if they receive a Quality First three-star rating or higher 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).

three to five received services from DDD in the region in Fiscal Year 2018, and fewer than ten children ages birth to two received services in the region in that same period.

#### Child Health

In the White Mountain Apache Tribe Region, about one in five (18%) people lack health insurance coverage, a percent that is lower than that in all Arizona reservations (22%), but higher than the state of Arizona (12%). The proportion of uninsured young children in the region (8%), is half of that in all Arizona reservations combined (16%) and only slightly higher than 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.

In 2017, the most recent year for which data are available, AHCCCS paid for 85 percent of the 314 births in the region, while IHS paid for seven percent.

In 2017, 43.9 of births in the White Mountain Apache Tribe Region were to women who had no prenatal care in their first trimester, a percentage that is nearly twice the Healthy People 2020 target of no more than 22.1 percent. Additionally, 17 percent of births were to women who had fewer than five prenatal visits in the region, compared to eight percent in the state. The proportion of babies born at low birth weight in the White Mountain Apache Tribe Region (11.1%) was higher than in the state (7.5%) and did not meet the Healthy People 2020 target of 7.8 percent or lower. Similarly, 11.5 percent of births in the region in 2017 were preterm births (i.e. less than 37 weeks), higher than the state rate of 9.3 percent, and also higher than the Healthy People 2020 target of no more than 9.4 percent. The proportion of births to women who used tobacco during pregnancy in the region in 2017 (8%) was substantially higher than the Healthy People 2020 target of no more than 1.4 percent. There was also a notably higher proportion of births to mothers younger than 18 in the region (7%) compared to the state (2%).

In the 2018-2019 school year, vaccination rates among kindergarteners in the White Mountain Apache Tribe Region were high. Nearly all children (99.4%) enrolled in kindergarten in that year had the required immunizations for their age.

From 2015 to 2018, there were eighteen non-fatal inpatient hospitalizations of young children for unintentional injuries from the White Mountain Apache Tribe Region, with burns being the most common reason for hospitalization (56%). From 2015 to 2017, there were eighteen inpatient hospitalizations and fourteen emergency room visits for asthma among young children from the region. The average length of stay for asthma-related hospitalizations was higher in the region (3.0 days) than in the state (1.9 days).

From 2015 to 2018, there were 415 non-fatal emergency room visits for unintentional injuries for young children in the region. The most common reasons for these non-fatal emergency

room visits in the region were falls (38%) and natural or environment (13%). At the state level, falls were also the most common reason for emergency room visits (46%).

Between 2015 and 2017, there were seventeen child deaths in the White Mountain Apache Tribe Region, eleven of which were among young children (ages 0-4).

#### Family Support and Literacy

According to the White Mountain Apache Tribe Regional Partnership Council 2018 Needs and Assets Report, there is a need in the region for more community events for young children and their families, particularly in the summer. No summer programs currently exist for children under the age of six beyond those provided at Chaghache Day Care Center and Alchesay Beginnings Child Development Center. The 2018 report also pointed out that one of the major challenges to supporting children in the region is a lack of parental engagement and involvement. Head Start provides monthly parent trainings, and Child Find provides regular workshops and training programs for parents, but parent attendance is a challenge in part due to transportation. Due to high rates of poverty and unemployment in the region, as well as the young age of many parents, families face significant challenges accessing resources and providing for their children.

A major asset in the region was the trust built between the community and service providers. When parents trust that their children's needs will be met and that they will be well taken care of, they are more eager to engage in programs. There is a high level of trust and awareness around the services for children with special needs in the community and parents know they could get help for their children.

Child welfare services in the White Mountain Apache Tribe Region are overseen by the White Mountain Apache Tribe Social Services Department. Services supporting children in the child welfare system are also available through the tribally-operated Our Children's Shelter, a group home that can house up to 12 children aged birth through 18 years. In calendar year 2015, there were 308 substantiated cases of child abuse and neglect that involved children birth to 17, an increase from 284 in 2014. In 2015, 137 children were removed by Tribal Child Protective Services, up from 107 in 2014. Over the course of 2014 and 2015, there were 872 children birth to 17 who were considered wards of the tribe. In 2015, about a third of these children were placed with their parents, a third with relatives, and the remainder in contracted foster care homes off-reservation or in the tribal group home.

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

Based upon data and information that indicates a significant need for quality, early learning opportunities, the White Mountain Apache Tribe (WMAT) Regional Partnership Council has

prioritized and funded Early Learning programmatic and system building strategies to meet this need. In addition, they are passionate about the Native Language Preservation Strategy to support use of the Apache Language in all early learning programs throughout the community. The Chagháshé Ndee Biyati'—"Children Apache Language" work group's vision is to encourage families of young children residing in White Mountain Apache Region to read and learn Apache language through children's books specific to White Mountain Apache Tribe language and culture by building on what is already available in the community. All efforts in the goals of Chagháshé Ndee Biyati' have included collaboration of various departments within the White Mountain Apache Region and with the FTF regional council and staff.

The White Mountain Apache Tribe Regional Partnership Council and staff continue outreach and awareness efforts to increase the awareness of the importance of early childhood development and health through an early childhood education campaign. Council members and staff have participated in a wide variety of community/family events and engaged individual programs such as Head Start to help share this information. In addition, FTF staff have met with Tribal Council to share this information and the work of the WMAT Regional Partnership Council.

Based upon the efforts of the early childhood education campaign, the White Mountain Apache Tribal Council requested FTF staff take a lead role to reconvene an Early Childhood Coalition (previously convened in years past) so that providers may understand what services and programs are available and better coordinate across programs to ensure that all children and families in the region have access to the needed resources and programs. This is an excellent opportunity to begin to engage the providers regarding coordinate outreach, awareness, and referral/recruitment efforts.

#### 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. Results from the most recent statewide survey in September 2018 showed increased agreement that the state should ensure all children have access to early childhood services (80% in 2012 to 84% in 2018), 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 SFY 2019, First Things First secured 11 million advertising impressions through traditional media strategies, including television, radio, cinema, and billboard ads, and 76 million digital advertising impressions through digital media 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 White Mountain Apache Tribe 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 White Mountain Apache Tribe Regional Partnership Council are the same as the White Mountain Apache Reservation (sometimes called Fort Apache Indian Reservation). When First Things First was established by the passage of Proposition 203 in November 2006, the government-to-government relationship with federallyrecognized 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 White Mountain Apache Tribe Region was one of ten tribes that chose to be designated as its own region. This decision must be ratified every two years, and since then, the White Mountain Apache Tribe has opted to continue to be designated as its own region.

The region covers more than 2,500 square miles in Apache, Gila, and Navajo counties. There are twelve reservation communities identified by the U.S. Census: Canyon Day; Carrizo; Cedar Creek; Cibecue; East Fork; Fort Apache; Hondah-McNary; North Fork; Rainbow City; Seven Mile; Turkey Creek; and Whiteriver. The largest of these communities, Whiteriver, serves as the capital. Please note that U.S. Census communities are defined differently than tribal council districts. Figure 1 shows the geographical area covered by the White Mountain Apache Tribe 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 White Mountain Apache Tribe 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 (<u>https://www.census.gov/cgi-bin/geo/shapefiles/index.php</u>).

#### **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 2018 First Things First White Mountain Apache Tribe Regional Partnership Council 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 Fort Apache Indian 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 Fort Apache (White Mountain Apache) Indian 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."<sup>3</sup> According to the State of Indian Country Arizona report<sup>4</sup> 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 White Mountain Apache Tribe Region. When available, the next rows show data that are useful for comparison purposes: 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.<sup>5</sup> 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.<sup>6</sup> 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.<sup>7,8</sup> Tribal 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.<sup>9</sup>

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.<sup>10,11,12,13</sup> 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.<sup>14,15,16,17</sup> 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.<sup>18,19</sup> 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.<sup>30</sup> 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.<sup>32</sup> Though it varies from one Native community to another, extended, multigenerational families, and kinship care are common in Native communities.<sup>33,34</sup> 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.<sup>35</sup> Grandparents are often central to these multigenerational households, in many cases sharing and strengthening Native language, history, and culture.<sup>36, 37</sup>

<sup>&</sup>lt;sup>III</sup> 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 White Mountain Apache Tribe Region was 13,409, of whom 2,003 were children ages birth to five years. Over one-third (38%) of the 3,301 households in the region had one or more children ages birth to five years. The proportion of households with young children in the White Mountain Apache Tribe Region is higher than that in all Arizona reservations combined (26%) and Arizona (16%) (Table 1).
- The number of births per year in the region has gradually increased from 288 in calendar year 2013 to 314 births in calendar year 2017, the last year for which data are available (Figure 2).
- Almost all children ages birth to four in the White Mountain Apache Tribe Region (97%) are American Indian. This proportion is slightly higher than that in all Arizona reservations combined (92%) and substantially higher than in the state (6%) (Table 3).
- The majority of adults in the region (94%) are American Indian, compared to only four percent of Arizona adults (Table 4).
- In 2017, nearly all of the 314 births in the region (98%) were to mothers who identify as American Indian (Table 5).

#### Language Use

- Nearly half (49%) of individuals ages five or older in the region speak a language other than English or Spanish at home. This proportion is comparable to that in all Arizona reservations combined (50%), but notably higher than the state rate (6%) (Table 7).<sup>iv</sup>
- The White Mountain Apache Tribe Region has a high English-language proficiency. Only five percent of the population (ages 5 and older) speak another language at home and do not speak English "very well," compared to all Arizona reservations combined (13%) (Table 8).
- Similarly, the percentage of limited English speaking households in the region (5%) is lower than in all Arizona reservations combined (12%) (Table 9).

<sup>&</sup>lt;sup>iv</sup> 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 White Mountain Apache Tribe Region, it is likely that the other languages spoken at home in the region are Native North American languages. See

https://files.firstthingsfirst.org/regions/Publications/Regional%20Needs%20and%20Assets%20Report%20-%202018%20-%20White%20Mountain%20Apache%20Tribe.pdf

#### Family and Household Composition

- About half of young children in the White Mountain Apache Tribe Region (52%) live in households with either one-parent or stepparent. A higher proportion of young children in the region live in households with two parents or step-parents compared to children in all Arizona reservations combined (37% vs 27%) (Table 10).
- Of the 1,628 children (ages 0-17) living in a grandparent's household, about two-thirds (65%) live with a grandparent who is responsible for them, a higher proportion than in all Arizona reservations (55%) and the state (51%) (Table 13).

#### Population, Race, and Ethnicity

#### Table 1. Population and households, 2010

					PERCENT OF
				HOUSEHOLDS	HOUSEHOLDS
				WITH ONE OR	WITH ONE OR
			TOTAL	MORE	MORE
	TOTAL	POPULATION	NUMBER OF	CHILDREN	CHILDREN
GEOGRAPHY	POPULATION	(AGES 0-5)	HOUSEHOLDS	(AGES 0-5)	(AGES 0-5)
White Mountain Apache Tribe Region	13,409	2,003	3,301	1,267	38%
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

	POPULATION						
GEOGRAPHY	(AGES 0-5)	AGE 0	AGE 1	AGE 2	AGE 3	AGE 4	AGE 5
White Mountain Apache Tribe Region	2,003	333	344	369	326	321	310
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

Figure 2. Number of births per calendar year in the White Mountain Apache Tribe 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
White Mountain Apache Tribe Region	1,693	3%	1%	<1%	97%	<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

				BLACK OR AFRICAN-	AMERICAN	ASIAN OR PACIFIC	
	POPULATION		WHITE,	AMERICAN,	INDIAN,	ISLANDER,	OTHER,
	18 YEARS		NOT	NOT	NOT	NOT	NOT
GEOGRAPHY	AND OVER	HISPANIC	HISPANIC	HISPANIC	HISPANIC	HISPANIC	HISPANIC
White Mountain							
Apache Tribe	8,341	2%	2%	<1%	94%	1%	1%
Region							
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%

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

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 NUMBER OF BIRTHS	MOTHER WAS HISPANIC	MOTHER WAS WHITE, NOT	MOTHER WAS BLACK OR AFRICAN-	MOTHER WAS AMERICAN INDIAN OR	MOTHER WAS ASIAN OR PACIFIC
GEOGRAPHY	IN 2017	OR LATINA	HISPANIC	AMERICAN	ALASKAN	ISLANDER
White Mountain Apache Tribe Region	314	DS	DS	DS	98%	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.

