

FIRST THINGS FIRST

San Carlos Apache Region



2018 NEEDS AND ASSETS REPORT

SAN CARLOS APACHE REGIONAL PARTNERSHIP COUNCIL 2018 NEEDS AND ASSETS REPORT

Prepared by

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Funded by

First Things First San Carlos Apache Regional Partnership Council



LETTER FROM THE CHAIR

January 26, 2018

Message from the Chair:

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

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

The San Carlos Apache Regional Partnership Council would like to thank our Needs and Assets vendor, Community Research, Evaluation, and Development (CRED) John and Doris Norton School of Family and Consumer Sciences College of Agriculture and Life Sciences University of Arizona, for their knowledge, expertise and analysis of the San Carlos Apache 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 San Carlos Apache Regional Partnership Council remains committed to helping more children in our community arrive at kindergarten prepared to be successful by funding high-quality early childhood services, collaborating with system partners to maximize resources, and continuing to build awareness across all sectors on the importance of the early years to the success of our children, our communities and our state.

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

Thank you for your continued support.

Sincerely,



Flora Talas, Chair



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INTRODUCTORY SUMMARY AND ACKNOWLEDGMENTS

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

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

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

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

Acknowledgments:

We want to thank the great San Carlos Apache Tribe, the San Carlos Apache Tribal Council and its departments for their contributions of data. We would also like to thank the Indian Health Service, Inter-Tribal Council of Arizona and the Arizona Department of Economic Security, the Arizona Child Care Resource and Referral, the Arizona Department of Health Services, the Arizona Department of Education, the Census Bureau, the Arizona Department of Administration- Employment and Population Statistics, and the Arizona Health Care Cost Containment System for their contributions of data for this report, and their ongoing support and partnership with First Things First on behalf of young children.

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

TABLE OF CONTENTS

LETTER FROM THE CHAIR.....	2
TABLE OF CONTENTS	5
EXECUTIVE SUMMARY	11
Population Characteristics	11
Economic Characteristics	11
Educational Indicators	12
Early Learning	12
Child Health	13
Family Support and Literacy	14
System Coordination among Early Childhood Programs and Services	15
2018 NEEDS AND ASSETS REPORT	16
About this Report	16
Description of the Region	16
POPULATION CHARACTERISTICS	18
Why Population Characteristics Matter	19
What the Data Tell Us	20
Demographics	20
Living Arrangements	24
Language Use	27
ECONOMIC CIRCUMSTANCES	31
Why Economic Circumstances Matter	32
What the Data Tell Us	33
Income	33
Poverty	33
Employment and Unemployment	38
Food Insecurity	39
Housing and Transportation	44

EDUCATIONAL INDICATORS	46
Why Educational Indicators Matter.....	47
What the Data Tell Us.....	48
Standardized Test Scores.....	48
Educational Attainment.....	53
EARLY LEARNING	55
Why Early Learning Matters	56
What the Data Tell Us.....	58
Child Care and Preschool.....	58
Cost of Care	63
Child Care Professionals	64
Developmental Screenings and Services for Children with Special Developmental and Health Needs	65
CHILD HEALTH	71
Why Child Health Matters.....	72
What the Data Tell Us.....	74
Access to Care	74
Maternal Characteristics	78
Prenatal Care.....	83
Birth Outcomes	85
Immunizations	89
Oral Health.....	90
Childhood Injury, Illness and Mortality	92
Weight Status	93
FAMILY SUPPORT AND LITERACY	95
Why Family Support and Literacy Matter	96
What the Data Tell Us.....	97
Family Involvement.....	97
Child Welfare	98
Justice System Involvement	101
Behavioral Health	102
COMMUNICATION, PUBLIC INFORMATION, AND AWARENESS	106
Why Communication, Public Information, and Awareness Matter	107
What the Data Tell Us.....	107

SYSTEM COORDINATION AMONG EARLY CHILDHOOD PROGRAMS AND SERVICES	110
Why System Coordination Matters	111
What the Data Tell Us.....	111
SUMMARY AND CONCLUSIONS	113
APPENDICES	116
Table of Regional Strategies.....	116
Methods and Data Sources.....	118
U.S. Census and American Community Survey Data.....	118
Data Suppression.....	119
Reporting Data over Time	119
School Data.....	120
Indian Health Services Data.....	120
2014 Parent and Caregiver Survey Methodology	120
REFERENCES	122

LIST OF TABLES

Table 1. Population of Young Children (Ages 0 to 5) in the 2010 Census	21
Table 2. Total Membership as of June 2016	21
Table 3. Tribal Enrollment On- and Off-Reservation, June 2016	21
Table 4. Change in Population of Young Children (Ages 0 to 5), 2000 to 2010 Census.....	22
Table 5. Population (All Ages) in the 2010 Census	22
Table 6. Projected Population (All Ages), 2015 to 2040	22
Table 7. Race and Ethnicity of the Adult Population (Ages 18 and Older) in the 2010 Census	23
Table 8. Race and Ethnicity of the Population of Children (Ages 0 to 4) in the 2010 Census	24
Table 9. Composition of Households in the 2010 Census	25
Table 10. Children (Ages 0 to 17) Living in a Grandparent's Household	26
Table 11. Children (Ages 0 to 5) Living with Foreign-Born Parents.....	27
Table 12. Language Spoken at Home (Ages 5 and Older).....	28
Table 13. Proficiency in English (Ages 5 and Older).....	29
Table 14. Limited-English-Speaking Households	29
Table 15. Language Use for Children Enrolled in San Carlos Apache Head Start, 2015	30
Table 16. English Language Learners Enrolled in Kindergarten Through Third-Grade, October 2015	30
Table 17. Median Annual Family Income	33
Table 18. Persons Living in Poverty	35

Table 19. Ratio of Income to Federal Poverty Level (FPL) for Families with Young Children (Ages 0 to 4)	35
Table 20. Number of Children (Ages 0 to 5) Receiving Temporary Assistance to Needy Families (TANF) through the tribal Nnee Bich'o Nii TANF Program	35
Table 21. Parents of Young Children (Ages 0 to 5) Who Are or Are Not in the Labor Force	39
Table 22. Numbers of Young Children (Ages 0 to 5) Receiving SNAP Benefits, 2012 to 2015	41
Table 23. Enrollment in the San Carlos Apache WIC Program, 2015	41
Table 24. Children (ages 0-4) enrolled in the San Carlos Apache WIC Program, 2013 to 2015	41
Table 25. Retailers Participating in the SNAP or WIC Programs, 2016	42
Table 26. Proportion of Students (Pre-kindergarten Through Twelfth Grade) Eligible for Free or Reduced-Price Lunch, 2012 to 2016	43
Table 27. Meals Served through the Summer Food Service Program.....	43
Table 28. Meals Served through CACFP	44
Table 29. Owner- and Renter-Occupied Housing Units	45
Table 30. The Cost of Housing, Relative to Household Income.....	45
Table 31. Households With No Vehicle Available	45
Table 32. AzMERIT Math Test Results for Third-Graders in 2014-2015.....	50
Table 33. AzMERIT English Language Arts Test Results for Third-Graders in 2014-2015.....	51
Table 34. Chronic Absences for Students in Grade 1 to 3, 2014 and 2015.....	53
Table 35. High School Drop-Out and Graduation Rates, 2012 to 2015.....	54
Table 36. Level of Education for the Adult Population (Ages 25 and Older).....	54
Table 37. Participation in Center-based Early Education Programs	61
Table 38. Enrollment and Capacity at Apache Kid Child Care Center.....	61
Table 39. Department of Economic Security (DES) Child Care Subsidies for Children (Ages 0 to 5), 2013 to 2015	64
Table 40. DES Child Care Subsidies for Children Involved in the Department of Child Safety (DCS) During 2015	64
Table 41. Staff Credentials for Early Care and Education Providers, 2015-2016 School Year	65
Table 42. Arizona Early Intervention Program (AzEIP) Referrals and Services for Children (Ages 0 to 2), 2013 to 2015.....	67
Table 43. Children (Ages 0 to 5) Referred to the Division of Developmental Disabilities (DDD), 2012 to 2015	67
Table 44. Children (Ages 0 to 5) Evaluated by the Division of Developmental Disabilities (DDD), 2012 to 2015	68
Table 45. Children (Ages 0 to 5) Served by the Division of Developmental Disabilities (DDD), 2012 to 2015	68
Table 46. Division of Developmental Disabilities (DDD) Service Visits for Children (Ages 0 to 5), 2012 to 2015.....	68
Table 47. Children with IEPs enrolled in Head Start, 2015-2016 School Year	69
Table 48. Kindergarten to Third Grade Students Enrolled in Special Education.....	70
Table 49. Number of Active IHS Users from the San Carlos Apache Tribe, October 2013 to September 2015	76
Table 50. Estimated Proportion of Population Without Health Insurance	77
Table 51. Access to Health Care Services for Children Enrolled in San Carlos Apache Head Start.....	78
Table 52. Live Births During Calendar Year 2014, by Mother's Place of Residence	79
Table 53. Live Births During Calendar Year 2014, by Mother's Educational Attainment	80
Table 54. Other Characteristics of Mothers Giving Birth in 2014.....	81
Table 55. Live Births During Calendar Year 2014, by Number of Prenatal Visits	84
Table 56. Vaccination Rates and Exemption Rates for Children in Child Care	89
Table 57. Vaccination Rates and Exemption Rates for Kindergarten Children	90
Table 58. Access to Dental Care for Children Enrolled in San Carlos Apache Head Start.....	91

Table 59. Children removed by Tribal CPS and Child Abuse Cases	99
Table 60. Number of Pregnant or Parenting Women Receiving Behavioral Health Services, 2012 to 2015	103
Table 61. Number of Children (Ages 0 to 5) Receiving Behavioral Health Services, 2012 to 2015	104
Table 62 First Things First Engagement of Early Childhood supporters, SFY2014 through SFY2016.	108

LIST OF FIGURES

Figure 1. The San Carlos Apache First Things First Region	17
Figure 2. Percent of Children (Ages 0 to 4) Reported to be American Indian in the 2010 Census.....	23
Figure 3. Living Arrangements for Young Children (Ages 0 to 5)	25
Figure 4 Children (Ages 0 to 5) Living in a Grandparent's Household in the 2010 Census.....	26
Figure 5. Estimated Percent of Children (Ages 0 to 5) Receiving Temporary Assistance to Needy Families (TANF).....	36
Figure 6. Population in poverty in the San Carlos Apache Region.....	37
Figure 7. Estimates of Unemployment and Labor Force Participation Rates.....	39
Figure 8. Participation Rates in the San Carlos Apache WIC Program, January 2013 to January 2015.....	42
Figure 9. School Districts in the San Carlos Apache Region.....	49
Figure 10. AzMERIT Math Test Results for Third-Graders in the 2014-2015 School Year	50
Figure 11. AzMERIT English Language Arts Test Results for Third-Graders in the 2014-2015 School Year	51
Figure 12. Students passing AIMS Math, 2011-2012 to 2013-2014 School Years	52
Figure 13. Students passing AIMS Reading, 2011-2012 to 2013-2014 School Years	52
Figure 14. Estimated Percent of Children (ages 0-5) that could enroll in Center-based Early Education based on 2015-2016 Capacity	61
Figure 15. Map of Early Care and Education Centers in the San Carlos Apache Region.....	63
Figure 16. Types of Disabilities Among Preschoolers in Special Education, 2015.....	69
Figure 17. Well Child Visits by Age at IHS Facilities, November 2013 to October 2015	77
Figure 18. Live Births During Calendar Year 2009-2014, by Mother's Place of Residence.....	79
Figure 19. Race and Ethnicity of Mothers Giving Birth in 2014	80
Figure 20. Public Payee Births, by Payee, 2009 to 2014.....	81
Figure 21. Children (ages 0-4) in the San Carlos Apache WIC Program Exposed to Smoking in the Household, 2011 to 2015.....	82
Figure 22. Pre-pregnancy Weight Status of Women in the San Carlos Apache WIC Program, 2015.....	82
Figure 23. Pre-pregnancy Obesity Rates for Women in the San Carlos WIC Program, 2011 to 2015.....	83
Figure 24. Percent of Births With Prenatal Care Begun in First Trimester.....	84
Figure 25. Percent of Babies Born in 2014 With Low Birthweight (5.5 Pounds or Less)	86
Figure 26. Percent of Babies Born Premature in 2014 (37 Weeks or Less).....	87
Figure 27. Newborn Hearing Screening Results, 2015	88
Figure 28. Breastfeeding Rates for Infants in the San Carlos Apache WIC Program, 2011 to 2015	88
Figure 29. Children (Ages 0-5) Receiving Oral Health Care through IHS, November 2013 to October 2015	91
Figure 30. Weight Status of Children (ages 2-4) in the San Carlos Apache WIC Program, 2015.....	94

Figure 31. Obesity Rates for Children (ages 2-4) in the San Carlos Apache WIC Program, 2011 to 2015	94
Figure 32. Responses to "During the past week, how many days did you or other family members read stories to your child?" and "During the past week, how many days did you or other family members tell stories or sing songs to your child?"	98
Figure 33. Children removed by Tribal CPS and Child Abuse Cases, 2011 to 2015	100
Figure 34. Placement of Wards (0-17), 2015 Monthly Averages.....	100
Figure 35 Domestic Violence Incidents, 2013 to 2015	101
Figure 36. Juvenile Arrests, 2013 to 2015	102
Figure 37. Neonatal Abstinence Syndrome (NAS) by Primary Care Areas (PCA), 2008-2013.....	104
Figure 38. Arizona drug and alcohol exposed newborns by Primary Care Areas (PCA), 2008-2013	105

EXECUTIVE SUMMARY

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

Population Characteristics

According to the U.S. Census, 1,435 children under the age of six resided in the San Carlos Apache Region in 2010 representing approximately seven percent of the region's total population. As of June 2016, there were 15,755 enrolled members in the San Carlos Apache Tribe. Of these, 11,627 lived on-reservation and 4,128 resided off-reservation. According to the U.S. Census, in 2010, 98 percent of young children (birth to age 4) in the region were identified as American Indian. More than a third (36%) of households in the region have at least one child under 6 years old.

According to the American Community Survey (ACS), 67 percent of children in the San Carlos Apache Region live with a single parent. About eight percent of children ages birth to 5 are in kinship arrangements, with extended family members caring for them. The proportion of young children (0-5) living in a grandparent's household in the region (47%) is higher than that in all Arizona reservations combined (40%) but much higher than the state (14%). Seven percent of children ages 0 to 17 living with grandparents in the region do not have a parent present in the household, and forty-three percent live in multigenerational homes where the grandparent has assumed responsibility for the child, despite the presence of a parent.

Estimates from the ACS indicate that about a third (34%) of residents age 5 and older in the San Carlos Apache Region speak a Native North American language at home, a slightly lower rate than across all Arizona reservations (50%). The low level of native language use is a concern in the region. Many elders speak Apache, but very few young parents under the age of 35 speak the language fluently. Tribal leaders consider language preservation a priority in the community. The Apache Language Preservation Program provides the San Carlos Apache people with written resources and sound clips of the tribe's traditional language, Apache language training to early childhood care and education providers, immersion classes offered at two of the Head Start centers, community outreach activities and presentations and language instruction for school-aged children.

Economic Characteristics

The median income for all families in the San Carlos Apache Region is \$32,908, according to recent estimates from the American Community Survey (ACS). The median income for families with married parents and children under age 18 is higher (\$42,708), and single-parent families make substantially less (\$10,677 for households led by a single male and \$15,250 for households led by a single female). According to the ACS, about half (49%) of the total (all-age) population and more than half (56%) of young children (birth to 5) in the San Carlos Apache Region live in poverty. Nearly four out of five (75%) of families in the region with children aged four and under live below 185 percent of the Federal Poverty Level (i.e., earned less than \$3,677 a month for a family of four), which is higher than the 77 percent across all Arizona reservations combined. In spite of this high poverty rates in the region, the

number of young children supported by public assistance programs such as the Nnee Bich'o Nii Tribal TANF has declined in recent years (-36%), similar to the decrease across the state (-39%).

Recent estimates from the ACS indicate that the unemployment rate in the San Carlos Apache Region was 30 percent; this rate is slightly higher than the estimated unemployment rate for all Arizona reservations combined (26%) and much higher than that seen statewide (10%). Two-thirds (66%) of young children live with one or more parents who are in the labor force, which is slightly higher than that seen in all Arizona reservations combined (64%).

The number of young children participating in Supplemental Nutrition Assistance Program has remained relatively stable since 2012, with the program supporting about 1,500 young children in the region annually. The San Carlos Apache WIC program also maintained a relatively stable number of participants from 2013 to 2015, with a total of 2,010 women, infants, and children served in 2015. The proportion of students enrolled in schools in the San Carlos Apache Region that were eligible for free and reduced price lunch increased from 88 percent in 2012 to 100 percent in 2016.

Housing is more affordable in the region than elsewhere in the state; 14 percent of housing units in the region require residents to contribute more than 30 percent of their household income toward housing, compared to 17 percent in all Arizona reservations combined and 34 percent statewide. However, transportation remains a challenge. Of the 2,398 occupied houses, 22 percent did not have access to a vehicle, a higher proportion than in all Arizona reservations combined (17%) and more than double that of the percentage across the state (7%). Lack of transportation can be a barrier to accessing early care and education opportunities and community activities.

Educational Indicators

In the 2014-2015 school year, 19 percent of San Carlos Apache Region students attained a proficient or highly proficient score on the third grade math assessment, which was a lower passing rate than across Arizona as a whole (42%). Performance on the English language Arts (ELA) test was poorer, with six percent of San Carlos Apache Region students demonstrating proficiency, compared to 40 percent statewide. Key informants in the region emphasized the need for continued investment in literacy, especially early literacy, to prepare children for school.

Rates of chronic absences for elementary students in grades one through three in the San Carlos Apache Region have been substantially higher in 2014 (63%) and 2015 (66%) than in the state as a whole (34% and 36%, respectively). The high school drop-out rate for the four high schools in the region decreased slightly from 13 percent in 2014 to 9 percent in 2015. Between 2013 and 2014, the four-year high school graduation rates in the region increased slightly from 57 percent in 2013 to 61 percent in 2014, although still falling below state rates. Over a third of adults have at least some college or professional education or a Bachelor's or advanced degree in the region (35%), nearly the same percentage as in all Arizona reservations (37%). Another third of adults have a high school diploma or GED (37%), and just under a third have less than a high school education (28%).

Early Learning

Families in the San Carlos Apache Region can access early childhood education and care services through the Apache Kid Child Care Center, San Carlos Head Start Program, and the school-based preschool at Rice Elementary. From 2013 to 2016, an additional early learning opportunity was available

in the region through the San Carlos Child Readiness Program, which served 40 children in the 2015–2016 school year. Enrollment in the Apache Kid Child Care Center decreased substantially from program year 2012–2013, when 95 children birth to 5 were enrolled, to June 2016 when 43 young children were enrolled. The San Carlos Apache Head Start provides services at six centers: two in Peridot, two in Bylas, one in Seven Miles Wash, and one in Gilson Wash, and has a funded enrollment of 233 children. In 2015–2016, all seven lead teachers at Apache Kid Child Care center and nine of the 12 Head Start classroom teachers had formal credentials or a degree in early childhood education. The preschool at Rice Elementary School in San Carlos provides preschool services for children with special needs, and in school year 2016–2017, there were 23 children enrolled in the program.

An estimated 24 percent of the 1,435 children birth to 5 in the region are participating in center-based early childhood care and education programs. However, in the past two years, the San Carlos Apache Region lost an important number of early care and education slots for young children with lower enrollment at Apache Kid Child Care Center and the closing of the San Carlos Child Readiness Program.

Early care and education programs in the region are provided at low or no cost to families based on financial need. Cost of care at Apache Kid Child Care Center is based on a sliding scale fee and it ranges between \$5 and \$15 per day. Participation in the San Carlos Head Start program is free of cost, and there were no fees associated with participating in the Child Readiness Program.

Three AzEIP providers serve the San Carlos Apache Region. A national study suggests that about 13 percent of children ages 0 to 2 would typically qualify for early intervention services, which suggests that at least 99 young children in the region would be likely to benefit annually. However, from FY 2013 to FY 2015, fewer than 35 children were served by AzEIP each year. Fewer than 25 children from the San Carlos Apache Region were referred to, evaluated by, and served by DDD in FY 2015, the most recent year for which data were available. For children enrolled in special needs preschools in the region, at least half of them (50%) received a diagnosis of “developmental disability,” and close to one-quarter of children (23%) fell under the category of “preschool severe delay.” Barriers to timely early intervention services include inconsistent parental follow-up after referral, lack of regular visits by AzEIP providers to the reservation, and the need for early learning educators and others working with young children to be better prepared to work with children with special needs.

Child Health

The tribally-operated San Carlos Apache Health Care Corporation Izeé Baa Gowáh’s new five-building campus provides health care services to those in the San Carlos Apache Region and provides many services including emergency services, public health nurses and oral health. As a result of having these services co-located, coordination of services and communication among health care providers have been greatly improved. However, health care providers’ recruitment and retention continues to be a challenge in the region. Prior to the opening of this new facility, between October 2013 and September 2015, there were 11,133 active users in the Indian Health Service (IHS) San Carlos Service Unit and approximately 13.5 percent (n= 1,499) of them were young children (ages 0–5). According to estimates from the American Community Survey (ACS), 39 percent of young children, birth to age five, in the region were estimated to be uninsured, along with 38 percent of the total population in the San Carlos

Apache Region (the U.S. Census Bureau does not consider coverage by the Indian Health Service (IHS) to be insurance coverage).

In 2014, there were 318 babies born in the San Carlos Apache Region. A lower proportion of mothers in the San Carlos Apache Region reported using tobacco during pregnancy (1.9%) than across the state (4.6%). The percentage of children enrolled in WIC who were exposed to smoking in the household has fluctuated between 2011 and 2015, with the lowest reported exposure in 2011 (5%) and highest (11%) in 2015. From 2009 to 2013, the rate of prenatal care begun in the first semester remained below 60 percent, with the highest rates of early prenatal care occurring in 2010 (57.2%) and 2011 (56.4%). Prenatal care services are available through an OB/GYN at the new San Carlos Hospital Health Care Corporation as well as through a nurse practitioner at the Maternal and Child Health program.

In 2014, 12.9 percent of babies in the region were born premature, compared to 9 percent statewide. In the same year, approximately eight percent of babies born in 2014 in the region were low birth weight, compared to seven percent across the state. In 2015, 8.7 percent of newborn babies did not pass the initial hearing screenings, which was higher than the overall statewide rate (3.8%). Of the infants enrolled in the San Carlos Apache WIC program in 2015, only 34 percent were ever breastfed. This rate is significantly lower than both the statewide rate for infants enrolled in WIC (71.2%) and the Healthy People 2020 goal of 81.9 percent or higher.

Data provided by the Indian Health Services for children from the San Carlos Apache Tribe show that in the period between October 2013 and September 2015, 52.5 percent of children 19 to 35 months old were fully immunized. However, for children enrolled in the San Carlos Apache Head Start program or preschool at Rice Elementary, immunization rates were at or near 100 percent for most vaccines. Vaccination rates for those enrolled in kindergarten were also high, and rates of personal exemptions for vaccinations among children in child care (0.0%) and kindergarten (0.0%) in the region were much lower than exemption rates at the state level (3.5% and 4.5% respectively).

Data from the Indian Health Service indicate that a total of 536 unique children (35.8%) ages birth to 5 from the San Carlos Apache Nation received topical fluoride applications between October 2013 and September 2015. There is a particularly high need for dental services in the Bylas area compared to the rest of the community.

Motor vehicle safety is a major concern in the region—many children are not properly restrained in car seats, and many adults do not wear seatbelts. Other public health issues in the region include sudden unexpected infant deaths (SUID), air quality, and vector-borne diseases such as Rocky Mountain Spotted Fever. An IHS-led public health campaign to prevent and raise awareness of Rocky Mountain Spotted Fever has been highly successful.

Data from IHS indicate that 26.2 percent of children (ages 2-5) from the San Carlos Apache Tribe were obese. In 2015, 27 percent of the children (ages 2 to 4) participating in the San Carlos Apache WIC program were obese and an additional 24 percent were overweight; the WIC child obesity rate has remained relatively stable between 2011 and 2015 at 27 percent.

Family Support and Literacy

More awareness is needed among parents and caregivers regarding the importance of positive adult-child interactions, including positive discipline, daily structure and reading books, as well as the need

to increase parent involvement and to support early literacy in the region. An increasing number of family events are being offered in the community such as parents' nights and mother-son, father-daughter dances at schools, but participation is often limited. Read On San Carlos Apache Tribe became the first tribal Read On community in Arizona in 2015.

According to data provided by the San Carlos Apache Social Services Department, in 2015 there were 66 children (0-17) removed from their homes by Tribal Child Protective Services, almost half of the children removed in 2014 (127). In 2015, a total of 159 cases of child abuse or neglect were substantiated, down from 208 in 2014 (Table 60). In 2015, there were 25 foster care homes available to care for children in out-of-home placement (providing 30 foster care beds), an increase from the 18 homes available in 2013.

The San Carlos Apache Wellness Center serves as the Tribal Regional Behavioral Health Authority (TRBHA) for the San Carlos Apache Tribe and is a tribally-run outpatient mental health and substance abuse program with various satellite locations throughout the San Carlos Apache Indian Reservation. Behavioral health services are also available for members of the San Carlos Apache Tribe through the Tribal Warm Line (TWL) operated by NurseWise, Cenpatico's crisis line provider. Alcohol and drug use affects families in the region due to 1) the negative consequences of in-utero substance on the newborn's health as well as on the healthy development of young children; and 2) the challenges it presents to parenting. In June of 2016, the San Carlos Apache Tribe Prevention program organized the 2016 Meth Awareness Summit, which provided education and awareness on the risks of methamphetamine use and on the harmful consequences of meth use by pregnant women.

Communication, Public Information, and Awareness

Since state fiscal year 2011, First Things First has led a collaborative, concerted effort to build public awareness and support across Arizona. In state fiscal year 2014, First Things First began a community engagement effort to recruit, motivate and support community members to take action on behalf of young children. In the San Carlos Apache Region, these efforts have resulted in the recruitment of 232 Friends, 18 Supporters and 10 Champions during the period of FY2014 through FY2016. In addition to these strategic communications efforts, First Things First has also led a concerted effort of policymaker awareness-building throughout the state. The Arizona Early Childhood Alliance represent the united voice of the early childhood community in advocating for early childhood programs and services. First Things First recently launched enhanced online information for parents of young children, including the more intentional and strategic placement of early childhood content and resources in the digital platforms that today's parents frequent.

System Coordination among Early Childhood Programs and Services

The San Carlos Apache Regional Partnership Council supports coordination efforts in the region through its San Carlos Apache Early Childhood Development and Health Collaborative. Another important effort undergoing in the region is the Read On San Carlos Apache initiative, a collaborative literacy project facilitated by the San Carlos Apache Early Childhood Education Health and Development Collaborative and First Things First. In the health area, coordination and communication among various programs providing health care services has greatly improved with the co-location of these programs in the campus of the new San Carlos Health Care Corporation hospital.

2018 NEEDS AND ASSETS REPORT

About this Report

The data contained in this report come from a variety of sources. Some data were provided to First Things First by state agencies, such as the Arizona Department of Economic Security (DES), the Arizona Department of Education (ADE), and the Arizona Department of Health Services (ADHS). Other data were obtained from publically available sources, including the 2010 U.S. Census, the American Community Survey (ACS), and the Arizona Department of Administration (ADOA). In addition to these public sources this report includes: 1) Quantitative data obtained from various San Carlos Apache tribal departments and agencies with approval from the San Carlos Apache Tribal Council by Tribal Resolution No. MR-16-043; 2) Findings from qualitative data collection conducted in 2016 specifically for this report through key informant interviews and group discussions with community leaders and service providers in the regionⁱ; 3) Data from the 2014 First Things First San Carlos Apache Parent and Caregiver Survey. Not all data will be available at a First Things First (FTF) regional level because not all data sources analyze their data based on FTF regional boundaries. When regional data are unavailable, this will be noted by N/A

This report follows the First Things First Data Dissemination and Suppression Guidelines. Throughout this report, suppressed counts will appear as either <10 or <25 in data tables, and percentages that could easily be converted to suppressed counts will appear as **DS** (data suppressed). The signifier **N/A** indicates where data is not available for a particular geography. Please also note that some data, such as that from the American Community Survey, are estimates that may be less precise for small areas. Additional information on the limitations of U.S. Census and American Community Survey data in tribal communities is included in the Appendices section.

In most of the tables in this report, the top row of data corresponds to the First Things First San Carlos Apache Region. When available, the next two rows show data that are useful for comparison purposes: all Arizona reservations combined and the state of Arizona.

For more detailed information on data sources, methodology, suppression guidelines, and limitation, please see the Appendices section.

Description of the Region

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 San Carlos Apache was one

ⁱ Please note that throughout this report we will use the term “key informants” to refer to individuals who provided qualitative data for this report either through individual interviews or through a group discussion.

of 10 tribes that chose to be designated as its own region. This decision must be ratified every two years, and the San Carlos Apache has opted to continue to be designated as its own region.

The boundaries of the First Things First San Carlos Apache Region are defined to be those of the San Carlos Apache Indian Reservation. The region covers almost 3,000 square miles in east-central Arizona. Most of the region lies within Gila and Graham counties, although there is a small, uninhabited section in Pinal County. The reservation, which was established in 1871, is divided into four districts: Seven Mile Wash, Gilson Wash, Peridot, and Bylas.

Figure 1. The San Carlos Apache First Things First Region



Source: First Things First (2016).



POPULATION CHARACTERISTICS

Why Population Characteristics Matter

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

An understanding of the supports and resources *within* a family is also key to helping young children achieve the best possible developmental outcomes.^{3,4} Children living with and being cared for by someone other than their parents, such as relatives or close friends, is known as kinship care and is increasingly common.⁵ Extended families that involve multiple generations and relatives along both vertical and horizontal lines are an important characteristic of many Native families. The strengths associated with this open family structure -mutual help and respect- can provide members of these families with a network of support that can be very valuable when dealing with socio-economic hardships.⁶

Children living in kinship care can arrive in those situations for a variety of reasons including abuse, neglect, homelessness, chronic illness, or a family member's incarceration, among others. Children in kinship care often face special needs as a result of trauma, and these families often require additional support and assistance to help children adjust and provide the best possible home environment.⁷ Caring for young children may pose a particular challenge for aging grandparents, as they often lack information on resources, support services, benefits, and policies available to aid in their caregiving role.⁸ Understanding the makeup of families in a region can help better prepare child care, school and agency staff to engage with diverse families in ways that support positive interactions with staff and within families to enhance each child's early learning.⁹

Recognizing variations in regional language use and proficiency is also important to ensuring appropriate access to services and resources and identifying needed supports. Mastery of the language spoken in the home is related to school readiness and academic achievement.¹⁰ Those children who engage in dual language learning have cognitive, social-emotional and learning benefits in early school and throughout their lifetimes.¹¹ Although dual language learning is an asset, some children come from limited English speaking households (that is, a household where none of the adult members speak English very well). Language barriers for these families can limit access to health care and social services, and can provide challenges to communication between parents and teachers, doctors and other providers, which can affect the quality of services children receive.¹² Assuring that early childhood resources and services are available in a language accessible to the child and caregivers is essential. Although Spanish is the most common second language spoken, Arizona is also

home to a large number of Native communities, with numerous Native languages spoken by families in those communities. Language preservation and revitalization are recognized by the U.S. Department of Health & Human Services as keys to strengthening culture in Native communities and to encouraging communities to move toward social unity and self-sufficiency.¹³ Special consideration should be given to respecting and supporting the numerous Native languages spoken, particularly in tribal communities around the state.

