

FIRST THINGS FIRST

Navajo/Apache Region



2018 NEEDS AND ASSETS REPORT

**NAVAJO/APACHE
REGIONAL PARTNERSHIP COUNCIL
2018
NEEDS AND ASSETS REPORT**

Prepared by
Harder and Company Community Research

Funded by
First Things First Navajo/Apache Regional Partnership Council

Letter from the Chair

Navajo/Apache Regional Partnership Council

January 25, 2018

Message from the Chair:

Since the inception of First Things First, the Navajo/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 Navajo/Apache Regional Council would like to thank our Needs and Assets vendor, Harder and Co., for their knowledge, expertise and analysis of the Navajo/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 Navajo/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,

Byron Lewis, Chair



4700 White Mountain Blvd, Suite B
Lakeside, Arizona 85929
Phone: 928-532-5041
Fax: 928-532-5053

Byron Lewis, Chair

Carrie Classay, Vice Chair

Rachel Armstrong

Kimberly Avery

Rebecca Benda-Dodd

Claude Endfield

Doug Harris

Kalman Mannis

Leslie Meyer

Victoria Schmitt

Vacant

Report Prepared by:
Harder & Co. Community Research
3965 5th Avenue Suite 420
San Diego, CA 92103

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

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

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

Acknowledgments:

We want to thank the Arizona Department of Economic Security and the Arizona Child Care Resource and Referral, the Arizona Department of Health Services, the Arizona Department of Education, the Census Bureau, the Arizona Department of Administration- Employment and Population Statistics, and the Arizona Health Care Cost Containment System for their contributions of data for this report, and their ongoing support and partnership with First Things First on behalf of young children. We also want to thank our local partners who shared data for this report: Summit Healthcare Regional Medical Center, North Country HealthCare, the Overgaard Ponderosa Lions Foundation, Navajo and Apache County Public Health Districts, local elementary schools, and the many parents who completed our Parent and Community Survey. This report would not be possible without their partnership and support of the Navajo/Apache Regional Partnership Council.

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

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Executive Summary

First Things First (FTF) is the only state agency in Arizona dedicated exclusively to investing in and enhancing the early childhood system. FTF works through regional partnership councils that partner with local communities to create a family-centered, comprehensive, collaborative, and high-quality early childhood system that supports the development, health, and early education of all Arizona children, from birth through age five.

Every two years, each regional partnership council develops a report detailing the needs and assets of the region's youngest children and their families. The intent of the report is to inform the council and the local community about the overall status of children zero to five years of age in the region, in order to support data-driven decision making around future funding and programming. Data for this report were gathered from federal and local data sources, as well as provided directly to FTF by state agencies.

Overview of the FTF Navajo/Apache Region

The FTF Navajo/Apache Region occupies the southern portion of Navajo and Apache counties, which are located in the eastern portion of Arizona. The surrounding counties in Arizona are Coconino, Gila, Graham, and Greenlee, and the state of New Mexico to the east. The largest city in the region is Show Low with just more than 10,000 people. Other cities in the region are Winslow, Snowflake, Holbrook, and St. Johns. The population density of Navajo County is 11 people per square mile and of Apache County is 6 people per square mile, which is much lower than the 57 people per square mile of Arizona as a whole. The Navajo Nation is located to the north of the FTF Navajo/Apache Region and the White Mountain Apache Tribe is located to the south of the FTF Navajo/Apache Region.

The FTF Navajo/Apache Regional Partnership Council (Council) makes strategic investments to support the healthy development and learning of the young children in the FTF Navajo/Apache Region. The Council's priorities include:

- Childcare status;
- Safe outdoor areas where babies and toddlers can play;
- Births at Summit Healthcare that continue to receive healthcare from HealthySteps program;
- Vision screenings;
- Oral Health data; and
- Breastfeeding rates and duration.

The following section provides a summary of the key findings for each of the eight domains of the 2018 Regional Needs and Assets report, highlighting the major data findings, the needs and assets they uncover for the FTF Navajo/Apache region, potential considerations, and opportunities for further exploration.

Key Findings

Population Characteristics

The FTF Navajo/Apache Region has a total population of 73,083 residents and 6,166 children under the age of six. The total number of births in both Navajo and Apache counties has decreased in recent years, and the population of zero to five year olds is also projected to decrease slightly over the next several decades. Eighty percent of the adult population identifies as White, compared to 63% in the state, and 86% identify English as their primary language, compared to 73% in the state. However, almost one-quarter of the zero to four population (23%) and 14% of mothers identify as Hispanic or Latino, indicating that the demographics of the region may change in future years and more linguistically and culturally responsive services may be needed as the Hispanic/Latino population continues to grow. The majority of Parent Survey respondents were female (88%) and Caucasian (62%) similar to 2011 and 2013 Parent Survey data. The racial/ethnic breakdown of Parent Survey respondents is similar to the breakdown of mothers' race/ethnicity in the FTF Navajo/Apache Region.