#### YOUNG CHILDREN YOUNG CHILDREN (AGES 0-5) PERCENT OF YOUNG CHILDREN (AGES 0-5) LIVING LIVING IN FAMILIES OR (AGES 0-5) LIVING IN FAMILIES IN FAMILIES OR SUBFAMILIES WITH ONE OR TWO **OR SUBFAMILIES WITH ONE OR** GEOGRAPHY **SUBFAMILIES** FOREIGN-BORN PARENTS TWO FOREIGN-BORN PARENTS White Mountain 1,609 0 0% **Apache Tribe Region** All Arizona 16,902 457 3% Reservations Arizona 498,102 130,705 26% **United States** 22,939,897 5,730,869 25%

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

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

		PERCENT OF THE		PERCENT OF THE
		POPULATION (AGES	PERCENT OF THE	POPULATION (AGES
	POPULATION	5+) WHO SPEAK	POPULATION (AGES	5+) WHO SPEAK
	(AGES 5 AND	ONLY ENGLISH AT	5+) WHO SPEAK	OTHER LANGUAGES
GEOGRAPHY	OLDER)	HOME	SPANISH AT HOME	AT HOME
White Mountain Apache Tribe Region	13,732	50%	2%	49%
All Arizona Reservations	171,213	46%	4%	50%
Arizona	6,375,189	73%	21%	6%
United States	301,150,892	79%	13%	8%

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

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 a Native North American language for geographies smaller than the state. Based on ACS data included in previous Needs and Assets Reports for the White Mountain Apache Tribe Region, it is likely that the other languages spoken at home in the region are Native North American languages. See

https://files.firstthingsfirst.org/regions/Publications/Regional%20Needs%20and%20Assets%20Report%20-%202018%20-%20White%20Mountain%20Apache%20Tribe.pdf

#### 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"
White Mountain Apache Tribe Region	13,732	50%	45%	5%
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

	TOTAL NUMBER OF	NUMBER OF "LIMITED ENGLISH SPEAKING"	PERCENT OF HOUSEHOLDS WHICH ARE "LIMITED
GEOGRAPHY	HOUSEHOLDS	HOUSEHOLDS	ENGLISH SPEAKING"
White Mountain Apache Tribe Region	3,543	175	5%
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

		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
White Mountain Apache Tribe Region	1,827	37%	52%	10%	2%
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%

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

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
White Mountain Apache Tribe Region	1,267	46%	11%	43%
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
			PERCENT OF CHILDREN
		CHILDREN (0-5) LIVING	(0-5) WHO LIVE IN A
	POPULATION	IN A GRANDPARENT'S	GRANDPARENT'S
GEOGRAPHY	(AGES 0-5)	HOUSEHOLD	HOUSEHOLD
White Mountain Apache Tribe Region	2,003	824	41%
All Arizona Reservations	20,511	8,239	40%
Arizona	546,609	74,153	14%
United States	24,258,220	2,867,165	12%

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

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

GEOGRAPHY	GRANDCHILDREN UNDER 18 LIVING WITH GRANDPARENT HOUSEHOLDER	PERCENT OF GRANDCHILDREN UNDER 18 LIVING WITH A GRANDPARENT HOUSEHOLDER WHO IS RESPONSIBLE FOR THEM
White Mountain Apache Tribe Region	1,628	65%
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>38</sup> Factors contributing to economic stability—or lack thereof—include **poverty**, **food insecurity**, **employment**, and **housing instability**.<sup>39</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.<sup>40</sup> 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.<sup>41</sup>

**Poverty**. Childhood poverty can negatively affect the way children's bodies grow and develop, including fundamental changes to the architecture of the brain.<sup>42</sup> 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.<sup>43,44,45,46,47</sup> They are also more likely to remain poor later in life.<sup>48,49</sup> 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.<sup>50</sup> However the federal poverty guideline definition of poverty was developed in the 1950s, and estimates only what a family would need to earn to afford basic nutrition, without taking into account other costs of living;<sup>51</sup> it is widely considered to be well below what a family actually needs to earn to make ends meet.<sup>52</sup> 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.<sup>53</sup> 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.<sup>54</sup>

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 White Mountain Apache Tribe 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>55</sup> and overweight and obesity.<sup>56</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.<sup>v,57</sup> A large portion of tribal lands in Arizona are in food deserts, adding to food insecurity in tribal communities.<sup>58</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>59</sup> To help reduce food insecurity, there are a variety of federally-funded programs including the Supplemental Nutrition Assistance Program (SNAP),<sup>60</sup> the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC),<sup>61</sup> the National School Lunch Program,<sup>62</sup> the School Breakfast Program,<sup>63</sup> the Summer Food Service Program,<sup>64</sup> and the Child and Adult Care Food Program (CACFP).<sup>65</sup> However, only about 58 percent of food insecure households nationwide report participating in federally-funded nutrition assistance programs.<sup>66</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>67</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>68</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>69</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>70</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

 $<sup>^{</sup>v}$  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>71</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>72</sup>

*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>73</sup> Unemployment can also put families at greater risk for stress, family conflict, and homelessness.<sup>74</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>75</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>76</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.<sup>77</sup> Traditionally, housing has been deemed affordable for a family if it costs less than 30 percent of their annual income.<sup>78</sup> High housing costs, relative to family income, are associated with increased risk for overcrowding, frequent moving, poor nutrition, declines in mental health, and homelessness.<sup>79,80</sup> 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.<sup>81</sup>

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>82</sup> The term "digital divide" refers to disparities in

communication and information technologies, <sup>83</sup> and the lack of sustained access to information and communication technologies in low-income communities is associated with economic and social inequality.<sup>84</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>85</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>86</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>87,88,89</sup> This is especially true of the more rural Native American communities in the state, where broadband services are sometimes non-existent.<sup>90, 91</sup>

## What the Data Tell Us

## Poverty

- More than half (54%) of young children (ages 0-5) in the White Mountain Apache Tribe Region live in poverty. This rate is the same as that of all Arizona reservations combined (54%) but substantially higher than the state (26%). The poverty rate for the overall population in the region (45%), while lower than the rate for young children, is higher than all Arizona reservations (40%) and the state (17%) (Figure 3).
- The median income for all families in the region is \$30,025, which is less than half of the median income for the state of Arizona (\$63,812). Single female-headed families with children (ages 0-17) in the region have a median income that is less than half of the income in married couple families (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>92</sup> In the White Mountain Apache Tribe 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) (69%) is substantially higher than in the state (38%) and slightly higher than in all Arizona reservations combined (67%) (Table 15 & Figure 4).
- According to the White Mountain Apache Tribe Regional Partnership Council 2018 Needs and Assets Report, the number of young children who participated in the Temporary Assistance for Needy Families (TANF) program fell from 378 children in January 2013 to 259 children in July 2015, a 31 percent decrease in participation in the program (Table 16).

## **Food Insecurity**

 The number of families participating in the Supplemental Nutrition Assistance Program (SNAP) in the White Mountain Apache Tribe Region decreased from 1,251 in 2015 to 1,086 in 2018. In this last year, an estimated 86 percent of households with young children in the region participated in SNAP, a proportion that is notably higher than in Arizona (39%). Similarly, in 2018 an estimated 85 percent of young children in the region received SNAP benefits (Table 17 & Table 18).

vi AHCCCS is Arizona's Medicaid agency

 Between the 2015-2016 and 2018-2019 school years, the percent of students in the White Mountain Apache Tribe Region who qualified for free or reduced-price lunches ranged from 95 to 100 percent, with 100 percent of students qualifying for this benefit in the 2018-2019 school year. This proportion is notably higher than the proportion at the state level (56%) (Table 19).

## Employment

- Seventy-four percent of young children in the White Mountain Apache Tribe 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 who live with only one parent and such parent is not in the labor force is lower in the region compared to all Arizona reservations (22% and 31%, respectively) (Table 20).
- The average unemployment rate in the White Mountain Apache Tribe Region for the 2013-2017 period was 20 percent, twice the unemployment rate in all Arizona reservations combined (10%), and five times the average state rate of four percent. Forty-six percent of the population in the region is not in the labor force (i.e. they are neither employed nor looking for work), a proportion that is higher than that in the state (40%), but lower than all Arizona reservations combined (54%) (Table 21).

## **Housing Instability**

- Fifteen percent of households in the region spend 30 percent or more of their income on housing-related costs. This percentage 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 such as housing availability. The White Mountain Apache Tribe Regional Partnership Council 2018 First Things First Regional Needs and Assets Report for the region identified a shortage of housing on the reservation resulting in the large proportion of multi-generational and multi-family homes (Table 22).<sup>93</sup>
- Twenty-nine percent of households in the region have both a smartphone and computer, which is comparable to all Arizona reservations (30%) but significantly lower than the state of Arizona (67%) (Table 23).
- Over one-third (38%) of residents in the White Mountain Apache Tribe Region and all Arizona reservations live in households with both a computer and internet. This proportion, however, is much lower than in the state overall (82%). The percentage of children (ages 0-17) living in households with a computer and internet are also similar in the region (43%) and all Arizona reservations combined (41%), but substantially lower than in the state (83%) (Table 24 & Table 25).

• Of people living in households with a computer and internet in the region, 30 percent rely solely on a cellular data plan (Table 26).

## Poverty



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

#### 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
White Mountain Apache Tribe Region	\$30,025	\$35,076	\$27,656	\$16,903
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

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

RCENT OF LIES WITH YOUNG CHILDREN	PERCENT OF FAMILIES WITH
YOUNG	
	FAMILIES WITH
CHILDREIN	YOUNG
AGES 0-5)	CHILDREN
EEN 150%	(AGES 0-5)
0 184% OF	ABOVE 185%
POVERTY	OF POVERTY
8%	23%
8%	25%
8%	53%
8%	60%
	EEN 150% 0 184% OF POVERTY 8% 8%

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

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 <u>https://www.census.gov/topics/income-poverty/poverty/quidance/poverty-measures.html</u>

## 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 <u>https://www.census.gov/topics/income-poverty/poverty/quidance/poverty-measures.html</u>

# Table 16. Number of children (ages birth to 5) receiving benefits from the Tribal Temporary Assistance to Needy Families (TANF) Program, January 2013 to July 2015

							CHANGE FROM
	JANUARY	JULY	JANUARY	JULY	JANUARY	JULY	JAN 2013 TO
	2013	2013	2014	2014	2015	2015	JAN 2015
Children (0-5) receiving TANF	378	385	371	361	273	259	-31%
Estimated percent of children (0-5) receiving TANF	19%	19%	19%	18%	14%	13%	

Source: First Things First. (2018). White Mountain Apache Tribe Regional Partnership Council 2018 Needs and Assets Report. Retrieved from <u>https://files.firstthingsfirst.org/regions/Publications/Regional%20Needs%20and%20Assets%20Report%20-</u> %202018%20-%20White%20Mountain%20Apache%20Tribe.pdf

## **Food Insecurity**

	HOUSEHOLDS	NUMBER OF FAMILIES PARTICIPATING IN				PERCENT OF
	WITH ONE OR	SNAP				HOUSEHOLDS WITH
	MORE					YOUNG CHILDREN (0-5)
	CHILDREN			PARTICIPATING		
GEOGRAPHY	(AGES 0-5)	FY 2015	FY 2016	FY 2017	FY 2018	IN SNAP IN 2018
White Mountain Apache Tribe Region	1,267	1,251	1,195	1,137	1,086	86%
Arizona	384,441	179,988	172,014	164,092	151,819	39%

Table 17. Families participating in the SNAP program, Fiscal Years 2015 to 2018

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

#### Table 18. Children participating in the SNAP program, Fiscal Years 2015 to 2018

CEOCRADIN	NUMBER OF YOUNG CHILDREN (AGES 0-5) IN THE	NUMBER OF				PERCENT OF YOUNG CHILDREN (0-5) PARTICIPATING
GEOGRAPHY White Mountain Apache Tribe Region	POPULATION 2,003	FY 2015 1,745	FY 2016 1,874	FY 2017 1,776	FY 2018 1,705	IN SNAP IN 2018 85%
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, Division of Benefits and Medical Eligibility (2019). Unpublished data received by request.

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

	STUDENTS ELIGIBLE FOR FREE OR REDUCED-PRICE			
GEOGRAPHY	LUNCH (2015-16)	LUNCH (2016-17)	LUNCH (2017-18)	LUNCH (2018-19)
White Mountain Apache Tribe Region	95%	100%	99%	100%
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

			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
White Mountain Apache Tribe Region	1,609	24%	14%	3%	36%	22%
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%

Table 20. Parents of young children (ages 0-5) who are or are not in the labor force

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

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 21. Adult population (ages 16 and older) who are employed, unemployed, or not in the labor force

	TOTAL			
	POPULATION			PERCENT WHICH IS
	(AGES 16 AND	PERCENT WHICH IS	PERCENT WHICH IS	NOT IN THE LABOR
GEOGRAPHY	OLDER)	EMPLOYED	UNEMPLOYED	FORCE
White Mountain Apache Tribe Region	10,375	34%	20%	46%
All Arizona Reservations	136,081	37%	10%	54%
Arizona	5,371,341	55%	4%	40%
United States	255,797,692	59%	4%	37%

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

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.

## Housing Instability

Table 22. Households who are paying thirty percent or more of their income for housing

	TOTAL NUMBER OF OCCUPIED	PERCENT OF HOUSING UNITS FOR WHICH HOUSING COSTS 30% OF
GEOGRAPHY	HOUSING UNITS	INCOME OR MORE
White Mountain Apache Tribe Region	3,543	15%
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 23. 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
White Mountain Apache Tribe Region	3,543	11%	20%	29%	40%
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 24. Persons (all ages) in households with and without computers and internet connectivity

	NUMBER OF PERSONS (ALL AGES) LIVING IN	PERCENT IN HOUSEHOLDS WITH COMPUTER	PERCENT IN HOUSEHOLDS WITH COMPUTER	PERCENT IN HOUSEHOLDS WITHOUT
GEOGRAPHY	HOUSEHOLDS	AND INTERNET	BUT NO INTERNET	COMPUTER
White Mountain Apache Tribe Region	15,192	38%	29%	33%
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 25. Children (ages 0-17) in households with and without computers and internet connectivity

	NUMBER OF CHILDREN (AGES 0- 17) LIVING IN	PERCENT IN HOUSEHOLDS WITH COMPUTER	PERCENT IN HOUSEHOLDS WITH COMPUTER	PERCENT IN HOUSEHOLDS WITHOUT
GEOGRAPHY	HOUSEHOLDS	AND INTERNET	BUT NO INTERNET	COMPUTER
White Mountain Apache Tribe Region	5,333	43%	31%	26%
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

				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
White Mountain Apache Tribe Region	5,749	39%	31%	30%	1%
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%

## Table 26. Households by type of internet access (broadband, cellular data, and dial-up)

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.<sup>94</sup> 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 10 percent of the school days within a school year, and it affects even the youngest children, with more than 10 percent of U.S. kindergarteners and first graders considered chronically absent.<sup>95</sup> 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.<sup>96</sup> Consistent school attendance is particularly important for children from economically disadvantaged backgrounds, the group of children most at risk for chronic absenteeism.<sup>97,98</sup>

Achievement on standardized testing. A child's third-grade reading comprehension skills have been identified as a critical indicator of future academic success.<sup>99</sup> 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.<sup>100</sup> 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.<sup>101</sup>

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).<sup>vii,102</sup> 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 established by the State Board of Education.<sup>103</sup> Exceptions exist for students identified with or

<sup>&</sup>lt;sup>vii</sup> AzMERIT was renamed AzM2, a change that will take effect during the 2019-2020 school year.