What the Data Tell Us

Demographics

According to the U.S. Census, 1,435 children under the age of six resided in the San Carlos Apache Region in 2010 (see Table 1). The overall population for the region was 10,068 in that same year, meaning that approximately seven percent of residents were young children (see Table 5). As of June 2016, there were 15,755 total enrolled members in the San Carlos Apache Tribe and one-third of these members ($n=5,251$) were from the Peridot community. While this number is much higher than the Census estimate of the region's population, it is important to remember that tribal members live both on and off reservation. In 2016, of the 15,755 enrolled tribal members, 11,627 lived on-reservation and 4,128 lived off-reservation (Table 3). Key informants in the region noted that tribal members are not required to update their residence after enrolling, which means that tribal enrollment numbers reflect a tribal member's residence at time of enrollment rather than their current residence. Most of tribally enrolled members living on reservation (67%) are between the ages of 16 and 64 years.

Since the turn of the century, Arizona as a whole saw a 19 percent increase in the number of young children. In the San Carlos Apache Region, the population of young children increased by 20 percent from 2000 to 2010, slightly greater than the increase seen statewide (Table 4). Given the increase in the number of young children from 2000 to 2010, it is likely that the number of young children will continue to grow in the coming decades.

According to the U.S. Census in 2010, 98 percent of young children (birth to age 4) in the region were identified as American Indian, greater than the percentage in all Arizona reservations combined (92%) (Figure 2). In the San Carlos Apache Region, the proportion of children who identified as Hispanic or Latino (5%) was half of that in all Arizona reservations combined (9%, see Table 8).

Among adults the overall ethnic/racial breakdown in the region looked very similar to that in children: 95 percent of residents 18 and older identify as American Indian alone (not Hispanic or Latino), compared to 88 percent in all Arizona reservations combined (Table 7). Two percent of adults in the region are White non-Hispanic, compared to five percent in all Arizona reservations.

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

	Ages 0-5	Age 0	Age 1	Age 2	Age 3	Age 4	Age 5
San Carlos Apache	1,435	238	282	242	212	232	229
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

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

Table 2. Total Membership as of June 2016

	Children (ages 0-17)	Adults (18 and older)	All Ages
Total Enrollment	4,440	11,315	15,755
Bylas	944	2,367	3,311
Gilson	951	2,940	3,891
Peridot	1,580	3,671	5,251
Seven Mile	965	2,337	3,302

Source: San Carlos Apache Enrollment Office (2016). [Tribal Enrollment data]. Unpublished data.

Table 3. Tribal Enrollment On- and Off-Reservation, June 2016

	On Reservation	Off Reservation	On Reservation	Off Reservation
Under 16 Years of Age	3,125	794	80%	20%
16-64 Years of Age	7,781	3,111	71%	29%
Over 64 Years of Age	721	223	76%	24%
All Ages	11,627	4,128	74%	26%

Source: San Carlos Apache Enrollment Office (2016). [Tribal Enrollment data]. Unpublished data.

Table 4. Change in Population of Young Children (Ages 0 to 5), 2000 to 2010 Census

	Number of children (ages 0-5) in 2000 Census	Number of children (ages 0-5) in 2010 Census	Percent change in population (ages 0-5), 2000 to 2010
San Carlos Apache	1,198	1,435	20%
ALL ARIZONA RESERVATIONS			
ARIZONA	459,141	546,609	19%

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

Table 5. Population (All Ages) in the 2010 Census

	All ages	Ages 0 to 5	Children (ages 0-5) as a percentage of the total population
San Carlos Apache	10,068	1,435	14%
ALL ARIZONA RESERVATIONS	178,131	20,511	12%
ARIZONA	6,392,017	546,609	9%

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

Table 6. Projected Population (All Ages), 2015 to 2040

	2015	2020	2025	2030	2035	2040
San Carlos Apache	10,332	10,664	11,028	11,385	11,732	12,060
ALL ARIZONA RESERVATIONS						
ARIZONA	6,758,251	7,346,787	7,944,753	8,535,913	9,128,899	9,706,815

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

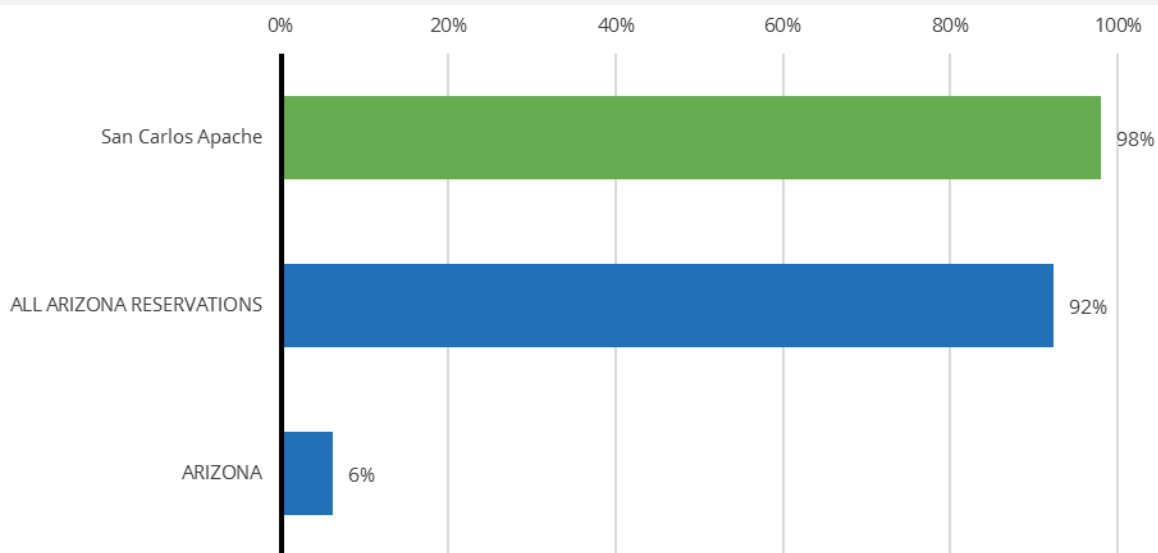
Table 7. Race and Ethnicity of the Adult Population (Ages 18 and Older) in the 2010 Census

	Number of persons (ages 18 and older)	Hispanic or Latino	White alone (not Hispanic or Latino)	American Indian alone (not Hispanic or Latino)	African-American alone (not Hispanic or Latino)	Asian or Pacific Islander (not Hispanic or Latino)
San Carlos Apache	6,214	3%	2%	95%	0%	0%
ALL ARIZONA RESERVATIONS	117,049	5%	5%	88%	0%	0%
ARIZONA	4,763,003	25%	63%	4%	4%	3%

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

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

Figure 2. Percent of Children (Ages 0 to 4) Reported to be American Indian in the 2010 Census



Source: U.S. Census Bureau (2010). 2010 Decennial Census, SF 1, Table P12C

Table 8. Race and Ethnicity of the Population of Children (Ages 0 to 4) in the 2010 Census

	Population of children (ages 0-4)	Hispanic or Latino	White alone (not Hispanic or Latino)	American Indian	African-American	Asian or Pacific Islander
San Carlos Apache	1,206	5%	1%	98%	0%	0%
ALL ARIZONA RESERVATIONS	17,061	9%	1%	92%	0%	0%
ARIZONA	455,715	45%	40%	6%	5%	3%

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

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

Living Arrangements

Based on data from the 2010 U.S. Census, in the San Carlos Apache Region, 36 percent of households have at least one child under 6 years old, a higher proportion when compared to all Arizona reservations combined (26%) (Table 9). According to the American Community Survey, 67 percent of children in the San Carlos Apache Region live with a single parent, which is slightly lower than the proportion in all Arizona reservations (68%) but substantially higher than in the state as a whole (38%). About 8 percent of children ages birth to 5 are in kinship arrangements, with extended family members caring for them (Figure 3).

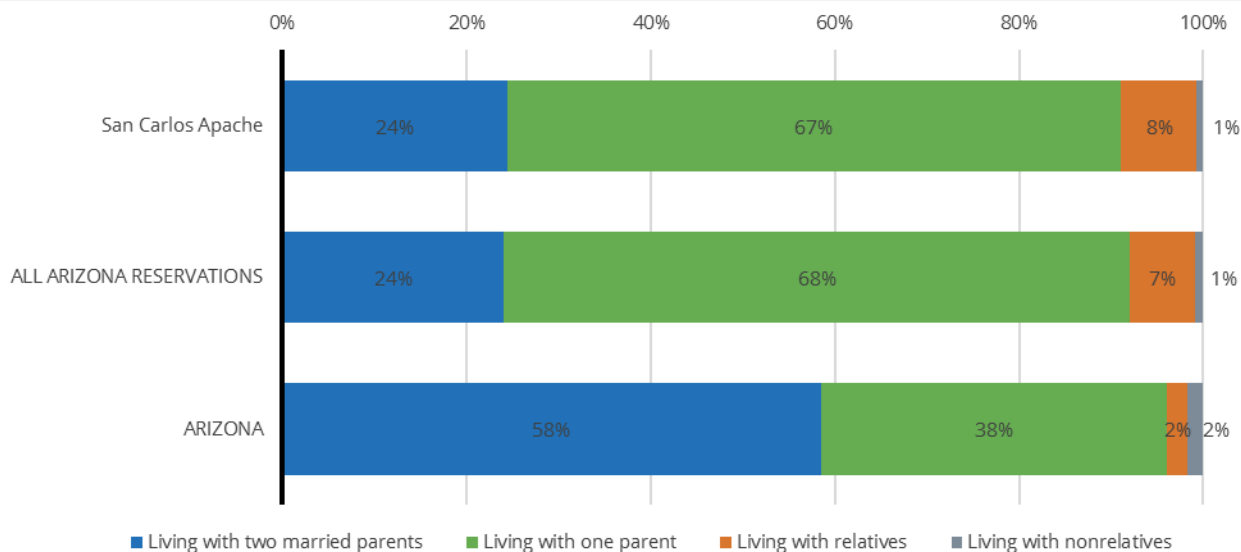
The proportion of young children living in a grandparent's household in the region (47%) is higher than that in all Arizona reservations combined (40%) but much higher than the state (14%) (Figure 4). It is important to note that these households may be multigenerational—i.e., the grandparent is considered the head-of-house, but the child's parent may also live here. Table 10 provides more information about the estimated 2,320 children ages 0 to 17 living with grandparents in the San Carlos Apache Region. Seven percent of these children who live with their grandparents do not have a parent present in the household, and forty-three percent live in multigenerational homes where the grandparent has assumed responsibility for the child, despite the presence of a parent.

Table 9. Composition of Households in the 2010 Census

	Total number of households	Total number of households with child(ren) under 6 years old	Percent of households with child(ren) under 6 years old	Households with child(ren) under 6 years old, husband-wife householders	Households with child(ren) under 6 years old, single male householder	Households with child(ren) under 6 years old, single female householder
San Carlos Apache	2,320	844	36%	45%	12%	43%
ALL ARIZONA RESERVATIONS	50,140	13,115	26%	45%	13%	42%
ARIZONA	2,380,990	384,441	16%	65%	11%	24%

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

Figure 3. Living Arrangements for Young Children (Ages 0 to 5)



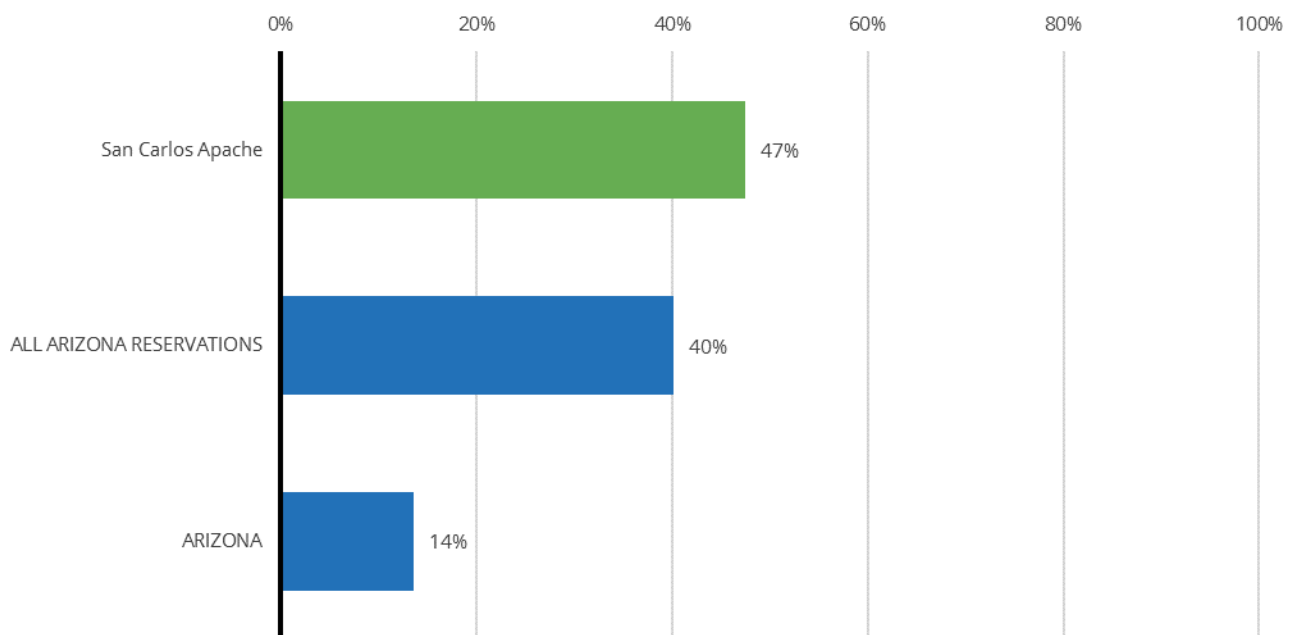
Source: U.S. Census Bureau (2016). American Community Survey, 5-year estimates (2010–2014), Tables B05009, B09001, B17006

Table 10. Children (Ages 0 to 17) Living in a Grandparent's Household

	Number of children (ages 0-17) living in a grandparent's household	Children (ages 0-17) living in a grandparent's household where the grandparent is responsible for the child	Children (ages 0-17) living in a grandparent's household where the grandparent is responsible for the child and no parent is present
San Carlos Apache	1,113	43%	7%
ALL ARIZONA RESERVATIONS	17,774	58%	12%
ARIZONA	140,038	53%	14%

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

Figure 4 Children (Ages 0 to 5) Living in a Grandparent's Household in the 2010 Census



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

Table 11. Children (Ages 0 to 5) Living with Foreign-Born Parents

	Children (ages 0-5) living with one or two parents	Children (ages 0-5) living with one or two foreign-born parents
San Carlos Apache	1,394	2%
ALL ARIZONA RESERVATIONS	18,293	3%
ARIZONA	510,658	27%

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

Language Use

Estimates from the American Community Survey indicate that about a third (34%) of residents age 5 and older in the San Carlos Apache Region speak a Native North American language at home, a slightly lower rate than across all Arizona reservations (50%) (Table 12). Of those who spoke a Native North American language at home, 1.5 percent reported speaking Navajo at home, and the remaining 98.5 percent reported speaking other Native North American languages, most likely Apache.¹⁴ More than two-thirds (69%) of householdsⁱⁱ in the region report speaking a language other than English in the home, most likely a Native North American language (Table 14). However, only 10 out of 233 children enrolled in the San Carlos Apache Head Start Program live in households where the primary language spoken is a Native North American language (Table 15). This deeply concerns key informants in the region, as many see the home as where language learning begins. Key informants in the region describe a generational loss of language where many elders speak Apache, but very few young parents under the age of 35 speak the language fluently. Therefore, tribal leaders consider language preservation a priority in the community. Efforts are in place to continue to seek out ways to preserve and revitalize the Apache language, including the Apache Language Preservation Program.

The Apache Language Preservation Program provides the San Carlos Apache people with written resources and sound clips of the tribe's traditional language.¹⁵ The program has been in place for five years and receives funding from the San Carlos Apache Tribe. For the past two years, this program has also received funding from the First Things First San Carlos Apache Regional Partnership Council to provide Apache language training to early childhood care and education providers at the San Carlos Apache Head Start and Apache Kid Child Care Center. The program has developed an Apache language curriculum and materials to be utilized by the early childhood care and education providers in their centers. Through the strategy funded by the First Things First Regional Partnership Council, the Apache Language Preservation Program hired an Apache language teacher who works exclusively with

ⁱⁱ It is important to note that a household is considered to speak a language other than English in the home as long as one or more household members speak a language other than English. Thus the percent of households that speak a Native North American language is likely greater than the percent of the population age 5 and older that speak a Native North American because there are many households with one or two speakers.

children ages birth to 5 through both direct language lessons as well as instructional support for Head Start teachers, and for teachers and staff at the Apache Kid Child Care Center. For example, the program director and curriculum specialist recently finished producing a CD with Apache songs and color vocabulary that will be distributed to Head Start and the Child Care Center.

There are currently two immersion classes offered at two of the Head Start centers. The Apache language teacher supports the five Head Start teachers who are fluent in Apache, through developing a curriculum and class materials. The Apache Language Preservation Program has been working to revise the Apache language assessment used at Head Start so that it reflects the curriculum currently in use at the program.

The Apache Language Preservation Program also conducts community outreach activities and presentations. The program is involved with the bimonthly First Things First Family nights, where they advertise their language programs. They also advertise their home-based lessons on the radio. As of July 2016, there were 11 families with young children in the region receiving in-home language lessons from the Apache language teacher. By March 2017, the number of families receiving home-based lessons had increased to 15 families.

Beyond language support in early childhood, the Apache Language Preservation Program also supports language instruction for school-aged children. Currently, Apache language classes are offered at Rice Elementary, Mount Turnbull Academy, and San Carlos High School. Classes are also available at the San Carlos Apache College. Key informants noted that there have been multiple requests for adult classes, but the Apache Language Preservation Program is currently operating at full capacity with the programs and classes already in place. Further discussion is taking place concerning how the tribal government can support language preservation and revitalization.

Table 12. Language Spoken at Home (Ages 5 and Older)

	Estimated population (ages 5 and older)	Speak English at home	Speak Spanish at home	Speak a native North American language at home	Speak another language at home
San Carlos Apache	9,145	64%	1%	34%	1%
ALL ARIZONA RESERVATIONS	169,020	45%	4%	50%	1%
ARIZONA	6,120,900	73%	20%	2%	5%

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

Table 13. Proficiency in English (Ages 5 and Older)

	Population (ages 5 and older)	Speak English at home	Speak another language at home, and speak English "very well"	Speak another language at home, and do not speak English "very well"
San Carlos Apache	9,145	64%	30%	6%
ALL ARIZONA RESERVATIONS	169,020	45%	42%	13%
ARIZONA	6,120,900	73%	17%	9%

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

Table 14. Limited-English-Speaking Households

	Number of households	Households which speak a language other than English	Limited-English-speaking households (Total)	Limited-English-speaking households (Spanish)
San Carlos Apache	2,398	69%	7%	0%
ALL ARIZONA RESERVATIONS	47,892	73%	11%	1%
ARIZONA	2,387,246	27%	5%	4%

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

Table 15. Language Use for Children Enrolled in San Carlos Apache Head Start, 2015

	Children (ages 3-5) enrolled in Head Start	Children in homes where a Native North American language is the primary language		Head Start Teaching Staff	Teaching Staff who are proficient in a Native North American language	
San Carlos Apache Head Start	233	10	4%	24	5	21%

Source: Office of Head Start (2016). 2015 Program Information Report. Retrieved from <https://eclkc.ohs.acf.hhs.gov/hslc/data/pir>

Table 16. English Language Learners Enrolled in Kindergarten Through Third-Grade, October 2015

	Number of students enrolled (K to 3)	Number of English Language Learners (ELL)	Percent of students who are ELL
San Carlos Apache Region Schools	571	13	2%
All Arizona Schools	342,307	34,256	10%

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



ECONOMIC CIRCUMSTANCES

Why Economic Circumstances Matter

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

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

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

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

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

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

school settings. The National School Lunch Program³⁶ provides free and reduced-price meals at school for students whose families' incomes are at or less than 130 percent of the federal poverty level (FPL) for free lunch and 185 percent of the FPL for reduced price lunch.

Another food and nutrition resource, the Special Supplemental Nutrition Program for Women, Infants and Children (WIC) program, is a federally-funded program that serves economically disadvantaged pregnant, postpartum, and breastfeeding women, as well as infants and children under the age of five. The program offers supplemental nutritious food, breastfeeding and nutrition education, and referrals to health and social services.³⁷ In Arizona in 2015, half of all children aged birth through four were enrolled in WIC.³⁸ 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.³⁹

What the Data Tell Us

Income

The median income for all families in the San Carlos Apache Region was \$32,908, according to recent estimates from the American Community Survey (Table 16). The median income for families with married parents (husband-wife) and children under age 18 was higher (\$42,708), and single-parent families made substantially less. The median income for households run by a single male in the San Carlos Apache Region was \$10,677 and \$15,250 for single female households. It is important to note that the single male households in the San Carlos Apache Region only made one third of single male households across the state (\$37,103). Additionally, the low median income for single-householders in the region is a concern because more than half of young children (55%) live in single-parent households (see Table 9).

Table 17. Median Annual Family Income				
	Median family income for all families	Median family income for husband-wife families with child(ren) under 18	Median family income for single-male-householder families with child(ren) under 18	Median family income for single-female-householder families with child(ren) under 18
San Carlos Apache	\$32,908	\$42,708	\$10,677	\$15,250
ALL ARIZONA RESERVATIONS	N/A	N/A	N/A	N/A
ARIZONA	\$59,088	\$73,563	\$37,103	\$25,787

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

Poverty

According to the American Community Survey (ACS), about nearly half (49%) of the total (all-age) population of the San Carlos Apache Region lives in poverty, a proportion which was higher than across all Arizona reservations combined (42%) and substantially higher than the state (18%) (Table 18). Poverty rates were slightly higher among young children (birth to age 5) in the region (56%), than the

poverty rate among young children in all Arizona reservations (55%) and much higher than the rate statewide (29%). Older children in the region (ages 6-17) experienced higher levels of poverty (60%) than younger children and this rate was also higher than the rate of poverty among older children in all Arizona reservations (48%). Figure 6 shows a map of the population in the poverty in the region.

In addition to the families whose incomes fall below the federal poverty level, a proportion of households in the region and county are considered low-income (i.e., near but not below the federal poverty level (FPL)). Nearly four out of five (75%) of families in the region with children aged four and under live below 185 percent of the FPL (i.e., earned less than \$3,677 a month for a family of four), which is higher than the 77 percent across all Arizona reservations combined (Table 19).

The TANF/Cash Assistance program can be an important short-term support to families in dire financial need. In recognition of tribal sovereignty, the U.S. Department of Health and Human Services, Administration for Children and Families (ACF), which is the federal agency in charge of overseeing the TANF program, gives federally recognized tribes the option to administer their own TANF program. Tribes must submit a three-year Tribal TANF plan to ACF for review and approval. Approved Tribal TANF programs then receive a portion of the state TANF block grant funding from the state where the tribes are located.⁴⁰ Tribal TANF programs have more flexibility to design their programs to meet TANF requirement compared to state programs. These programs are allowed to extend the program's 60-month time limit on receipt of TANF cash assistance on reservation with high unemployment rates. They also may set their own work participation rates, work hour requirements, and definitions of allowable work activities, and determine their own types of support to provide clients. This flexibility allows programs to find creative ways to define allowable work activities that reflect both economic reality and tribal cultural values, such as including engagement in cultural activities in self-sufficiency plans.⁴¹ Currently six tribes in Arizona manage their own Tribal TANF programs, including the San Carlos Apache. The San Carlos Apache Tribal TANF program (Nnee Bich'o Nii or "Helping the People") began operations in 2008. This program currently has an Intergovernmental Agreement (IGA) with the state of Arizona's Department of Economic Security (DES) through which eligibility of possible TANF participants is determined by DES.

The number of young children supported by the Nnee Bich'o Nii TANF program has steadily declined in recent years in the San Carlos Apache Region. The number of children who received tribal TANF benefits fell from 486 children in 2012 to 311 in 2015, a 36 percent decrease (Table 20). This means that while over a third (34%) of young children in the region received tribal TANF in 2012, only 22 percent did in 2015 (see Figure 5). This mirrors a decrease in the overall number of children receiving TANF benefits statewide in Arizona.

Table 18. Persons Living in Poverty

	Number of persons (all ages) for whom poverty status is known	Persons (all ages) below poverty level	Number of young children (ages 0-5) for whom poverty status is known	Young children (ages 0-5) below poverty level	Number of older children (ages 6-17) for whom poverty status is known	Older children (ages 6-17) below poverty level
San Carlos Apache	10,322	49%	1,519	56%	2,137	60%
ALL ARIZONA RESERVATIONS	183,508	42%	19,679	55%	38,821	48%
ARIZONA	6,411,354	18%	522,513	29%	1,071,471	25%

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

Table 19. Ratio of Income to Federal Poverty Level (FPL) for Families with Young Children (Ages 0 to 4)

	Estimated number of families with children (ages 0-4)	Families with children (ages 0-4) below 100% FPL	Families with children (ages 0-4) below 130% FPL	Families with children (ages 0-4) below 150% FPL	Families with children (ages 0-4) below 185% FPL
San Carlos Apache	731	49%	63%	71%	75%
ALL ARIZONA RESERVATIONS	9,560	51%	62%	68%	77%
ARIZONA	301,165	27%	35%	41%	49%

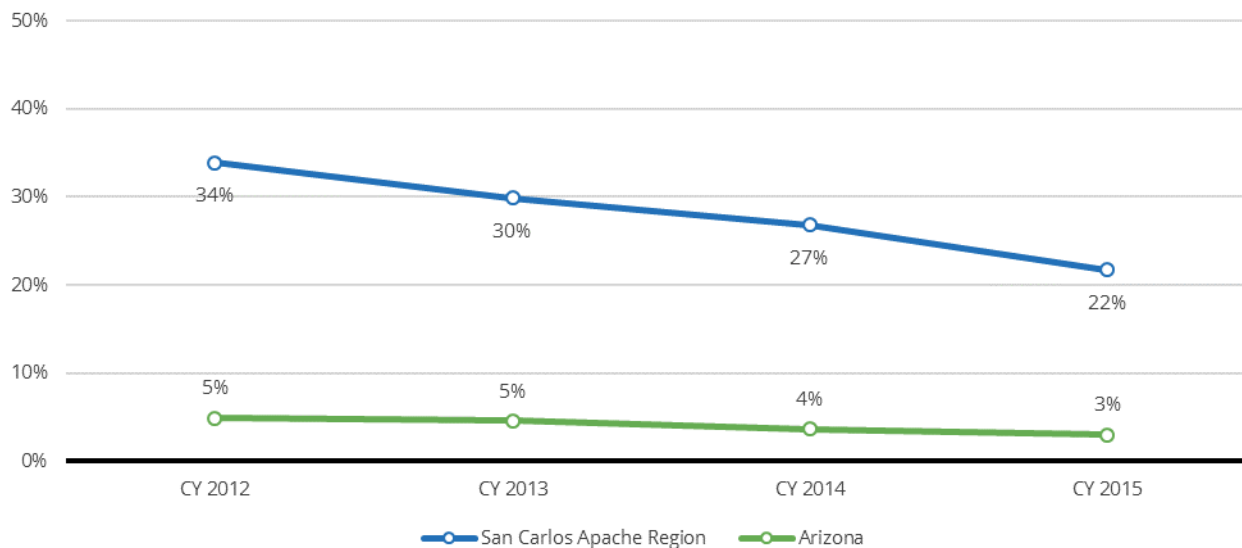
Source: U.S. Census Bureau (2016). American Community Survey, 5-year estimates (2010-2014), Table B17022

Table 20. Number of Children (Ages 0 to 5) Receiving Temporary Assistance to Needy Families (TANF) through the tribal Nnee Bich'o Nii TANF Program

	CY 2012	CY 2013	CY 2014	CY 2015	Change from 2012 to 2015
San Carlos Apache	486	428	385	311	-36%
ALL ARIZONA RESERVATIONS	N/A	N/A	N/A	N/A	N/A
ARIZONA	26,827	24,889	19,884	16,336	-39%

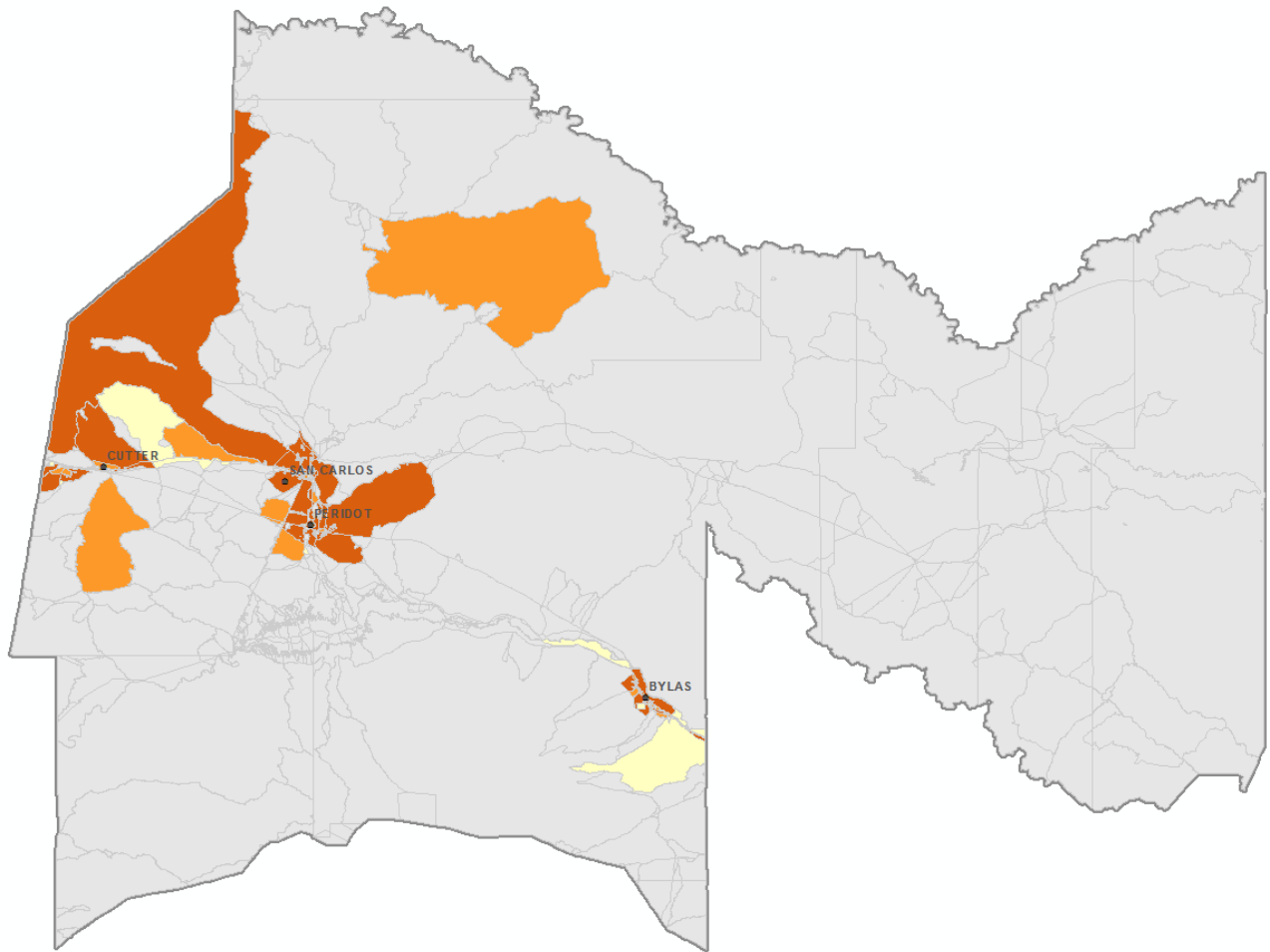
Source: Arizona Department of Economic Security (2016). [Family Assistance Administration dataset]. Unpublished data.