The majority of households with children under six are married-couple households, with about 20% of households led by single females, which is lower than the state (24%) and 10% led by single males, which is similar to the state. Additionally, about 13% of children in the region live in the same household as a grandparent. Of those children, about 65% are primarily cared for by a grandparent, which is higher than the state (53%). The high percentage of children growing up in dual parent households is an asset for the region, as is the experience of children living in multigenerational households, since this means the children likely have more permanent connections with adult role models. The majority of Parent Survey respondents had children who lived with two parents in the home (60%) followed by children who live only with their mother (16%).

Nearly 30% of children are living in single family households which in some cases can indicate a more stressful home environment and less time spent with their parents if they are the sole breadwinners for their family.

Population Characteristic Considerations:

- Continue to tailor outreach and programs to support families and children zero to five in the FTF Navajo/Apache Region.
- Recognize that all families have strengths and needs, and that community supports need to be varied and available across a wide array of environments.
- Continue tracking population characteristics in order to be responsive to the needs of the community.

Economic Circumstances

The average unemployment rates for the state, Navajo County, and Apache County have decreased since 2010. In addition, the number of people in the labor force and the number of people employed has decreased slightly in both Navajo and Apache counties over the past six years. In total, 92% of parents with children under six are employed or their household partner is employed. The median income of all families in Navajo County is \$42,988, \$16,100 less than the median statewide income of \$59,088. Apache County has an even lower median income for all families with children 0-17 at \$38,158. With the self-sufficiency standard for an adult with a young child being around \$33,000, single females raising children on their own in the region are likely struggling and have need for support to help their child's growth and development.

About 33% of children in the FTF Navajo/Apache Region live under the poverty level, which is slightly higher than the

state (29%). The Sanders Unified, Concho Elementary, Joseph City Unified, St. Johns Unified, and Vernon Elementary School Districts each have more than 30% of children 5 to 17 living in families in poverty. The ethnicities with the highest population below the poverty level in Navajo County are the American Indian or Alaskan Natives, Native Hawaiian or Other Pacific Islanders, Hispanic or Latinos, and those who identify as Two or More Races. In Apache County, Native Hawaiian or Other Pacific Islanders, American Indian or Alaskan Natives, and Asians have the highest percentage of the population below poverty level. These data on poverty by school districts and ethnicities may help identify geographic areas and populations to target for further intervention or support around increasing financial resources. Similarly, the school districts and populations with lower poverty rates may be able to identify strategies or assets within their areas that can be applied to others. Parent Survey respondents had a wide range of household incomes. However, 48.3% of families had a household income of less than \$25,000.

Nearly one-third of residents in the FTF Navajo/Apache Region (29%) do not have affordable housing though both Navajo and Apache counties have a lower foreclosure rate than the state (Navajo: 1 in every 2,625, Apache: 1 in every 3,123 versus Arizona: 1 in every 1,721). Additionally, 23% of the overall population in Navajo County and 26% of the overall population in Apache County are food insecure. These rates are even higher for children under 18, where 37% in Navajo County and 42% in Apache County are food insecure, meaning they have limited or uncertain access to adequate food. This may be partly due to the 33% of residents in Navajo County and 65% of residents in Apache County with low access to grocery stores and SNAP-authorized stores. More than half of Parent Survey respondents indicate that they received some form of public assistance, with the majority receiving Food Stamps (48%) or Women, Infants and Children (WIC; 36%).

Though local programs providing fresh and healthy food options exist in the region, more outreach and information is needed to inform families of the resources available, especially in Apache County. Unstable housing and limited access to nutritional food can have detrimental effects on children's health and learning and is an area in need of support for the FTF Navajo/Apache Region.

Economic Circumstances Considerations:

- Support local Department of Economic Security (DES) and WIC office's efforts to increase community awareness of nutrition programs available to young children and their families.
- Promote supports or resources that can help subsidize child care and housing costs for single parents with young children.
- Support young children and their families by connecting them to existing food box distribution programs and locations, nutrition education, and other resources.
- Promote and encourage expansion of Child and Adult Care Food Program (CACFP) programs.