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.<sup>104,105</sup> 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.<sup>106</sup> 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

- There are six public schools in the White Mountain Apache Tribe Region in two public school districts. In the Whiteriver Unified School District (WUSD) Whiteriver Elementary School serves students in preschool through fifth grade. Seven Mile Elementary School and Cradleboard Elementary school serve children Kindergarten through fifth grade. Canyon Day Junior High School serves students in sixth through eighth grade, while Alchesay High School enrolls high school students. McNary Elementary School in the McNary Elementary District enrolls students in preschool through eighth grade. In addition to public schools, students may enroll in Dishchii'bikoh Community (Cibecue Community) School, Theodore Roosevelt School, or John F. Kennedy Day School, which are operated by the Bureau of Indian Education. Dishchii'bikoh Community (Cibecue Community) School also has a preschool. There is one private religious school in the region, East Fork Lutheran School, which serves students in kindergarten through eighth grade.<sup>107</sup>
- In the 2018-19 school year, there were a total of 866 children enrolled in preschool through third grade in the public school district schools (Table 27).
- From school year 2015-2016 to school year 2018-2019, chronic absence rates for children in kindergarten through third grade in the White Mountain Apache Tribe Region were about twice than those in the state. In 2018-2019, the combined chronic absence rate for children in grades K-3 was 26 percent, more than twice as high as that in Arizona (12%). These rates reflect data from students enrolled in schools at WUSD and McNary Elementary District (Table 28, Table 29, & Table 30).

## Achievement on Standardized Testing

- In school year 2017-2018, 220 third-grade students from schools at WUSD and McNary Elementary District completed the English Language Arts portion of the required Arizona's Measurement of Educational Readiness to Inform Teaching (AzMERIT) test. The passing rate for third-graders in the region (12%) was substantially lower than the state rate (44%). Passing rates in the two previous school years (2015-16 and 2016-17) were similar in both the region and the state (Table 31 & Figure 6).
- Of the 213 third-graders who completed the math portion of the test in school year 2017-2018, less than one-quarter (23%) attained a passing score, a substantially lower rate than in the state (53%) (Table 32). Compared to the two previous school years, however, the math passing rate in the region was notably higher in 2017-18, and also slightly higher in the state (Figure 8).

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

- In 2017, the four-year graduation rate for the students attending schools within the boundaries of the White Mountain Apache Tribe Region was 56 percent, and the five-year graduation rate was 60 percent. Between 2015 and 2016, the four-year graduation rate in the region declined from 61 percent to 54 percent, and then remained stable between 2016 and 2017. In all three years, the rate has been lower in the region than in the state (Table 33 & Table 34).
- In school year 2017-2018, the 7<sup>th</sup>-12<sup>th</sup> grade dropout rate for students attending school within the boundaries of the White Mountain Apache Tribe Region was 14 percent, almost three times the state rate (5%). This rate is lower than in the previous school year (20%) but higher than in 2015-16 (Table 36).
- Educational attainment among adults 25 and older in the White Mountain Apache Tribe Region somewhat mirrors that in all Arizona reservations combined. Thirty-four percent of adults in the region have more than a high school education compared to 38 percent in all Arizona reservations. Both of these rates are lower than the 62 percent in Arizona (Figure 9).
- In 2017, fifty-eight percent of births in the White Mountain Apache Tribe Region were to mothers who had at least a high school diploma or higher educational attainment, compared to 82 percent in Arizona (Table 37).

## School Attendance and Absenteeism

Table 27. Students enrolled in preschool through third grade, 2018-19

GEOGRAPHY	PRESCHOOL	KINDERGARTEN	1ST GRADE	2ND GRADE	3RD GRADE
White Mountain Apache Tribe Region	15	202	201	212	236
Arizona	21,238	79,990	81,913	81,951	83,037

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 students enrolled in schools at McNary Elementary District and Whiteriver Unified School District

#### Table 28. 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)
White Mountain Apache Tribe Region	21%	23%	22%	26%
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. Data on this table reflect students enrolled in schools at McNary Elementary District and Whiteriver Unified School District.

#### Table 29. Chronic absence rates, Kindergarten through 3rd grade, 2018-19

GEOGRAPHY	TOTAL STUDENTS	STUDENTS WITH CHRONIC ABSENCES	CHRONIC ABSENCE RATE
White Mountain Apache Tribe Region	988	259	26%
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.

Note: Data on this table reflect students enrolled in schools at McNary Elementary District and Whiteriver Unified School District.

		CHRONIC	CHRONIC	CHRONIC
	CHRONIC	ABSENCE	ABSENCE	ABSENCE
	ABSENCE RATE	RATE (1ST	RATE (2ND	RATE (3RD
GEOGRAPHY	(KINDERGARTEN)	GRADE)	GRADE)	GRADE)
White Mountain Apache Tribe Region	25%	24%	31%	25%
Arizona	13%	12%	11%	10%

## Table 30. Chronic absence rates for students by grade (Grade K-3), 2018-19

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. Data on this table reflect students enrolled in schools at McNary Elementary District and Whiteriver Unified School District.

## Achievement on Standardized Testing

Table 31. AzMERIT Assessment Results: 3rd Grade English Language Arts, 2017-18

	STUDENTS	FALLS FAR				
	STUDENTS	FALLS FAR				
GEOGRAPHY	TESTED	BELOW	APPROACHES	MEETS	EXCEEDS	PASSING
White Mountain Apache Tribe Region	220	77%	10%	11%	1%	12%
Arizona	84,922	43%	13%	30%	14%	44%

Source: Arizona Department of Education (2019). 2017-18 AzMERIT Assessment Results. Custom tabulation of assessment data.

Note: Data on this table reflect students enrolled in schools at McNary Elementary District and Whiteriver Unified School District.

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



Source: Arizona Department of Education (2019). 2017-18 AzMERIT Assessment Results. Custom tabulation of assessment data.

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 AzMERIT Assessment Results. Custom tabulation of assessment data.

#### Table 32. AzMERIT Assessment Results: 3rd Grade Math, 2017-18

GEOGRAPHY	NUMBER OF STUDENTS TESTED	FALLS FAR BELOW	APPROACHES	MEETS	EXCEEDS	PASSING
White Mountain Apache Tribe Region	213	49%	27%	20%	4%	23%
Arizona	85,105	23%	24%	31%	22%	53%

Source: Arizona Department of Education (2019). 2017-18 AzMERIT Assessment Results. Custom tabulation of assessment data.

Note: Data on this table reflect students enrolled in schools at McNary Elementary District and Whiteriver Unified School District.





Source: Arizona Department of Education (2019). 2017-18 AzMERIT Assessment Results. Custom tabulation of assessment data.







Source: Arizona Department of Education (2019). 2015-16 to 2017-18 AzMERIT Assessment Results. Custom tabulation of assessment data.

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

GEOGRAPHY	FOUR- YEAR SENIOR COHORT	FOUR-YEAR GRADUATES	FOUR-YEAR GRADUATION RATE	FIVE-YEAR GRADUATES	FIVE-YEAR GRADUATION RATE	DROPOUT RATE (7TH TO 12TH GRADES)
White Mountain Apache Tribe Region	181	101	56%	109	60%	14%
Arizona	84,802	66,363	78%	70,178	82%	5%

Table 33. Graduation and dropout rates, 2017

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 <u>https://www.azed.gov/accountability-research/data/</u>

#### Table 34. Trends in four-year graduation rates, 2015 to 2017

	FOUR-YEAR	FOUR-YEAR	FOUR-YEAR
	<b>GRADUATION RATE</b>	GRADUATION RATE	<b>GRADUATION RATE</b>
GEOGRAPHY	(2015)	(2016)	(2017)
White Mountain Apache Tribe Region	61%	54%	56%
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 35. Trends in five-year graduation rates, 2015 to 2017

	FIVE-YEAR	FIVE-YEAR	FIVE-YEAR
	<b>GRADUATION RATE</b>	GRADUATION RATE	<b>GRADUATION RATE</b>
GEOGRAPHY	(2015)	(2016)	(2017)
White Mountain Apache Tribe Region	64%	62%	60%
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 36. 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)
White Mountain Apache Tribe Region	10%	20%	14%
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

GEOGRAPHY		MOTHER HAD LESS THAN A HIGH- SCHOOL	MOTHER HAD HIGH-SCHOOL	
GEOGRAPHY White Mountain Apache Tribe Region	OF BIRTHS IN 2017 314	EDUCATION 42%	DIPLOMA OR GED 34%	SCHOOL 24%
Arizona	81,664	17%	26%	56%

#### Table 37. Level of education for mothers giving birth during calendar year 2017

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>108,109</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>110</sup> those disparities that persist until kindergarten tend to predict later academic problems.<sup>111</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.<sup>112,113,114</sup> 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.<sup>115</sup> Even when early 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.<sup>116</sup> 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.<sup>117,118</sup>

Child care subsidies can be a support for families who have financial barriers to accessing early learning services.<sup>119</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>120</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>121</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>122,123,124</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>125</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>126,127</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>128</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>129</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 wellbeing, academic achievement, and success later in life.<sup>130</sup> 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).<sup>131</sup>

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.<sup>132</sup> 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.<sup>133,134,135</sup>

Quality First is Arizona's Quality Improvement and Rating System (QIRS) for early child care and preschool providers.<sup>136</sup> 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.<sup>137</sup> The number of providers across the state that meet quality standards (three-star rating or higher) has increased across the last five 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.<sup>138</sup>

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.<sup>139,140</sup> Nationally, preschool expulsions and suspensions occur at high rates and disproportionately impact children of color, specifically young Black boys.<sup>141,142</sup> In 2016, an 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.<sup>143</sup> 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.<sup>144,145</sup> Given 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.<sup>146</sup>

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>147</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."<sup>148</sup> 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) <sup>viii</sup> than typically-developing children,<sup>149</sup>

<sup>&</sup>lt;sup>viii</sup> 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>150,151</sup> suggesting they may particularly benefit from high quality teacher-child interactions in classrooms.<sup>152,153</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>154</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>155</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.<sup>156,157,</sup> It also reduces educational costs by decreasing the need for special education.<sup>158</sup> In Arizona, services available to families with children with special needs include those provided through the Arizona Early Intervention Program (AzEIP),<sup>159</sup> the Arizona Department of Education Early Childhood Special Education program,<sup>160</sup> and the Division of Developmental Disabilities (DDD).<sup>161</sup>

## What the Data Tell Us

## Access to Early Care and Education

- Child care and early education opportunities in the White Mountain Apache Tribe Region include Chaghache Day Care and Alchesay Beginnings Child Development Center (also known as ABC Day Care), the Family and Child Education (FACE) program at John F. Kennedy Day School, the White Mountain Apache Head Start and , and Dishchii'bikoh Community School.<sup>162</sup>
- Thirty-seven percent of children ages three to four are enrolled in school (i.e. nursery school, preschool, or kindergarten) in the White Mountain Apache Region, a lower proportion than that in all Arizona reservations combined (41%) (Table 38).
- According to the White Mountain Apache Tribe Regional Partnership Council 2018 Needs and Assets Report, Alchesay Beginnings Child Development Center has the capacity to serve 102 children ages two weeks to five years of age, with an additional capacity of 20 for after school care of children ages six to twelve. Depending on attendance and availability, drop-in child care services are also available for a fee. To be eligible for services, parents or caregivers must be employed, in school, or in training. The center has four classrooms, one for infants that can enroll up to 16 infants, two for toddlers that together can enroll up to 47 toddlers, and one for preschoolers that can enroll up to 39 students.<sup>163</sup>
- Chaghache Day Care has the capacity to enroll 90 children ages six months to twelve years of age. The Center has four classrooms, one for infants (6-22 months), one for toddlers (22-36 months), one for preschoolers (ages 3-4), and pre-K (ages 4-5). As of August 2016, there were 12 infants, 20 toddlers, and 28 preschoolers enrolled at Chaghache Day Care Center. Chaghache Day Care has a waiting list in all these groups, with 20 infants, 15 toddlers, and fewer than ten preschoolers on the waiting list.<sup>164</sup>
- The White Mountain Apache Tribe Head Start has funded enrollment for 252 children. Over the course of the 2014-2015 school year, this program enrolled a total of 262 fouryear old children throughout the year at three centers: Whiteriver, Cibecue, and McNary. In order to enroll in the program, families must meet income eligibility requirements, and Head Start is one of the few programs in the region that is free for low-income families. According to the 2018 Needs and Assets Report, White Mountain Apache Tribe Head Start had been under-enrolled, and as of August 2016, there were 236 children enrolled in the program.<sup>165</sup>
- The Family and Child Education (FACE) program is based at John F. Kennedy Day School in Cedar Creek and it has both a center-based and home-based component. The home-based component includes weekly visits and screenings by parent educators for families

with children birth to three. In the 2015-2016 school year, there were 35 children participating in the home-based component of the program, 19 of whom were age two or younger. The FACE center-based component includes an early childhood education program for children ages three to five, adult education for the children's parents, and Parent and Child Time (PACT). In the 2015-2016 school year, 20 three- and four-year-old children were enrolled in the center-based classroom, with five students on the waiting list.<sup>166</sup>

- In terms of cost associated with the early care and learning centers in the White Mountain Apache Tribe Region, the 2018 Needs and Assets Report indicates that participation in the White Mountain Apache Head Start program is cost-free for all children enrolled. Similarly, children with special needs enrolled in Whiteriver Elementary School receive services at no cost to their families.<sup>167</sup>
- The 2018 Needs and Assets Report also noted that families in the White Mountain Apache Tribe Region who do not qualify for child care assistance pay more than the recommended ten percent of the family income on child care (between 12 and 16 percent of the median family income, depending on the child's age) (Figure 10).
- In addition to the child care subsidies provided through the tribally-operated child care centers, some families in the White Mountain Apache Tribe Region also receive subsidies from the Arizona Department of Economic Security (DES). The number of young children receiving DES subsidies in the region declined from 23 in 2015, to fewer than ten in 2018 (Table 39).
- The number of young children involved with the Department of Child Safety (DCS) who received child care subsidies from DES remained relatively stable between 2015 and 2018, when 21 children received this benefit. In the same period of 2015-2018, nearly all of the children involved with DCS in the region who were eligible for DES child care subsidies used them (Table 40).
- Between 2015 and 2018, the proportion of eligible families not using DES child care subsidies in the White Mountain Apache Tribe Region ranged from zero percent in 2015, to 25 percent in 2018 (Table 41).