Figure 5. Estimated Percent of Children (Ages 0 to 5) Receiving Temporary Assistance to Needy Families (TANF)



Source: Arizona Department of Economic Security (2016). [Family Assistance Administration dataset]. Unpublished data; U.S. Census Bureau (2010). 2010 Decennial Census, SF 1, Table P14.

Figure 6. Population in poverty in the San Carlos Apache Region



	Legend	# of Census Blocks	Poverty 0-5	Population 0-5	% Poverty
	High Poverty-High Population	87	752	1,261	60%
	High Poverty-Low Population	2	5	8	60%
	Low Poverty-High Population	2	5	8	59%
	Low Poverty-Low Population	88	94	158	60%
	No Poverty	1,245	0	0	0%
	Total	1,424	856	1,435	60%

Source: First Things First (2016).

Note: In order to arrive at the 5 categories below, FTF IT utilized the number of children, birth to age 5 from the 2010 Census according to the census block data and proportionally allocated the 2007-2011 American Community Survey poverty numbers to census blocks. The ranking is within a single council.

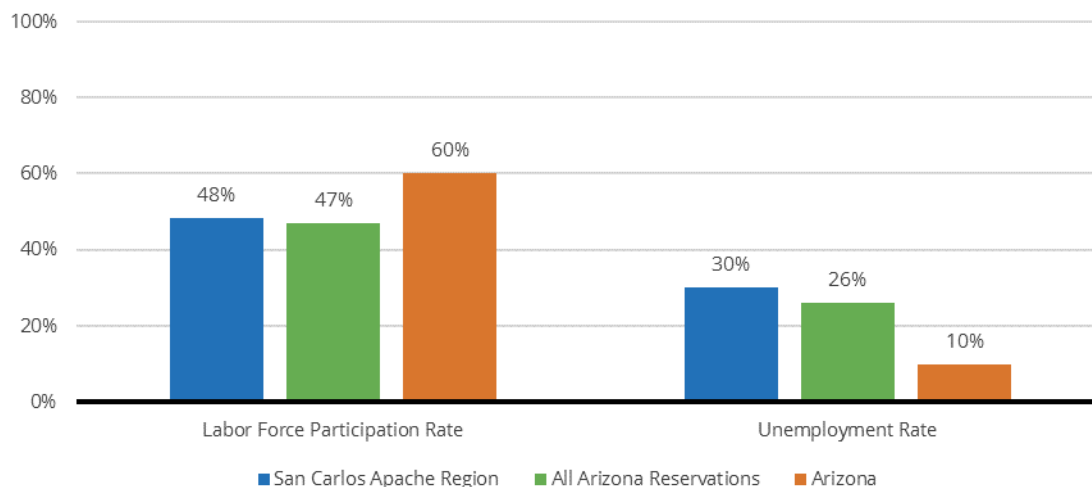
Employment and Unemployment

Unemployment often results in families having fewer resources meet their regular monthly expenses and support their children's development. Annual unemployment rates can be an indicator of family stress and are also an important indicator of regional economic vitality. Recent estimates from the American Community Survey (ACS) indicate that the unemployment rate in the San Carlos Apache region was 30 percent (see Figure 7). This rate is slightly higher than the estimated unemployment rate for all Arizona reservations combined (26%) and much higher than that seen statewide (10%). ACS estimates, however, aggregate data across five years (2010–2014 in the case of Figure 7). The Arizona Department of Administration, Employment, and Population Statistics produces annual unemployment rates as part of their local area unemployment statistics (LAUS) calculations. LAUS data, however, are not available for tribal communities in the state, including the San Carlos Apache.ⁱⁱⁱ

For young children living with both parents in the region, 17 percent live with both parents and at least one of them is in the labor force, compared to 24 percent across all Arizona reservations combined (Table 21). Thirty-four percent of children live with a single parent who is not in the labor force, meaning they are neither employed nor looking for work, which is the same as the percentage seen in all Arizona reservations (34%). Overall, 66 percent of young children live with one or more parents who are in the labor force, which is slightly higher than that seen in all reservations (64%). In addition to unemployment, the lack of child care, or the prohibitive cost of child care, can keep parents from participating in the labor force.⁴² This may be true in the case of young children who live with a single parent who is not in the labor force.

ⁱⁱⁱ The definitions of the areas for which the Arizona Local Area Unemployment Statistics calculate unemployment rates places follow Census definitions of cities and towns. Geographic definitions were revised by the Bureau of Labor Statistics in 2016 and recalculated for the periods of 1976–2016. Tribal unemployment statistics as well as estimates for small towns and places are no longer available.

Figure 7. Estimates of Unemployment and Labor Force Participation Rates



Source: U.S. Census Bureau (2016). American Community Survey, 5-year estimates (2010-2014), Table S2301

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

	Estimated number of children (ages 0-5) living with one or two parents	Children (ages 0-5) living with two parents who are both in the labor force	Children (ages 0-5) living with two parents, one in the labor force, and one not	Children (ages 0-5) living with two parents, neither in the labor force	Children (ages 0-5) living with a single parent who is in the labor force	Children (ages 0-5) living with a single parent who is not in the labor force
San Carlos Apache	1,394	10%	17%	0%	39%	34%
ALL ARIZONA RESERVATIONS	18,293	13%	11%	2%	40%	34%
ARIZONA	510,658	31%	29%	1%	29%	10%

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

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

Food Insecurity

Food insecurity is defined by the USDA as a "household-level economic and social condition of limited or uncertain access to adequate food."⁴³ Programs such as the Food Distribution Program on Indian Reservations (FDPIR), the Supplemental Nutrition Assistance Program (SNAP), the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), and the National School Lunch Program are important for helping those at risk of hunger.

The number of young children participating in SNAP has remained relatively the same since 2012, with the program supporting about 1,500 young children in the San Carlos Apache Region annually (Table 22). WIC enrollment has also maintained a relatively similar amount of participants from 2013 to 2015 (Table 24), and the program served a total of 2,010 women, infants, and children in 2015 (Table 23).

WIC participation rates in the region are high in the San Carlos Apache Region with a majority of infants, children, and women participating (96%), as of January 2015. One reason for these high participation rates may be the relatively high availability of authorized WIC retailers in the regions. A common challenge to participating in SNAP or WIC may be the availability of retailers where WIC vouchers or SNAP EBT are accepted. The ratio of population to SNAP retailers is significantly lower than that available statewide or in all Arizona reservations, and the ratio of population to WIC retailers is almost double that of the statewide ratio and slightly higher than the ratio in all Arizona reservations (Table 25). This high availability of WIC retailers may make it easier for program participants to redeem WIC vouchers.

Schools are an important part of the nutrition assistance system, especially for children that may be food insecure. The students enrolled in schools in the San Carlos Apache Region that were eligible for free and reduced price lunch has increased since 2012 from 88 percent to 100 percent in 2016 (Table 26).

When school is not in session, schools, community centers, churches, and other community institutions in areas with at least 50 percent of children or more who are eligible for free or reduced-price lunch can receive funding through the Summer Food Service Program (SFSP)^{iv} to provide summer meals to children of all ages.⁴⁴ The number of meals served through SFSP in the region varied greatly by year, depending on which sites were participating (Table 27). In 2014, more than 12,000 meals were served at both Rice Elementary and Mt. Turnbull Academy, but in 2015, only Rice Elementary School served summer meals. Since all children at Rice Elementary School and Mt. Turnbull Academy qualify for free or reduced price lunch, the provision of meals over the summer at both of these sites is important to protect children from food insecurity over the summer.

The Child and Adult Care Food Program (CACFP) is another important nutrition program for young children. The program provides reimbursement to eligible child care centers, adult daycare centers, Head Starts, and emergency shelters, and afterschool programs serving at-risk youth to enhance their current menus to offer more fresh fruits and vegetables, whole grains, and low-fat dairy products. The goals of the CACFP program are to support the health and nutrition status of children and adults and promote good eating habits.^v The San Carlos Apache Region had five participating CACFP sites, serving a total of 43,203 meals in 2015 (Table 28). A majority of these meals were served in the Bylas community ($n=13,118$), which increased 10 percent from 2014, while the Seven Mile Center had an 11 percent decrease in served meals between 2014 and 2015.

The University of Arizona Cooperative Extension supports community gardening, and Extension staff work with Apache Kid Child Care, the San Carlos Apache Head Start centers, Social Services, and the Apache Youth Home to plant fruits and vegetables. The Traditional Western Apache Diet Project is operated through the San Carlos Apache Department of Forest Resource. The project compiled a database of traditional Apache recipes and foods through interviews with tribal elders.⁴⁵ The goals of the project are to develop policies and programs to support adoption of healthy, traditional diets and lifestyles for Arizona Apache peoples.⁴⁶

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

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

Table 22. Numbers of Young Children (Ages 0 to 5) Receiving SNAP Benefits, 2012 to 2015

	CY 2012	CY 2013	CY 2014	CY 2015	Change from 2012 to 2015
San Carlos Apache	1,588	1,628	1,644	1,598	1%
ALL ARIZONA RESERVATIONS					
ARIZONA	296,686	290,513	277,345	249,712	-16%

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

Table 23. Enrollment in the San Carlos Apache WIC Program, 2015

	Women	Infants	Children	Total
San Carlos Apache Nation	493	583	934	2,010

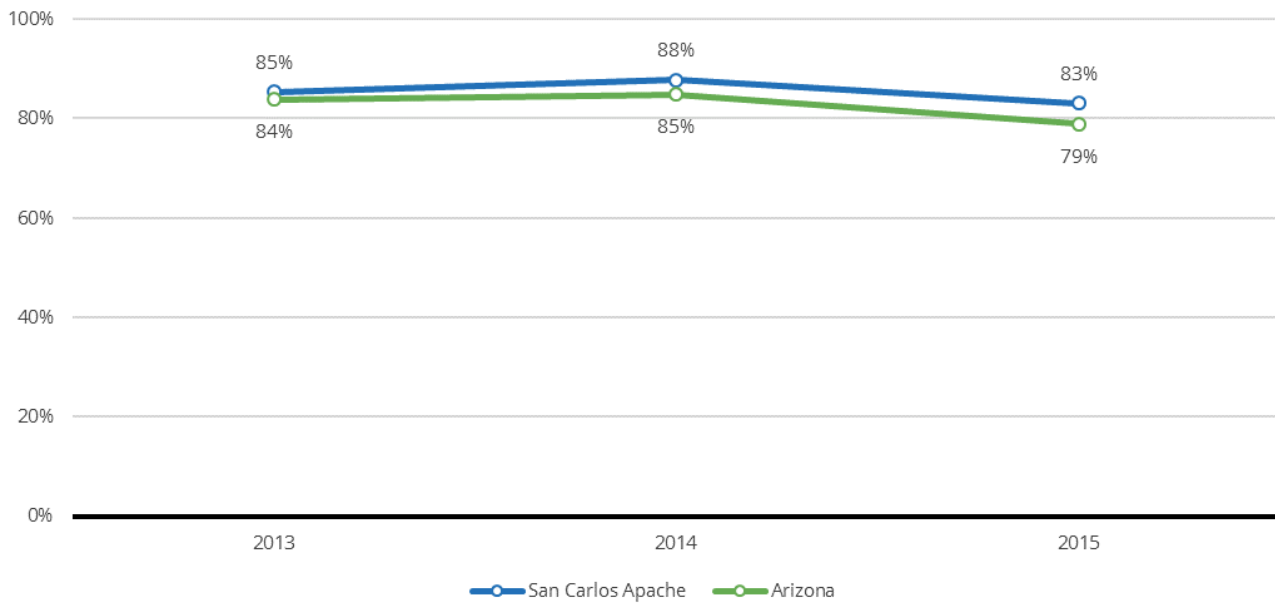
Source: Inter-Tribal Council of Arizona (2016) [WIC Dataset]. Unpublished data.

Table 24. Children (ages 0-4) enrolled in the San Carlos Apache WIC Program, 2013 to 2015

	CY 2013	CY 2014	CY 2015	Change 2013-2015
San Carlos Apache Nation	1,531	1,480	1,517	-1%

Source: Inter-Tribal Council of Arizona (2016) [WIC Dataset]. Unpublished data.

Figure 8. Participation Rates in the San Carlos Apache WIC Program, January 2013 to January 2015



Source: Inter-Tribal Council of Arizona (2016) [WIC Dataset]. Unpublished data. Arizona Department of Health Services (2016). [WIC Dataset]. Unpublished data.

Table 25. Retailers Participating in the SNAP or WIC Programs, 2016

	Number of SNAP retailers	SNAP retailers per 100,000 residents	Number of WIC retailers	WIC retailers per 100,000 residents
San Carlos Apache	4	39.73	2	19.86
ALL ARIZONA RESERVATIONS	108	60.63	26	14.60
ARIZONA	4,038	63.17	644	10.08

Source: United Arizona Department of Health Services (2016). Arizona WIC Vendor List. Retrieved from <http://azdhs.gov/documents/prevention/azwic/azwic-vendor-list.pdf>; Inter-Tribal Council of Arizona (2016). Special Supplemental Nutrition Program for Women, Infants, and Children: Find a Store. Retrieved from http://itcaonline.com/?page_id=1064; United States Department of Agriculture (2016). SNAP Retailer Locator. Retrieved from <https://www.fns.usda.gov/snap/retailerlocator>.

Notes: Per capita figures were calculated using the 2010 Census total population for each geography. SNAP and WIC retailers by geography account for the retailers falling within the geographic boundaries of a given area. WIC retailers account for retailers authorized through both the Arizona Department of Health Services and the Inter-Tribal Council of Arizona WIC Programs.

Table 26. Proportion of Students (Pre-kindergarten Through Twelfth Grade) Eligible for Free or Reduced-Price Lunch, 2012 to 2016

	2012	2013	2014	2015	2016
San Carlos Apache Region Schools	88%	80%	75%	100%	100%
Mt. Turnbull Academy	73%	93%	93%	84%	100%
Rice Elementary School (PS-6)	89%	81%	79%	100%	100%
San Carlos High School	87%	79%	68%	100%	100%
All Arizona Schools	57%	57%	58%	58%	58%

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

Table 27. Meals Served through the Summer Food Service Program

	2012	2013	2014	2015	Change from 2012 to 2015
San Carlos Apache Region Schools	7,218	0	12,162	9,325	+92%
Mt. Turnbull Academy	0	0	2,245	0	N/A
Rice Elementary School	7,218	0	9,917	9,325	+92%
All Arizona Schools	4,436,660	4,138,208	4,046,104	3,998,264	-10%

Source: Arizona Department of Education. [Nutrition Program Data]. Unpublished data.

Table 28. Meals Served through CACFP

	2012	2013	2014	2015	Change from 2012 to 2015
San Carlos Apache CACFP Sites	43,290	43,555	47,110	43,203	-0.2%
Bylas	11,923	13,957	14,419	13,118	+10.0%
Gilson Wash Center	8,255	7,197	8,275	7,436	-9.9%
Peridot I	7,248	7,309	7,916	7,603	+4.9%
Peridot II	7,314	7,433	8,055	7,458	+2.0%
Seven Mile Center	8,550	7,659	8,445	7,588	-11.3%
All Arizona Schools	19,923,277	20,434,338	20,412,397	21,773,052	+9.3%

Source: Arizona Department of Education. [Nutrition Program Data]. Unpublished data.

Housing and Transportation

Of the 2,398 occupied housing units in the San Carlos Apache Region, 60 percent are occupied by homeowners and 40 percent are occupied by renters (Table 29). Rates of ownership in the region are lower than in all Arizona reservations (69%) or the state (63%). Residents of the San Carlos Apache Region have similar housing cost burden to residents of all Arizona reservations, but lower than those statewide: 14 percent of housing units in the region require residents to contribute more than 30 percent of their household income toward housing, compared to 17 percent in all reservations and 34 percent statewide (Table 30).

Transportation is a major challenge in the region. Of the 2,398 occupied houses, 22 percent did not have access to a vehicle, which is higher than all Arizona reservations combined (17%) and more than double that of the percentage across the state (7%) (Table 31). Key informants in the region noted that lack of transportation can be a barrier to accessing early care and education opportunities. While the San Carlos Apache Head Start program provides transportation for young children, the Apache Kid Child Care Center does not currently provide transportation, which makes it difficult for parents without regular transportation to enroll their children there. Lack of transportation was also named as a barrier to family participation in community activities such as programs at the library.

Table 29. Owner- and Renter-Occupied Housing Units

	Number of occupied housing units	Owner-occupied units	Renter-occupied units
San Carlos Apache	2,398	60%	40%
ALL ARIZONA RESERVATIONS	47,892	69%	31%
ARIZONA	2,387,246	63%	37%

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

Table 30. The Cost of Housing, Relative to Household Income

	Number of occupied housing units	Occupied housing units which cost 30% of household income, or more
San Carlos Apache	2,398	14%
ALL ARIZONA RESERVATIONS	47,892	17%
ARIZONA	2,387,246	34%

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

Table 31. Households With No Vehicle Available

	Households with no vehicle Estimated number of households available
San Carlos Apache	2,398 22%
ALL ARIZONA RESERVATIONS	47,892 17%
ARIZONA	2,387,246 7%

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



EDUCATIONAL INDICATORS

Why Educational Indicators Matter

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

The importance of education begins early in life. Preschool participation has been shown to better prepare young children for kindergarten by supporting good school attendance practices and honing socio-emotional, cognitive, and physical skills.^{47,48,49,50} Starting in kindergarten, poor school attendance can cause children to fall behind, leading to lowered proficiency in reading and math, and increased grade-retention.⁵¹

Early education is laying an important foundation for the future. Students who are at or above grade level reading in third grade are more likely to graduate high school and attend college.⁵² A family's economic circumstances can multiply this effect: more than one-fourth (26%) of children who were both not reading proficiently in third grade and living in poverty for at least a year do not finish high school – that is more than six times the dropout rate for proficient readers.⁵³

In recognition of the importance of assuring that children are reading by the third grade, the Arizona Revised Statute §15-701 (also known as the *Move on When Reading* law) was enacted, which states that a student shall not be promoted from the third grade if the student obtains a score that falls far below the third-grade level.⁵⁴ Exceptions exist for students identified with or being evaluated for learning disabilities, English language learners, and those with reading impairments. From 2000-2014, the primary in-school performance measure of students in public elementary schools in the state used to meet the *Move on When Reading* requirement was the Arizona's Instrument to Measure Standards (AIMS).⁵⁵ In 2014, the statewide assessment tool for English language arts (ELA) and mathematics changed from AIMS to AzMERIT (Arizona's Measurement of Educational Readiness to Inform Teaching), and the first AzMERIT testing began in the 2015 school year.⁵⁶ New proficiency cut points were determined by grade level,⁵⁷ and earning a score of "proficient" or "highly proficient" indicates that a student is prepared for the next grade without requiring additional support.⁵⁸ Students who score as either "minimally" or "partially proficient" are likely to need support to be ready to move on to the next grade.⁵⁹ In order for children to be prepared to succeed on tests such as AzMERIT, research shows that early reading experiences, opportunities to build vocabularies, and literacy-rich environments are the most effective ways to support the literacy development of young children.⁶⁰

Beyond the direct connections between caregivers' education and their own literacy, the ability to read to, share with, and teach young children in the home is influenced by parental and familial stress levels, income levels, and educational levels. Families in poverty are often grappling with issues of day-to-day survival, which may limit time spent in developmentally enriching activities. Parents with higher educational attainment may be less vulnerable to these issues and are more likely to have children with positive outcomes related to school readiness and educational achievement, as well improved health, social and economic outcomes.⁶¹ Higher levels of parental education are also associated with better housing, more secure neighborhoods, and stable working conditions, all of which are important for the health and well-being of children.^{62,63}

What the Data Tell Us

Standardized Test Scores

The AzMERIT, which replaced AIMS in the 2014-2015 school year, is designed to assess students' critical thinking skills and their mastery of the Arizona College and Career Ready Standards established in 2010. Students who receive a proficient or highly proficient score are considered adequately prepared for success in the next grade. In the 2014-2015 school year, only 19 percent of students enrolled at Rice Elementary School attained these scores on the third grade math assessment, which is a lower passing rate than across Arizona as a whole (42%) (Figure 10). Performance on the English Language Arts (ELA) test was poorer, with only 6 percent of students demonstrating proficiency, compared to 40 percent across the state (Figure 11). A portion of the 85 percent of San Carlos Apache Region third graders who scored minimally proficient on the ELA test are at risk for retention in third grade, based on the Arizona's Move on When Reading law, which requires retention of those whose reading falls far below the third grade level.^{vi}

These scores on the AzMERIT Math and English Language Arts tests were considerably lower than those on the Arizona Instrument to Measure Standards (AIMS) tests in prior years. In 2013-2014 school year, 24 percent of students in the Rice Elementary School passed the AIMS Math test, and 39 percent passed the AIMS reading test (Figure 12; Figure 13). The drop in passing rates in the transition from AIMS to AzMERIT has been seen across all schools in Arizona.⁶⁴ Key informants in the region noted that results of the AzMERIT assessments was discouraging, since students had made progress on the AIMS in the last few years. Rice Elementary School chose to administer the online version of the AzMERIT assessments, and key informants in the region noted that the online interface was sometimes difficult for children to navigate, and that it may have affected scores.

A sample of Arizona students in grades 4, 8 and 12 also take the National Assessment of Educational Progress (NAEP), a nationally-administered achievement test that allows for comparisons between states. Thirty percent of Arizona fourth graders scored at the proficient or advanced level in reading in 2015, compared with 35 percent of fourth graders nationally. Scores have been improving steadily, both in the state and nationally, since testing began in 1998.

Strong disparities exist in the state NAEP scores based on race, ethnicity and income. Forty-four percent of Arizona fourth grade white students score at the proficient reading level or above, compared with 27 percent of black students, 18 percent of Hispanic students, and 11 percent of American Indian students. Fifty-two percent of fourth graders who were not eligible for free or reduced-price school lunch scored at or above the proficient reading level, but only 17 percent of children who were eligible for the program scored that highly.

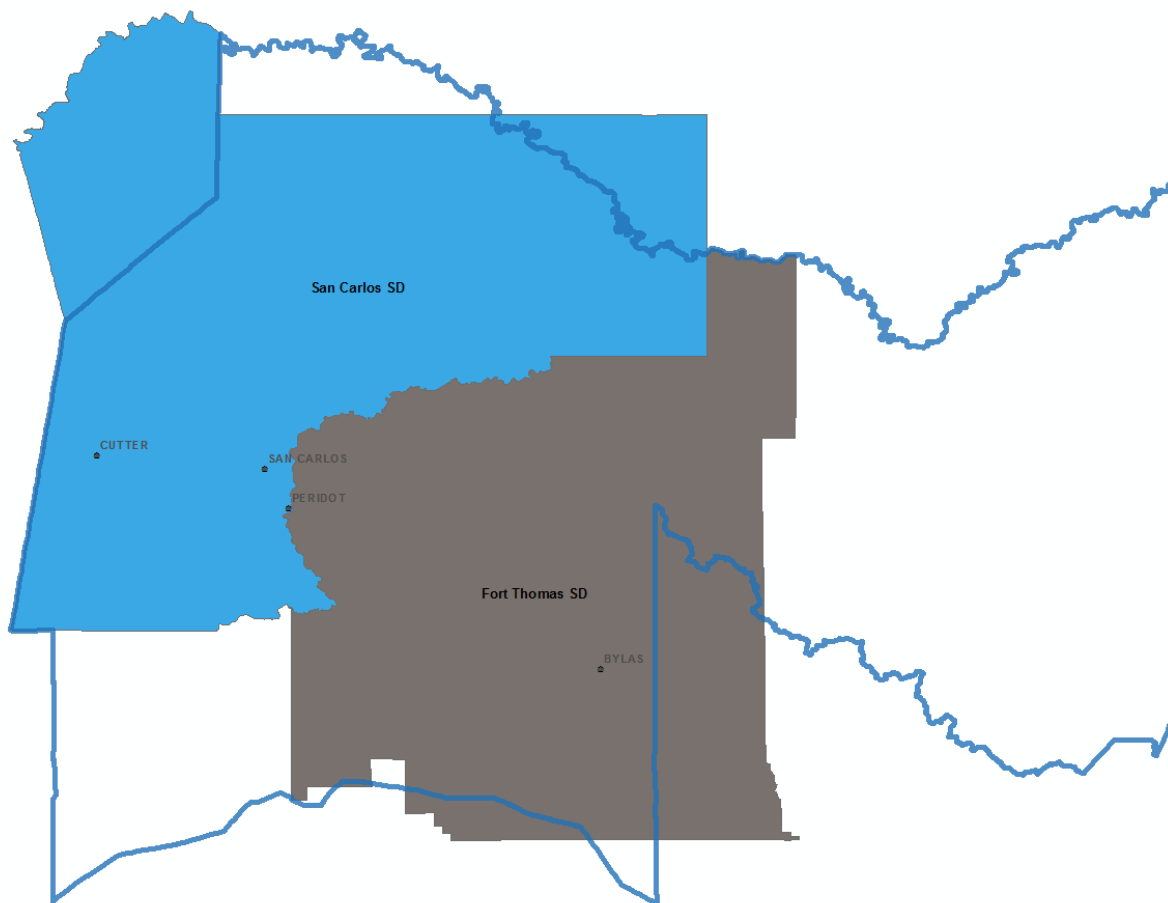
Key informants emphasized the need for continued investment in literacy, especially early literacy, to prepare children for school. Currently many students enter kindergarten needing extensive support to

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

develop reading skills, particularly those children who were not enrolled in an early education program like Apache Kid Child Care or the San Carlos Apache Head Start program. Rice Elementary School has transitioned to an online system for books, which key informants noted has been a positive program for children while they are at school. However, many households in the region may lack internet access, so key informants are not sure that children can access online books at home. To address this need, staff at Rice Elementary School have worked with programs in the Phoenix area to get donated books for students to take home. However, key informants noted that it has become harder in the last year to obtain donated books for the school.

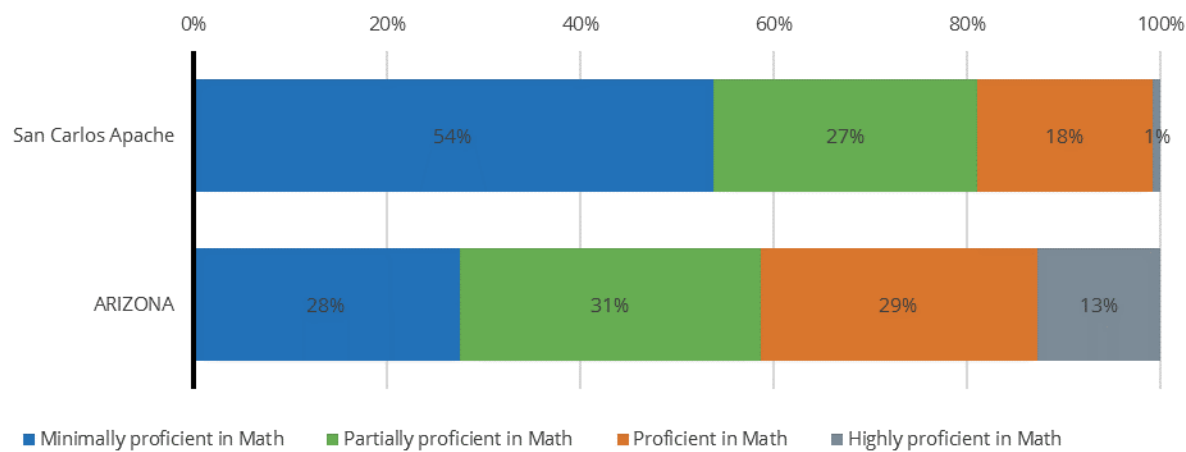
Student performance in the San Carlos Apache Region, and statewide, suggests that there is a need to support early literacy and to strengthen scholastic achievement, particularly among young children of color and children in poverty.

Figure 9. School Districts in the San Carlos Apache Region



Source: First Things First (2016). Map produced by First Things First.

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



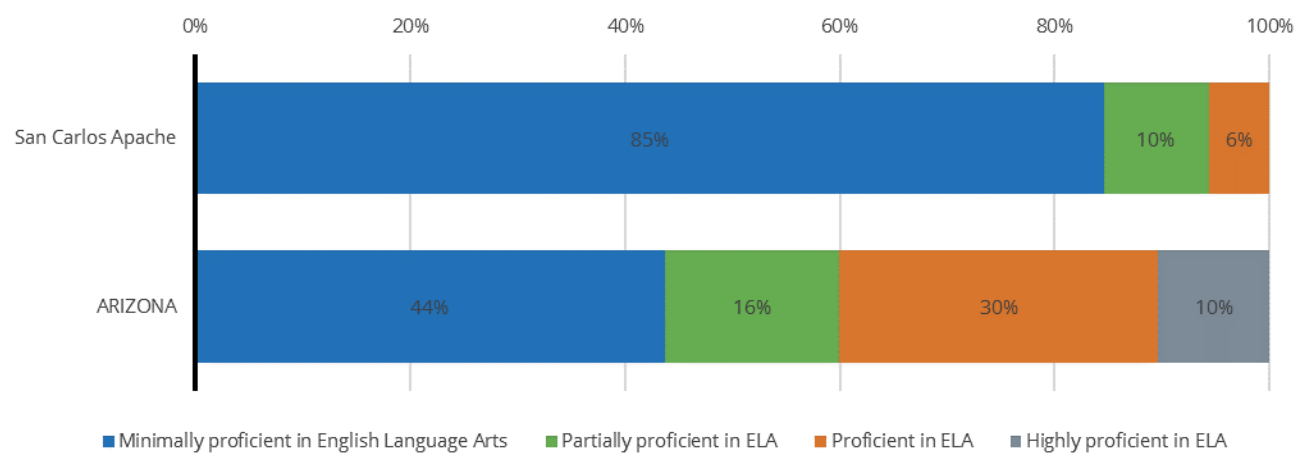
Source: Arizona Department of Education (2016). [Education dataset]. Unpublished data.

Table 32. AzMERIT Math Test Results for Third-Graders in 2014-2015

	Minimally proficient in Math	Partially proficient in Math	Proficient in Math	Highly proficient in Math	Passing Math (proficient or highly proficient)
Rice Elementary School (PS-6)	54%	27%	18%	1%	19%
All Arizona Schools	28%	31%	29%	13%	41%

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

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



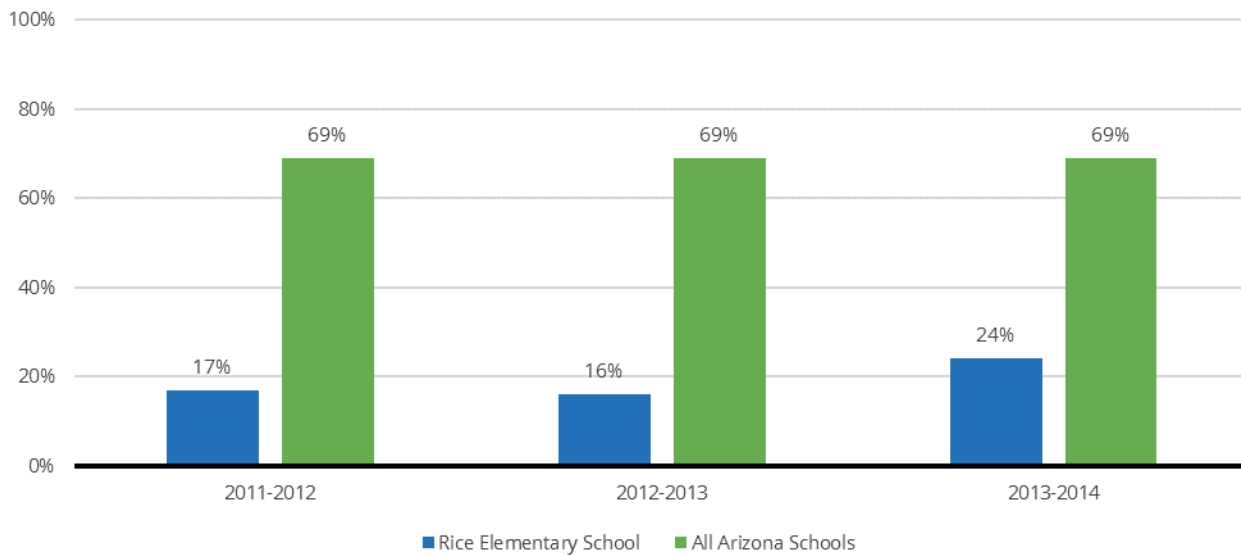
Source: Arizona Department of Education (2016). [Education dataset]. Unpublished data.