Educational Indicators

Participation in early learning experiences are likely to result in higher academic performance in future years. Half of children ages three to four (50%) are enrolled in nursery school, preschool, or kindergarten in the FTF Navajo/Apache Region.¹ Compared to Navajo County and Apache County individually, a higher percentage of third grade students scored proficient or highly proficient on the AzMERIT English Language Arts and Math assessments in the FTF Navajo/Apache Region (37% and 44%, respectively). Though the AzMERIT test is a new assessment and comparative

¹ The ACS asks "At any time IN THE LAST 3 MONTHS, has this person attended school or college? Include only nursery or preschool, kindergarten, elementary school, home school, and schooling which leads to a high school diploma or a college degree." <https://www2.census.gov/programs-surveys/acs/methodology/questionnaires/2016/quest16.pdf>

results are not available, the indication that less than half of the state and region's third graders are proficient in math and English are concerning and suggest the need for further intervention in this area.

The percentage of first, second, and third graders missing ten or more days of school slightly increased from 2014 to 2015 in both the FTF Navajo/Apache Region and the state, though it decreased as grade level increased. In the FTF Navajo/Apache Region, attendance is better across all years and grades as compared to the state. The FTF Navajo/Apache Region's high school graduation rate has remained relatively constant since 2011 and the high school dropout rate has remained just under 4% since 2012. When looking at each county individually, Apache County has seen a decrease in the graduation rate since 2011, while Navajo County has seen an increase. The majority of adults 25 and older in the region have completed high school/received a GED or pursued further education past high school (87%). A slightly lower percentage of mothers in the region (83%) have at least completed high school or their GED, 3% more than at the state level. In general, residents in the FTF Navajo/Apache Region have completed high school or more, indicating the potential understanding of the value and importance of education that will hopefully be incorporated into their parenting.

Educational Indicators Considerations:

- Promote the benefits of completing a high school education.
- Support local school districts in efforts to increase parent knowledge and understanding of the importance of school attendance, starting in preschool and Kindergarten; possible approaches might include peer mentors, parenting classes, or school-based campaigns.
- Increase awareness of early education programs to support learning and school readiness from an early age.

Early Learning

Only 50% of preschool-aged children in the FTF Navajo/Apache Region are enrolled in nursery school, preschool, or kindergarten programs. A total of 46% of Parent Survey respondents indicated that they have regular childcare for their child for 10 hours or more per week, which is an increase from the 2013 Parent Survey data (28%). Early childhood professionals in the state are not well compensated, most earning minimum wage, and almost half leave the profession within five years.

Head Start and Early Head Start programs are assets in the region as children attending these programs tend to score higher in cognitive and social-emotional development than those who do not. As of 2016, the Northern Arizona Council of Governments (NACOG), a public organization that serves local governments and citizens in the region, was the sole federal grantee for Head Start and Early Head Start for four Northern Arizona counties including: Apache, Coconino, Navajo, and Yavapai. In the FTF Navajo/Apache Region, NACOG operates both center-based Head Starts and home-based Early Head Starts. Head Start programs are available in Holbrook, Snowflake, Show Low, Pinetop, Springerville, and St. Johns. Data presented are aggregated for these four counties.

About 2,073 children in the four northern Arizona counties are enrolled in Head Start or Early Head Start. Overall, fewer children were eligible for child care subsidies in the FTF Navajo/Apache Region in 2015 compared to 2013. However, nearly 90% of children who were eligible received subsidies in 2014. Only 9% of Parent Survey respondents indicated that they received child care subsidies. Additionally, 77 children in the FTF Navajo/Apache Region are enrolled in Quality First centers or homes rated three stars.

The number of children receiving AzEIP referrals has decreased while the number of children who received AzEIP

services has increased in the FTF Navajo/Apache Region. Additionally, the percentage of children who participate in special education while in preschool but transition out before entering kindergarten has been decreasing for the region and for the state (5.8% versus 11.6% in 2014). The most common types of disabilities for preschool children were developmental delays and speech and language impairments.

Early Learning Considerations:

- Continue to promote Quality First and Community Based Professional Development opportunities in the region to increase the opportunities for children to receive quality early care and education experiences.
- Explore opportunities to encourage quality early childhood professionals to retain, and build, their skills in the early childhood field and reduce staff turnover. Monitor the impact of the minimum wage increase in AZ and how this will affect the early childhood workforce.
- Promote the importance of subsidies in providing low income children access to early care and education.
- Support early identification of children who exhibit developmental delays to ensure that children receive needed intervention and supports, and are ready to enter kindergarten.