## 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.<sup>ix</sup> In 2017, fewer than ten young children receiving child care subsidies from DES in the region were served in quality environment settings, as defined by DES. There were no children in quality environment settings in the region in 2018 (Table 44).

 In State Fiscal Year 2019, a total of six child care providers in the White Mountain Apache Tribe Region participated in Quality First, two of which were quality-level settings (i.e. had a public 3-5 stars rating). That same year, there were 353 children enrolled at a Quality First Site in the region, 204 (or 58%) of whom were enrolled in quality-level settings (Table 42 & Table 43).

## Young Children with Special Needs

- The number of children (ages 3-5) enrolled in special education in the White Mountain Apache Tribe Region was similar in school years 2015-2016 and 2016-2017 (49 and 51 children, respectively) and decreased in the two school years that followed, to 33 in 2018-2019 (Table 45).
- The percentage of students enrolled in special education in the region (grades 1-3) remained stable from school year 2015-2016 to school year 2018-2019 at about 10 percent (Table 47).
- The proportion of children ages 0-2 who were referred to the Arizona Early Intervention Program (AzEIP) and were found eligible for services in the region was similar in Fiscal Years 2016 and 2017 (50% and 52%, respectively). The total number of active AzEIP cases in the region increased by eight percent from 2017 to 2018 (Table 48 & Table 49).
- The number of children ages birth to two from the White Mountain Apache Tribe Region receiving services by the Division of Developmental Disabilities (DDD) increased from fewer than ten in Fiscal Year 2015 to 27 in Fiscal Year 2018 (Table 50 & Table 51). No children ages three to five received services from DDD in the region in Fiscal Year 2018, fewer than ten children ages birth to two received services in the region in that same period.

<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 <u>https://des.az.gov/documents-center</u>

## Access to Early Care and Education

	POPULATION OF	NUMBER ENROLLED	PERCENT ENROLLED
GEOGRAPHY	CHILDREN (AGES 3-4)	IN SCHOOL	IN SCHOOL
White Mountain Apache Tribe Region	687	252	37%
All Arizona Reservations	6,574	2,673	41%
Arizona	182,970	69,712	38%
United States	8,190,503	3,892,317	48%

Table 38. School enrollment for children (ages 3 and 4)

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.* 

#### Figure 10. Cost of Full-Time Child Care as a Percentage of Median Income



Source: Alchaesay Beginnings Child Development Center (2016) [Center Data]. Unpublished data. Chaghache Day Care Center (2016) [Center Data]. Unpublished data.

#### Table 39. Children receiving DES child care subsidies, 2015 to 2018

	NUMBER OF CHILDREN RECEIVING	NUMBER OF CHILDREN RECEIVING	NUMBER OF CHILDREN RECEIVING	NUMBER OF CHILDREN RECEIVING
GEOGRAPHY	SUBSIDIES, 2015	SUBSIDIES, 2016	SUBSIDIES, 2017	SUBSIDIES, 2018
White Mountain Apache Tribe Region	23	20	15	<10
Arizona	19,040	17,784	16,922	19,813

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

Note: This table reflects children receiving subsidies who are not DCS-involved.

	NUMBER OF DCS CHILDREN RECEIVING SUBSIDIES				OF ELIGIBL		DREN	
GEOGRAPHY	2015	2016	2017	2018	2015	2016	2017	2018
White Mountain Apache Tribe Region	21	16	20	21	100%	100%	91%	100%
Arizona	13,098	13,352	12,201	12,219	91%	89%	88%	82%

## Table 40. DCS-involved children receiving DES child care subsidies, 2015 to 2018

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

## Table 41. 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
White Mountain Apache Tribe Region	0%	19%	0%	25%
Arizona	6%	6%	7%	8%

Source: Arizona Department of Economic Security (2019). 2015-2018 Child Care Assistance Data. Unpublished data received by request.
## High Quality Early Care and Education

GEOGRAPHY	QUALITY FIRST SCHOLARSHIP S: NUMBER OF CHILDREN SERVED	NUMBER OF CHILDREN ENROLLED AT A QUALITY FIRST PROVIDER SITE	NUMBER OF CHILDREN ENROLLED AT A QUALITY FIRST PROVIDER SITE WITH A PUBLIC 3-5 STAR RATING	PERCENT OF CHILDREN IN A QUALITY-LEVEL SETTING (PUBLIC 3-5 STARS)
White Mountain Apache Tribe Region	61	353	204	58%
Arizona	9,179	62,215	45,278	73%

Table 42. First Things First Quality First child data, State Fiscal Year 2019

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

CEOCRADHY	NUMBER OF CHILD CARE PROVIDERS	NUMBER OF CHILD CARE PROVIDERS SERVED WITH A PUBLIC 3-5 STAR	PERCENT OF CHILD CARE PROVIDERS SERVED WITH A PUBLIC 3-5 STAR
GEOGRAPHY White Mountain Apache Tribe Region	SERVED 6	RATING 2	RATING 33%
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.

Table 44. 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
White Mountain Apache Tribe Region	<10	0
Arizona	13,706	17,295

Source: Arizona Department of Economic Security (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 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>

## Young Children with Special Needs

GEOGRAPHY	CHILDREN (AGES 3- 5) IN SPECIAL EDUCATION (2015-16)	CHILDREN (AGES 3- 5) IN SPECIAL EDUCATION (2016-17)	CHILDREN (AGES 3- 5) IN SPECIAL EDUCATION (2017-18)	CHILDREN (AGES 3- 5) IN SPECIAL EDUCATION (2018-19)
White Mountain Apache Tribe Region	49	51	41	33
Arizona	14,295	15,257	16,159	16,432

Table 45. Children (ages 3-5) Enrolled in Special Education, 2015-16 to 2018-19

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

#### Table 46. Children (ages 3-5) Enrolled in Special Education by Type of Disability, 2018-19

	CHILDREN (AGES 3-5) IN SPECIAL	DEVELOP- MENTAL	SPEECH OR LANGUAGE	PRE- SCHOOL SEVERE		HEARING IMPAIR-	OTHER DIS-
GEOGRAPHY	EDUCATION	DELAY	IMPAIRMENT	DELAY	AUTISM	MENT	ABILITIES
White Mountain Apache Tribe Region	33	52%	DS	DS	DS	DS	DS
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.

#### Table 47. Percent of Students (Grade 1-3) Enrolled in Special Education, 2015-16 to 2018-19

	STUDENTS IN SPECIAL EDUCATION	STUDENTS IN SPECIAL EDUCATION	STUDENTS IN SPECIAL EDUCATION	STUDENTS IN SPECIAL EDUCATION
GEOGRAPHY	(2015-16)	(2016-17)	(2017-18)	(2018-19)
White Mountain Apache Tribe Region	11%	10%	10%	10%
Arizona	11%	11%	12%	12%

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

	NUMBER OF CHILDREN (AGES 0-2)	NUMBER OF CHILDREN (AGES 0-2)	PERCENT OF REFERRALS	NUMBER OF CHILDREN (AGES 0-2)	NUMBER OF CHILDREN (AGES 0-2)	PERCENT OF REFERRALS
GEOGRAPHY	REFERRED TO AzEIP, FFY2016	ELIGIBLE FOR AzEIP, FFY2016	FOUND ELIGIBLE, FFY2016	REFERRED TO AzEIP, FFY2017	ELIGIBLE FOR AzEIP, FFY2017	FOUND ELIGIBLE, FFY2017
White Mountain Apache Tribe Region	133	67	50%	151	78	52%
Arizona	16,063	9,383	58%	16,344	9,770	60%

Table 48. Children referred to and found eligible for AzEIP, Federal Fiscal Years 2016 and 2017

Source: Arizona Department of Economic Security (2019). AZEIP Service Dataset. Unpublished data received by request.

#### Table 49. AzEIP caseloads, 2017 and 2018

			PERCENT CHANGE IN
	CUMULATIVE ACTIVE	CUMULATIVE ACTIVE	AzEIP CASELOADS
GEOGRAPHY	AzEIP CASES, 2017	AzEIP CASES, 2018	FROM 2017 TO 2018
White Mountain Apache Tribe Region	85	92	+8%
Arizona	10,934	11,600	+6%

Source: Arizona Department of Economic Security (2019). AZEIP Service Dataset. Unpublished data received by request.

#### Table 50. Children (ages 0-2) receiving services from DDD, State Fiscal Years 2015 to 2018

GEOGRAPHY	CHILDREN (AGES 0-2) RECEIVING DDD SERVICES, SFY2015	CHILDREN (AGES 0-2) RECEIVING DDD SERVICES, SFY2016	CHILDREN (AGES 0-2) RECEIVING DDD SERVICES, SFY2017	CHILDREN (AGES 0-2) RECEIVING DDD SERVICES, SFY2018	PERCENT CHANGE FROM 2015 TO 2018
White Mountain Apache Tribe Region	<10	11	20	27	DS
Arizona	3,948	4,095	4,505	5,012	+27%

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

	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
White Mountain Apache Tribe Region	0	0	0	0	N/A
Arizona	887	898	1,049	1,154	+30%

## Table 51. Children (ages 3-5) receiving services from DDD, State Fiscal Years 2015 to 2018

Source: Arizona Department of Economic Security (2019). 2015-2018 Division Developmental Disabilities 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>168</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>169,170</sup> Access to health insurance and preventive care influence not only a child's current health, but long-term development and future health.<sup>171,172,173</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>174,175</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.<sup>176,177</sup> 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.<sup>178</sup> 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.<sup>179,180</sup> 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.<sup>181</sup> 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>182</sup> and eligibility for IHS services alone does not meet the minimum essential coverage requirement under the Affordable Care Act.<sup>183</sup> Transportation is a challenge in many rural tribal regions, which can also limit access to care. Close to one in 5 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%).<sup>184</sup>

**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>185</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>186,187,188</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.<sup>189,190</sup> Babies born to obese women are at risk for chronic conditions later in life such as diabetes and heart disease.<sup>191</sup> 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.<sup>192</sup>

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>193,194</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>195</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.<sup>196,197</sup> 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.<sup>198</sup> 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.<sup>199</sup>

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).<sup>200</sup> 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.<sup>201,202</sup> 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.<sup>203</sup> 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.<sup>204</sup>

**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>205</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>206</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>207</sup>

A child's weight status can have long-term impacts on health and well-being. Nationwide, an estimated 3 percent of children ages 2-19 are underweight, 16.6 percent are overweight, and 18.5 percent are obese.<sup>208,209</sup> Obesity can have negative consequences on physical, social, and psychological well-being that begin in childhood and continue into and throughout adulthood.<sup>210</sup> 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).<sup>211, 212</sup>

**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.<sup>213</sup> A national study showed that low-income children were more likely than higher income children to have untreated cavities.<sup>214</sup> 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%).<sup>215</sup> 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.<sup>216</sup> 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.<sup>217</sup>

First Things First's Oral Health strategy was able to provide 24,664 children birth to age 5 with a dental screening, and 16,837 children with a fluoride varnish in the Arizona State Fiscal Year 2019.<sup>218</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>219</sup>

**Illness and injury.** Asthma is the most common chronic illness affecting children<sup>220</sup>, and it is more prevalent among boys, Black children, American Indian or Alaska Native children, and children in low-income households.<sup>221,222</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>223</sup> Unintentional injuries are the leading cause of death for children in Arizona<sup>224</sup> and nationwide.<sup>225</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>226</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>227,228</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 10 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>229</sup>

## What the Data Tell Us

#### Access to Health Services

- In the White Mountain Apache Tribe Region, about one in five (18%) people lack health insurance coverage, a percent that is lower than that in all Arizona reservations (22%), but higher than the state of Arizona (12%). The proportion of uninsured young children in the region (8%), is half of that in all Arizona reservations combined (16%) and only slightly higher than 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 52 & Figure 11).
- In 2017, the most recent year for which data are available, AHCCCS<sup>x</sup> paid for 85 percent of the 314 births in the region, while IHS paid for seven percent (Table 53).