Table 33. AzMERIT English Language Arts Test Results for Third-Graders in 2014-2015

	Minimally proficient in English Language Arts	Partially proficient in English Language Arts	Proficient in English Language Arts	Highly proficient in English Language Arts	Passing English Language Arts (proficient or highly proficient)
Rice Elementary School (PS-6)	85%	10%	6%	0%	6%
All Arizona Schools	44%	16%	30%	10%	40%

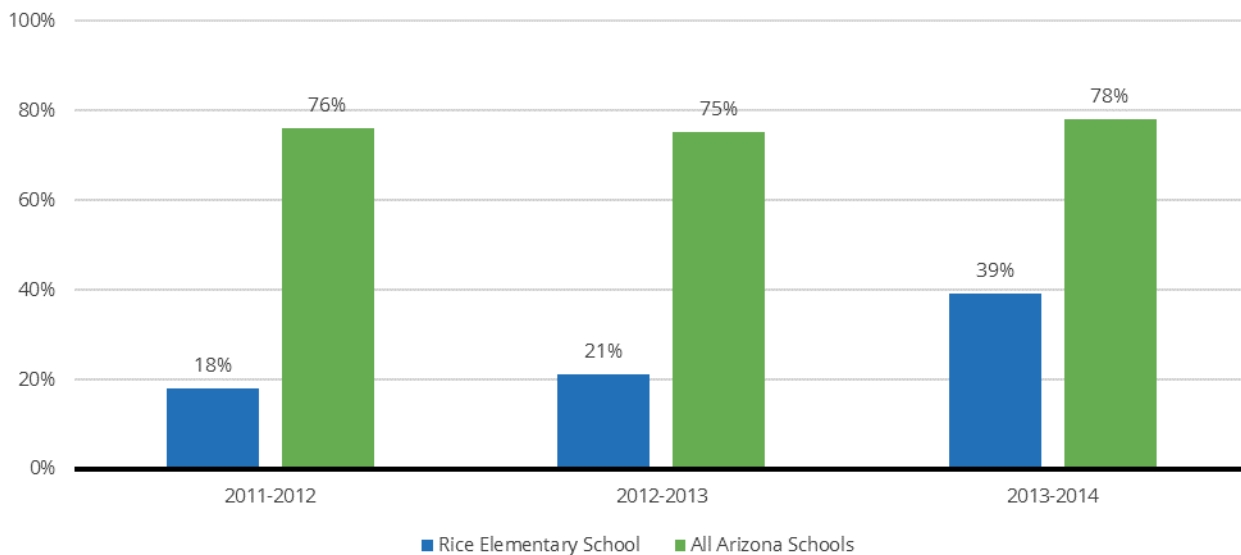
Source: Arizona Department of Education (2016). [Education dataset]. Unpublished data.

Figure 12. Students passing AIMS Math, 2011-2012 to 2013-2014 School Years



Source: Arizona Department of Education (2016). AIMS Results. Retrieved from <http://www.azed.gov/research-evaluation/aims-assessment-results/>

Figure 13. Students passing AIMS Reading, 2011-2012 to 2013-2014 School Years



Source: Arizona Department of Education (2016). AIMS Results. Retrieved from <http://www.azed.gov/research-evaluation/aims-assessment-results/>

Educational Attainment

The Arizona Department of Education tracks the percent of students who are chronically absent, meaning they have missed more than 10 days of school in a school year. Table 34 shows these percentages for elementary schools in the region. Rates of chronic absences in the Rice Elementary School have been consistently higher in 2014 (63%) and 2015 (66%) than in the state as a whole (34% and 36%, respectively). Identifying and addressing the reasons behind chronic absenteeism is important to ameliorate later effects on educational achievement and graduation rates. Key informants in the region highlighted truancy as a major challenge in the region and identified a need for more enforcement of current truancy laws by the tribal police.

High School students in the San Carlos Apache Region attend four high schools. The high school drop-out rate for these schools in the region have slightly decreased from 13 percent in 2014 to 9 percent in 2015 (Table 35). However, the drop-out rates in the Biyaagozhoo Center and the San Carlos Unified School District Alternative Center have remained much higher than the overall state rate of 3 to 4 percent. The four-year high school graduation rate in all San Carlos Apache Region schools has been consistently lower than that of schools statewide. However, between 2013 and 2014, the four-year graduation rates slightly increased from 57 percent in 2013 to 61 percent in 2014. In the Alternative Center, the graduation rate increased fifteen percentage points from 2013 (29%) to 2014 (44%). At San Carlos High School, four out of five high school seniors graduated in four years in 2014.

Educational attainment for adults aged 25 and older in the San Carlos Apache Region is similar to that of adults in all Arizona reservations (Table 36). Over a third of adults have at least some college or professional education or a Bachelor's or advanced degree in the region (35%), nearly the same percentage as in all Arizona reservations (37%). Another third of adults have a high school diploma or GED (37%), and just under a third have less than a high school education (28%). These rates of educational attainment are lower than that seen in the state.

Table 34. Chronic Absences for Students in Grade 1 to 3, 2014 and 2015

	Number of schools	Number of students in 2014	Students with chronic (more than 10) absences in 2014	Percent of students with chronic absences in 2014	Number of students in 2015	Students with chronic (more than 10) absences in 2015	Percent of students with chronic absences in 2015
Rice Elementary School	1	440	275	63%	419	276	66%
All Arizona Schools	1,185	278,142	93,719	34%	283,147	103,078	36%

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

Table 35. High School Drop-Out and Graduation Rates, 2012 to 2015

	Total number of high schools and alternative schools	Drop-out rate, 2012	Drop-out rate, 2013	Drop-out rate, 2014	Drop-out rate, 2015	Four-year graduation rate, 2011	Four-year graduation rate, 2012	Four-year graduation rate, 2013	Four-year graduation rate, 2014
San Carlos Apache Region Schools	4	12%	11%	13%	9%	56%	50%	57%	61%
Biyaagozhoo Center	1	0%	DS	0%	0%	DS	DS	DS	DS
Mt. Turnbull Academy	1	32%	50%	44%	23%	DS	DS	DS	DS
San Carlos High School	1	6%	7%	9%	5%	82%	86%	76%	81%
San Carlos Unified School District #20 Alternative Center	1	52%	31%	29%	33%	DS	DS	29%	44%
All Arizona Schools	836	4%	3%	3%	4%	78%	77%	76%	76%

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

Table 36. Level of Education for the Adult Population (Ages 25 and Older)

	Estimated population (ages 25 and older)	Less than high school	High school or GED	Some college or professional education	Bachelor's degree or more
San Carlos Apache	5,395	28%	37%	29%	6%
ALL ARIZONA RESERVATIONS	102,571	28%	34%	29%	8%
ARIZONA	4,284,776	14%	25%	34%	27%

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



EARLY LEARNING

Why Early Learning Matters

Young children spend their time observing the world and learning at a rapid pace. From fine and gross motor skill development, to language and numeracy skills, to social skills, the early years of a child's life are filled with opportunities for learning. The skills that young children are building are critical for healthy development as well as later achievement and success. Just as rich, stimulating environments can promote development, early negative experiences can also carry lasting effects.⁶⁵ Gaps in language development between children from disadvantaged backgrounds and their more advantaged peers are already evident by 18 months of age,⁶⁶ those disparities that persist until kindergarten are predictive of later academic failure.⁶⁷

Families play a tremendous role in fostering development. Research shows that children's health, socio-emotional, and cognitive development also benefit greatly from high quality early learning.^{68,69} This is particularly true for children from disadvantaged backgrounds.⁷⁰ Children whose education begins in high quality preschool programs repeat grades less frequently, obtain higher scores on standardized tests, experience fewer behavior problems, and are more likely to graduate high school.⁷¹

Investment in children during the crucial first five years not only provides the necessary foundation for later achievement, but also produces a positive return on investment to society through increased educational achievement and employment, reductions in crime, and better overall health of those children as they mature into adults.^{72,73,74} Experts estimate that investments in quality early learning initiatives can offer returns as high as \$16 per dollar spent.^{75,76} In other words, the costs of these programs are ultimately repaid several times over and the investment in early childhood is potentially one of the most lucrative ones that a community can make.

The ability of families to access quality, affordable early care and education opportunities, however, can be limited. Nearly one-third (32%) of parents of young children responding to a national survey regarding child care reported it was very or somewhat difficult to find care for their child, with cost being the most often cited challenge. More than two-thirds (69%) of parents surveyed reported having to pay in order to secure child care, and almost a third (31%) of those parents reported that this cost has caused a financial problem for the household.⁷⁷ According to the U.S. Department of Education, only 19 percent of four-year-olds in Arizona are enrolled in publically funded preschool or Head Start programs, compared to 41 percent nationally.⁷⁸ If not enrolled in publically-funded programs, which are often free or reduced cost, the annual cost of full-time center-based care (\$9,166) for a young child in Arizona is nearly equal to the cost of a year at a public college (\$10,065).⁷⁹ Child care subsidies can be a support for families who have financial barriers to accessing early learning services.^{vii}

In addition to prohibitive costs, the availability of suitable child care cannot be taken for granted. An inadequate child care supply, known as a "child care desert," has been defined as a zip code with at least 30 children under five years of age and either no or very limited center-based early care and education programs (i.e., there are more than three times as many children under age five as there are spaces in the child care settings.)⁸⁰ Living in a child care desert disproportionately affects rural

^{vii} For more information on child care subsidies see <https://www.azdes.gov/child-care/>

populations, and given the many rural counties in Arizona, this is likely a common phenomenon in many regions.

Beyond basic issues of access and affordability, quality is also of paramount concern to parents. A recent national survey of parents who use child care for their young child(ren) found that most parents (59%) rated the quality of their child care as “excellent;” this runs contrary to research which suggests most child care across the country is not high quality.⁸¹ How parents perceive and understand quality may differ; this points to the importance of quality rating systems to help guide parent choices. Quality First is Arizona’s Quality Improvement and Rating System (QRIS) for early child care and preschool providers. Quality First employs a five-point rating scale to indicate quality levels. A one-star rating indicates that the provider is committed to examining practices and improving the quality of care beyond basic health and safety requirements. Quality First providers can advance to a quality rating (3-5 star) by implementing lower teacher-to-child ratios, supporting higher staff qualifications, instituting a curriculum that aligns with state standards and child assessment, and providing a nurturing relationships between adults and children that promote emotional, social, and academic development. The number of providers across the state that meet quality standards (three-star rating or higher) has increased in recent years with 25 percent of the 857 participating providers in 2013 and 65 percent of 918 participating providers in 2016 meeting or exceeding quality standards.⁸²

The presence of qualified, well-trained, caring professionals is essential to providing quality child care and early education experiences for children. Ensuring that child care and early education programs promote developmental (cognitive, physical, socio-emotional) and academic readiness for kindergarten requires that professionals in these settings possess the knowledge and skills and engage in practices necessary to impart those benefits. In Arizona, the number of early childhood professionals receiving a credential or degree has increased from 2007 (21%) to 2012 (29%). However, one incentive for attaining these credentials – increased wages – shows an opposite pattern. Wages for assistant teachers, teachers, and administrative directors working across all types of licensed child care and education settings in Arizona decreased between 2007 and 2012, after adjusting for inflation. In addition, average annual wages for early education professionals in Arizona are about half that of kindergarten and elementary teachers, which may in turn affect retention of those in early education settings, particularly after degree attainment.⁸³

In addition to formal education, there are additional professional development opportunities available for early childhood professionals in Arizona. The Arizona Early Childhood Career and Professional Development Network, supported by First Things First, hosts a professional development website, AZEaryChildhood.org, that provides early childhood professionals with resources and information on professional development opportunities, career and job advancement, and networking in the early childhood field.^{84,85}

The availability of early learning opportunities and services for young children with special needs is an ongoing concern across the state, particularly in the more geographically remote communities. Children with special health care needs (CSHCN) are defined as “those who have or are at increased risk for a chronic physical, developmental, behavioral, or emotional condition and who also require health and related services of a type or amount beyond that required by children generally.”⁸⁶ According to the National Survey of Children’s Health, children with special health care needs are more likely to experience more adverse childhood experiences than typically developing children,⁸⁷

and are at an increased risk for maltreatment and neglect.^{88, 89} Almost half (46%) of families with a child with special needs in Arizona have incomes below 200 percent of the federal poverty level.⁹⁰ In Arizona, the services available to families with children with special needs include early intervention screening and intervention services provided through the Arizona Department of Education AZ FIND (Child Find),^{viii} the Arizona Early Intervention Program (AzEIP),^{ix} and the Division of Developmental Disabilities (DDD).^x Ensuring all families have access to timely and appropriate screenings for children who may benefit from early identification of special needs is paramount to improving outcomes for these children and their families. Timely intervention can help young children with, or at risk for, developmental delays improve language, cognitive, and socio-emotional development. It also reduces educational costs by decreasing the need for special education.^{91,92,93}

What the Data Tell Us

Child Care and Preschool

Families in the San Carlos Apache Region can access early childhood education and care services through the Apache Kid Child Care Center, San Carlos Head Start Program, and the school-based preschool at Rice Elementary, a local public school in San Carlos operated by the Arizona Department of Education. From 2013 to 2016, an additional early learning opportunity was available in the region through the San Carlos Child Readiness Program.

Apache Kid Child Care Center, the Child Readiness Program and the San Carlos Head Start program are all tribally-operated under the San Carlos Apache Education Department.

Apache Kid Child Care Center – The tribally-operated Apache Kid Child Care Center provides services Monday through Friday to children in the region at two sites in San Carlos and Bylas (the Bylas site shares the building with the San Carlos Head Start Program). Eligibility criteria for services include income (with preference for low-income families), teen parents enrolled in high school, Tribal TANF clients, and parents in the workforce. According to data provided by the Center in June 2016, 43 children under the age of six were enrolled in the program: 12 infants, 16 toddlers, and 15 preschoolers. The program also provides after-school care services for school-aged children. In June 2016, 19 children participated in after-school care at Apache Kid Child Care Center, and about half of those children were 5-year-old kindergarteners.

Enrollment in the Center decreased substantially from program year 2012-2013, when 95 children birth to 5 were enrolled. According to key informants, the decrease in enrollment was due mostly to budget and staffing limitations. Without sufficient staff members to meet the required adult/child ratio, the Center was not able to accept as many children as it had in the past.

^{viii} For more information on AZ FIND, visit <http://www.azed.gov/special-education/az-find/>

^{ix} For more information on AzEIP, visit <https://www.azdes.gov/azeip/>

^x For more information on DDD, visit https://www.azdes.gov/developmental_disabilities/

Apache Kid Child Care Center has a waiting list that varies from year to year, ranging from 25 to 70 children.

San Carlos Child Readiness Program – In the summer of 2013, a new early learning program became available to families in the San Carlos Apache Region. The San Carlos Child Readiness Program was funded through a four-year grant by the U.S. Department of Education as part of the Demonstration Grants for Indian Children program. The Child Readiness program ended in the summer of 2016. It served four-year-old children at two sites, integrating the Apache culture and language into all project components. By the end of school year 2015-2016 when the program closed down, there were 40 children enrolled in the Child Readiness Program (about 20 children per site).

San Carlos Apache Head Start Program – The San Carlos Apache Head Start is a comprehensive early childhood education program for pre-school aged children whose families meet income eligibility criteria. The San Carlos Apache Head Start program has a funded enrollment of 233 children, which means that at any point during the year the program can serve up to 233 children. Because some children may leave the program and others are enrolled in their place, in school year 2015-2016 a total of 250 children were served by the program. Almost two-thirds them (63%) were 4 years old and the rest were 3 years old.⁹⁴ The San Carlos Apache Head Start provides services at six centers: two in Peridot, two in Bylas, one in Seven Miles Wash, and one in Gilson Wash. Up until school year 2015-2016, the San Carlos Apache Head Start operated in half-day double sessions, four days a week, in 12 classrooms. However, in November 2016, the Head Start standard performances were revised and the Head Start centers will now be required to expand the daily program hours from four to six. Programs have one year to implement this change. According to key informants interviewed for this report, this new requirement will pose some challenges to the San Carlos Apache Head Start because the program will no longer be able to provide services in two half-day sessions. Maintaining the current enrollment of 233 children would require additional facilities to accommodate that number of children in just one longer-day session.

The San Carlos Apache Head Start program typically maintains a waiting list of about 5 percent of the total funded enrollment (about 12 children total). However, key informants indicated that during school year 2015-2016 it was challenging for the program to keep the waiting list at this level, particularly for the Bylas and Peridot centers. Some key informants noted that the lower demand for services might be related to parents having other early learning options available to their families. For instance, key informants indicated that some families are choosing to enroll their children in schools outside of the reservation in the Globe area including Destiny School, a charter school; and Copper Rim Elementary School, a public school that is part of the Globe Unified School District. Key informants noted that some families have indicated that they are taking their children to these schools because of their perception that the quality of education is higher. Other key informants suggest that another reason behind the low enrollment at Head Start and other early learning care and education centers in the region is that many families are not enrolling their children in any early learning programs at all. These key informants expressed concern about children missing an opportunity to be better prepared for kindergarten, something that is reflected later on in low standardized test scores (see the *Standardized Test Scores* section above).

Rice Elementary Preschool – The preschool at Rice Elementary School in San Carlos provides preschool services for children with special needs. In school year 2016–2017, there were 23 children enrolled in the program.

In 2015–2016, there were three Quality First sites in the San Carlos Apache Region: San Carlos Apache Head Start, Apache Kid Child Care Center, and the San Carlos Apache Child Readiness Program (Table 37).

Table 37 below summarizes the enrollment of children in the center-based early childhood care and education programs in the region in 2016–2017, with the exception of Rice Elementary Preschool, for which 2016–2017 are shown. A total of 339 children were enrolled in center-based early care and education programs in this period. According to U.S. Census data, there were 1,435 children birth to 5 living in the region in 2010, which means that only an estimated 24% of children participate in the center-based early learning education programs located within the regional boundaries. It is important to note that, as shown on Table 37, Table 38, and Figure 14 below, most of the center-based slots available in the region are for preschool-age children. Apache Kid Child Care is the only center providing services to infants and toddlers, with a total capacity of 28 slots for the birth to 2 age range. Using the U.S. Census 2010 number of children birth to 2 living within the regional boundaries (762), 28 slots provide services to only 4 percent of the children in this age range. The capacity of the centers in the region to serve preschool-age children, on the other hand, is much larger: the slots available as of 2015–2016 could serve an estimated 70 percent of the children ages 3 and 4 (Figure 14).

As discussed above, in the past two years the San Carlos Apache Region lost an important number of early care and education slots for young children. Enrollment in the Apache Kid Child Care Center went down to about half between 2012–2013 and 2015–2016, a decrease of about 50 slots. In addition, funding for the San Carlos Child Readiness program ended in the summer of 2016, which represents a loss of 40 preschool-age slots for families in the region. Based on U.S. Census 2010 numbers, in 2011–2013 the early learning centers in the region had a combined capacity to serve approximately 27 percent of the children birth to 5.⁹⁵ By school year 2016–2017, this capacity was reduced to about 20 percent. Potential changes in enrollment at the San Carlos Head Start due to the new requirement to expand the daily program hours might further decrease the capacity of early learning programs in the region.

According to key informants, there have been plans in the region for the construction of an early childhood care and education facility that could host both the Apache Kid Child Care program and the San Carlos Head Start program. Funding, however, has not been available for this project. Finding an appropriate site for the facility is another challenge. The new facility might need to be built in an area not yet connected to water and electricity, increasing the cost associated with the project, or it would require extensive renovations to existing buildings in order to meet Head Start regulations. Key informants also indicated that there are plans to better align the curriculum of these two programs, something that could be more easily enabled if the two programs were co-managed in one facility.

Table 37. Participation in Center-based Early Education Programs

	Ages	Students Enrolled	Quality First
San Carlos Apache Head Start	3-4	233	3-Star, 2-Star
Apache Kid Child Care	0-4	43	3-Star
San Carlos Apache Child Readiness Program	4	40	Participating, No Rating
Rice Elementary Preschool*	3-4	23	Not Participating
TOTAL	0-4	339	

Source: Office of Head Start (2016). 2016 Program Information Report. Retrieved from <https://eclkc.ohs.acf.hhs.gov/hslc/data/pir>. Apache Kid Child Care (2016). [Center data]. Unpublished data. San Carlos Child Readiness Program (2016). [Program data]. Unpublished data.

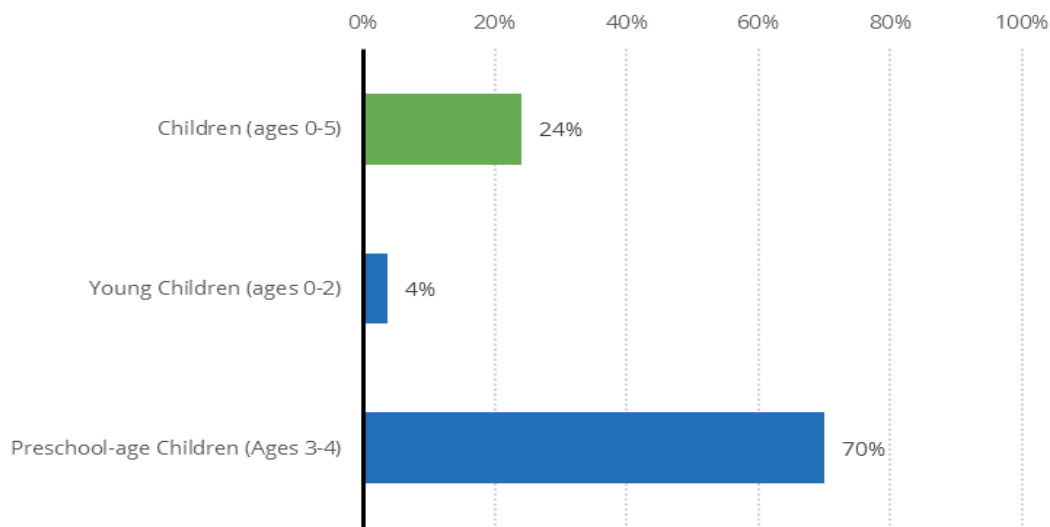
Notes: This table presents data for school year 2015-2016 for all centers except Rice Elementary Preschool, for which enrollment as of October 1, 2015 is shown. Please note that each individual Head Start Center receives an independent rating. Four San Carlos Apache Head Start Centers are participating in Quality First, with some receiving a 3-star rating and others a 2-star rating.

Table 38. Enrollment and Capacity at Apache Kid Child Care Center

	Capacity	Enrolled
Infants	12	12
Toddlers	16	16
Preschool	17	15
After School	20	19
TOTAL	65	62

Source: Apache Kid Child Care (2016). [Center data]. Unpublished data.

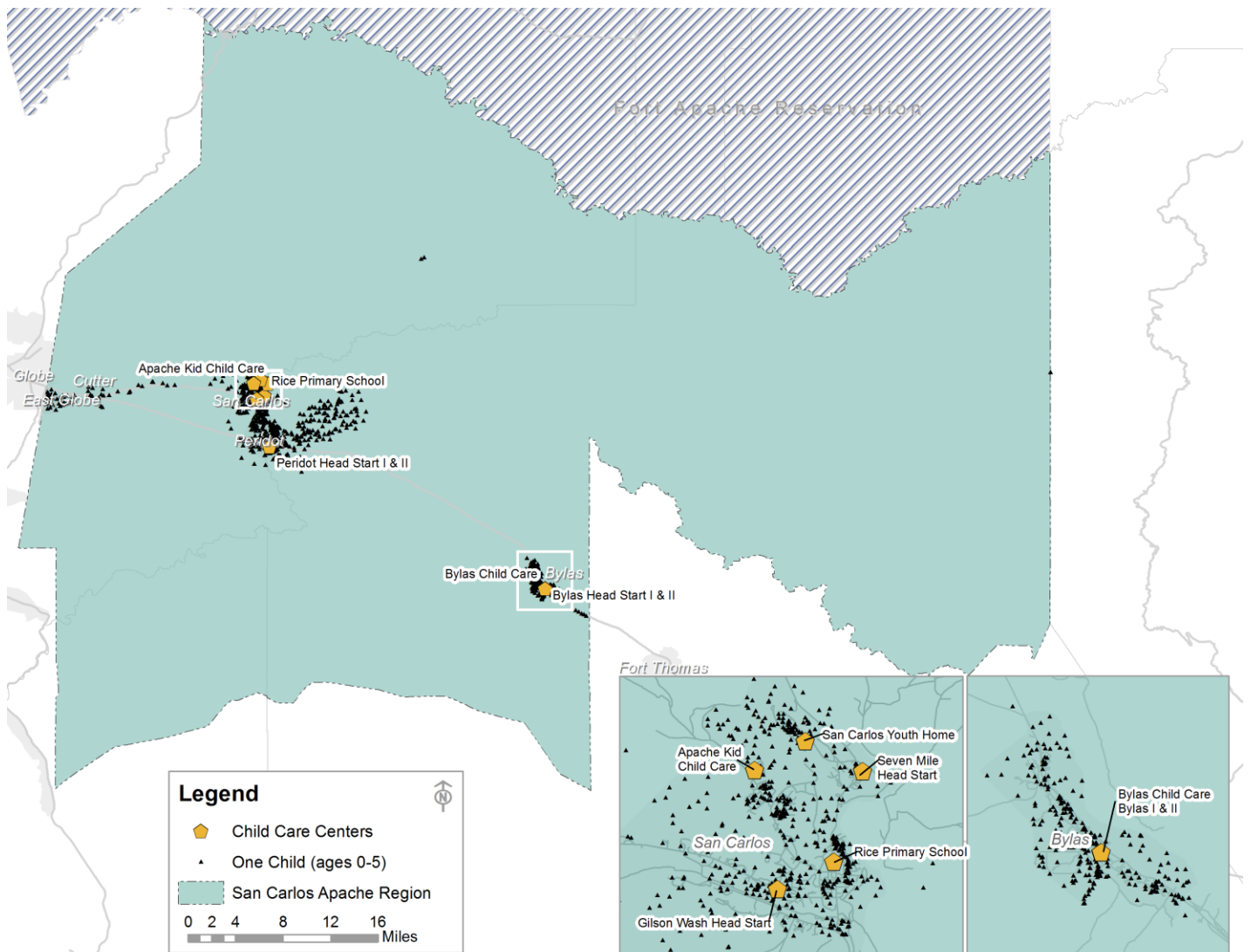
Figure 14. Estimated Percent of Children (ages 0-5) that could enroll in Center-based Early Education based on 2015-2016 Capacity



Source: Office of Head Start (2016). 2016 Program Information Report. Retrieved from <https://eclkc.ohs.acf.hhs.gov/hslc/data/pir>. Apache Kid Child Care (2016). [Center data]. Unpublished data. San Carlos Child Readiness Program (2016). [Program data]. Unpublished data. : U.S. Census Bureau (2010). 2010 Decennial Census, SF 1, Table P14

Note: this figure presents data for school year 2015-2016 for all centers except Rice Elementary Preschool, for which October 1, 2015 enrollment is shown.

Figure 15. Map of Early Care and Education Centers in the San Carlos Apache Region



Source: Office of Head Start (2016). 2016 Program Information Report. Retrieved from <https://eclkc.ohs.acf.hhs.gov/hslc/data/pir>. Apache Kid Child Care (2016). [Center data]. Unpublished data. San Carlos Child Readiness Program (2016). [Program data]. Unpublished data. : U.S. Census Bureau (2010). 2010 Decennial Census, SF 1, Table P14

Cost of Care

Cost of care at Apache Kid Child Care Center is based on a sliding scale fee and it ranges between \$5 and \$15 per day. Participation in the San Carlos Head Start program is free of cost, and there were no fees associated with participating in the Child Readiness Program.

In addition to the child care subsidies provided through the Apache Kid Child Care Center, some families in the San Carlos Apache Region also receive subsidies from the Arizona Department of Economic Security (DES). DES prioritizes assistance to families who receive Cash Assistance (TANF), those who are transitioning off Cash Assistance to employment, and families involved with the Arizona

Department of Child Safety (DCS) for subsidies. As of 2009, other families seeking DES subsidy support are placed on a waiting list. Statewide, 7,194 children were wait-listed as of January 6, 2017.⁹⁶ Table 39 shows the number of young children eligible for child care subsidies from DES, as well as those receiving subsidies in the San Carlos Apache Region. In 2015, the most recent year for which data are available, 60 young children were eligible for DES subsidies and 49 children actually received them (Table 39). In that same year, fewer than 25 children were placed on the waiting list for DES child care subsidies. There were no children involved with DCS in the region who received child care subsidies in 2015 (Table 40).

Table 39. Department of Economic Security (DES) Child Care Subsidies for Children (Ages 0 to 5), 2013 to 2015

	Children eligible for subsidy during 2013	Children eligible for subsidy during 2014	Children eligible for subsidy during 2015	Children receiving subsidy during 2013	Children receiving subsidy during 2014	Children receiving subsidy during 2015	Children on waiting list during 2013	Children on waiting list during 2014	Children on waiting list during 2015
San Carlos Apache	95	66	60	74	52	49	<10	<10	<10
ARIZONA	28,429	29,180	43,860	27,041	26,685	38,855	5,094	5,195	5,140

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

Table 40. DES Child Care Subsidies for Children Involved in the Department of Child Safety (DCS) During 2015

	Number of DCS-involved children eligible for subsidy	Number of DCS-involved children receiving subsidy	Percent of DCS-involved children receiving subsidy
San Carlos Apache	0	0	N/A
ARIZONA	18,417	15,785	86%

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

Child Care Professionals

Table 41 below shows the credentials of the early learning educators in the San Carlos Apache Region. In 2015-2016, all seven lead teachers at Apache Kid Child Care center and nine of the 12 Head Start classroom teachers had formal credentials or a degree in early childhood education.

Table 41. Staff Credentials for Early Care and Education Providers, 2015-2016 School Year

	Total Staff	Child Development Associate (CDA) Credential	AA in Early Childhood Education	BA in Early Childhood Education	Advanced Degree in Early Childhood Education	Currently enrolled in coursework
Apache Kid Child Care Lead Teachers	7	1	6	0	0	1
Apache Kid Child Care Other Teachers	14	0	1	0	0	2
Apache Kid Child Care Other Staff	6	0	1	0	1	1
Head Start Classroom Teachers	12	1	5	3	0	0
Head Start Assistant Teachers	12	0	1	0	0	0

Source: Office of Head Start (2016). 2016 Program Information Report. Retrieved from <https://eclkc.ohs.acf.hhs.gov/hslc/data/pir>

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

The Department of Economic Security Arizona Early Intervention Program (AzEIP) provides services to children from birth to 36 months of age who are developmentally delayed or at high risk of developmental delay.⁹⁷ The San Carlos Apache Region is served by three AzEIP providers: Arizona Cooperative Therapies, Dynamite Therapy and Easter Seals Blake Foundation. Depending on where on the reservation families reside, the AzEIP Central Referral System assigns cases to each of the providers listed above. The number of children from the San Carlos Apache Region that were referred to the Arizona Early Intervention Program (AzEIP) each year from FY 2013 to FY 2015 ranged from three to 27 to 24 to 40. Exact number of children referred and served by AzEIP were not available due to the small numbers of children referred or receiving services; instead, ranges are provided to protect the privacy of program participants. During this same period, the number of children served each year by the AzEIP providers in the region varied from three to 27 to 24 to 33. The data available suggests that more children were served in FY 2015 than in previous years. A national study suggests that about 13 percent of children ages 0 to 2 would typically qualify for early intervention services,⁹⁸ which suggests that at least 99 young children in the region would be likely to benefit annually (based on Table 1).