Child Health

Both Navajo County and Apache County have a higher ratio of population to primary healthcare providers than the state average, although the majority of residents have health insurance (83%). However, this ratio varies in different areas across Navajo County and Apache County. The ratio of population to primary healthcare providers is more than double in Apache County and additional areas, such as Snowflake-Heber and Springerville-Eager, compared to the state and to Navajo County. Additionally, on the Parent Survey, 89% of respondents indicated that their child was able to receive the medical care he/she needed, which is a decrease from 2011 and 2013.

Additionally, only 22% of parents believe they impact their child's brain during the prenatal period, indicating a lack of knowledge around prenatal care's impact on a child's growth and development. Another risk indicator, the percentage of adults with obesity and diabetes, has increased or stayed relatively the same in both Navajo and Apache Counties since 2010. The percentage of mothers overweight and obese pre-pregnancy has been increasing since 2012 in both counties.

Despite the lower rate of early prenatal care and higher rate of obesity amongst mothers, the percentage of infants born with abnormal conditions remained steady or declined. Additionally, in 2013, 90% of mothers reported not drinking or smoking during pregnancy, indicating an understanding that substance use is not recommended during pregnancy. However, the percentage of births with medical risks was on the rise until 2014 when the definition was changed. The percentage of newborns who were admitted to the Intensive Care Unit increased between 2013 and 2014.

Families in the FTF Navajo/Apache Region have mostly been successful in implementing the healthy preventive practices of breastfeeding and vaccinating their children. The percentage of mothers participating in WIC who breastfeed their infant at least once a day has increased to 71% in 2015, although this percentage is 14% less than the state. The breastfeeding rate for Health Start Clients in Apache County and WIC clients in Navajo County at 6 months are both less than 50%. Additionally, 3% of preschoolers and 8% of kindergartners are exempt from immunizations. Eighty-seven percent of Parent Survey respondents indicated that their child had received all of his/her vaccines. At a subregional level, Snowflake had the lowest percentage of Parent Survey respondents

indicating that their child is vaccinated. Concho/St. Johns also had nearly 20% of respondents indicate that their child was not vaccinated, although there was a large decrease from the 2013 Parent Survey (see Exhibit 5.24).

Although 69% of parents who responded to the *Healthy Smiles Healthy Bodies* survey in the FTF Navajo/Apache Region report regularly taking their children to dental visits, 87% of children who participated in the *Healthy Smiles Healthy Bodies* survey in the region have had tooth decay and more than half (58%) have had untreated decay. Twenty-two percent of Parent Survey respondents indicated that their child had never seen a dentist or that their child was too young to see a dentist (15%). Additionally, 22% of parents in the state have Arizona Health Care Cost Containment System (AHCCCS) insurance but are not aware that dental insurance is included. This indicates a need for increased oral health education and services in the FTF Navajo/Apache Region.

Child Health Considerations:

- Promote healthy preventive behaviors like receiving immunizations.
- Provide education and support for breastfeeding initiation with a focus on continuing until the infant is at least 6 months of age, and ideally until 12 months of age.
- Provide outreach and education regarding prenatal care and child development, especially targeting first-time and teen mothers.
- Promote good oral health through other FTF programs, such as home visitation, and consider partnering with pediatricians to encourage oral health practices during well-child visits.
- Explore opportunities to expand vision screenings into additional zip codes in the region, especially in regions with a high number of children zero to five.

Family Support and Literacy

In 2012, 110 parents and caregivers in the FTF Navajo/Apache Region completed the Family and Community Survey administered by FTF to better understand parents' knowledge of parenting practices and child development. Though changes in parent knowledge have likely occurred since 2012, the data available showed that 29% of parents and caregivers understand that an infant takes in and reacts to the world right from birth, 46% understand that a baby can sense and be affected by his parents' mood, and 22% understand that they can significantly impact their child's brain development in the prenatal stage, all lower than the state percentages. Conversely, 91% of parents and caregivers understand the first year of life impacts school performance, 98% understand the impact of emotional closeness on a child's intellectual development, and 74% understand that children receive a greater benefit from talking to a person in the same room compared to hearing someone talk on the TV, all higher percentages than the state.

The majority of respondents correctly identified age-appropriate expectations of behavior and engaged with their child in activities such as reading, drawing, and singing six or seven days a week. These findings indicate that, though more education around the prenatal and infant stages is needed, the majority of parents in the region are aware of their impact on their child's development and engage in behaviors to enhance their learning. Parent Survey respondents were also asked a similar question regarding activities they engage in with their child. More than 80% indicated they played music or sang with their child or followed a routine when putting their child to bed within the last week. When asked how often they read to their child, the majority of Parent Survey respondents indicated they read to their child five or more times per week (53%).