#### Maternal, Infant, and Child Health

- In 2017, 43.9 percent of births in the White Mountain Apache Tribe Region were to women who had no prenatal care in their first trimester, a percentage that is nearly twice the Healthy People 2020 target of no more than 22.1 percent. Additionally, 17 percent of births were to women who had fewer than five prenatal visits in the region, compared to eight percent in the state (Table 54).
- The proportion of babies born at low birth weight in the White Mountain Apache Tribe Region (11.1%) was higher than in the state (7.5%) and did not meet the Healthy People 2020 target of 7.8 percent or lower. Similarly, 11.5 percent of births in the region in 2017 were preterm births (i.e. less than 37 weeks), higher than the state rate of 9.3 percent, and also higher than the Healthy People 2020 target of no more than 9.4 percent (Table 55).
- The proportion of births to women who used tobacco during pregnancy in the region in 2017 (8%) was substantially higher than the Healthy People 2020 target of no more than 1.4 percent (Table 55). There was also a notably higher proportion of births to mothers younger than 18 in the region (7%) compared to the state (2%).

#### **Child Immunizations**

 According to the White Mountain Apache Tribe Regional Partnership Council 2018 Needs and Assets Report, in the period between October 2013 and September 2015, 65.8 percent of children 19 to 35 months old were fully immunized. In the school year 2014-2015 nearly all (98.1%) of the children enrolled in the White Mountain Apache

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

Tribe Head Start program were up-to-date on their immunizations. This was a higher rate than immunization rates in other early care and education programs in the region.

- In school year 2015-2016, only half of children enrolled in these programs were up to date on their polio vaccines, 78 percent up to date on their DTAP vaccines, and 67 percent up to date their Hepatitis A vaccines. Overall, the regional rates were lower than those of the state (Table 59).<sup>230</sup>
- In the 2018-2019 school year, vaccination rates among kindergarteners in the White Mountain Apache Tribe Region were high. Nearly all children (99.4%) enrolled in kindergarten in that year had the required immunizations for their age (Table 60).
- There were no personal belief exemptions nor exemptions from all required vaccinations among kindergarteners in the region in school year 2017-2018 (Table 62).

#### Illness and Injury

- From 2015 to 2018, there were eighteen non-fatal inpatient hospitalizations of young children from the White Mountain Apache Tribe Region for unintentional injuries, with burns being the most common reason for hospitalization (56%) (Table 63).
- From 2015 to 2017, there were eighteen inpatient hospitalizations and fourteen emergency room visits for asthma among young children from the region. The average length of stay for asthma-related hospitalizations was higher in the region (3.0 days) than in the state (1.9 days) (Table 64).
- From 2015 to 2018, there were 415 non-fatal emergency room visits for unintentional injuries for young children in the region. The most common reasons for these non-fatal emergency room visits in the region were falls (38%) and natural or environment (13%). At the state level, falls were also the most common reason for emergency room visits (46%) (Table 65).
- Between 2015 and 2017, there were seventeen child deaths in the White Mountain Apache Tribe Region, eleven of which were among young children (ages 0-4) (Table 67).

## **Access to Health Services**

#### Table 52. 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)
White Mountain Apache Tribe Region	15,228	18%	1,827	8%
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 11. 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 53. Payors for births during calendar year 2017

GEOGRAPHY	TOTAL NUMBER OF BIRTHS IN 2017	BIRTHS PAID BY AHCCCS	BIRTHS PAID BY IHS	BIRTHS SELF-PAY
White Mountain Apache Tribe Region	314	85%	7%	DS
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

CEOCRADUM	TOTAL NUMBER OF BIRTHS IN	MOTHERS WHO HAD NO PRENATAL	MOTHERS WHO HAD NO PRENATAL CARE IN FIRST	MOTHERS WHO HAD FEWER THAN FIVE PRENATAL
GEOGRAPHY White Mountain Apache Tribe Region	2017 <b>314</b>	CARE DS	TRIMESTER 43.9%	VISITS 17%
Arizona	81,664	3%	26.4%	8%
Healthy People 2020 target			22.1%	

Table 54. Prenatal care for mothers giving birth during calendar year 2017

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

#### Table 55. Various risk factors for births during calendar year 2017

	TOTAL NUMBER OF BIRTHS IN	LOW BIRTH-	PRETERM (LESS THAN	NICU	MOTHER USED	MOTHER YOUNGER	MOTHER YOUNGER
GEOGRAPHY	2017	WEIGHT	37 WEEKS)	ADMISSIONS	TOBACCO	THAN 18	THAN 20
White Mountain Apache Tribe Region	314	11.1%	11.5%	10%	8.0%	7%	16%
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.

#### Table 56. Neonatal abstinence syndrome, calendar years 2016 and 2017

GEOGRAPHY	NAS CASE COUNT	NAS RATE PER 1,000 LIVE BIRTHS
Arizona	1,228	7.4

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

## **Oral Health**

Table 57. First Things First oral health strategy data, State Fiscal Year 2019

	CHILDREN (AGES 0-5) RECEIVING	CHILDREN (AGES 0-5) RECEIVING				
GEOGRAPHY	DENTAL SCREENINGS	FLUORIDE VARNISHES				
White Mountain Apache Tribe Region						
Arizona	24,664	16,837				
Sources First Things First (2010) Oral Health Strategy Data Hanshliphed data received by served						

Source: First Things First (2019). Oral Health Strategy Data. Unpublished data received by request Note: The White Mountain Apache Tribe Regional Partnership Council did not fund the oral health strategy in 2019.

## **Child Immunizations**

		RESPIRATORY				
		SYNCYTIAL			HAEMOPHILUS	
GEOGRAPHY	INFLUENZA	VIRUS (RSV)	VARICELLA	PERTUSSIS	INFLUENZAE	MUMPS
Arizona	5,449	4,201	70	51	31	<6

Table 58. Cases of infectious diseases among young children (ages 0-5), 2015-2018 cumulative

Source: Arizona Department of Health Services. (2019). 2015-2018 Child Infectious Disease Data. Custom data tabulation from requested data.

Note: These numbers include both confirmed and probable cases. There were zero reported cases of meningococcal meningitis or measles.

#### Table 59. Vaccination rates and exemption rates for children in child care, 2015-16

		FOUR OR	THREE	TWO OR	THREE		THREE	ONE OR
	STUDENTS	MORE	MORE	MORE	MORE	TWO	MORE	MORE
	ENROLLED	DTAP	POLIO	MMR	HIB	HEP A	HEP B	VARICELLA
White Mountain Apache Tribe Region	82	78%	51%	89%	88%	67%	94%	89%
All Arizona Reservations	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Arizona	92,128	92%	93%	94%	92%	81%	92%	95%

Source: First Things First. (2018). White Mountain Apache Tribe 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-%20White%20Mountain%20Apache%20Tribe.pdf">https://files.firstthingsfirst.org/regions/Publications/Regional%20Needs%20and%20Assets%20Report%20-%202018%20-%20White%20Mountain%20Apache%20Tribe.pdf</a>

Note: These data represent immunization rates for children in preschool or child care at Cradleboard Elementary School, Seven Mile Preschool, Alchesay Beginnings Child Development Center, and Whiteriver Elementary School. 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)
White Mountain Apache Tribe Region	175	99.4%	99.4%	99.4%	99.4%	100.0%
Arizona	79,981	92.7%	93.3%	93.0%	94.4%	95.6%
Healthy People 2020 targets		95.0%	95.0%	95.0%	95.0%	95.0%

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: the data in this table reflect kindergarteners enrolled at East Fork Lutheran, Whiteriver Elementary, Cradleboard School, and Dishchii'bikoh Community School.

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)
White Mountain Apache Tribe Region	0.0%	0.0%	(2018-19) N/A	0.0%	N/A
Arizona	3.9%	4.3%	4.5%	2.9%	3.0%

#### Table 61. Child care immunization exemption rates, 2016-17 to 2018-19

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 for school year 2016-2017 reflect rates reported by Whiteriver Elementary preschool classrooms and White Mountain Apache Tribe Head Start. For school year 2017-2018, data reflect rates reported by Alchesay's ABC Center and Whiteriver Elementary preschool classrooms. No child care centers in the WMAT Region reported immunization data to ADHS in 2018-2019.

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

	PERSONAL	PERSONAL	PERSONAL	EXEMPT FROM	EXEMPT FROM
	BELIEF	BELIEF	BELIEF	EVERY REQUIRED	EVERY REQUIRED
GEOGRAPHY	EXEMPTION	EXEMPTION	EXEMPTION	VACCINE	VACCINE
	(2016-17)	(2017-18)	(2018-19)	(2017-18)	(2018-19)
White Mountain Apache Tribe Region	0.0%	0.0%	0.0%	0.0%	0.0%
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 <u>https://www.azdhs.gov/preparedness/epidemiology-disease-control/immunization/index.php#reports-immunization-coverage</u>

## **Illness and Injury**

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

	NUMBER OF NON-FATAL		SECOND MOST
	INPATIENT HOSPITALIZATIONS	MOST COMMON	COMMON
	FOR CHILDREN (AGES 0-5),	REASON FOR	REASON FOR
GEOGRAPHY	2015-2018 TOTALS	HOSPITALIZATION	HOSPITALIZATION
White Mountain Apache Tribe Region	18	Burns (56%)	DS
Arizona	3,015	Falls (33%)	Poisoning (15%)

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

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

	NUMBER OF INPATIENT HOSPITALIZATIONS FOR ASTHMA (AGES 0 TO 5, EXCEPT NEWBORNS),	AVERAGE LENGTH OF STAY (DAYS) FOR ASTHMA HOSPITALIZATION (AGES 0- 5 EXCEPT NEWBORNS),	NUMBER OF EMERGENCY ROOM VISITS FOR ASTHMA (AGES 0 TO 5, EXCEPT NEWBORNS),
GEOGRAPHY	2015-2017 TOTALS	2015-2017	2015-2017 TOTALS
White Mountain Apache Tribe Region	18	3.0	14
Arizona	2,232	1.9	12,812

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

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

GEOGRAPHY	NUMBER OF NON-FATAL EMERGENCY ROOM VISITS FOR CHILDREN (AGES 0-5), 2015-2018 TOTALS	MOST COMMON REASON FOR EMERGENCY ROOM VISIT	SECOND MOST COMMON REASON FOR EMERGENCY ROOM VISIT
White Mountain Apache Tribe Region	415	Falls (38%)	Natural or environment (13%)
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.

#### Table 66. Infant mortality, calendar year 2017

	INFANT DEATHS WITHIN 7 DAYS OF	INFANT MORTALITY RATE (WITHIN 1
GEOGRAPHY	BIRTH, 2017	YEAR; PER 1,000 LIVE BIRTHS), 2017
Arizona	234	5.6
Healthy People 2020 target		6.0

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

## Table 67. 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
White Mountain Apache Tribe Region	11	17
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>231,232,233,234</sup> Parental and family involvement is positively linked to academic skills and literacy in preschool, kindergarten, and elementary school.<sup>235</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>xi,236</sup>

**Early literacy.** Parental and family involvement is positively linked to academic skills and literacy in preschool, kindergarten and elementary school.<sup>237</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>238</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>239,240</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>241,242</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>243</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>244</sup>

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>245</sup> The Bureau of Indian

x<sup>i</sup> The Center for the Study of Social Policy developed Strengthening Families: A Protective Factors Framework<sup>™</sup> 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.

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>246</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>247</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>248</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>249</sup> Future poor health outcomes are also more likely as an individual's ACE score increases.<sup>250</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%).<sup>251</sup> These children and their families may require specific, targeted resources and interventions in order to reduce harm and prevent future risk.<sup>252</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.<sup>253,254,255</sup>

**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."<sup>256</sup> 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>257</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.<sup>258</sup> 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>259</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>260</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>261</sup>

## What the Data Tell Us

#### **Family Involvement**

- According to the White Mountain Apache Tribe Regional Partnership Council 2018 Needs and Assets Report, there is a need in the region for more community events for young children and their families, particularly in the summer. The local Boys and Girls Club has summer activities for older children, and summer school is available for schoolage children. However, no summer programs currently exist for children under the age of six beyond those provided at Chaghache Day Care Center and Alchesay Beginnings Child Development Center.<sup>262</sup>
- The 2018 Needs and Assets report also pointed out that one of the major challenges to supporting children in the region is a lack of parental engagement and involvement. Head Start provides monthly parent trainings, and Child Find provides regular workshops and training programs for parents, but parent attendance is a challenge in part due to transportation. Due to high rates of poverty and unemployment in the region, as well as the young age of many parents, families face significant challenges accessing resources and providing for their children.<sup>263</sup>
- A major asset in the region is the trust built between the community and service providers. When parents trust that their children's needs will be met and that they will be well taken care of, they are more eager to engage in programs. There is a high level of trust and awareness around the services for children with special needs in the community and parents know they can get help for their children.<sup>264</sup>

#### **Child Removals and Foster Care**

- Child welfare services in the White Mountain Apache Tribe Region are overseen by the White Mountain Apache Tribe Social Services Department. Services supporting children in the child welfare system are also available through the tribally-operated Our Children's Shelter, a group home that can house up to 12 children aged birth through 18 years.<sup>265</sup>
- In calendar year 2015, there were 308 substantiated cases of child abuse and neglect that involved children birth to 17, an increase from 284 in 2014. In 2015, 137 children were removed by Tribal Child Protective Services, up from 107 in 2014. Over the course of 2014 and 2015, there were 872 children birth to 17 who were considered wards of the tribe. In 2015, about a third of these children were placed with their parents, a third with relatives, and the remainder in contracted foster care homes off-reservation or in the tribal group home (Figure 12).<sup>266</sup>

## **Home Visitation**

Table 68. First Things First-funded home visiting program data, State Fiscal Year 2019