The Arizona Department of Economic Security Division of Developmental Disabilities (DDD) provides services to individuals in the state with a cognitive disability, cerebral palsy, autism, epilepsy or who are at risk for a developmental disability. Children under the age of six are eligible if they show significant delays in one or more of these areas of development: physical, cognitive, communication, social emotional or self-help.⁹⁹ Fewer than 25 children from the San Carlos Apache Region were referred to, evaluated by, and served by DDD in FY 2015, the most recent year for which data were available. Table 43, Table 44, and Table 45 below show the detailed breakdown of services received from DDD by children in the San Carlos Apache Region from FY 2012 to 2015. As shown on these tables, during several years there were no referrals, evaluations, or services provided to children in the region. In years where services were provided, it was to fewer than 25 children.

The Arizona Child Find program is a component of the Individuals with Disabilities Education Act (IDEA) that requires states to identify and evaluate all children with disabilities (birth through age 21) to attempt to ensure that they receive the supports and services they need. Each Arizona school district is mandated to participate in Child Find and to provide preschool services to children with special needs either through their own schools or through agreements with other programs such as Head Start. In the San Carlos Apache Region, the San Carlos Unified School District is responsible for providing these services. As it was indicated above, Rice Elementary School, which is part of the San Carlos Unified School District, provides preschool services to children with special needs in the region.

Figure 16 shows data from the Arizona Department of Education on the types of disabilities with which special needs preschoolers enrolled in public school in the region have been diagnosed. At least half of them (50%) received a diagnosis of “developmental disability,” and close to one-quarter of children (23%) fell under the category of “preschool severe delay.”

Data on the types of disabilities among preschool-age children were also available for children enrolled in the San Carlos Apache Head Start Program. In school year 2015-2016, 30 of the 250 children enrolled in the program throughout the year had an Individualized Educational Program (IEP) in place.^{xi} This represented 12 percent of the children enrolled during that year (Table 47). Of the 30 children with IEPs, all but one had a primary diagnosis of speech or language impairments.¹⁰⁰ Key informants expressed concern about the high number of children with IEPs in the last school year. They expected this number to increase in the near future due to a high number of ‘meth babies’ – babies exposed to substances in utero– being born in the region. Table 47 shows the number of children with IEPs enrolled in Head Start from 2009 to 2016. With the exception of 2010, the number of enrolled children with IEPs in 2016 is higher than previous years. It is unclear, however, whether 2016 was a year with an exceptionally high number (like 2010) or whether the elevated number will persist in the coming years.

Additional information regarding substance-exposed newborns is discussed in the Family Support and Literacy section below.

The Developmental and Sensory Screenings strategy funded by the San Carlos Apache Regional Partnership Council provides hearing, vision and developmental screenings (using the Ages and Stages Questionnaire, ASQ) to young children in partnership with the early learning centers in the region. Children who are at risk of developmental delays are referred to AzEIP for further evaluation and screening. Key informants indicated, however, that parent follow-up after a referral is made is inconsistent. In addition, key informants shared a perception that the AzEIP providers servicing the region do not go into the reservation regularly, which results in children not receiving the services they might need.

Key informants also pointed out that early learning educators must be better prepared to work with children with special needs. Specialist are being brought, for instance, into the San Carlos Head Start to provide training on classroom management with children with special needs. Key informants also suggested that other departments working with young children in the region could also benefit. For instance, many children who are placed out-of-home may also have special needs that require

^{xi} Please note that 250 reflects the total cumulative enrollment in year 2015-2016, and not the program’s funded enrollment (233)

additional attention. Foster parents and other relatives caring for them could also receive training in this area. According to key informants, one of the reasons why it may be difficult to place these children is because foster caregivers lack expertise in how to handle behavior issues among children with special needs.

Another indicator of the need for developmental services and services for children with special needs is the number of children enrolled in special education within schools. As can be seen in Table 48, the percentage of preschool and elementary school students enrolled in special education in the region is 12%, slightly higher than the state as a whole (10%).

Table 42. Arizona Early Intervention Program (AzEIP) Referrals and Services for Children (Ages 0 to 2), 2013 to 2015

	Children (ages 0-2) referred to AzEIP during FY 2013	Children (ages 0-2) referred to AzEIP during FY 2014	Children (ages 0-2) referred to AzEIP during FY 2015	Children (ages 0-2) served by AzEIP during FY 2013	Children (ages 0-2) served by AzEIP during FY 2014	Children (ages 0-2) served by AzEIP during FY 2015
San Carlos Apache	15 to 31	3 to 27	24 to 40	3 to 27	3 to 27	25 to 33
ALL ARIZONA RESERVATIONS	N/A	N/A	N/A	N/A	N/A	N/A
ARIZONA	10,715	11,741	14,450	4,799	5,248	10,039

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

Table 43. Children (Ages 0 to 5) Referred to the Division of Developmental Disabilities (DDD), 2012 to 2015

	Number of children (ages 0-2) referred in FY2012	Number of children (ages 0-2) referred in FY2013	Number of children (ages 0-2) referred in FY2014	Number of children (ages 0-2) referred in FY2015	Number of children (ages 3-5) referred in FY2012	Number of children (ages 3-5) referred in FY2013	Number of children (ages 3-5) referred in FY2014	Number of children (ages 3-5) referred in FY2015
San Carlos Apache	<25	<25	<25	<25	0	0	<25	<25
ALL ARIZONA RESERVATIONS	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ARIZONA	1,439	2,186	2,479	2,484	1,393	1,401	1,804	1,969

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

Table 44. Children (Ages 0 to 5) Evaluated by the Division of Developmental Disabilities (DDD), 2012 to 2015

	Number of children (ages 0-2) screened in FY2012	Number of children (ages 0-2) screened in FY2013	Number of children (ages 0-2) screened in FY2014	Number of children (ages 0-2) screened in FY2015	Number of children (ages 3-5) screened in FY2012	Number of children (ages 3-5) screened in FY2013	Number of children (ages 3-5) screened in FY2014	Number of children (ages 3-5) screened in FY2015
San Carlos Apache	<25	0	0	<25	0	0	<25	<25
ALL ARIZONA RESERVATIONS	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ARIZONA	732	314	216	238	669	731	727	958

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

Note: Screening is defined by DES as including "children who DDD had paid for an evaluation, not including occupational therapy, physical therapy, or speech therapy, during a given state fiscal year.

Table 45. Children (Ages 0 to 5) Served by the Division of Developmental Disabilities (DDD), 2012 to 2015

	Number of children (ages 0-2) served in FY2012	Number of children (ages 0-2) served in FY2013	Number of children (ages 0-2) served in FY2014	Number of children (ages 0-2) served in FY2015	Number of children (ages 3-5) served in FY2012	Number of children (ages 3-5) served in FY2013	Number of children (ages 3-5) served in FY2014	Number of children (ages 3-5) served in FY2015
San Carlos Apache	<25	<25	<25	<25	0	0	<25	<25
ALL ARIZONA RESERVATIONS	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ARIZONA	2,646	2,693	2,341	2,336	2,563	2,600	2,533	2,540

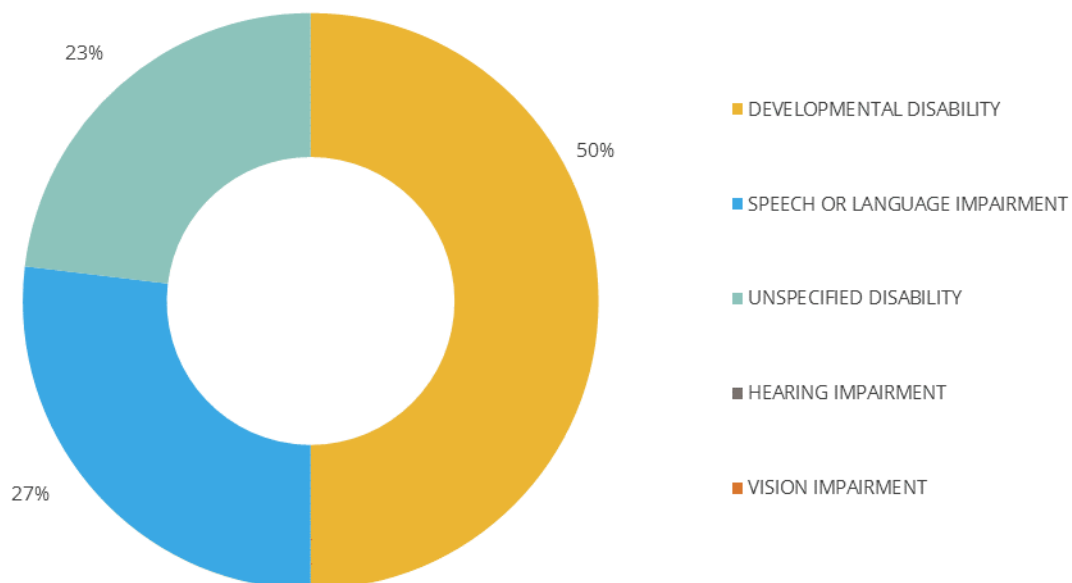
Source: Arizona Department of Economic Security (2016). [Division of Developmental Disabilities dataset]. Unpublished data.

Table 46. Division of Developmental Disabilities (DDD) Service Visits for Children (Ages 0 to 5), 2012 to 2015

	Number of service visits (ages 0-2) in FY2012	Number of service visits (ages 0-2) in FY2013	Number of service visits (ages 0-2) in FY2014	Number of service visits (ages 0-2) in FY2015	Number of service visits (ages 3-5) in FY2012	Number of service visits (ages 3-5) in FY2013	Number of service visits (ages 3-5) in FY2014	Number of service visits (ages 3-5) in FY2015
San Carlos Apache	421	210	263	<25	0	0	<25	14
ALL ARIZONA RESERVATIONS	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ARIZONA	168,992	158,496	130,486	120,519	363,468	374,440	367,590	358,322

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

Figure 16. Types of Disabilities Among Preschoolers in Special Education, 2015



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

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

Table 47. Children with IEPs enrolled in Head Start, 2015-2016 School Year

	Children (ages 3-5) enrolled in Head Start	Children with an IEP	
San Carlos Apache Head Start	250	30	12%

Source: Office of Head Start (2016). 2016 Program Information Report. Retrieved from <https://eclkc.ohs.acf.hhs.gov/hslc/data/pir>

Table 48. Kindergarten to Third Grade Students Enrolled in Special Education

	Schools	Enrolled	Enrolled in Special Education	
San Carlos Apache Region Schools	2	633	77	12%
Mt. Turnbull Elementary School	1	62	<25	DS
Rice Elementary School	1	571	69	12%
All Arizona Schools	1,238	342,307	33,269	10%

Source: Arizona Department of Education. [Enrollment Data]. Unpublished data.



CHILD HEALTH

Why Child Health Matters

Optimal development encompasses intellectual, social, emotional, and physical health. The extent to which children can achieve optimal development depends on the everyday environment and supports which surround them, as well as access to additional resources and services that support healthy development.^{101,102} The health of a child in utero, at birth, and in early life sets the stage for health and well-being throughout their life. Factors such as access to health care and health insurance, a mother's receipt of prenatal care, and receipt of preventive care such as immunizations and oral health care all influence not only a child's current health, but long-term development and future health as well.^{103,104,105}

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

The ability to obtain health care is critical for supporting the health of young children. In the early years of a child's life, well-baby and well-child visits allow clinicians to offer developmentally appropriate information and guidance to parents and provide a chance for health professionals to assess the child's development and administer preventative care measures like vaccines and developmental screenings.¹⁰⁶ Families without health insurance are more likely to skip these visits, and so are less likely to receive preventive care for their children, or to receive care for health conditions and chronic diseases.^{107,108} Children who lack health insurance are also more likely to be hospitalized and to miss school.¹⁰⁹ Health care services to members of federally-recognized Indian tribes are available from Indian Health Service (IHS) facilities and other tribally-administered health care facilities.^{xii}

Low-income children in Arizona are covered by the Arizona Health Care Cost Containment System (AHCCCS), Arizona's Medicaid. AHCCCS coverage is available for children in families with income up to 147 percent of the Federal Poverty Level (FPL) for those under age 1, and up to 141 percent of FPL for those ages 1 to 5 (and 133% for those from 6-19 years). Across the nation, state-run Children's Health Insurance Programs (CHIP) have provided health insurance to children up to age 19 in families with incomes too high to qualify them for Medicaid (AHCCCS). Enrollment in the Arizona version of CHIP, KidsCare, was suspended as of January 1, 2010, a particularly vulnerable time for families, following on

^{xii} 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. Source: 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.

the heels of the Great Recession.¹¹⁰ Arizona became the only state without an active CHIP program. However, in May 2016, the Arizona legislature voted to lift the freeze on KidsCare,¹¹¹ and in July 2016 applications began to be accepted for the first time in six years, with coverage beginning September 1, 2016.¹¹² Expanding health insurance availability for lower-income children can lead to health improvements, and to longer-term benefits such as increased high school and college graduation rates and higher lifetime earnings.¹¹³

Because a number of factors influence the health of a child before conception and in utero, the characteristics of women giving birth can have a substantial impact on the birth and developmental outcomes for their children. For instance, pregnancy during the teen years is associated with a number of health concerns for infants, including neonatal death, sudden infant death syndrome, and child abuse and neglect.¹¹⁴ 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.^{115,116,117}

A mothers' weight status can also influence her child's health. Women who are obese before they become pregnant have pregnancies with a higher risk of birth complications and neonatal and infant mortality.^{118,119} Babies born to obese women are at risk for chronic conditions in later life such as diabetes and heart disease.¹²⁰ Maternal smoking is another factor that can greatly affect child outcomes. Babies born to mothers who smoke are more likely to be born early (pre-term), be low birth weight, die from sudden infant death syndrome (SIDS) and have weaker lungs than other babies.¹²¹

One potentially harmful birth outcome that can have long-lasting effects are preterm births – births before 37 weeks of gestation. Preterm birth, in addition to being associated with higher infant and child mortality, often results in longer hospitalization, increased health care costs, and longer-term impacts such as physical and developmental impairments. Babies born at a low-birth weight (less than 2,500 grams or 5 pounds, 8 ounces) are also at increased risk of infant mortality and longer-term health problems such as diabetes, hypertension and cardiac disease.¹²²

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

After birth, a number of factors have been associated with improved health outcomes for infants and young children. One factor is breastfeeding, which has been shown to reduce the risk of ear, respiratory and gastrointestinal infections, SIDS, overweight, and type 2 diabetes.¹²³ The American Academy of Pediatrics recommends exclusive breastfeeding for about 6 months, and continuing to breastfeed as new foods are introduced for 1 year or longer.¹²⁴ Healthy People 2020 aims to increase the proportion of infants who were ever breastfed to 81.9 percent.¹²⁵ Immunization against preventable diseases is another factor that protects children from illness and potentially death. In order to assure community immunity (also known as "herd immunity"), which helps to protect unvaccinated children and adults from contracting vaccine- preventable diseases, rates of vaccination in a community need to remain high.¹²⁶ Research shows that higher exemption rates from vaccines at the school-level have been associated with school-based outbreaks of preventable diseases such as measles and pertussis.¹²⁷ Oral health and good oral hygiene practices are also very important to children's overall health. According to the National Survey of Children's Health, the percentage of

children in Arizona with excellent or very good oral health (65.7%) falls below the national level of 71.3 percent.¹²⁸ Tooth decay and early childhood caries can have short and long-term consequences including pain, poor appetite, disturbed sleep, lost school days, and reduced ability to learn and concentrate.¹²⁹

In early childhood, illness and injury can cause not only trauma to a child but added stress for a family. Non-fatal unintentional injuries substantially impact the well-being of children,¹³⁰ and injuries are the leading cause of death in children in the United States.¹³¹ Common causes of visits to the emergency department for children 0-5 in Arizona include falls (particularly from furniture), collisions with an object, and natural events like bites and stings. Common causes for hospitalization of young children in Arizona include falls, poisoning, and assault/abuse.¹³² Many of these injuries are preventable, prompting the Centers for Disease Control and Prevention to produce a National Action Plan for Child Injury Prevention, which outlines evidence-based strategies for addressing the challenge of keeping children safe.¹³³ The Arizona Department of Health Services has recognized the need to focus on reducing childhood injuries in Arizona, and identified that as one of their priorities in the Bureau of Women's and Children's Health Strategic Plan,¹³⁴ as well as included it as part of their Arizona Injury Prevention Plan.¹³⁵

A child's weight status can have long-term impacts on health and well-being; in the United States, areas of concern tend to center around malnutrition and obesity, rather than undernutrition and underweight. Nationwide, it is estimated that about 3.8 percent of children ages 2-19 are underweight, 16.2 percent are overweight, and 17.2 percent are obese.^{136,137} Obesity can have negative consequences on physical, social, and psychological well-being that begin in childhood and continue into and throughout adulthood.¹³⁸ The first two years of life are seen as critical to the development of childhood obesity and its resultant negative consequences. Higher birth weight and higher infancy weight, as well as lower-socioeconomic status and low-quality mother-child relationships have all been shown to be related to higher childhood weight.¹³⁹ One component of establishing a healthy weight – physical activity – also promotes improved visual-motor integration skills and object manipulation skills, which in turn lead to improved executive function, social behaviors and ultimately school readiness for young children.¹⁴⁰ The availability and accessibility of recreational facilities and resources that promote physical fitness can influence the ability of both child and adult community members to reap the benefits of physical activity.

What the Data Tell Us

Access to Care

As a result of the Indian Self-Determination and Education Assistance Act (P.L. 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 tribal members. The tribes can then utilize these funds to directly provide services to tribal members (they can also opt to take the funds from the Indian Health Service (IHS) and provide the services through another entity). This process is commonly known as utilizing "638 contracts". This means that tribes can take over responsibility of some or all health services. Through this process, ISDEAA enables tribes more control over the federal

funds that are allotted to the IHS for health care enabling tribes to self-determine how funding will be distributed based on the tribe's own identified needs and priorities.

After a study confirmed the feasibility for the San Carlos Apache Tribe to contract healthcare services formerly provided by IHS, the tribe began construction of a brand new 180,000-square-foot facility to host the tribally-operated San Carlos Apache Health Care Corporation Izeé Baa Gowq̃h. The new five-building campus provide a space to co-locate health care services that were formerly placed in separate locations including the emergency services, public health nurses and oral health departments.^{xiii} As a result of having these services co-located, key informants pointed out that coordination of services and communication among health care providers have been greatly improved. Referrals are facilitated by this one-stop set up where patients can more easily access the services they need in one visit. This enhanced coordination is further enabled through weekly coordination meetings where all the programs under the Department of Health and Human Services (DHHS) come together to share information relevant to one another.

The new facility also provides expanded services that had been available only on a limited basis. For instance, mammography services are now being provided permanently at the hospital, replacing a mobile unit as the main way of accessing this service for local residents. A CT scanner is also available locally. The EMS department now has 20 bays, as opposed to the 4 or 5 previously available. Additionally, in following the new hospital's mission of providing compassionate and respectful health care services the Ambassadors program allows patients to be greeted by an ambassador that will help them navigate the new facility and answer any questions they might have. According to the San Carlos Apache Health Care Corporation website,¹⁴¹ many of the ambassadors speak Apache and provide translation assistance to those patients who may be more comfortable speaking Apache.

According to key informants, one of the main challenges of providing quality health care services in the region is health care providers' recruitment and retention. Although this was a challenge before the hospital became tribally-operated, key informants noted that the transition resulted in additional personnel vacancies that exacerbated this situation. Other challenges related to the transition had to do with the major administration change involved in this process, such as efficient access to medical records. On a positive note, key informants considered these challenges as 'growing pains' that are to be expected during a major management transition like that undergone by the hospital.

In addition to the pediatric services available at the new hospital, health care services for young children are also provided through the Maternal and Child Health Clinic (under DHHS). Services include routine care, well child visits and immunizations appointments. The Public Health Nurses program conducts health screenings for the children enrolled in the San Carlos Apache Head Start program. They also provided services to children in all other schools on the reservation.

Health-related data were available to be included in this report from the Indian Health Service (IHS) San Carlos Service Unit (prior to the hospital's transition into a tribally-operated facility). Between October 2013 and September 2015, there were 11,133 active IHS users in the San Carlos Service Unit.

^{xiii} Administratively, however, some of these departments operate differently from the Corporation: Behavioral Health, Public Health and EMS services are housed under the San Carlos Apache Department of Health and Human Services. Key informants pointed out that in the future these departments might also be housed under the San Carlos Health Care Corporation.

Approximately 13.5 percent ($n=1,499$) of them were young children (ages 0-5) (Table 49).^{xiv} Figure 17 shows the number of well child visits by age at IHS facilities in the San Carlos Service Unit during that same period.

A key factor to accessing health care is health insurance. According to estimates from the American Community Survey (ACS), 39 percent of young children, birth to age five, in the region were estimated to be uninsured, along with 38 percent of the total population in the San Carlos Apache Region (Table 50). 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. The 2014 First Things First San Carlos Apache Regional Partnership Council Needs and Assets Report included data on the insurance status of young children from the San Carlos Apache Region for those served by IHS. According to this report, 66 percent of young children did not have third-party insurance coverage in addition to the services provided by IHS. This suggests that the ACS estimate may be an underestimate of the share of young children in the region without health insurance.

The San Carlos Apache Head Start facilitates health screening and referrals for children enrolled in the program. According to data from the 2014-2015 school year, all (100%) of the children enrolled in the Head Start had insurance, had an ongoing source of accessible health care, received medical services from IHS, and were up to date on primary and preventative care (Table 51).

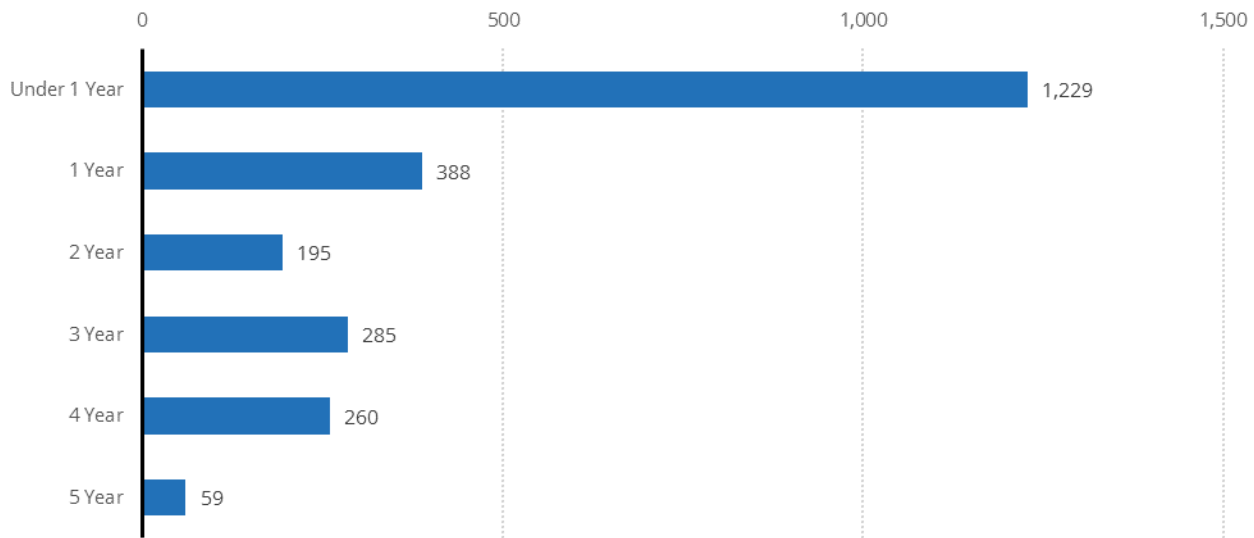
Table 49. Number of Active IHS Users from the San Carlos Apache Tribe, October 2013 to September 2015

	Young Children (Ages 0-5)	All Children (ages 0-17)	All Ages
San Carlos Apache Tribe	1,499	4,187	11,133

Source: Indian Health Services, Phoenix Area (2016) [IHS Dataset]. Unpublished data.

^{xiv} Please note that the number of active users represents all members of the San Carlos Apache Tribe who received services at least once at the IHS San Carlos Apache Service Unit during the stated time period, regardless of their place of residence. This means that some of these children may not be living within the reservation boundaries but in the surrounding areas, such as Globe or Safford. – Personal Communication, Indian Health Service – Phoenix Area, September 2016.

Figure 17. Well Child Visits by Age at IHS Facilities, November 2013 to October 2015



Source: Indian Health Services, Phoenix Area (2016) [IHS Dataset]. Unpublished data.

Table 50. Estimated Proportion of Population Without Health Insurance

	Estimated population (ages 0-5)	Children (ages 0-5) without health insurance	Estimated population (all ages)	Persons (all ages) without health insurance
San Carlos Apache	1,530	39%	10,404	38%
ALL ARIZONA RESERVATIONS	19,868	18%	184,327	26%
ARIZONA	531,825	10%	6,453,706	16%

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

Table 51. Access to Health Care Services for Children Enrolled in San Carlos Apache Head Start

	Children (ages 3-5) enrolled in Head Start	Children with health insurance	Children with ongoing source of accessible health care	Children receiving IHS medical services	Children up to date on primary and preventative care
San Carlos Apache Head Start	240	100%	100%	100%	100%

Source: Office of Head Start (2016). 2015 Program Information Report. Retrieved from <https://eclkc.ohs.acf.hhs.gov/hslc/data/pir>

Maternal Characteristics

In 2014, there were 318 babies born in the San Carlos Apache Region (Table 52), and 97 percent of mothers giving birth identified as being American Indian or Alaska Native (Figure 19). Of these mothers, 31 percent had less than a high school education, which is higher than the overall state rate (20%). Additionally, 43 percent of mothers held a high school diploma. Just over one in four mothers (26%) had some college education, professional education, or a bachelor's degree or more, compared to 54 percent of mothers statewide (Table 53).

In the region, approximately 89 percent of births were to mothers relying on AHCCCS or Indian Health Service (IHS) coverage, which was much higher than the statewide proportion of 55 percent. Of the births covered by a public payee (AHCCCS or IHS), the proportion of births covered by AHCCCS has increased between 2009 and 2014 to 43 percent, which still represents less than half of all public payee births (Figure 20). Facilitating enrollment in AHCCCS can offer benefits both at the individual and community levels. Community members who enroll in a health insurance plan can gain increased access to health care services by being able to receive care through AHCCCS providers, Indian Health Service facilities, Tribes and Tribal Organizations, and Urban Indian Organizations. At the community level, tribes can benefit when IHS or tribally-operated 638 facilities bill a third-party insurer for medical services resulting in savings in Contract Health Service funds. The money saved through outside billing can then be used in other ways to benefit all tribal citizens.

A lower proportion of mothers in the San Carlos Apache Region reported smoking (1.9%) than across the state (4.6%). However, smoking rates among pregnant women in the region have not met the Healthy People 2020 goal of 1.4 percent or less (Table 54). The percentage of children enrolled in WIC who were exposed to smoking in the household has fluctuated between 2011 and 2015, with the lowest reported exposure in 2011 (5%) and highest (11%) in 2015 (Figure 21). Children exposed to secondhand smoking are at higher risk of developing ear infections, respiratory illnesses, and sudden infant death syndrome.¹⁴² The increase in rates of children exposed to smoking in the household indicates that further outreach and education of parents on the dangers of secondhand smoking may be needed.

Another aspect of maternal health linked to both birth outcomes and a child's subsequent health is maternal obesity. Among Arizonan women overall, about 51 percent were overweight or obese before pregnancy in 2014. Among women who participate in WIC in general, this rate was higher—58 percent, which is to be expected given that low-income women are more likely to be obese in the United States.¹⁴³ In the San Carlos Apache Region, of the women enrolled in WIC in 2015, 44 percent were obese while 27 percent were overweight (Figure 22). The rate of pre-pregnancy obesity has remained

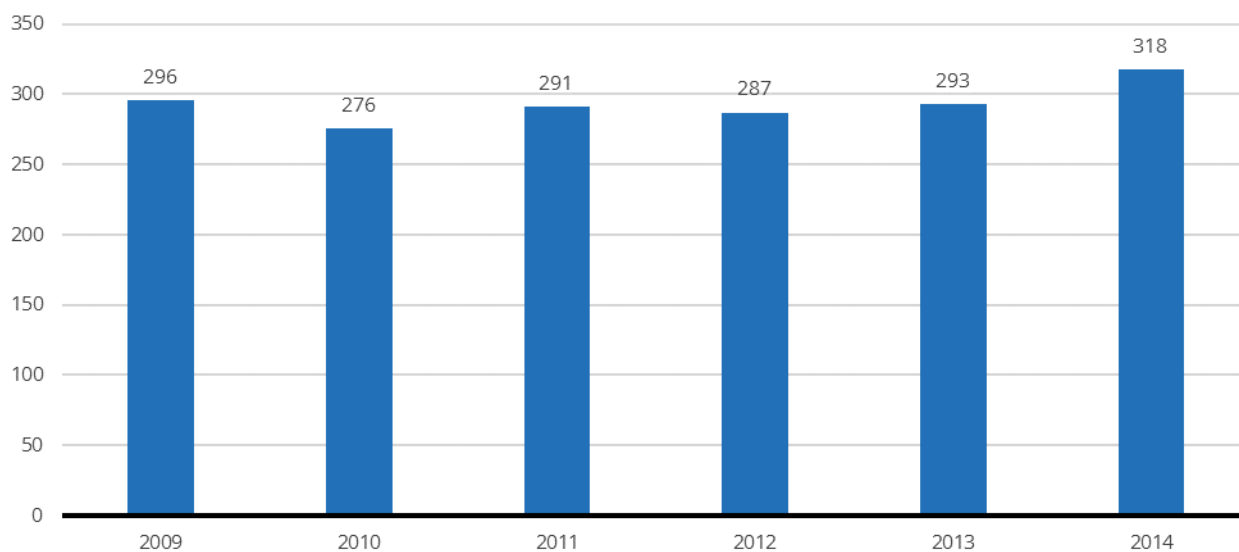
consistent between 2011 (43%) and 2015 (44%) (Figure 23). In Arizona, pre-pregnancy obesity rates for women enrolled in WIC increased from 27 percent in 2012 to 31 percent in 2015.