Arizona	4,106	241
White Mountain Apache Tribe Region	N/A	N/A
GEOGRAPHY	NUMBER OF FAMILIES SERVED	VISITATION PROGRAMS
		GRADUATED FROM HOME
		FAMILIES SUCCESSFULLY

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**

#### Figure 12. Placement of court wards, 2014 and 2015



Source: First Things First White Mountain Apache Tribe Regional Partnership Council 2018 Regional 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 crosssystem 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

## Chaghą́shé Ndee Biyati'

Based upon data and information that indicates a significant need for quality, early learning opportunities, the White Mountain Apache Tribe (WMAT) Regional Partnership Council has prioritized and funded Early Learning programmatic and system building strategies to meet this need. In addition, they are passionate about the Native Language Preservation Strategy to support use of the Apache Language in all early learning programs throughout the community. FTF staff attended Ndee Biyati' Yáának'idaizigi—"Those Who Work on Apache Language" work group and requested volunteers convene once a month to discuss early childhood and integration of the Apache language. Those involved in the work group include Fort Apache Culture Center staff, Apache language teachers, regional librarian for White Mountain Apache Tribe, WMAT Regional Partnership Council members and elders from the community. They recently renamed the group to Chagháshé Ndee Biyati'—"Children Apache Language" work group. The vision of Chagháshé Ndee Biyati' is to encourage families of young children residing in White Mountain Apache Region to read and learn Apache language through children's books specific to White Mountain Apache Tribe language and culture by building on what is already available in the community. The Fort Apache Culture Center staff shared books that were created by Johnson O'Malley (JOM) program in 1970s to 1980s and Alphabet Alliteration Bilingual Apache-English. Chagháshé Ndee Biyati' will request from the Indian Education Committee to reprint the JOM books with White Mountain Apache language translation and would like to have Alphabet Alliteration Bilingual Apache-English books available in all child care and kindergarten classrooms. Chagháshé Ndee Biyati' also plans to create board books similar to Beverly Blacksheep's Navajo Baby Board books, but with Apache stories. Lastly, the work group would also like to create a social media campaign on children learning Apache language is important. All efforts in the goals Chagháshé Ndee Biyati' has include collaboration of various departments within White Mountain Apache Region and with the FTF regional council and staff.

## Early Childhood Education Campaign

The White Mountain Apache Tribe Regional Partnership Council and staff continue outreach and awareness efforts to increase the awareness of the importance of early childhood development and health. Council members and staff have participated in a wide variety of community/family events and engaged individual programs such as Head Start to help share this information. In addition, FTF staff have met with Tribal Council to share this information and the work of the WMAT Regional Partnership Council.

Recently, the White Mountain Apache Tribe's Tribal Council convened a meeting with Tribal Head Start staff and FTF staff. In the course of the meeting, it was identified that enrollment is very low for some Head Start classrooms and other early care and education classrooms throughout the community despite significant efforts using multiple approaches to conduct outreach, recruitment, and enrollment among eligible families. It was further identified that the Tribal Council is very concerned that younger Apache parents and families may not understand the importance of early education and that is the reason why enrollment in the early care and education programs such as Tribal Head Start is low and continues to drop. There was some preliminary discussion about devising an awareness campaign and the need to reconvene early learning providers to coordinate awareness, outreach, recruitment, and enrollment efforts.

## **Early Childhood Coalition**

Based upon this discussion, the White Mountain Apache Tribal Council requested FTF staff take a lead role to reconvene an Early Childhood Coalition (previously convened in years past) so that providers may understand what services and programs are available and better coordinate across programs to ensure that all children and families in the region have access to the needed resources and programs. This is an excellent opportunity to begin to engage the providers regarding coordinate outreach, awareness, and referral/recruitment efforts.

## System Coordination among Early Childhood Resources and Community Awareness

Efforts are being made toward coordination and collaboration between early childhood resources and community awareness but there is room for improvement. The strongest coordination was seen between FTF regional staff and White Mountain Apache Tribe leadership in reconvening an Early Childhood Coalition and creating an Early Childhood Education campaign specific to the White Mountain Apache Tribe. Community volunteers are making efforts to have Apache language children books accessible to families, early childhood educators, and professionals to encourage early literacy and language development for children birth to five years old.

# **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 held in September 2018. Key results of this statewide survey—which was comprised of both a general phone survey and an online survey of parents of young children specifically—included the following:

- Those who agree that the state should ensure all children have access to early childhood services increased from 80% in 2012 to 84% in 2018.
  - Among parents, this measure increased from 81% in 2016 (the first available parent survey results) to 87% 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% in 2012 to 88% in 2018.
  - $\circ~$  Among parents, agreement increased from 85% in 2016 to 87% 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% in 2012 to 72% in 2018.
  - Among parents, agreement increased from 69% in 2016 to 74% 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% of respondents had never heard of FTF, compared to 89% in 2012.
  - Among parents specifically, more had heard of FTF, with 66% stating they had never heard of FTF, compared to 69% in 2016.

While this statewide survey offers a measure of broad changes in attitude 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 to 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.

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

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

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,

digital advertising led to a statewide total of 521,652 clicks-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.

Engaging others is critical to reaching across diverse geographic areas and expanding the reach of early childhood information. FTF specifically works to engage parents' most trusted messengers, including pediatricians. In SFY19, FTF created a toolkit for health providers to help them better understand and share information on the statewide free Birth to 5 Helpline. This toolkit was 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.

			SUPPORTER AND
			CHAMPION ACTIONS IN
GEOGRAPHY	SUPPORTERS	CHAMPIONS	SFY19
Arizona	6,258	1,170	940

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

Source: First Things First (2019). Communications Strategy 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 White Mountain Apache Tribe Region

Figure 13. Map of the ZIP codes in the White Mountain Apache Tribe 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 (<u>https://www.census.gov/cgi-bin/geo/shapefiles/index.php</u>).

# Appendix 2: Zip Codes of the White Mountain Apache Tribe Region

Table 71. Zip Code Tabulation Areas (ZCTAs) of the White Mountain Apache Tribe Region

					PERCENT OF ZCTA'S TOTAL	
					POPULATION	
				HOUSEHOLDS	LIVING IN THE	
				WITH ONE OR	WHITE	
ZIP CODE			TOTAL	MORE	MOUNTAIN	
TABULATION	TOTAL	POPULATION	NUMBER OF	CHILDREN	APACHE TRIBE	THIS ZCTA IS
AREA (ZCTA)	POPULATION	(AGES 0-5)	HOUSEHOLDS	(AGES 0-5)	REGION	SHARED WITH
White						
Mountain Apache Tribe Region	13,409	2,003	3,301	1,267		
85911	1,800	269	441	178	100%	
85926	265	29	74	22	100%	
85929	14	1	6	1	0%	Navajo/Apache
85930	1,086	172	259	112	100%	
85935	303	23	95	20	6%	Navajo/Apache
85941	9,941	1,509	2,426	934	100%	

Source: United State Census Bureau (2010). 2010 Decennial Census, Summary File 1, Tables P1, P14, P20.
## Appendix 3: Map of School Districts in the White Mountain Apache Tribe Region

Figure 14. Map of the school districts in the White Mountain Apache Tribe 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 (<u>https://www.census.gov/cgi-bin/geo/shapefiles/index.php</u>).

DISTRICTS	SCHOOLS IN DISTRICT	K-3RD GRADE STUDENTS IN DISTRICT	PERCENT OF K-3RD GRADE STUDENTS IN REGION	THIS DISTRICT IS SHARED WITH
White Mountain Apache Tribe Region	6	851		
Whiteriver Unified District	5	807	100%	
McNary Elementary District	1	44	100%	

## Table 72. School Districts in the White Mountain Apache Tribe Region

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. Round Valley Unified School District overlaps the lands of the White Mountain Apache Tribe Region but has no schools located in the region. This table lists only districts under ADE with enrolled K-3 students 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 <u>https://laborstats.az.gov/local-area-unemployment-statistics</u>
- 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 <u>https://des.az.gov/file/14277/download</u>.
- 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 <u>https://www.azed.gov/accountability-research/data/</u>; 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). White Mountain Apache Tribe 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 http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml
- 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 <u>http://www.census.gov/geo/maps-data/data/tiger-line.html</u>

## References

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

<sup>2</sup> U.S. Census Bureau. (April, 2013). American Community Survey Information Guide. Retrieved from

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

<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>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 <u>http://outreach.asu.edu/sites/default/files/SICAZ\_report\_20130828.pdf</u>

<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>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. <u>https://doi.org/10.17226/21868</u>.

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

<sup>9</sup> Ibid.

<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 <u>https://eclkc.ohs.acf.hhs.gov/hslc/tta-system/cultural-linguistic/docs/benefits-of-being-bilingual.pdf</u>

<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. https://doi.org/10.17226/24677.

<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 <u>https://eclkc.ohs.acf.hhs.gov/hslc/tta-system/cultural-linguistic/docs/benefits-of-being-bilingual.pdf</u>

<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. https://doi.org/10.17226/24677.

<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 <u>https://eclkc.ohs.acf.hhs.gov/hslc/tta-system/cultural-linguistic/docs/benefits-of-being-bilingual.pdf</u> <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. https://doi.org/10.17226/24677.

<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 <u>https://eclkc.ohs.acf.hhs.gov/hslc/tta-system/cultural-linguistic/docs/benefits-of-being-bilingual.pdf</u>

<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.

<sup>18</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. <u>https://doi.org/10.17226/24677</u>.

<sup>19</sup> National Center for Children in Poverty. (2012, October). *Young children at risk*. Retrieved from <u>http://www.nccp.org/publications/pub\_1073.html</u>

<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 <u>http://www.acf.hhs.gov/programs/ana/programs/native-language-preservation-maintenance</u>

<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. <u>https://doi.org/10.17226/21868</u>.

<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: <u>https://www.pewresearch.org/fact-tank/2018/04/05/a-record-64-million-americans-live-in-multigenerational-households/</u>

<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: <u>http://scholarworks.wmich.edu/grandfamilies/vol3/iss1/4</u>

<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 https://www.childwelfare.gov/pubPDFs/azkinship.pdf

<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> 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 <a href="https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health">https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health</a>

<sup>39</sup> Ibid.

<sup>40</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>41</sup> Ibid.

<sup>42</sup> Child Trends. (2014, January 8). *5 Ways Poverty Harms Children*. Retrieved from <u>https://www.childtrends.org/child-trends-5/5-ways-poverty-harms-children</u>

<sup>43</sup> Brooks-Gunn, J., & Duncan, G. (1997). The effects of poverty on children. *Children and Poverty, 7*(2), 55-71.

<sup>44</sup> McLoyd, V. (1998). Socioeconomic disadvantage and child development. *American Psychologist, 53*(2), 185-204. doi: <u>10.1037/0003-066X.53.2.185</u>

<sup>45</sup> Ratcliffe, C., & McKernan, S. (2012). Child poverty and its lasting consequences. *Low-Income Working Families Series*, The Urban Institute. Retrieved from <u>http://www.urban.org/research/publication/child-poverty-and-its-</u> <u>lasting-consequence/view/full\_report</u>

<sup>46</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 <u>http://onlinelibrary.wiley.com/doi/10.1111/j.1467-</u>8624.2009.01396.x/full

<sup>47</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>48</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>49</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 <u>http://onlinelibrary.wiley.com/doi/10.1111/j.1467-</u>8624.2009.01396.x/full

<sup>50</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>51</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>52</sup> Pearce, D.M. (2019). *The Self-Sufficiency Standard*. Retrieved from <u>http://www.selfsufficiencystandard.org/the-standard</u>

53 Ibid.

<sup>54</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>55</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>56</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>57</sup> Economic Research Service (ERS), U.S. Department of Agriculture (USDA). *Food Access Research Atlas*. Retrieved from <u>https://www.ers.usda.gov/data-products/food-access-research-atlas/</u>

<sup>58</sup> A food desert is defined as an area where there is a low-income population and low access to food within one mile in urban areas and ten miles in rural areas. See, Arizona Department of Health Services. (n.d). AZ Food Deserts. *GIS Applications*. Retrieved from <u>https://azdhs.gov/gis/az-food-deserts/index.php</u> <sup>59</sup> U.S. Census Bureau (2016). *2015 American Indian Area Geography & Census Tracts [shapefiles]*. Retrieved from <u>https://www.census.gov/geographies/mapping-files/time-series/geo/tiger-line-file.2015.html</u>; U.S. Department of Agriculture (2016). *Food Access Research Atlas [dataset]*. Retrieved from <u>https://www.ers.usda.gov/data-products/food-access-research-atlas/</u>; Custom analysis run by Kara Haberstock Tanoue, Community Research, Evaluation, & Development (CRED) Team, University of Arizona.

<sup>60</sup> Food and Nutrition Service, U.S. Department of Agriculture. (n.d.). *Supplemental Nutrition Assistance Program* (SNAP). Retrieved from <u>https://www.fns.usda.gov/snap/supplemental-nutrition-assistance-program</u>

<sup>61</sup> Food and Nutrition Service, U.S. Department of Agriculture. (n.d.). *Special Supplemental Nutrition Program for Women, Infants, and Children (WIC).* Retrieved from <u>https://www.fns.usda.gov/wic</u>

<sup>62</sup> Food and Nutrition Service, U.S. Department of Agriculture. (n.d.). *National School Lunch Program*. Retrieved from <u>https://www.fns.usda.gov/nslp</u>

<sup>63</sup> Food and Nutrition Service, U.S. Department of Agriculture. (n.d.). *School Breakfast Program*. Retrieved from <u>https://www.fns.usda.gov/sbp/school-breakfast-program</u>

<sup>64</sup> Food and Nutrition Service, U.S. Department of Agriculture. (n.d.). *Summer Food Service Program*. Retrieved from <u>https://www.fns.usda.gov/sfsp/summer-food-service-program</u>

<sup>65</sup> Food and Nutrition Service, U.S. Department of Agriculture. (n.d.) *Child and Adult Care Food Program*. Retrieved from <u>https://www.fns.usda.gov/cacfp/child-and-adult-care-food-program</u>

<sup>66</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>67</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.