Table 52. Live Births During Calendar Year 2014, by Mother's Place of Residence

	Total number of births to Arizona-resident mothers in 2014
San Carlos Apache	318
ALL ARIZONA RESERVATIONS	N/A
ARIZONA	86,648

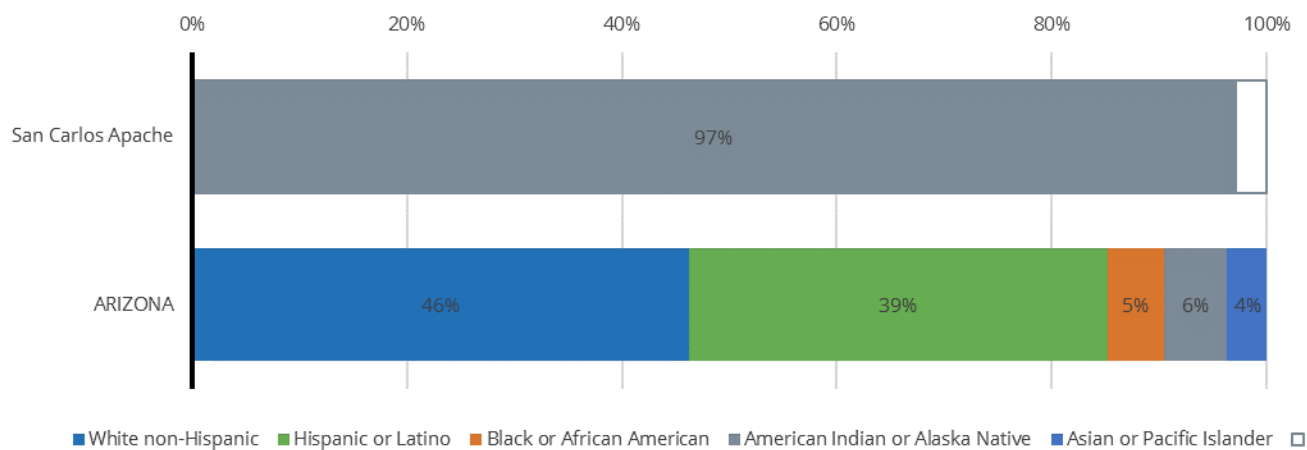
Source: Arizona Department of Health Services (2016). [Vital Statistics Births dataset]. Unpublished data.

Figure 18. Live Births During Calendar Year 2009-2014, by Mother's Place of Residence



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

Figure 19. Race and Ethnicity of Mothers Giving Birth in 2014



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

Note: Due to the small number of births to mothers of ethnicities other than American Indian or Alaska Native in the San Carlos Apache Region, data for these mothers was suppressed.

Table 53. Live Births During Calendar Year 2014, by Mother's Educational Attainment

	Less than high school	High school or GED	Some college or professional education	Bachelor's degree or more
San Carlos Apache	31%	43%	23%	DS
ALL ARIZONA RESERVATIONS	N/A	N/A	N/A	N/A
ARIZONA	20%	25%	31%	23%

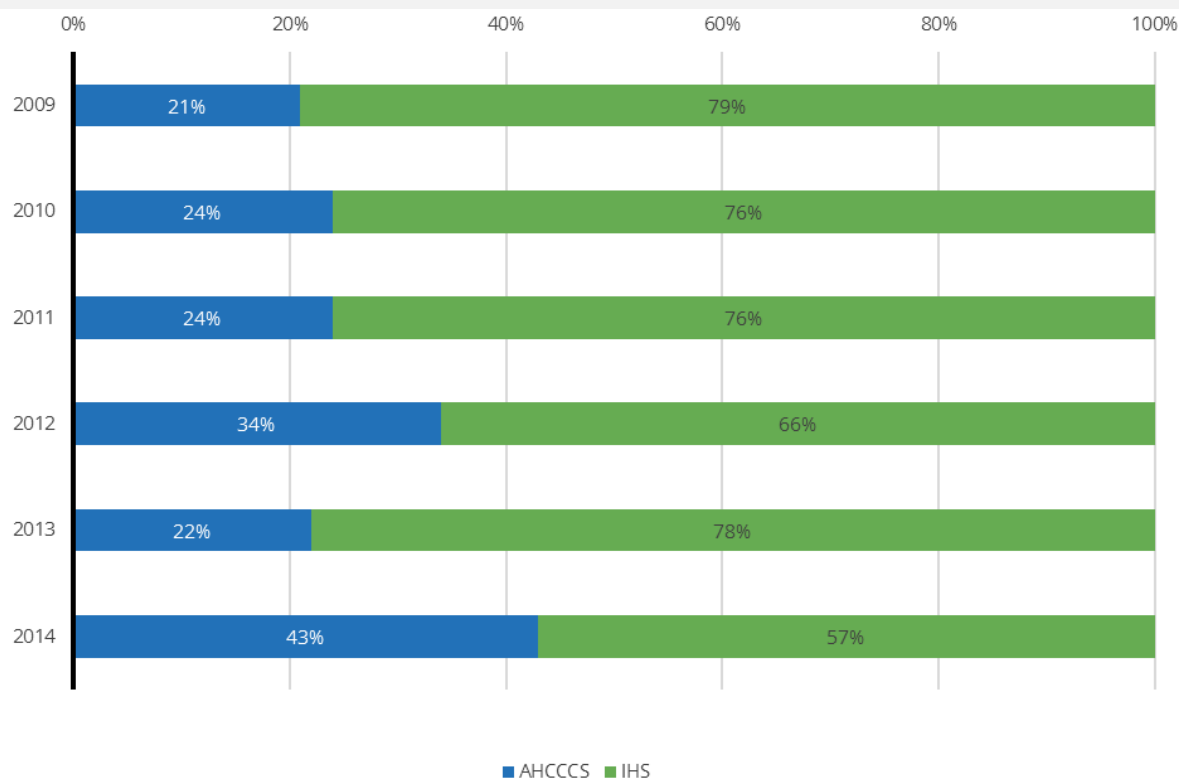
Source: Arizona Department of Health Services (2016). [Vital Statistics Births dataset]. Unpublished data.

Table 54. Other Characteristics of Mothers Giving Birth in 2014

	Mother was not married	Mother was 19 or younger	Mother was 17 or younger	Birth was covered by AHCCCS or Indian Health	Tobacco use during pregnancy
San Carlos Apache	78.0%	14.5%	5.7%	88.7%	1.9%
ALL ARIZONA RESERVATIONS	N/A	N/A	N/A	N/A	N/A
ARIZONA	44.7%	7.6%	2.1%	54.5%	4.6%

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

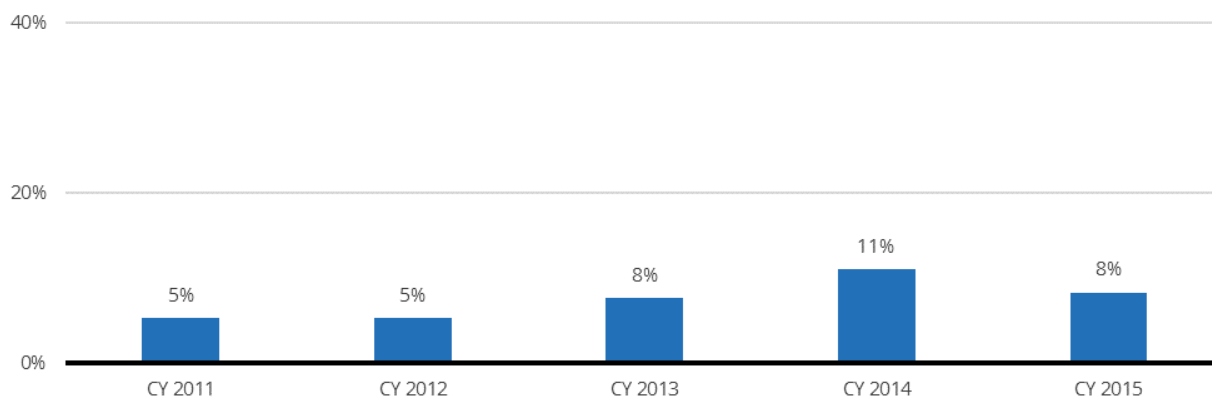
Figure 20. Public Payee Births, by Payee, 2009 to 2014



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

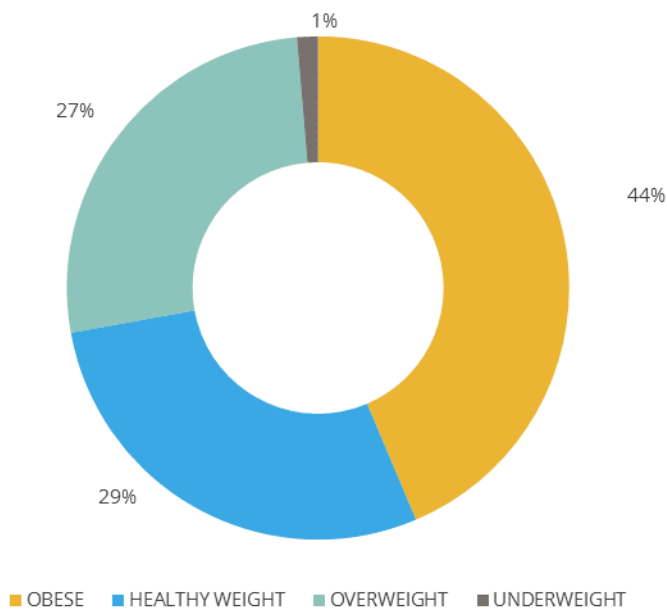
Note: This figure only represents births paid for by a public payee (AHCCCS or IHS). Births paid for through private insurance or some other form of payment are not included in this figure.

Figure 21. Children (ages 0-4) in the San Carlos Apache WIC Program Exposed to Smoking in the Household, 2011 to 2015



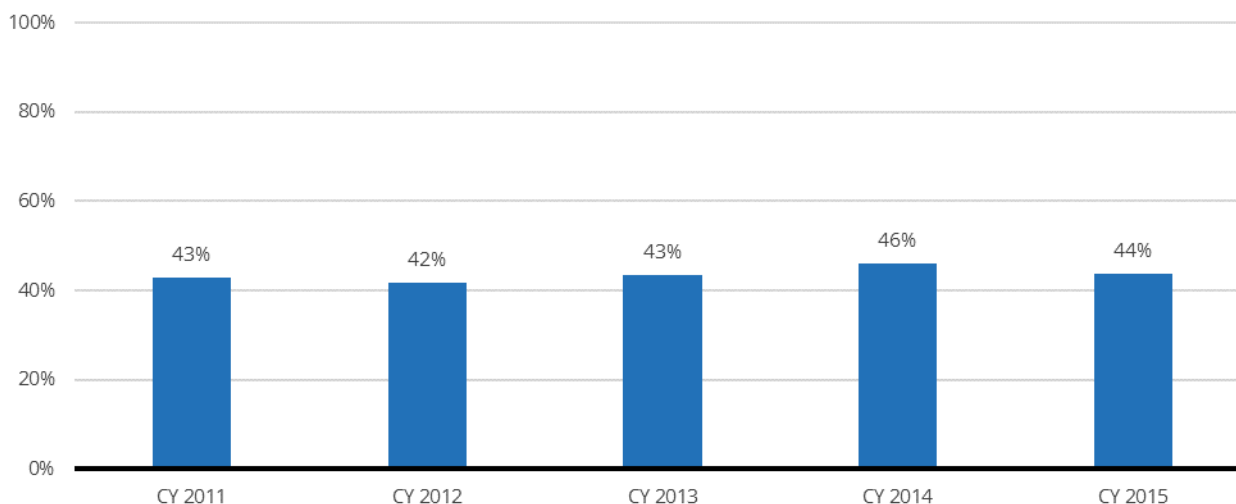
Source: Inter-Tribal Council of Arizona (2016) [WIC Dataset]. Unpublished data.

Figure 22. Pre-pregnancy Weight Status of Women in the San Carlos Apache WIC Program, 2015



Source: Inter-Tribal Council of Arizona (2016) [WIC Dataset]. Unpublished data.

Figure 23. Pre-pregnancy Obesity Rates for Women in the San Carlos WIC Program, 2011 to 2015



Source: Inter-Tribal Council of Arizona (2016) [WIC Dataset]. Unpublished data.

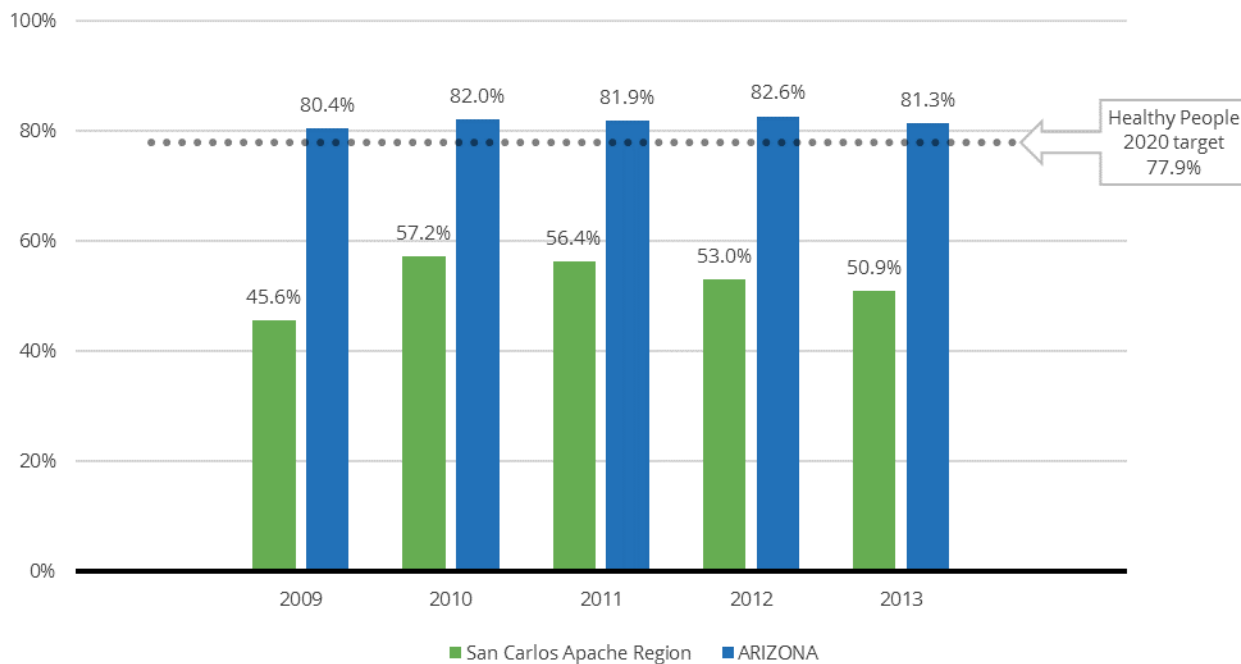
Prenatal Care

Prenatal care services are available through an OB/GYN at the new San Carlos Hospital Health Care Corporation as well as through a nurse practitioner at the Maternal and Child Health program, which belongs to the San Carlos Apache Department of Health and Human Services. Key informants noted that the availability of prenatal services locally is a major asset in the region. The new hospital was designed to include a small labor and delivery unit for low-risk pregnancies. This unit is expected to be operational in 2017. Until then, pregnant women deliver their babies at hospitals in Globe or Safford. Key informants indicated that the communication with these off-reservation hospitals could be improved. Tribally-operated programs such as the Maternal and Child Health Clinic and San Carlos WIC programs can provide breastfeeding support to new mothers but they are not notified by the hospitals after babies are born, so it is often difficult to establish contact with the mothers. There have been some discussions about formal agreements that would allow tribally-operated programs to access electronic health records of patients receiving hospital services outside of the reservation so they can provide better continuity of care.

The Healthy People 2020 goal is that at least 77.9 percent of pregnant women receive prenatal care that begins in the first trimester of pregnancy. In the San Carlos Apache Region, this rate remains well below both the overall state rate and the Healthy People 2020 goal. Between 2009 to 2013, the rate of prenatal care begun in the first semester remained below 60 percent, with the highest rates of early prenatal care occurring in 2010 (57.2%) and 2011 (56.4%) (Figure 24). In 2014, the Arizona Department of Health Services introduced major changes in the way that prenatal care by trimester is assessed; these structural changes mean that rates from 2014 onward are not directly comparable to earlier rates. The new calculations have resulted in a much higher number of birth certificates with “unknown” prenatal care status statewide, and 13.5 percent of births in the region could not have

prenatal care status determined. Of those with known prenatal care status, 29.1 percent of pregnant women obtained prenatal care during the first trimester, compared to 71.7 percent in the state (Table 55). It is not clear if this represents an actual decline, or is an artifact of the new reporting system. However, the fact that the share of women with prenatal care in the first trimester is much lower in the region than in the state suggests a high need for early prenatal care. The rate of mothers who received fewer than five prenatal care visits was also very high at 31.4 percent as compared to the state (6.5%).

Figure 24. Percent of Births With Prenatal Care Begun in First Trimester



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

Table 55. Live Births During Calendar Year 2014, by Number of Prenatal Visits

	No visits	1 to 4 visits	5 to 8 visits	9 to 12 visits	13 or more visits	Percent of births with fewer than five prenatal care visits	Percent of births with prenatal care begun in the first trimester
San Carlos Apache	8%	23%	35%	19%	7%	31.4%	29.1%
ALL ARIZONA RESERVATIONS	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ARIZONA	2%	4%	15%	47%	31%	6.5%	71.7%

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

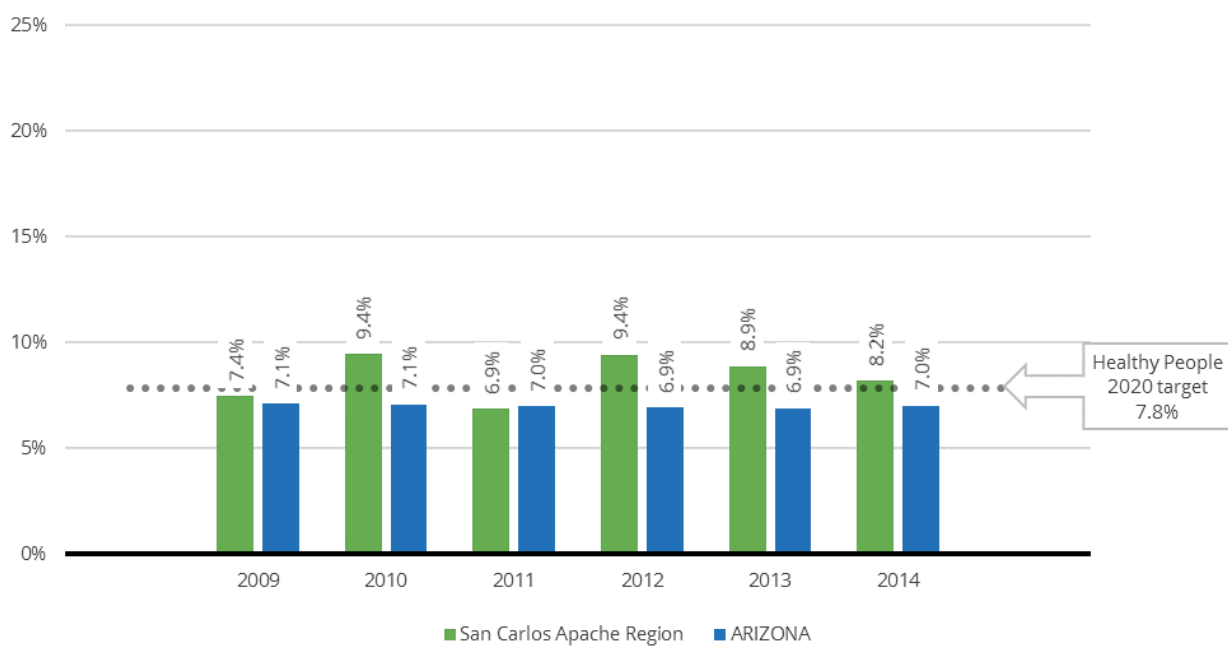
Birth Outcomes

With regard to perinatal health, babies in the San Carlos Apache Region were doing slightly worse than babies born statewide. In 2014, 12.9 percent of babies were born premature, compared to 9 percent statewide (Figure 26). This was relatively consistent with premature birth rates in previous years. In the same year, approximately eight percent of babies born in 2014 in the region were low birth weight, compared to seven percent across the state (Figure 25). Healthy People 2020 objectives include that fewer than 7.8 percent of babies are born at low birth weights and fewer than 11.4 percent are born preterm, meaning that the San Carlos Apache Region has not achieved the Healthy People 2020 goal for either low birthweight or preterm births.

In 2015, 8.7 percent of newborn babies did not pass the initial hearing screenings, which was higher than the overall statewide rate (3.8%) (Figure 27). Approximately two percent of newborns required diagnostic evaluation, nearly four times higher than the statewide rate; however, no newborns were confirmed to have hearing loss. Key informants in the region noted that there are no audiologists in the area, so families must travel to Phoenix for audiology services. Due to this lack of local services, key informant's fear that families may not be following up on hearing referrals and that hearing problems may be underdiagnosed. Studies have shown that Apache children are at particular risk for recurring ear infections, and key informants in the region discussed that there are a number of children enrolled in early education programs with previously undiagnosed speech and language issues that may stem from hearing difficulties.¹⁴⁴

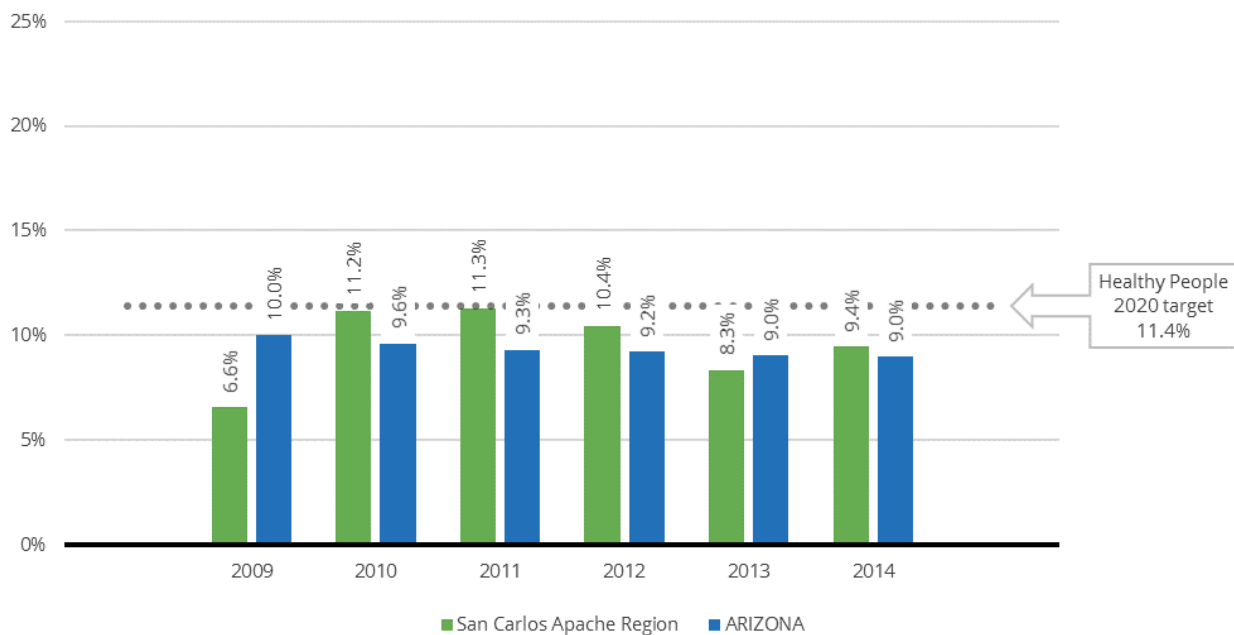
Of the infants enrolled in the San Carlos Apache WIC program in 2015, 34 percent were ever breastfed. This rate is significantly lower than both the statewide rate for infants enrolled in WIC (71.2%) and the Healthy People 2020 goal of 81.9 percent or higher. The percent of infants in the San Carlos Apache Region WIC program has fluctuated between 2011 and 2015, with the highest rate reported in 2014 (43%) (Figure 28). The percent of infants breastfed for six months or more has also fluctuated between 2011 and 2015, with the lowest rate in 2012 (4%) and highest in 2014 (13%). Key informants in the region noted that breastfeeding education has been difficult since mothers must travel outside the region to give birth and local public health nurses are not always notified when mothers have given birth. In addition, some key informants note that mothers have expressed concerns about the effect of breastfeeding on their infants when they are wrestling with active substance use, and often choose not to breastfeed in those cases.

Figure 25. Percent of Babies Born in 2014 With Low Birthweight (5.5 Pounds or Less)



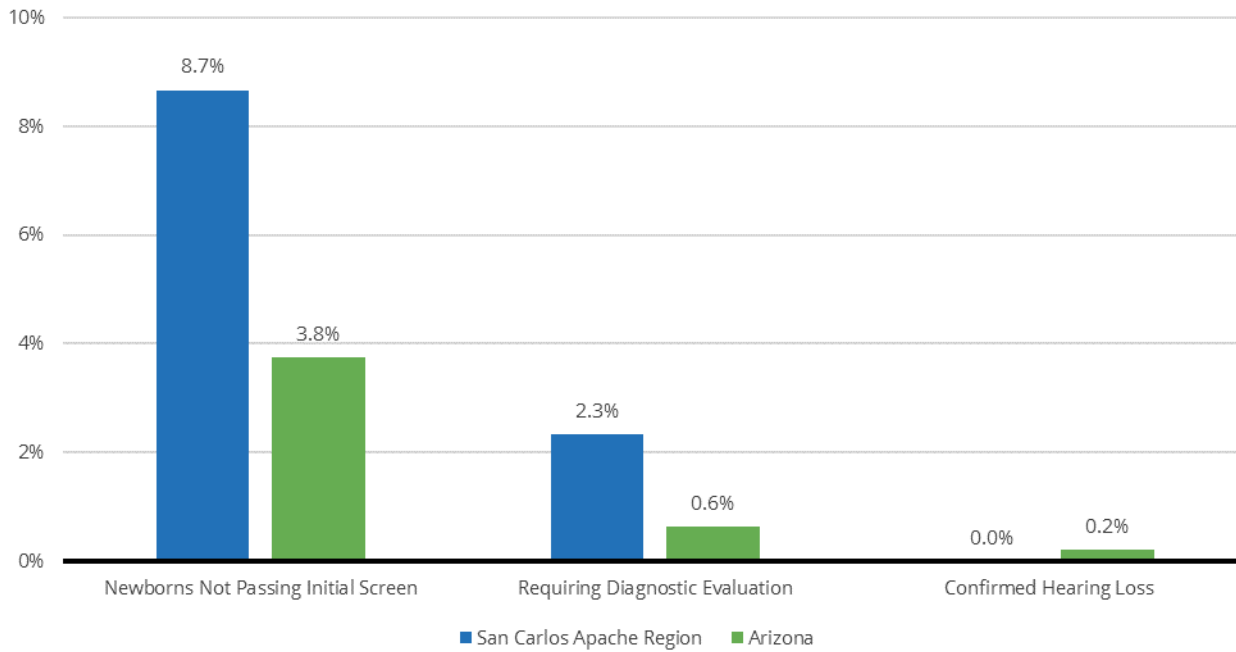
Source: Arizona Department of Health Services (2016). [Vital Statistics Births dataset]. Unpublished data.

Figure 26. Percent of Babies Born Premature in 2014 (37 Weeks or Less)



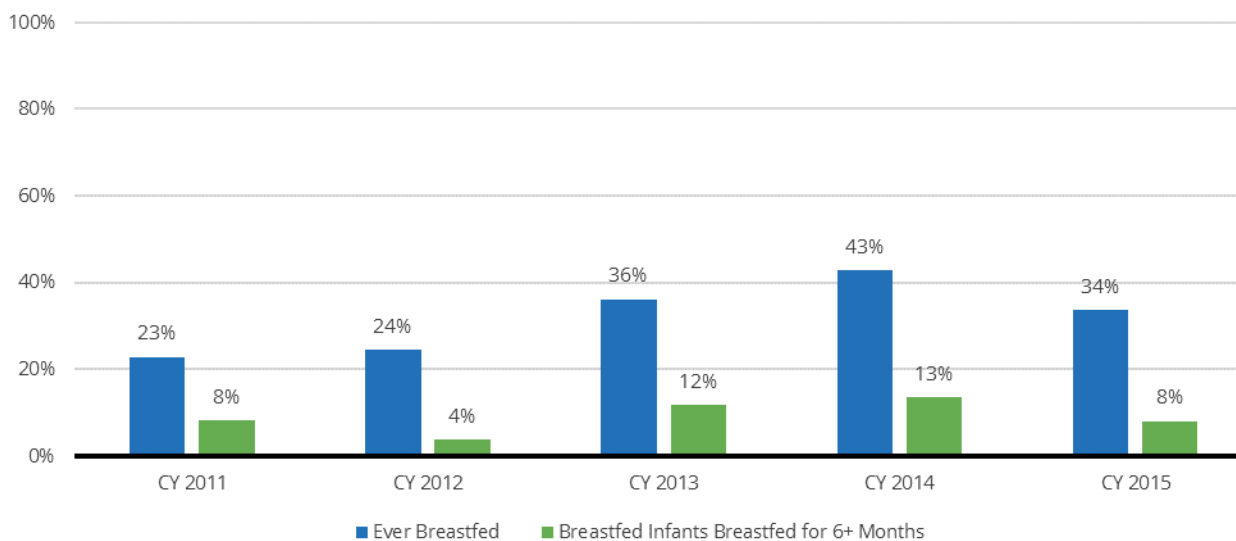
Source: Arizona Department of Health Services (2016). [Vital Statistics Births dataset]. Unpublished data.

Figure 27. Newborn Hearing Screening Results, 2015



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

Figure 28. Breastfeeding Rates for Infants in the San Carlos Apache WIC Program, 2011 to 2015



Source: Inter-Tribal Council of Arizona (2016) [WIC Dataset]. Unpublished data.

Immunizations

Data provided by the Indian Health Services for children from the San Carlos Apache Tribe show that in the period between October 2013 and September 2015, 52.5 percent of children 19 to 35 months old were fully immunized. In the San Carlos Region, young children are likely to join an early care and education program at the age of 3 or 4. According to data from the San Carlos Apache Head Start program, in the school year 2014-2015 all (100.0%) of the children enrolled in the program were up-to-date on their immunizations. This is higher than immunization rates in preschool at Rice Elementary School in 2015. While all children were up to date on Polio, MMR, Hepatitis B, and Varicella vaccines, only 92 percent were fully immunized for Hepatitis A and 88 percent fully immunized for DTAP or HiB. Overall, the regional rates were higher than those for children in early care and education statewide (Table 56). The Healthy People 2020 target for vaccination coverage for children ages 19-35 months for these vaccines is 90 percent, suggesting that the region is not meeting this goal, except for children enrolled in Head Start.

However, kindergartners in the region are meeting the Healthy People 2020 goals for all immunizations. The Healthy People 2020 target for vaccination coverage of kindergarteners is 95 percent for the DTAP, MMR, polio, Hepatitis B, and Varicella vaccines. Nearly all kindergartners (98%) had the full DTAP and MMR vaccine series, 99 percent had the full Polio vaccine series, and all (100%) had the full Hepatitis B and Varicella vaccine series (Table 57). By comparison, statewide kindergarteners are meeting the Healthy People 2020 goal on only three of the five required vaccines. Rates of personal exemptions for vaccinations among children in child care (0.0%) and kindergarten (0.0%) in the region were much lower than exemption rates at the state level (3.5% and 4.5% respectively).

Table 56. Vaccination Rates and Exemption Rates for Children in Child Care

	Students enrolled	Four or more DTAP	Three or more Polio	Two or more MMR	Three or more HIB	Two Hep A	Three or more Hep B	One or more Varicella	Religious exemption	Medical exemption
San Carlos Apache	24	88%	100%	100%	88%	92%	100%	100%	0.0%	0.0%
ALL ARIZONA RESERVATIONS	N/A	N/A	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%	3.5%	0.5%

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

Note: These numbers reflect immunization rates at Rice Elementary School

Table 57. Vaccination Rates and Exemption Rates for Kindergarten Children

	Students enrolled	Four or more DTAP	Three or more Polio	Two or more MMR	Three or more Hep B	One or more Varicella	Personal exemption	Medical exemption
San Carlos Apache	181	98%	99%	98%	100%	100%	0.0%	0.0%
ALL ARIZONA RESERVATIONS	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ARIZONA	83,088	94%	95%	94%	96%	97%	4.5%	0.3%

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

Note: These data reflect immunization rates at Rice Elementary School, Mt. Turnbull Academy, and Our Savior's Lutheran School.

Oral Health

More children in kindergarten in Arizona (52%) have tooth decay compared to children across the nation (36%). Within Arizona, American Indian (76%) children more likely to experience tooth decay than white children (34%).¹⁴⁵

In 2010, the Indian Health Service (IHS) implemented an ongoing oral health surveillance system to monitor the oral health of American Indian and Alaska Native (AI/AN) children. Historically, this population has seen the highest rates of tooth decay in the United States, and it continues today at a rate that is 4 times than that of White children. The IHS Oral Health Survey collected data from preschool-age children in 2012 and 2014. During this last year, survey data were collected from a total of 11,873 children ages 1 to 5 from all IHS Areas, including 796 children from the Phoenix Area, which includes the San Carlos Apache Region. Results from the survey show that that 43 percent of AI/AN children ages 3 to 5 have untreated tooth decay. American Indian/Alaska Native children begin to experience tooth decay at an early age: 18 percent of the one-year old children participating in the survey already had tooth decay. In addition, the prevalence of decay experience in the primary teeth rises sharply with age, with 76 percent of five years olds experiencing this condition. This means that prevention efforts are essential before the age of two in the reduction of tooth decay prevalence among AI/AN children. The survey also found that many AI/AN children were not receiving adequate dental care and there was an underutilization of dental sealants on AI/AN children's primary molars.¹⁴⁶ While the state of Arizona has met its own 2020 benchmark of no more than 32% of children with untreated tooth decay and is on track towards the Healthy People's 2020 target (26%),¹⁴⁷ there remains a strong need for focused oral health efforts on primary prevention in tribal communities across the state.

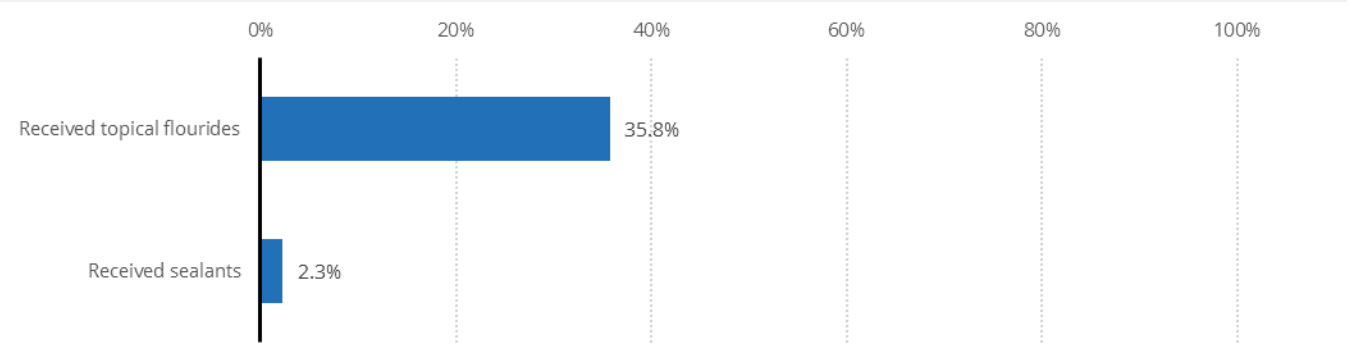
Data from the Indian Health Service indicates that a total of 536 unique children (35.8%) ages birth to 5 from the San Carlos Apache Nation received topical fluoride applications between October 2013 and September 2015 (Figure 29). Only 33 (2.3%) received sealant applications in that same period, which is lower than that found in the 2014 IHS Oral Health Surveys discussed above: only six percent of

American Indian/Alaska Native (AI/AN) children participating in the survey had at least one dental sealant on a primary molar tooth.

Children enrolled in Head Start receive access to dental screenings and preventative care. According to data from the 2014–2015 school year, all of the children enrolled in the San Carlos Apache Head Start program had continuous accessible dental care, and all children (100%) received preventative dental care. Of the children in Head Start, all enrolled children received professional dental exams, and one in three (33%) enrolled were found to need dental treatment (Table 58). All children needing dental care received dental treatment.

The San Carlos Apache Tribe Regional Partnership Council has funded an oral health strategy, which provides funding for an oral health education aide based in Bylas. The oral health education aide works out of the Community Health Representative office and does parenting education around oral health care. A search is ongoing for a dental hygienist to provide fluoride varnishes for children ages birth to 5. Bylas was chosen as the site for the oral health education aide because there is no dentist in that community. Key informants note that there is a particularly high need for dental services in the Bylas area compared to the rest of the community.

Figure 29. Children (Ages 0-5) Receiving Oral Health Care through IHS, November 2013 to October 2015



Source: Indian Health Service, Phoenix Area (2016) [IHS Dataset]. Unpublished data.

Table 58. Access to Dental Care for Children Enrolled in San Carlos Apache Head Start

	Children (ages 3-5) enrolled in Head Start	Children with continuous accessible dental care	Children receiving preventative dental care	Children with professional dental exam	Children needing dental treatment	Children receiving dental treatment
San Carlos Apache Region	240	100%	100%	100%	33%	33%

Source: Office of Head Start (2016). 2015 Program Information Report. Retrieved from <https://eclkc.ohs.acf.hhs.gov/hslc/data/pir>

Childhood Injury, Illness and Mortality

Specific data on childhood mortality were not available for the San Carlos Apache Region. At the state level, the Arizona Child Fatality Review (CFR) Program produces an annual report in order to identify ways to decrease or eliminate identified preventable deaths amongst children across the state. In the 2015 annual report, 768 deaths were reported in children under 18 years old in Arizona, 74 percent (566) of which were young children from birth to age five. More than one-third of these deaths (38%) occurred in the neonatal period (birth-27 days) and were due to natural causes (prematurity, neurological disorders, and other medical conditions). The infancy age group (28-365 days) saw 23 percent of these deaths, which were largely due to suffocation. About 13 percent of these deaths were amongst children 1-4 years old, an age group with high rates of fatalities due to drowning, motor vehicle accidents, and blunt force trauma.

Local CFR Teams conduct an annual report that reviews each death in the state and determines the preventability of each of these deaths. In 2015, 10 percent of perinatal deaths, 48 percent of infant deaths, and 57 percent of young child deaths in Arizona were deemed preventable.

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

The Indian Health Service Division of Environmental Health Services (DEHS) provides environmental health services to American Indian tribal governments and Indian Health Service programs across the United States. National priorities for the program include promotion of healthy homes, healthy environments for children, food safety, safe drinking water, and prevention of vector-borne and communicable disease through disease surveillance, hazard investigation, training, evaluation, and development of public health policy.¹⁴⁸ In the San Carlos Apache Region, IHS Environmental Health and Safety staff conduct health and safety inspections for all early care and education facilities, as well as some foster homes. Staff also provide trainings on hazards, pathogens, infection control, and injury prevention. Most of these trainings are for service providers, but staff also provide education and information at parent nights in the region.

Key informants identified several key challenges around childhood illness and injury prevention. Motor vehicle safety is a major concern in the region—many children are not properly restrained in car seats, and many adults do not wear seatbelts. The San Carlos Environmental Health Services program has car seats to distribute to parents in the region who need them, but key informants noted a lack of interest from parents in the community. There is little enforcement of seat belt or child car seat laws by local law enforcement. Key informants noted a need for changes in the attitude in the community regarding the importance of motor vehicle safety.

Other public health issues in the region include sudden unexpected infant deaths (SUID), air quality, and vector-borne diseases. Key informants from the community noted that 80 percent of sudden unexpected infant deaths in Gila County occurred among infants from the San Carlos Apache Nation.

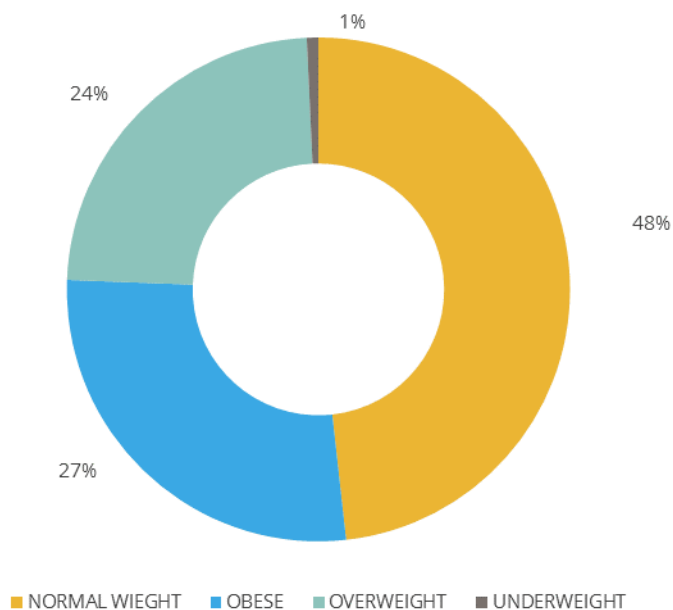
The Environmental Health Services program has 75 pack-and-plays to distribute to families in need, and staff are hoping to re-start the Ride Safe, Sleep Safe program, which promotes proper car seat use and safe sleeping practices. Nationwide, the rate of sudden unexpected infant deaths was much higher among American Indian and Alaska Native infants at a rate of 169.6 per 100,000 births in 2013 compared to 87.0 per 100,000 births for infants of all races and ethnicities. Key informants also identified air quality as an ongoing concern, as backyard burning of trash releases harmful particulates into the air, which may be a particular risk to children with asthma and other respiratory conditions. There is an ordinance in place that bans backyard burning, but key informants indicated that it is not often enforced.

The Environmental Health Services program also works to manage vector-borne diseases such as Rocky Mountain Spotted Fever, which is spread by ticks, and West Nile Virus and Zika, which are spread by mosquitos. One major public health success in the region has been the increasing of awareness and early treatment of Rocky Mountain Spotted Fever (RMSF). Children under the age of 5 are most commonly affected by RMSF, and 60 percent of cases identified between 2008 and 2013 were in children younger than age 19.¹⁴⁹ Key informants noted that in the past, failure to identify and treat RMSF in a timely fashion led to the death of several children, but due to an extensive public health campaign, as of June 2016 there have been no deaths due to RMSF since 2014. The San Carlos Apache Region continues to be an area at high risk for RMSF, but continued public health awareness and education campaigns, such as the RODEO campaign that aims to control the disease in homes and dogs through tick prevention, can ensure that the disease is prevented when possible and treated early when needed to prevent negative health outcomes. Key informants noted that the tight-knit nature of the community and strong partnerships between tribal agencies contributed to the success of the RMSF prevention campaigns.

Weight Status

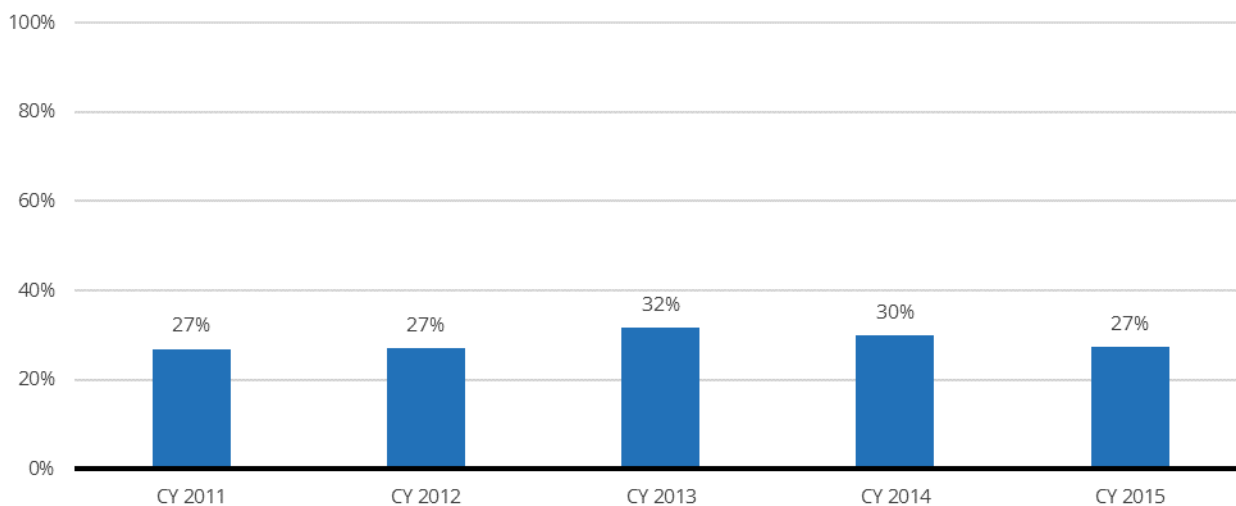
Healthy People 2020 has set a goal of no more than 9.4 percent of children having obesity. Data from the Indian Health Service for children from the San Carlos Apache Tribe indicate that 26.2 percent children (ages 2-5) were obese. Data on the weight status of children in the region were also available from the San Carlos Apache WIC program. In 2015, 27 percent of the children (ages 2 to 4) participating in the program were obese and an additional 24 percent were overweight (Figure 30). The obesity rate has remained relatively stable between 2011 and 2015 at 27 percent (Figure 31). Over a similar period of 2012 to 2015, statewide obesity rates for children ages 2 to 4 enrolled in WIC fell from 12.7 percent to 11.4 percent. Based on these data (whether the WIC or IHS rates), the region appears to not be meeting the Healthy People 2020 target for childhood obesity. One of the goals of the Western Apache Diet Program, described in the Food Security section earlier in the report, is to decrease rates of obesity through promotion of a healthy, traditionally-based diet.

Figure 30. Weight Status of Children (ages 2-4) in the San Carlos Apache WIC Program, 2015



Source: Inter-Tribal Council of Arizona (2016) [WIC Dataset]. Unpublished data.

Figure 31. Obesity Rates for Children (ages 2-4) in the San Carlos Apache WIC Program, 2011 to 2015



Source: Inter-Tribal Council of Arizona (2016) [WIC Dataset]. Unpublished data.



FAMILY SUPPORT AND LITERACY

Why Family Support and Literacy Matter

Parents, caregivers and families who provide positive and responsive relationships support optimal brain development during a child's first years^{150,151} and promote better social, physical, academic and economic outcomes later in that child's life.^{152,153} Parental and family involvement is positively linked to academic skills and literacy in preschool, kindergarten and elementary school.¹⁵⁴ Literacy promotion is so central to a child's development that the American Academy of Pediatrics has identified it as a key issue in primary pediatric care, aiming to make parents more aware of their important role in literacy.¹⁵⁵ Reading aloud, singing songs, practicing nursery rhymes, and engaging in conversation primes children to reach their full potential. In 2014, First Thing First conducted the Parent and Caregiver survey, a face-to-face survey of parents and caregivers in tribal regions. This survey was based on a subset of items from the 2012 First Things First phone-based Family and Community Survey that inquired about a parent or caregiver's knowledge of children's early development and their involvement in a variety of behaviors known to contribute positively to healthy development. Data on the amount and quality of the interaction parents and caregivers typically have with their children can be useful to inform programs and policies to encourage positive engagement.

Not all children are able to begin their lives in the most positive, stable environments. Adverse Childhood Experiences (ACEs)¹⁵⁶ have been linked to risky health behaviors (such as smoking, drug use and alcoholism), chronic health conditions (such as diabetes, depression, obesity), poorer life outcomes (such as lower educational achievement and increased lost work time), and early death.¹⁵⁷ Children in Arizona are more likely to have experienced two or more ACEs (31.1%) than children across the country (21.1%).¹⁵⁸

Children subject to maltreatment and neglect often suffer physical, psychological and behavioral consequences, and in fact are much more likely to have interactions with the criminal justice system in later life.¹⁵⁹ Special federal guidelines are currently in place to regulate how Native children and their families interact with the state's child welfare system. In 1978, Congress passed the Indian Child Welfare Act (ICWA). 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.¹⁶⁰

Behavioral health supports are often needed to address issues of domestic violence, maltreatment, abuse and neglect that children may face. Infant and toddler mental health is the young child's developing capacity to "experience, regulate and express emotions; form close interpersonal relationships; and explore the environment and learn."¹⁶¹ When young children experience stress and trauma, they have limited responses available to react to those experiences.

Children exposed to alcohol and drugs neonatally also face a number of challenges. Newborns exposed to alcohol or drugs in Arizona had higher incidences of low birthweight (23.2% compared to 7% for all births), higher incidences of respiratory symptoms, and higher incidences of feeding difficulties. The median total charges related to care were also double that of other hospital births.¹⁶²

Opiate use during pregnancy, both illegal and prescribed use, has been associated with neonatal abstinence syndrome (NAS), where infants born exposed to these substances exhibit withdrawal creating longer hospital stays, increased health care costs and increased complications for infants born with NAS.¹⁶³ Infants exposed to cannabis (marijuana) in utero often have a decrease in birth weight, and are more likely to be placed in neonatal intensive care, compared to infants whose mothers had not used the drug during pregnancy.¹⁶⁴ Research suggests that alcohol and drug exposure may be linked to behavioral issues and developmental delays as a child develops, creating a need for extra supports when a child enters school.¹⁶⁵

Substance abuse treatment and supports for parents and families grappling with these issues can help to ameliorate these short and long-term impacts on young children.

What the Data Tell Us

Family Involvement

The First Things First San Carlos Apache Region Parent and Caregiver Survey, conducted with parents in the spring of 2014, collected data illustrating parental involvement in a variety of activities known to contribute positively to healthy development. The survey included two items about home literacy activities. Figure 32 shows the distribution of responses to these two questions that asked parents about the frequency of reading and telling stories or singing to young children in the household. Twenty-one percent of the respondents reported that someone in the home read to their child six or seven days in the week prior to the survey. A slightly larger fraction (30%) reported that the child was not read to, or read to only once or twice during the week. In comparison, telling stories or singing songs was more frequent. In more than three-quarters of the homes (78%), children are hearing stories or songs three or more days per week. The average respondent reported reading stories 3.6 days per week, and singing songs or telling stories 4.1 days per week.

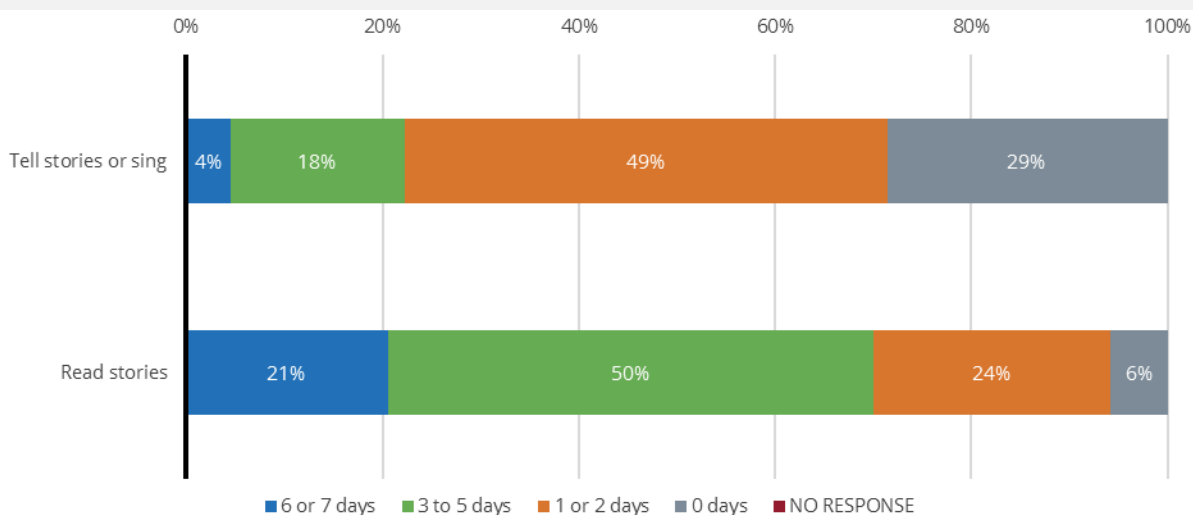
An increasing number of family events are being offered in the community such as parents' nights and mother-son, father-daughter dances at schools, but participation is often limited. Key informants noted that despite the challenges facing families, young children who are raised in the region are able to better understand the Apache culture, language and identity. Key informants emphasized the fact that this is a close-knit community where people know and care about each other.

Key informants interviewed for this report indicated that more awareness is needed among parents and caregivers regarding the importance of positive adult-child interactions, including positive discipline, daily structure and reading books. Key informants emphasized the need to increase parent involvement and to support early literacy in the region. One of the challenges key informants identified in this area is access to books. Rice Elementary, for instance, has instituted a policy where no books can be checked out to the children's homes, after most books were not being returned to the library. In addition, the librarian position is no longer available in the school. The school has been addressing this challenge with a switch to online books. Internet access at school is good, but home access may be more limited and families may also not be aware of the fact that they can access the online library at home. The school has also reached out to organizations like First Books to obtain donated books, but covering the cost of postage can be difficult for the school. Other opportunities to

increase access to books among children have also become inaccessible due to the lack of a librarian. Book fairs, for instance, can be a way for families to purchase books at lower prices, but they are typically organized by the librarian at school. To address this need, San Carlos Apache Regional Partnership Council funds a Parenting Outreach and Awareness strategy contracted to the Gila County Library District. This program aims at promoting early literacy development among young children in the region and increasing families' awareness of positive parenting; child development including health, nutrition, early learning and language acquisition; and, knowledge of available services and supports to support their child's overall development. Staff with the program deliver presentations to parents and caregivers throughout the community and participants can be enrolled in "The Dolly Parton Imagination Library" program and receive age-appropriate selected children's books by mail each month. According to the San Carlos Apache Region SFY17 Funding Plan, 75 workshops are expected to be delivered as part of this strategy in SFY17 with a total of 15,000 books distributed to families in the region.¹⁶⁶

An important initiative that aims at improving early literacy in the region is Read On. Read On San Carlos Apache Tribe became the first tribal Read On community in Arizona in 2015.¹⁶⁷ The program has received a lot of support and resources from Read On at the state level. A reading challenge has been organized by Read On to encourage families to read every day and record their activity on a reading log that can be turned in weekly. Participation is announced in the weekly Read On radio program.

Figure 32. Responses to "During the past week, how many days did you or other family members read stories to your child?" and "During the past week, how many days did you or other family members tell stories or sing songs to your child?"



Source: First Things First (2014). [2014 Parent and Caregiver Survey dataset]. Unpublished data.

Child Welfare

Child Welfare services in the San Carlos Apache Region are overseen by the San Carlos Apache Social Services Department. According to data provided by the Social Services Department, in 2015 there

were 66 children (0-17) removed from their homes by Tribal Child Protective Services, almost half of the children removed in 2014 (127). In 2015, a total of 159 cases of child abuse or neglect were substantiated, down from 208 in 2014 (Table 59). In 2015, there were 25 foster care homes available to care for children in out-of-home placement, an increase from the 18 homes available in 2013 according to the 2014 Regional Needs and Assets Report.¹⁶⁸ Twenty of those were on the reservation, while the remaining were located off-reservation boundaries. These homes provided a total of 30 foster care beds.

Figure 34 below shows the monthly average placement of children (0-17) who were wards of the San Carlos Apache Tribe in 2015. The majority of children were placed in foster homes licensed by the San Carlos Apache Social Services Department (30%), with relatives (24%) and in San Carlos Apache group homes (22%).

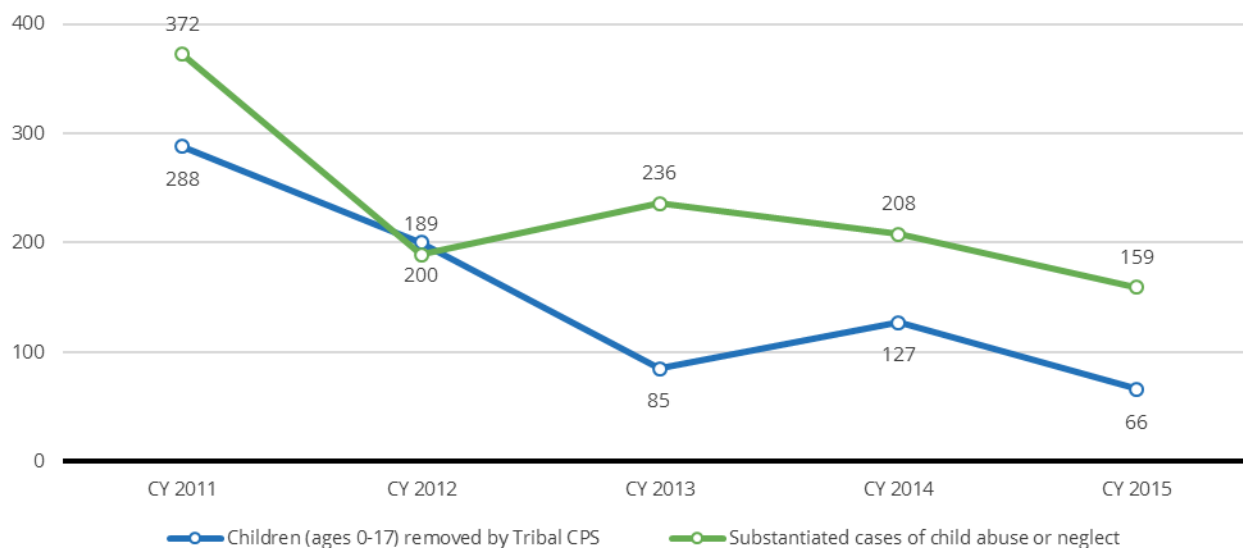
As mentioned above in the Behavioral Health section, key informants expressed concern about the negative impact of substance use on the wellbeing of young children in the region. They indicated that children are often separated from their parents due to parental substance use resulting in neglect or abuse. In addition, key informants pointed out that in-utero substance expose is likely being manifested as developmental delays or behavioral problems that are difficult to manage by the foster parents or relatives caring for children in out-of-home placement. Additional training and support to these parents, key informants stated, might facilitate placement of these children and their healthy development.

Table 59. Children removed by Tribal CPS and Child Abuse Cases

	2014	2015
Children (ages 0-17) removed by Tribal CPS	127	66
Substantiated cases of child abuse or neglect	208	159

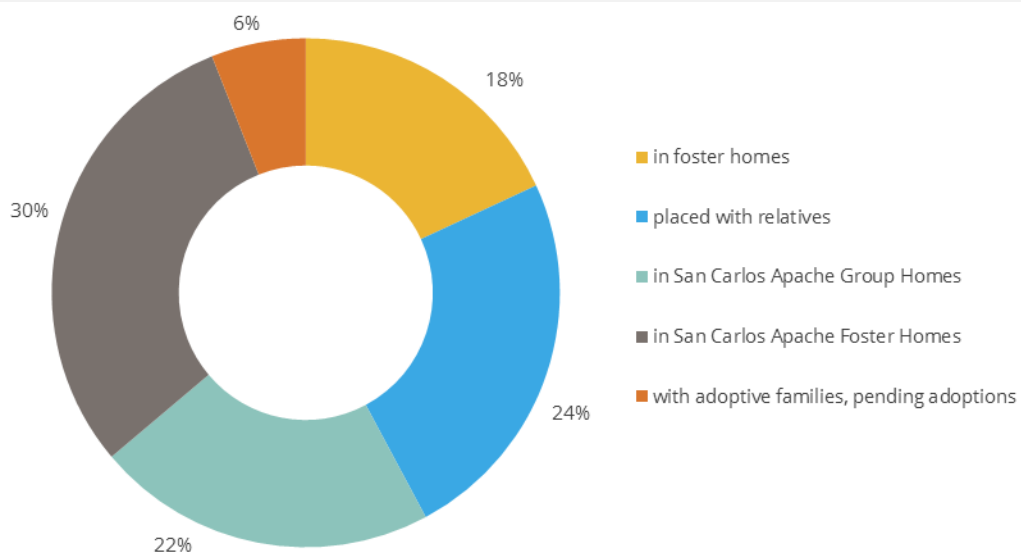
Source: San Carlos Apache Social Services Department (2016). [Child Welfare data]. Unpublished data.

Figure 33. Children removed by Tribal CPS and Child Abuse Cases, 2011 to 2015



Source: San Carlos Apache Social Services Department (2016). [Child Welfare data]. Unpublished data.

Figure 34. Placement of Wards (0-17), 2015 Monthly Averages

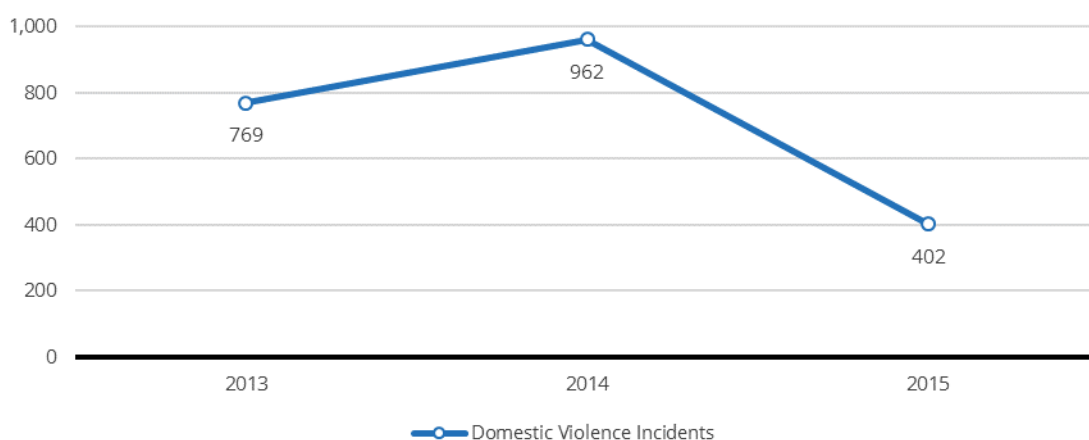


Source: San Carlos Apache Social Services Department (2016). [Child Welfare data]. Unpublished data.

Justice System Involvement

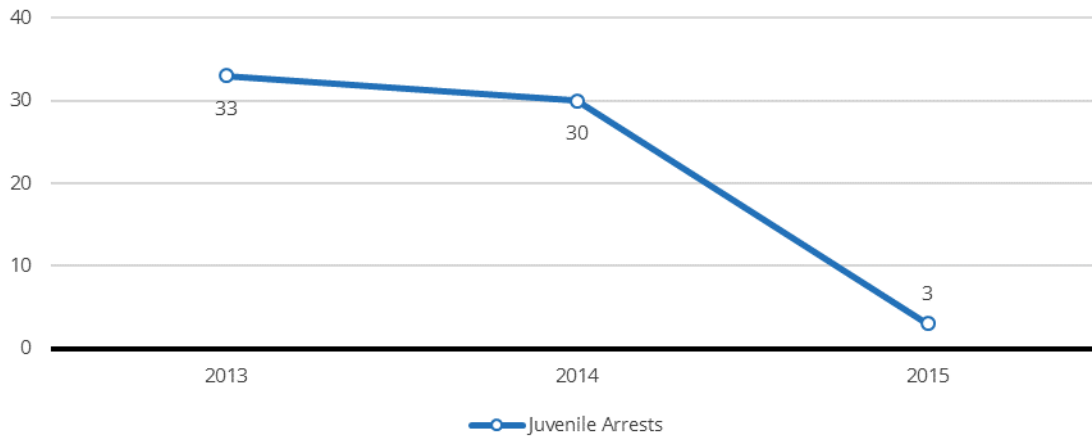
Data from the San Carlos Apache Police Department show a decrease in the number of domestic violence offenses and arrests between 2013 and 2015 (Figure 35). A similar trend was observed in the number of juvenile arrests in that same period (Figure 36). Key informants noted, however, that other sources of data such as the monthly reports submitted to the tribe's Law and Order Committee are likely to show larger numbers of both domestic violence incidents and juvenile arrests. Request and inclusion of those data should be considered for future Needs and Assets Reports in the region.

Figure 35 Domestic Violence Incidents, 2013 to 2015



Source: San Carlos Apache Tribe Police Department (2016). [Domestic Violence and Juvenile Arrest data]. Unpublished data.