68 Ibid.

<sup>69</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\_and\_public\_health\_2013.pdf">http://frac.org/pdf/snap\_and\_public\_health\_2013.pdf</a>

70 Ibid.

<sup>71</sup> For more information on the Arizona WIC Program, visit <u>http://azdhs.gov/prevention/azwic/</u>

<sup>72</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 <u>http://www.cbpp.org/research/food-assistance/wic-works-addressing-the-nutrition-and-health-needs-of-lowincome-families</u>

<sup>73</sup> National Center for Children in Poverty. (2014). *Arizona demographics for low-income children*. Retrieved from <u>http://www.nccp.org/profiles/AZ\_profile\_6.html</u>

<sup>74</sup> Isaacs, J. (2013). Unemployment from a child's perspective. Retrieved from <u>http://www.urban.org/UploadedPDF/1001671-Unemployment-from-a-Childs-Perspective.pdf</u> <sup>75</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>76</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>77</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: <u>http://www.childtrends.org/wp-</u>content/uploads/2012/02/2012-08EffectHomelessnessChildren.pdf

<sup>78</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">https://www.jchs.harvard.edu/sites/default/files/Harvard\_JCHS</a> Herbert Hermann McCue measuring housing a <a href="fordability.pdf">fordability.pdf</a>

<sup>79</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: <u>https://www.aei.org/wp-content/uploads/2017/04/CHA-Panel-1.pdf</u>

<sup>80</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>81</sup> Housing Assistance Council (2013). *Housing on Native American Lands*. Retrieved from <u>http://www.ruralhome.org/storage/documents/rpts\_pubs/ts10\_native\_lands.pdf</u>

<sup>82</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 <u>https://www.zerotothree.org/resources/2475-millennial-connections-executive-summary</u>

<sup>83</sup> OECD. (2001). Understanding the digital divide. Paris, France: OECD Publications.

<sup>84</sup> Ibid.

<sup>85</sup> Gonzales, A. (2016). The contemporary US digital divide: from initial access to technology maintenance, Information. *Communication & Society, 19*(2), pp. 234-248.

<sup>86</sup> Pew Research Center. (2019, June 12). *Internet/Broadband Fact Sheet*. Retrieved from <u>https://www.pewresearch.org/internet/fact-sheet/internet-broadband/</u>

<sup>87</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>88</sup> Sallet, J. (2017). *Better together: Broadband deployment and broadband competition*. Retrieved from <u>https://www.brookings.edu/blog/techtank/2017/03/15/better-together-broadband-deployment-and-broadband-competition/</u>

<sup>89</sup> Federal Communications Commission. (2015). 2015 BROADBAND PROGRESS REPORT AND NOTICE OF INQUIRY ON IMMEDIATE ACTION TO ACCELERATE DEPLOYMENT. *Federal Communications Commission*. Retrieved from <u>https://apps.fcc.gov/edocs\_public/attachmatch/DOC-342358A1.pdf</u> <sup>90</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>91</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>92</sup> For more information about AHCCCS eligibility visit

https://www.azahcccs.gov/Members/Downloads/EligibilityRequirements.pdf

<sup>93</sup> First Things First. (2018). White Mountain Apache Tribe Regional Partnership Council 2018 Needs and Assets *Report.* Retrieved from

https://files.firstthingsfirst.org/regions/Publications/Regional%20Needs%20and%20Assets%20Report%20-%202018%20-%20White%20Mountain%20Apache%20Tribe.pdf

<sup>94</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>95</sup> Robert Wood Johnson Foundation. (2016, September). *The relationship between school attendance and health*. Retrieved from <u>https://www.rwjf.org/en/library/research/2016/09/the-relationship-between-school-attendance-and-health.html</u>

<sup>96</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 <u>http://nieer.org/wp-</u>content/uploads/2016/09/ceelo fastfact state ece attendance 2016 02 01 final for web.pdf

<sup>97</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>98</sup> Robert Wood Johnson Foundation. (2016, September). *The relationship between school attendance and health*. Retrieved from <u>https://www.rwjf.org/en/library/research/2016/09/the-relationship-between-school-attendance-and-health.html</u>

<sup>99</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\_on\_Grade\_Level\_111710.pdf">https://www.chapinhall.org/sites/default/files/Reading\_on\_Grade\_Level\_111710.pdf</a>

<sup>100</sup> Ibid.

<sup>101</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>102</sup> Arizona Department of Education. (n.d.). *Assessment: AzMERIT*. Retrieved from <u>http://www.azed.gov/assessment/azmerit/</u>

<sup>103</sup> For more information on Move on When Reading, visit <u>http://www.azed.gov/mowr/</u>

<sup>104</sup> National Research Council. 2012. *Key National Education Indicators: Workshop Summary*. Washington, DC: The National Academies Press. <u>https://doi.org/10.17226/13453.</u>

<sup>105</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

https://www.healthypeople.gov/2020/topics-objectives/topic/Adolescent-Health

<sup>106</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>107</sup> First Things First. (2018). White Mountain Apache Tribe Regional Partnership Council 2018 Needs and Assets *Report.* Retrieved from

https://files.firstthingsfirst.org/regions/Publications/Regional%20Needs%20and%20Assets%20Report%20-%202018%20-%20White%20Mountain%20Apache%20Tribe.pdf

<sup>108</sup> Center on the Developing Child at Harvard University. (2010). *The foundations of lifelong health are built in early childhood*. Retrieved from <u>http://developingchild.harvard.edu/wp-content/uploads/2010/05/Foundations-of-Lifelong-Health.pdf</u>

<sup>109</sup> Kuhl, P.K. (2011). Early language learning and literacy: Neuroscience implications for education. *Mind, Brain, and Education, 5*(3), 128-142.

<sup>110</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: http://onlinelibrary.wiley.com/doi/10.1111/desc.12019/pdf

<sup>111</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>112</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>113</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>114</sup> Child Care Aware<sup>®</sup> of America. (2018). *Mapping the gap: Exploring the child care supply & demand in Arizona*. Arlington, VA: Child Care Aware of America. Retrieved from <u>http://usa.childcareaware.org/wp-</u> <u>content/uploads/2017/10/Arizona-Infant-Toddler-Brief1.pdf</u>

<sup>115</sup> Ibid.

<sup>116</sup> U.S. Department of Education. (2015). *A matter of equity: Preschool in America*. Retrieved from <u>https://www2.ed.gov/documents/early-learning/matter-equity-preschool-america.pdf</u>

<sup>117</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 <u>https://usa.childcareaware.org/advocacy-public-policy/resources/research/costofcare/</u>

<sup>118</sup> Child Care Aware<sup>®</sup> of America. (2018). *Arizona Cost of Child Care*. Retrieved from https://usa.childcareaware.org/wp-content/uploads/2018/10/Arizona2018.pdf

<sup>119</sup> For more information on child care subsidies see <u>https://www.azdes.gov/child care/</u>

<sup>120</sup> Arizona Department of Economic Security. (n.d.) *Child Care Waiting List.* Retrieved on 7/28/19 from <u>https://des.az.gov/services/child-and-family/child-care/child-care-waiting-list</u>

<sup>121</sup> Machelor, P. (2019, June 17). Arizona suspends child-care waiting list, increases provider reimbursements. *Arizona Daily Star*. Retrieved from <u>https://tucson.com/news/local/arizona-suspends-child-care-waiting-list-increases-provider-reimbursements/article\_a91a641f-5817-5e0d-a8c5-caaf530551ce.html</u>

<sup>122</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>123</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 <u>https://www.fcd-</u>

us.org/assets/2013/10/Evidence20Base20on20Preschool20Education20FINAL.pdf

<sup>124</sup> U.S. Department of Education. (2015). *A matter of equity: Preschool in America*. Retrieved from <u>https://www2.ed.gov/documents/early-learning/matter-equity-preschool-america.pdf</u>

<sup>125</sup> The Annie E. Casey Foundation. (2013). *The first eight years: Giving kids a foundation for lifetime success*. Retrieved from <u>http://www.aecf.org/m/resourcedoc/AECF-TheFirstEightYearsKCpolicyreport-2013.pdf</u>

<sup>126</sup> White House Council of Economic Advisors. (2014). *The economics of early childhood investments*. Retrieved from <u>https://obamawhitehouse.archives.gov/sites/default/files/docs/early\_childhood\_report\_update\_final\_non-embargo.pdf</u>

<sup>127</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 <u>http://heckmanequation.org/content/resource/research-</u> <u>summary-abecedarian-health</u>

<sup>128</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>129</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>130</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>131</sup> More information about Arizona's quality educational environments can be found in the DES CCDF State Plan FY2019-FY2021, available at <u>https://des.az.gov/documents-center</u> <sup>132</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>133</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.

<sup>134</sup> 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>135</sup> Donoghue, E. (2017). Quality early education and child care from birth to kindergarten. *Pediatrics, 140*(2).

<sup>136</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>

<sup>137</sup> Ibid.

<sup>138</sup> Arizona Early Childhood Development and Health Board (First Things First). (2018). 2018 Annual Report.
Phoenix, AZ: First Things First. Retrieved from
http://www.azftf.gov/WhoWeAre/Board/Documents/FY2016 Annual Report.pdf

<sup>139</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.

<sup>140</sup> 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>141</sup> U.S. Department of Health and Human Services and Education. (2015). *Policy statement on expulsion and suspension policies in early childhood settings*. Retrieved from <u>https://www2.ed.gov/policy/gen/guid/school-discipline/policy-statement-ece-expulsions-suspensions.pdf</u>

<sup>142</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>143</sup> Malik, R. (2017, November 6). *New Data Reveal 250 Preschoolers Are Suspended or Expelled Every Day*. Center for American Progress. Retrieved from <u>https://www.americanprogress.org/issues/early-</u> childhood/news/2017/11/06/442280/new-data-reveal-250-preschoolers-suspended-expelled-every-day/

<sup>144</sup> U.S. Department of Education Office for Civil Rights. (2014). *CIVIL RIGHTS DATA COLLECTION Data Snapshot: Early Childhood Education*. Retrieved from <u>https://www2.ed.gov/about/offices/list/ocr/docs/crdc-early-learning-snapshot.pdf</u>

<sup>145</sup> U.S. Department of Health and Human Services and Education (2015). *Policy statement on expulsion and suspension policies in early childhood settings.* 

<sup>146</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>147</sup> Arizona Department of Economic Security (2019). *2016-2018 Child Care Assistance Data*. Unpublished data received by request.

<sup>148</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 https://mchb.hrsa.gov/cshcn0910/more/pdf/nscshcn0910.pdf

 <sup>149</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 <u>https://mchb.hrsa.gov/cshcn0910/more/pdf/nscshcn0910.pdf</u>

<sup>150</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: <u>10.18043/ncm.77.1.30</u>. Retrieved from <u>http://www.ncmedicaljournal.com/content/77/1/30.full.pdf+html</u>

<sup>151</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: <u>10.1001/jama.2015.12912</u>.

<sup>152</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>153</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>154</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
https://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2019144

<sup>155</sup> Arizona Department of Health Sciences. (2015). *Arizona Maternal Child Health Needs Assessment*. Retrieved from <u>http://azdhs.gov/documents/prevention/womens-childrens-health/reports-fact-sheets/title-v/needs-assessment2015.pdf</u>

<sup>156</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>157</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>158</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>159</sup> For more information on AzEIP, visit <u>https://www.azdes.gov/azeip/</u>

<sup>160</sup> For more information on ADE's Early Childhood Special Education program, visit

http://www.azed.gov/ece/early-childhood-special-education/ and http://www.azed.gov/special-education/azfind/

<sup>161</sup> For more information on DDD, visit <u>https://www.azdes.gov/developmental\_disabilities/</u>

<sup>162</sup> First Things First. (2018). White Mountain Apache Tribe Regional Partnership Council 2018 Needs and Assets *Report*. Retrieved from:

https://files.firstthingsfirst.org/regions/Publications/Regional%20Needs%20and%20Assets%20Report%20-%202018%20-%20White%20Mountain%20Apache%20Tribe.pdf; F. Sprengeler, personal communication, April 23, 2020.

<sup>163</sup> Ibid.

<sup>164</sup> Ibid.

165 Ibid.

166 Ibid.

<sup>167</sup> Ibid.

<sup>168</sup> Center on the Developing Child at Harvard University. (2010). *The foundations of lifelong health are built in early childhood*. Retrieved from <u>http://developingchild.harvard.edu/wp-content/uploads/2010/05/Foundations-of-Lifelong-Health.pdf</u>

<sup>169</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>170</sup> Center on the Developing Child at Harvard University. (2010). *The foundations of lifelong health are built in early childhood*. Retrieved from <u>http://developingchild.harvard.edu/wp-content/uploads/2010/05/Foundations-of-Lifelong-Health.pdf</u>

<sup>171</sup> Maternal and Child Health Bureau, Health Resources and Services Administration, U.S. Department of Health and Human Services. (n.d.). *Prenatal services*. Retrieved from http://mchb.hrsa.gov/programs/womeninfants/prenatal.html

<sup>172</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 <a href="http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2147600/">http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2147600/</a>

<sup>173</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: <u>10.1542/peds.2006-1231</u>. Retrieved from <u>http://pediatrics.aappublications.org/content/118/1/405.full</u> <sup>174</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>175</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>176</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>177</sup> U.S. Department of Health and Human Service. (2017). *What is prenatal care and why is it important?* Retrieved from <a href="https://www.nichd.nih.gov/health/topics/pregnancy/conditioninfo/prenatal-care">https://www.nichd.nih.gov/health/topics/pregnancy/conditioninfo/prenatal-care</a>

<sup>178</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>

<sup>179</sup> Ibid.

<sup>180</sup> The Henry J. Kaiser Family Foundation (2016). Key facts about the uninsured population. *The Kaiser Commission on Medicaid and the Uninsured*. Retrieved from <u>http://kff.org/uninsured/fact-sheet/key-facts-about-the-uninsured-population/</u>

<sup>181</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\_Health\_Care\_Coverage.pdf">http://www.childtrends.org/wp-content/uploads/2016/05/26\_Health\_Care\_Coverage.pdf</a>

<sup>182</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>183</sup> For more information about IHS visit <u>https://www.ihs.gov/aca/index.cfm/thingstoknow/</u>

<sup>184</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>185</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>186</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>187</sup> Diaz, C., & Fiel, J. (2016). The effect(s) of teen pregnancy: Reconciling theory, methods, and findings. *Demography*, *53*(1), 85-116. doi: <u>10.1007/s13524-015-0446-6</u>. Retrieved from <u>http://link.springer.com/article/10.1007/s13524-015-0446-6</u> <sup>188</sup> Youth.gov. (2016). *Pregnancy prevention: Adverse effects*. Retrieved from <u>http://youth.gov/youth-topics/teen-pregnancy-prevention/adverse-effects-teen-pregnancy</u>

<sup>189</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: <u>10.1097/AOG.00000000001241</u>. Retrieved from <u>https://www.ncbi.nlm.nih.gov/pubmed/26942355</u>

<sup>190</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:<u>10.1001/jama.2016.1975</u>. Retrieved from <a href="http://jamanetwork.com/journals/jama/fullarticle/2503173">http://jamanetwork.com/journals/jama/fullarticle/2503173</a>

<sup>191</sup> Mayo Clinic. (n.d.). In-depth: How could obesity affect my baby? *Healthy Lifestyle*, Pregnancy week by week. Retrieved from <u>http://www.mayoclinic.org/healthy-lifestyle/pregnancy-week-by-week/in-depth/pregnancy-and-obesity/art-20044409?pg=2</u>

<sup>192</sup> Arizona Department of Health Sciences. (2015). *Arizona Maternal Child Health Needs Assessment*. Retrieved from <u>http://azdhs.gov/documents/prevention/womens-childrens-health/reports-fact-sheets/title-v/needs-assessment2015.pdf</u>

<sup>193</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 <u>https://www.healthypeople.gov/2020/leading-health-indicators/2020-lhi-topics/Maternal-Infant-and-Child-Health/determinants</u>

<sup>194</sup> Center for Disease Control and Prevention. (2018). Maternal and infant health: Pregnancy complications. Retrieved from <u>https://www.cdc.gov/reproductivehealth/maternalinfanthealth/pregnancy-</u> <u>complications.html?CDC\_AA\_refVal=https%3A%2F%2Fwww.cdc.gov%2Freproductivehealth%2Fmaternalinfantheal</u> <u>th%2Fpregcomplications.htm</u>

<sup>195</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>196</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>197</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>198</sup> Arizona Department of Health Services. (2015). *Arizona Maternal Child Health Needs Assessment*. Retrieved from <u>http://azdhs.gov/documents/prevention/womens-childrens-health/reports-fact-sheets/title-v/needs-assessment2015.pdf</u>

<sup>199</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>200</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 from www.childhealthdata.org

<sup>201</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>202</sup> Smith, V. & Wilson. R. (2016). Families affected by parental substance use. *Pediatrics*, 138(2). PMID: 27432847

<sup>203</sup> Ibid.

<sup>204</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 <a href="https://aspe.hhs.gov/pdfreport/addressing-trauma-american-indian-and-alaska-native-youth">https://aspe.hhs.gov/pdfreport/addressing-trauma-american-indian-and-alaska-native-youth</a>

<sup>205</sup> Arizona Department of Health Sciences. (2015). *Arizona Maternal Child Health Needs Assessment*. Retrieved from <u>http://azdhs.gov/documents/prevention/womens-childrens-health/reports-fact-sheets/title-v/needs-assessment2015.pdf</u>

<sup>206</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>207</sup> W.K. Kellogg Foundation. [n.d.] *Reclaiming Breastfeeding in Indian Country*. Retrieved from <u>https://www.wkkf.org/what-we-do/featured-work/bringing-breastfeeding-back-to-indian-country</u>

<sup>208</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

209 Ibid.

<sup>210</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 <u>http://www.child-</u> <u>encyclopedia.com/sites/default/files/textes-experts/en/789/obesity-at-an-early-age-and-its-impact-on-child-</u> <u>development.pdf</u>

<sup>211</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 <u>http://healthyeatingresearch.org/wp-content/uploads/2016/03/her\_1000\_days\_final-1.pdf</u>

<sup>212</sup> Center on the Developing Child at Harvard University. (2010). *The foundations of lifelong health are built in early childhood*. Retrieved from <u>http://developingchild.harvard.edu/wp-content/uploads/2010/05/Foundations-of-Lifelong-Health.pdf</u>

<sup>213</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>214</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>215</sup> First Things First. (2020). *Arizona State Needs and Assets Report.* 

<sup>216</sup> First Things First. (2016). *TAKING A BITE OUT OF SCHOOL ABSENCES Children's Oral Health Report 2016*. First Things First. Retrieved from <u>http://azftf.gov/WhoWeAre/Board/Documents/FTF Oral Health Report 2016.pdf</u>

<sup>217</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

https://www.azdhs.gov/documents/prevention/womens-childrens-health/reports-fact-sheets/oralhealth/healthy-smiles-healthy-bodies-data-brief-2015.pdf

<sup>218</sup> First Things First. (2019). *Impacting Young Lives Throughout Arizona—2019 Annual Report*. First Things First. Retrieved from <a href="https://www.firstthingsfirst.org//wp-content/uploads/2019/09/FY2019">https://www.firstthingsfirst.org//wp-content/uploads/2019/09/FY2019</a> Annual Report.pdf

<sup>219</sup> Arizona Department of Health Sciences. (2015). *Arizona Maternal Child Health Needs Assessment*. Retrieved from <u>http://azdhs.gov/documents/prevention/womens-childrens-health/reports-fact-sheets/title-v/needs-assessment2015.pdf</u>

<sup>220</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>221</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>222</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>223</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>224</sup> Arizona Department of Health Services (2018). *Arizona Injury Data Report 2016*. Retrieved from https://www.azdhs.gov/prevention/womens-childrens-health/reports-fact-sheets/index.php#injury-prevention

<sup>225</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>226</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>227</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>228</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>229</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 <a href="http://www.azdhs.gov/plan/report/ahs/ahs2013/pdf/6a1\_10.pdf">http://www.azdhs.gov/plan/report/ahs/ahs2013/pdf/6a1\_10.pdf</a>

<sup>230</sup> First Things First. (2018). White Mountain Apache Tribe Regional Partnership Council 2018 Needs and Assets *Report*. Retrieved from:

https://files.firstthingsfirst.org/regions/Publications/Regional%20Needs%20and%20Assets%20Report%20-%202018%20-%20White%20Mountain%20Apache%20Tribe.pdf

<sup>231</sup> Evans, G., & Kim, P. (2013). Childhood poverty, chronic stress, self-regulation, and coping. *Child Development Perspectives*, 7(1), 43-48. Retrieved from <u>http://onlinelibrary.wiley.com/doi/10.1111/cdep.12013/abstract</u>

<sup>232</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\_4pt2%2FS0954579413000813a.pdf&code=a">http://journals.cambridge.org/download.php?file=%2FDPP%2FDPP25\_4pt2%2FS0954579413000813a.pdf&code=a</a> <a href="http://journals.cambridge.org/download.php?file=%2FDPP%2FDPP25\_4pt2%2FS0954579413000813a.pdf&code=a">http://journals.cambridge.org/download.php?file=%2FDPP%2FDPP25\_4pt2%2FS0954579413000813a.pdf&code=a</a> <a href="http://journals.cambridge.org/download.php?file=%2FDPP%2FDPP25\_4pt2%2FS0954579413000813a.pdf&code=a">http://journals.cambridge.org/download.php?file=%2FDPP%2FDPP25\_4pt2%2FS0954579413000813a.pdf&code=a</a> <a href="http://journals.cambridge.org/download.php?file=%2FDPP%2FDPP25\_4pt2%2FS0954579413000813a.pdf&code=a">http://journals.cambridge.org/download.php?file=%2FDPP%2FDPP25\_4pt2%2FS0954579413000813a.pdf&code=a</a> <a href="http://journals.cambridge.org/download.php?file=%2FDPP%2FDPP25\_4pt2%2FS0954579413000813a.pdf&code=a">http://journals.cambridge.org/download.php?file=%2FDPP%2FDPP25\_4pt2%2FS0954579413000813a.pdf&code=a</a> <a href="http://journals.cambridge.org/download.php?file=%2FDPP%2FDPP25\_4pt2%2FS0954579413000813a.pdf&code=a">http://journals.cambridge.org/download.php?file=%2FDPP%2FDPP3\_4pt2%2FS0954579413000813a.pdf&code=a</a> <a href="http://journals.cambridge.org/download.php?file=%2FDP#45">http://journals.cambridge.org/download.php?file=%2FDP#45</a> <a href="http://journals.cambridge.org/download.php?file=%2FD#45">http://journals.cambridge.org/download.php?file=%2FD#45</a> <a href="http://journals.cambridge.org/download.php?file=%2FD#45">http://journals.cambridge.org/download.php?file=%2FD#45</a> <a href="http://journals.cambridge.org/download.php?file=%2FD#45">http://journals.cambridge.org/download.php?file=%2FD#45</a> <a href=#ptaft45</a> <a href="http:/

<sup>233</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>234</sup> Center on the Developing Child at Harvard University. (2010). *The foundations of lifelong health are built in early childhood*. Retrieved from <u>http://developingchild.harvard.edu/wp-content/uploads/2010/05/Foundations-of-Lifelong-Health.pdf</u>

<sup>235</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>236</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 <a href="https://cssp.org/wp-content/uploads/2018/11/Branching-Out-and-Reaching-Deeper.pdf">https://cssp.org/wp-content/uploads/2018/11/Branching-Out-and-Reaching-Deeper.pdf</a>

<sup>237</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>238</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>239</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>240</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>241</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>242</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>243</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>244</sup> Reach Out and Read. (n.d.). *Programs Near You*. Retrieved from <u>http://www.reachoutandread.org/resource-center/find-aprogram/</u>

<sup>245</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>246</sup> Yarnell, V., Lambson, T., & Pfannenstiel, J. (2018). *BIE Family and Child Education Program 2017 Report*. Retrieved from <u>https://www.bie.edu/cs/groups/xbie/documents/document/idc2-084604.pdf</u>

<sup>247</sup> Centers for Disease Control and Prevention. (n.d.). *Division of Violence Prevention: About adverse childhood experiences.* Retrieved from <u>https://www.cdc.gov/violenceprevention/acestudy/about\_ace.html</u>

<sup>248</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 experience levels. *JAMA pediatrics*, *173*(11), e193007-e193007.

<sup>249</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
<a href="https://cwoutcomes.acf.hhs.gov/cwodatasite/childrenReports/index">https://cwoutcomes.acf.hhs.gov/cwodatasite/childrenReports/index</a>

<sup>250</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>251</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>252</sup> Centers for Disease Control and Prevention. (n.d.). *Preventing child abuse & neglect*. Retrieved from https://www.cdc.gov/violenceprevention/childabuseandneglect/fastfact.html

<sup>253</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>254</sup> Brown-Rice, K. (2013). Examining the Theory of Historical Trauma Among Native Americans. *The Professional Counselor*, 3(3), 117-130.

<sup>255</sup> Tift, Neil. (2018). Addressing Adverse Childhood Experiences in Native American Communities. Understanding Impacts and Implementing Strategies. Retrieved from <u>https://www.pcaaz.org/wp-content/uploads/2018/07/B13-</u> <u>ACEs-in-Native-American-Families.pdf</u>

<sup>256</sup> Zero to Three Infant Mental Health Task Force Steering Committee, 2001.

<sup>257</sup> Healthy People 2020. (n.d.). *Maternal, infant, and child health: Life stages and determinants*. Retrieved from <u>https://www.healthypeople.gov/2020/leading-health-indicators/2020-lhi-topics/Maternal-Infant-and-Child-Health/determinants</u>

<sup>258</sup> Turney, K., & Wildeman, C. (2016). Mental and physical health of children in foster care. *Pediatrics*, 138(5), e20161118.

259 Ibid

<sup>260</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">http://nni.arizona.edu/application/files/9214/7042/9035/2016</a> child welfare nicwa conference paper final.pdf

<sup>261</sup> Frichner, T.G. (2010). *The Indian Child Welfare Act: A National Law Controlling the Welfare of Indigenous Children*. American Indian Law Alliance.

<sup>262</sup> First Things First. (2018). *White Mountain Apache Tribe Regional Partnership Council 2018 Needs and Assets Report.* Retrieved from:

https://files.firstthingsfirst.org/regions/Publications/Regional%20Needs%20and%20Assets%20Report%20-%202018%20-%20White%20Mountain%20Apache%20Tribe.pdf

263 Ibid.

<sup>264</sup> Ibid.

265 Ibid.

266 Ibid.