Figure 36. Juvenile Arrests, 2013 to 2015



Source: San Carlos Apache Tribe Police Department (2016). [Domestic Violence and Juvenile Arrest data]. Unpublished data.

Behavioral Health

In Arizona, the Arizona Health Care Cost Containment System (Arizona's Medicaid program) contracts with community-based organizations, known as Regional Behavioral Health Authorities (RBHAs) and Tribal Regional Behavioral Health Authorities (TRBHAs), to administer publically-funded behavioral health services. Arizona is divided into separate geographical service areas (GSAs) served by various RBHAs or TRBHAs. The San Carlos Apache Wellness Center serves as the TRBHA for the San Carlos Apache Tribe. San Carlos Apache Wellness Center is a tribally-run outpatient mental health and substance abuse program with various satellite locations throughout the San Carlos Apache Indian Reservation. The Wellness Center offers prevention services aimed at youth including before and after school programs, as well as in-school mentoring and support for students in the San Carlos Junior High and intermediate schools. These programs promote healthy relationships and positive coping mechanisms, as well as suicide prevention. Outreach services at the Wellness center include community-wide events such as sports tournaments, Men's and Women's Wellness Retreats, "Water World" events for toddlers in the summer, and a "Back to School" block party.¹⁶⁹

No data on the services provided by the San Carlos Apache Wellness Center were available to be included in this report. Table 60, however, shows that each year from 2012 to 2015, fewer than 25 pregnant or parenting women received publically-funded behavioral health services through RBHA serving the reservation: Cenpatico Integrated Care. Similarly, fewer than 25 children ages 0 to 5 received behavioral health services from 2012 to 2015, with the exception of 2014, when no children received services Table 61.

Behavioral health services are also available for members of the San Carlos Apache Tribe through the Tribal Warm Line (TWL) operated by NurseWise, Cenpatico's crisis line provider. The TWL offers over-the-phone support to American Indian residents and is staffed by Tribal Support Partners (TSP), who are tribal members living and working in their own communities. TWL is funded by the Arizona Department of Health Services/Division of Behavioral Health Services and AHCCCS.

Substance use and abuse can contribute to or exacerbate behavioral health needs in families. Key informants noted that alcohol and drug use affects families in the region due to 1) the negative consequences of in-utero substance on the newborn's health as well as on the healthy development of young children; this includes a concern that women might not be breastfeeding their infants because they struggle with addiction; and 2) the challenges it presents to parenting, as parents struggling with addiction have a difficult time raising their children, which often results in grandparents raising their grandchildren.

Newborns exposed to alcohol or other noxious substances in utero may have long-lasting health care needs. Maternal substance use, particularly opioid use, can result in neonatal abstinence syndrome (NAS), where newborns display withdrawal symptoms. Statewide, the overall rate for NAS for the period 2008-2013 was 2.83 per 1,000 births, with a significant increase between 2008 (1.57 per 1,000 births) and 2013 (4.03 per 1,000 births).¹⁷⁰

No data were available on the specific rate of NAS diagnoses in the San Carlos Apache Region. However, the map on Figure 37 below shows the NAS rates by Primary Care Areas (PCA) in the state. PCAs are geographically based areas in Arizona where local residents seek primary health care.¹⁷¹ According to the data presented on Figure 37, in the San Carlos Apache PCA the total count of NAS diagnoses was fewer than six cases in the period of 2008-2013, a count that is too low to reliably estimate a rate. The map on Figure 38 shows that the rate of newborns exposed to all drugs (including narcotics, cocaine and alcohol) in the San Carlos Apache PCA falls in the 6.64-19.23 per 1,000 births category.

Key informants, however, expressed concern about the reliability of the data currently available to document the prevalence of NAS and in-utero substance-exposure in the region. They indicated that better data are needed in order to have a more accurate estimate of the extent of the problem.

In June of 2016, the San Carlos Apache Tribe Prevention program organized the 2016 Meth Awareness Summit, which provided education and awareness on the risks of methamphetamine use and on the harmful consequences of meth use by pregnant women. The Summit highlighted local resources available to community members as well as traditional practices such as talking circles. Information about the risks of using methamphetamine and other substances is also shared at other community events that take place as part of Child Abuse Prevention Month every April.

Table 60. Number of Pregnant or Parenting Women Receiving Behavioral Health Services, 2012 to 2015

	2012	2013	2014	2015	Change from 2012 to 2015
San Carlos Apache	<25	<25	<25	<25	DS
ARIZONA	19,134	17,731	13,657	14,546	-24%

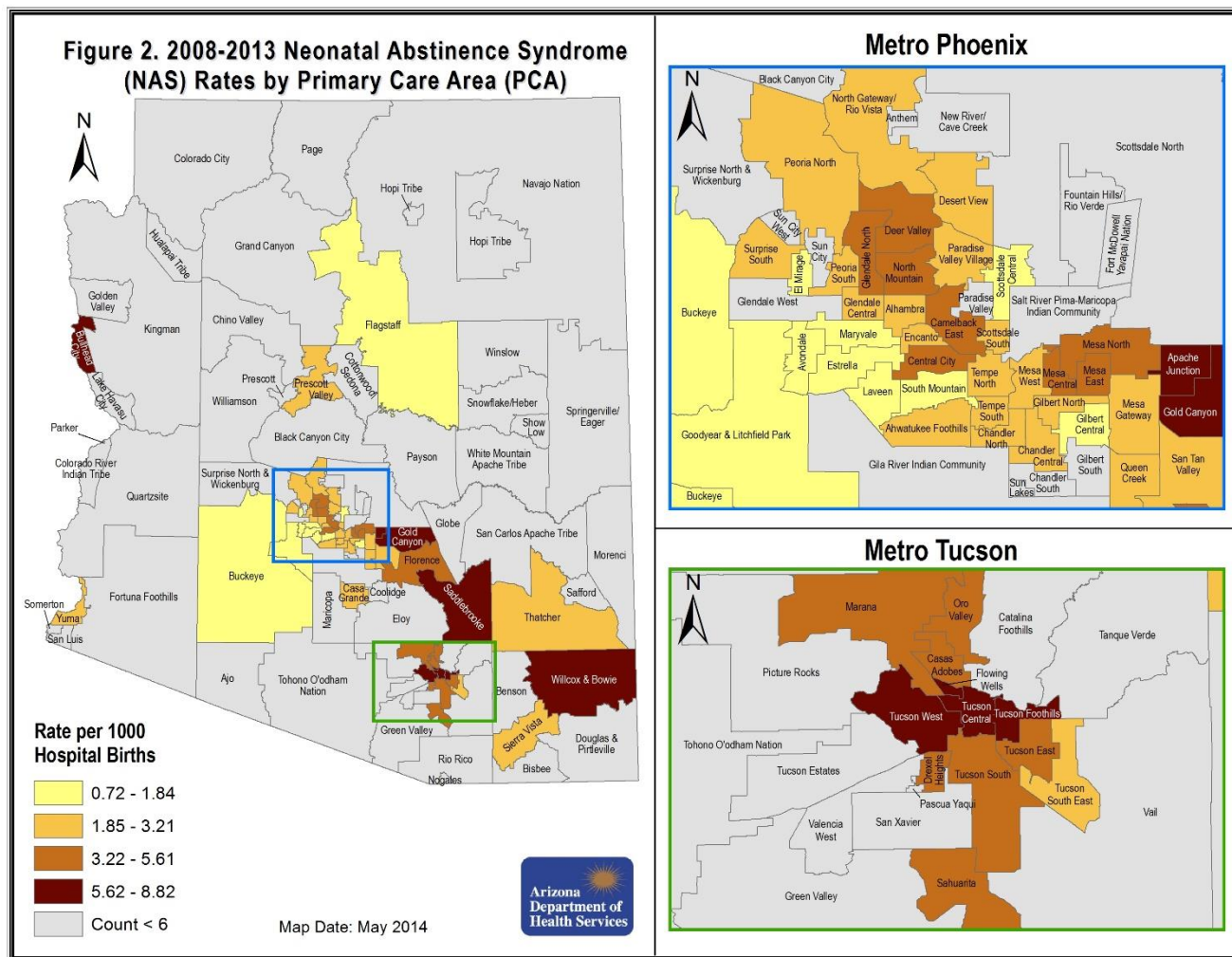
Source: Arizona Department of Health Services (2016). [Behavioral Health dataset]. Unpublished data.

Table 61. Number of Children (Ages 0 to 5) Receiving Behavioral Health Services, 2012 to 2015

	2012	2013	2014	2015	Change from 2012 to 2015
San Carlos Apache	<25	<25	0	<25	DS
ARIZONA	13,110	14,396	12,396	14,374	10%

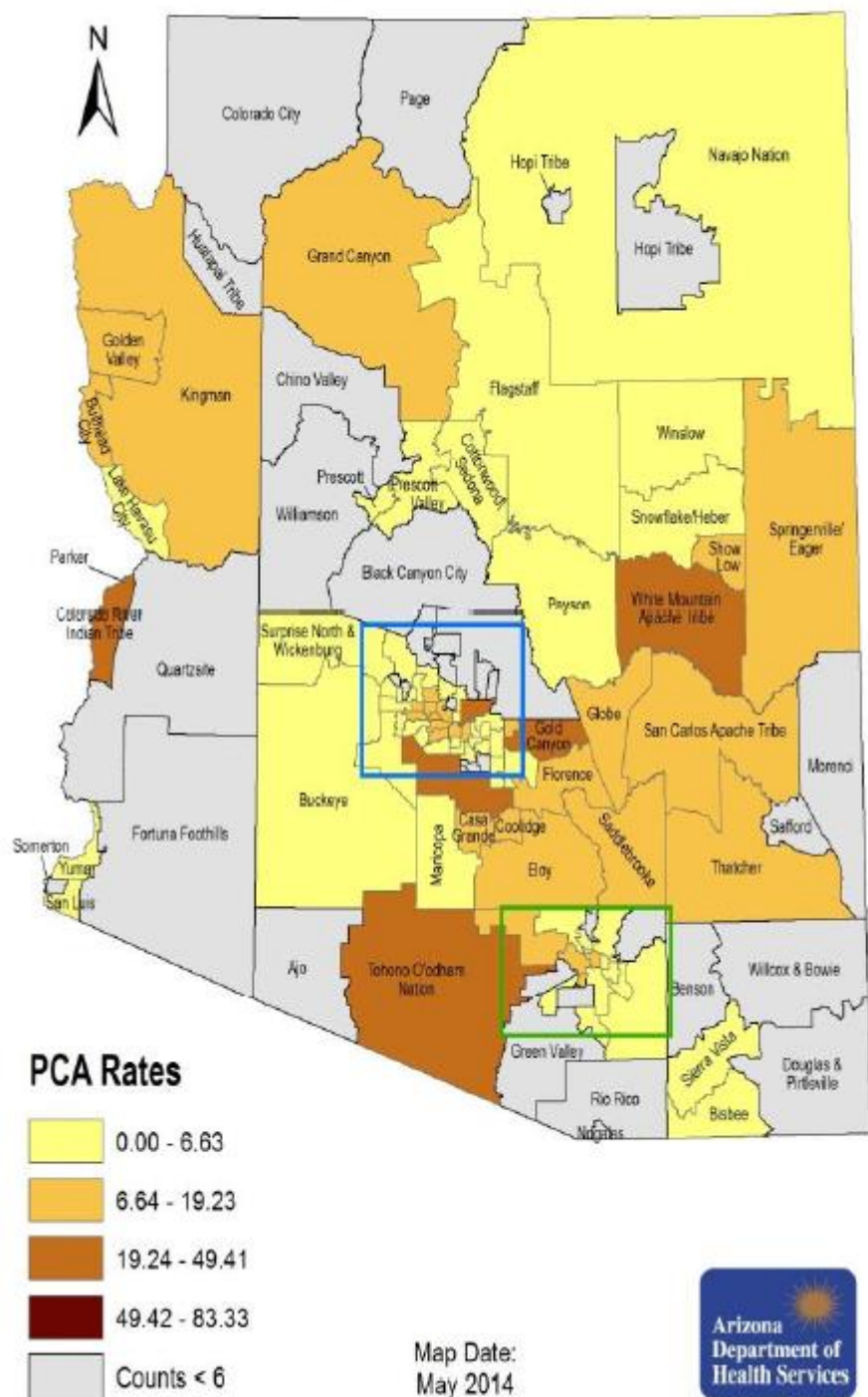
Source: Arizona Department of Health Services (2016). [Behavioral Health dataset]. Unpublished data.

Figure 37. Neonatal Abstinence Syndrome (NAS) by Primary Care Areas (PCA), 2008-2013



Source: Arizona Department of Health Services (2014). Neonatal Abstinence Syndrome: 2008-2013 Overview. Retrieved from <http://www.azdhs.gov/documents/preparedness/public-health-statistics/publications/neonatal-abstinence-syndrom-research.pdf>.

Figure 38. Arizona drug and alcohol exposed newborns by Primary Care Areas (PCA), 2008-2013



Source: Arizona Department of Health Services (2014). Neonatal Abstinence Syndrome: 2008-2013 Overview. Retrieved from <http://www.azdhs.gov/documents/preparedness/public-health-statistics/publications/neonatal-abstinence-syndrom-research.pdf>.



COMMUNICATION, PUBLIC INFORMATION, AND AWARENESS^{xv}

^{xv} This section of the report was prepared by the First Things First Communications Division.

Why Communication, Public Information, and Awareness Matter

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

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

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

What the Data Tell Us

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

Results of these statewide efforts from SFY2011 through SFY2016 include:

- More than 2,000 formal presentations to community groups which shared information about the importance of early childhood;
- Nearly 230 tours of early childhood programs to show community members and community leaders in-person how these programs impact young children and their families;

- Training of almost 8,700 individuals in using tested, impactful early childhood messaging and how to best share that message with others;
- The placement of more than 2,400 stories about early childhood in media outlets statewide;
- Increased digital engagement through online platforms for early childhood information, with particular success in the growth of First Things First Facebook Page Likes, which grew from just 3,000 in 2012 to 124,000 in 2016.
- Statewide paid media campaigns about the importance of early childhood from FY10 through FY15 included traditional advertising such as television, radio and billboards as well as digital marketing. These broad-based campaigns generated millions of media impressions over that time frame; for example in FY15 alone, the media campaign yielded over 40 million media impressions.

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

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

Table 62 First Things First Engagement of Early Childhood supporters, SFY2014 through SFY2016.

	Friends	Supporters	Champions
San Carlos Apache Region	232	18	10
Arizona	21,369	3,102	908

Source: First Things First Communications Division.

In addition to these strategic communications efforts, First Things First has also led a concerted effort of policymaker awareness-building throughout the state. This includes meetings with all members of

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

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

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



SYSTEM COORDINATION AMONG EARLY CHILDHOOD PROGRAMS AND SERVICES

Why System Coordination Matters

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

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

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

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

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

What the Data Tell Us

The San Carlos Apache Regional Partnership Council supports coordination efforts in the region through its San Carlos Apache Early Childhood Development and Health Collaborative. The

Collaborative brings together representatives from tribal, state and federal programs serving families in the region. Members meet every other month to exchange information about their programs, network and strengthen collaborative relationships among them.

Another important effort undergoing in the region is the Read On San Carlos Apache initiative, a collaborative literacy project facilitated by the San Carlos Apache Early Childhood Education Health and Development Collaborative and First Things First. According to the region's FY17 Funding Plan, the Read On San Carlos Apache provides is a coordinated approach for literacy opportunities and collaboration among the different organizations that provide literacy services in the region. Key informants emphasized that the Read On initiative has been critical in promoting a coordinated approach to early literacy in the region, working in close partnership with First Things First.

In the health area, coordination and communication among various programs providing health care services has greatly improved with the co-location of these programs in the campus of the new San Carlos Health Care Corporation hospital.

SUMMARY AND CONCLUSIONS

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

The data presented in this report, both quantitative and qualitative, show that the region has substantial strengths. The new tribally-operated San Carlos Health Corporation Izeé Baa Gowq̃h provides an expanded array of health care services at the new five-building campus that houses the hospital and various programs under the San Carlos Apache Department of Health and Human Services. Read On Apache was established in 2015, providing a systemic approach to the promotion of early literacy in the region.

A summary of identified regional assets has been included below.

Population Characteristics

- More young children live in a grandparent's household in the region than in all Arizona reservations combine. **Multigenerational families** may help support young parents and pass on cultural values.
- All schools in the region offer **Apache Language classes** for enrolled students, and two Apache language immersion classes are offered through San Carlos Apache Head Start.

Economic Circumstances

- The Traditional Western Apache Diet Project is a unique program in the region seeking to research and promote **adoption of healthy traditional diets and lifestyle** for Arizona Apache people.

Educational Indicators

- At San Carlos High School, **four out of five high school seniors graduated in four years** in 2014, exceeding the statewide four-year graduation rate (76%).

Early Learning

- **Early care and education programs in the region are provided at no or low cost to families** in the region based on financial need.
- Nearly all staff and teachers in early care and education programs have **formal credentials or degrees in early childhood education**.

Child Health

- **Expanded access to health care services** locally through the tribally-operated San Carlos Apache Health Care Corporation, including access to prenatal care
- **Immunization rates** for children enrolled in early care and education or kindergarten are high, and the region has met the Healthy People 2020 goal for kindergarten immunizations.

- A public health campaign to **prevent and raise awareness of Rocky Mountain Spotted Fever** has been highly successful. There have been no deaths due to Rocky Mountain Spotted Fever since 2014.

Family Support and Literacy

- Read On San Carlos Apache Tribe provides a **systematic approach to early literacy**.

However, there continue to be substantial challenges to fully serving the needs of young children throughout the region. Many of these have been recognized as ongoing issues by the San Carlos Apache Regional Partnership Council and are being addressed by current First Things First-supported strategies in the region. Some of these needs, and the strategies proposed to deal with them, are highlighted below:

- **Supporting families to meet their basic needs** – Although key informants noted an improvement in the financial stability of families in the region, many parents and caregivers still struggle to meet their children's most basic needs. The Nutrition/Obesity/Physical Activity strategy provides funding for the distribution of 1,000 food boxes in the region to support families in need.
- **Supporting parent involvement and early literacy** – Key informants pointed out that parents and caregivers in the region can benefit from increased awareness of the importance of engagement in their children's education and of early literacy. The Parenting Outreach and Awareness strategy promotes literacy among young children, their families and caregivers.
- **A concern about the limited number of families with young children who speak Apache** – Only ten families whose children are enrolled in the San Carlos Apache Head Start program reported speaking a Native language at home. The Native Language Preservation strategy provides center-based early childhood educators in the region with curriculum and class materials to teach the Apache language to children enrolled in early learning programs.
- **Early identification of developmental delays** – The Developmental and Sensory strategy supports the identification of developmental delays so children can receive early intervention to support their healthy development.

This report also highlighted some additional needs that could be considered as targets by stakeholders in the region:

Population Characteristics

- A higher percentage of children are living in **kinship care arrangements** in the region than in Arizona overall, and these kinship caregivers may need additional support. Many grandparents in the region have assumed responsibility for their grandchildren.
- Most families in the region do not primarily **speak Apache at home**, which makes language revitalization among the younger generation more difficult. There are a small number of fluent Apache speakers in the region

Economic Circumstances

- A lack of **transportation** in the region makes it difficult for families to access services or attend events in the community.
- The number of children receiving **Tribal TANF** in the region decreased between 2014 and 2015 despite rates of poverty and unemployment in the region remaining high.

Educational Indicators

- There are high rates of **chronic absences** in local schools, and a small percentage of students passed the AzMERIT assessments in English language arts and math.

Early Learning

- There is a very limited **amount of child care slots for infants and children younger than three** in the region.
- Due to changes in funding and program requirements, the **capacity of early education programs to enroll children ages 3-4** in the region has decreased in the last two years.

Child Health

- Many young children in the region lack **health insurance**.
- **Recruitment and retention of health care providers** and specialists is difficult in the region.
- Rates of mothers accessing **prenatal care** in the first trimester of pregnancy were low, and a high percentage of women had less than five prenatal care visits, suggesting that many women in the region are not getting sufficient prenatal care.
- More than one in ten children enrolled in WIC are exposed to **smoking in the household**.
- **Breastfeeding rates** have remained consistently low in the region.
- There is an ongoing need for **oral health care** for young children, particularly in the Bylas community.
- **Motor vehicle safety** is an ongoing issue in the community, as many children are not properly restrained in car seats.
- **Child obesity rates** in the region remain high, with more than half of children enrolled in WIC being diagnosed as overweight or obese.

Family Support and Literacy

- There is a need for more resources for **early literacy** in the community.
- Key informants in the region were concerned that **child welfare and police resources** may not be sufficient to meet the demand for their intervention in the region.
- There is a need to support **foster parents** and relatives of children with special needs.
- **Substance use** remains a major challenge in the region. Many key informants were concerned about high rates of infants exposed to noxious substances in utero and the effects of parental addiction on family structure and health.

Despite the challenges outlined in this report, the San Carlos Apache Region has substantial strengths to support parents and caregivers of young children. A continued coordinated approach to these challenges will ensure that children grow up healthy and ready for school.

APPENDICES

Table of Regional Strategies

San Carlos Apache Regional Partnership Council Planned Strategies for Fiscal Year 2017

Strategy	Strategy Description
Quality First	Quality First – a signature program of First Things First – partners with regulated early childhood providers to make quality improvements that research proves help children birth to 5 thrive, such as education for teachers to expand their expertise in working with young children. It also supports parents with information about what to look for in quality early childhood programs that goes beyond health and safety to include a nurturing environment that supports their child's learning. Quality First includes multiple components to support early care and education program quality improvement, including: valid and reliable program assessment, on-site technical assistance, and financial incentives. The Quality First Academy is included to support the assessors and technical assistance providers in their work with program staff.
Quality First Child Care Health Consultation	The intent of this evidence based strategy is to provide statewide health and safety consultation specific to early care and education settings for children birth to age 5. The expected results are improved overall quality of care, reduced illness, and increased school readiness by supporting best practices that increase provider knowledge and promote behavior change, policy development and improvements in program environments.
Family, Friends, & Neighbor Care	The intent of this evidence informed strategy is to provide professional development and financial resources to family, friend and neighbor caregivers. The expected result is an improvement in the quality of caregiving, teaching and learning for children in unregulated home based early care and education settings.
Nutrition, Physical Activity, and Obesity Prevention	The intent of this strategy is to provide evidence based community and place-based interactive health education to support children birth to age 5 in achieving and maintaining a healthy weight. Interactive health education will focus on healthy nutrition and physical activity and be provided to children, families, early child care and education professionals, and others in the community who care for young children. The expected result is reduction in risk factors for poor nutrition and insufficient physical activity, which in turn can reduce the prevalence of overweight and obesity during early childhood. A healthy weight during early childhood is highly predictive of achieving a healthy weight at all ages, as well as reduction in psychosocial and health consequences of overweight and obesity.
Developmental and Sensory Screening	The intent of this evidence based strategy is to support routine and appropriate screening of all young children. The expected result is early identification of a developmental, hearing or vision concern, and referral for further evaluation if necessary. This can be a stand-alone strategy or it is a secondary strategy associated with other First Things First (FTF) strategies.
Oral Health	The intent of this evidence-based strategy is to provide best practice approaches that enhance the oral health status of children birth through age 5. The expected results are prevention of tooth decay and reduction in the prevalence of early childhood tooth decay and the associated risks for pain and infections that can lead to lifelong complications to health and wellbeing. The approaches for this strategy include: oral health screening for children and expectant mothers with referrals to oral health providers for follow up care as needed; fluoride varnishes for children; oral health education for families and other caregivers; and, outreach to families, other caregivers including early learning and care providers, and oral health and medical professionals.
Native Language Preservation	The intent of this promising practice strategy is to provide opportunities for Native American children to learn and understand their own culture, language, and connection to the tribal community. The expected results are an increase in the number of children and families in tribal communities who can speak their native language and an improvement in early language and emergent literacy outcomes for Native American children.
Parenting Outreach and Awareness	The intent of this promising practice strategy is to increase families' awareness of positive parenting; child development including health, nutrition, early learning and language acquisition; and, knowledge of available services and supports to support their child's overall development. The expected result is an increase in knowledge and a change in specific behaviors addressed through the information and activities provided.

San Carlos Apache Regional Partnership Council Planned Strategies for Fiscal Year 2017

Strategy	Strategy Description
FTF Professional REWARD\$	The intent of this promising practice strategy is to provide financial incentives to early care and education teachers for children birth to age 5, and is dependent on the teacher's educational attainment, continued educational progress and commitment to continuous employment. The expected result is improved retention rates of highly qualified teachers, an improvement in the educational level of the professional workforce and continuity of care for young children enrolled in early care and education programs.
Registry and College Scholarships	The intent of this evidence informed Professional Development strategy is to provide access to higher education for the early childhood workforce working directly with or on behalf of young children birth to age five. The expected results of supporting continuing education and degree completion is elevating and professionalizing the field, recruiting and retaining a quality early childhood workforce and supporting and increasing the quality of services provided to young children.

Methods and Data Sources

The data contained in this report come from a variety of sources. Some data were provided to First Things First by state agencies, such as the Arizona Department of Economic Security (DES), the Arizona Department of Education (ADE), and the Arizona Department of Health Services (ADHS). Other data were obtained from publically available sources, including the 2010 U.S. Census, the American Community Survey (ACS), the Arizona Department of Administration (ADOA), and the Arizona Health Care Cost Containment System (AHCCCS). Data were also provided to First Things First by the Indian Health Service. Tribal data were obtained from various departments at the San Carlos Apache Tribe. Qualitative data were also gathered through key informant interviews with services providers in the region and through group discussions with community leaders. In addition, regional data from the 2014 First Things First Parent and Caregiver Survey were included. Methodology for this survey is included below.

U.S. Census and American Community Survey Data

The U.S. Census¹⁷² is an enumeration of the population of the United States. It is conducted every ten years, and includes information about housing, race, and ethnicity. Census data presented in the report is drawn from the Census Geography for the San Carlos Reservation.

The American Community Survey¹⁷³ 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. 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 2010 to 2014. In general, the reliability of ACS estimates is greater for more populated areas. Statewide estimates, for example, are more reliable than county-level or 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.”¹⁷⁴ According to the State of Indian Country Arizona report¹⁷⁵ 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 it 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 publically-available data that can help begin to describe the families that First Things First serve. Considering the important planning, funding and policy decisions that are made in tribal communities based on these data, however, the

State of Indian Country report recommend a concerted tribal-federal government effort to develop the tribes' capacity to gather relevant information on their populations. This information could be based on the numerous records that tribes currently keep on the services provided to their members (records that various systems must report to the federal agencies providing funding but that are not currently organized in a systematic way) and on data kept by tribal enrollment offices.

A current initiative that aims at addressing some of these challenges has been started by the American Indian Policy Institute, the Center for Population Dynamics and the American Indian Studies Department at Arizona State University. The Tribal Indicators Project¹⁷⁶ begun at the request of tribal leaders interested in the development of tools that can help them gather and utilize meaningful and accurate data for governmental decision-making. An important part of this effort is the analysis of Census and ACS data in collaboration with tribal stakeholders. We hope that in the future these more reliable and tribally-relevant data will become available for use in these community assessments. Another important initiative currently undergoing to help improve the collection, use and interpretation of data related to tribal communities is the U.S. Indigenous Data Sovereignty Network (USIDSN) hosted by the Native Nations Institute at the University of Arizona. According to its website "USIDSN's primary function is to provide research information and policy advocacy to safeguard the rights and promote the interests of Indigenous nations and peoples in relation to data."¹⁷⁷

Data Suppression

To protect the confidentiality of program participants, the First Things First Data Dissemination and Suppression Guidelines preclude reporting social service and early education programming data if the count is less than ten, and preclude our reporting data related to health or developmental delay if the count is less than twenty-five. In addition, some data received from state agencies may be suppressed according to their own guidelines. The ADHS, for example, does not report non-zero counts less than six, and DES does not report non-zero counts less than 10. Throughout this report, information which is not available because of suppression guidelines will be indicated by entries of "<10" or "<25" for counts or "DS" for percentages in the data tables.

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

Reporting Data over Time

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

$$\% \text{ Change} = \frac{(\# \text{ in Year 2} - \# \text{ in Year 1})}{\# \text{ in Year 1}}$$

School Data

A number of educational indicators were included in this report based on data received from ADE at the school level. These data were then aggregated by region (e.g., the sum of all students in special education preschool in the region) as well as by the county and state. Data are also presented at the school level for schools with a presence in the region.

Indian Health Services Data

The Indian Health Service (IHS) provided data to be included in this report through a special request submitted by First Things First. These data cover fiscal years 2013 and 2014 (October 2013 to September 2015) and represent those patients seen during this time frame who were identified as members of the San Carlos Apache Tribe by IHS and received services in the IHS San Carlos Service Unit regardless of their place of residence. This means that, at the time of receiving services, patients represented in this dataset may or may not have lived within the reservation boundaries. It is important to note that the methodology that IHS used to compile data for this report differs from that used during the 2014 cycle of the 2014 San Carlos Apache Regional Needs and Assets Report. In 2014, the data provided by IHS were based on the patient's place of residence and not on where the services were provided. The 2014 Needs and Assets Report includes information about the specific communities that were included in the data extraction process. These were communities that lied fully or mostly within the reservation boundaries. Because the IHS data included in the 2014 and 2018 reports represent different populations, they should not be compared or used to determine trends overtime.

2018 Report Process

For the 2018 Needs & Assets Report cycle, Regional Partnership Councils were asked to identify areas of particular focus, or priority areas. These priorities were developed during the spring of 2016, and potential data sources to address these priorities were identified collaboratively among the Council, The Regional Director, FTF Research and Evaluation staff, and CRED staff. For the current report, the San Carlos Apache Tribe Regional Partnership Council selected estimates of children not participating in center-based early learning opportunities, Apache language preservation efforts in early learning centers, and operations of the San Carlos Apache Health Care Corporation as the regional priorities.

In March of 2017, a participatory Data Interpretation Session was held to review preliminary results of the data received, compiled and analyzed as of February of 2017. Members of the San Carlos Apache Education Committee were involved in a facilitated discussion to allow them to share their local knowledge and perspective in interpreting the available data. Feedback from participating session members are included within the report, as appropriate.

2014 Parent and Caregiver Survey Methodology

First Things First collects data from parents and caregivers of children birth to 5 through its Family and Community Survey, a statewide survey that has been conducted by phone every two years since 2008. The Family and Community Survey was designed to measure many critical areas of parent knowledge, skills, and behaviors related to their young children. The survey contained over sixty questions, some

of which were drawn from the national survey, *What Grown-Ups Understand About Child Development*.¹⁷⁸ Survey items explored multiple facets of parenting.

After receiving feedback about phone-based surveys not being the most appropriate method of collecting data in tribal communities, First Things First allocated additional resources to gather data from a subset of survey items in a face-to-face manner as part of the Needs and Assets data collection effort. This report refers to this subset of items as the Parent and Caregiver Survey.

A total of nine core items from the Family and Community Survey were included in the Parent and Caregiver Survey. The Norton School team obtained input from First Things First Regional Partnership Council members and other stakeholders in tribal communities regarding the wording of the items, its cultural appropriateness and its reading level to make sure the items would be well received by parents and caregivers in tribal communities. The wording of the items was subsequently modified in a way that could still be comparable to the original Family and Community Survey but that could also be more accessible to survey participants.

Eligibility for participation was based on parents or caregivers having a child under the age of six living in their household, even if they were not the main caregiver. A total of 224 surveys with parents and caregivers were conducted in the San Carlos Apache Region in the spring of 2014.

Results from a selected set of individual items are presented in the Family Support section of this report. Please note that this report refers to the face-to-face survey as the Parent and Caregiver Survey in order to distinguish it from the statewide Family and Community Survey.

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