From October 2014 to September 2015 there were 880 reports of maltreatment of children under age 18 and 93 substantiated cases of child abuse and neglect in Navajo County. In Apache County, there were 213 reports of

maltreatment of children under age 18 and 9 substantiated cases of child abuse and neglect. During the same time period there were 6,451 children under 18 in foster placements in Arizona and 12,754 children under 18 who entered out-of-home care, including 116 in Navajo County and 33 in Apache County.

Family Support and Literacy Considerations:

- Support regional efforts to educate parents on parental impact on a child's development, especially starting at the prenatal stage.
- Educate parents on the importance of play and engaging in developmentally stimulating activities with their children daily and increase availability of books to ensure parents have the resources needed to read to their children.

Communication, Public Information, and Awareness

The 2012 FTF Family and Community Survey also included questions around parent satisfaction with community services and resources. Overall, the majority of respondents agreed that it is easy to locate services they need or want (77%). In addition, 56% felt the available services were very good, 40% felt that services were available at convenient times or locations, 37% did not know if they were eligible to receive services, and 55% felt they were asked to fill out paperwork or eligibility forms multiple times. One-third of respondents (34%) felt that the services filled some but not all of their family's needs.

Almost all respondents (97%) reported taking their children to the same doctor's office regularly and slightly less (76%) reported regularly visiting the same dental provider. Half of respondents (50%) felt they had access to preventive services.

Additionally, although more than half felt the services reflected their cultural values (54%) and were provided in their language (76%), as the Hispanic/Latino population continues to grow, the need for linguistically and culturally appropriate services will likely increase.

Parent Survey respondents were asked how they get important information about activities and services for their child and family. The majority indicated they rely on family and friends (76%) followed by the internet (41%) and community agencies (29%). Parent Survey respondents were also asked which services are most needed in the FTF Navajo/Apache Region. The majority indicated child care (50%) and parenting classes/parent education (43%).

Parent Survey respondents were asked about the availability and use of community resources such as libraries or parks. The majority of respondents said they have access to a library (80%) or park (80%). Fewer said they have access to sidewalks or walking paths (69%) or a recreation club (32%). Fewer still indicated that they bring their children to a library or recreation center while more respondents indicated they brought their child to a park or playground or walking path. When asked about their knowledge of FTF services, nearly three-quarters of Parent Survey respondents (72%) were aware of FTF services in the FTF Navajo/Apache Region.

Communication, Public Information, and Awareness Considerations:

- Promote the current services and programs that young children and their families access.
- Explore opportunities for customization of services to meet the demands of specific populations. Also consider supporting a care coordination system that helps link families to information and services and reduces redundancies in paperwork.

- Support partners' efforts to clearly communicate availability of services, and the criteria that make children zero to five and their families eligible to receive services.
- Include support for transportation costs and logistics to support funded partners in delivering services, supports, and programming to remote communities and families.

System Coordination Among Early Childhood Programs and Services

To gain a better understanding of the coordination and collaboration occurring among early childhood system partners within FTF regions, FTF administered the Coordination and Collaboration Survey to system partners in October of 2016. Twenty-five respondents from the FTF Navajo/Apache Region participated in the survey, the majority of who were from K-12 Education (28%), a Health Care or Medical Organization (14%), or a State Agency (12%) and considered themselves to be participants or partners in the early childhood system in the FTF Navajo/Apache Region.

Overall, 75% of respondents perceived the early childhood system in the region to be well-coordinated followed by 25% who considered it to be partially coordinated. Respondents felt the three areas of the system (Family Support and Literacy, Children's Health, and Early Learning) to be equally and highly (92%) effective in addressing the needs of young children and their families. Eighty-two percent of respondents felt the Professional Development system effectively addresses the needs of young children and their families.

Family Support, Early Learning, and Professional Development were considered to have similar levels of collaboration (46%), while 36% of respondents felt that Children's Health was at a cooperation level.

System Coordination Considerations:

- Identify more system leaders that will take initiative and guide the system partners and participants towards a more coordinated and collective network that will even more efficiently serve children and families.
- Identify key successes from partner meetings and apply them to similar meetings to further strengthen Professional Development and Children's Health collaboration.
- Identify successes from the Family Support, Early Learning, and Professional Development collaboration efforts that can be applied to the other areas. Consider learning from other FTF regions that have strong collaborations to identify how they developed their system and apply recommendations to Navajo/Apache as appropriate.

Opportunities for Further Exploration

Most of the findings provided in this report are based on secondary data sources. As the Council continues to make increasingly difficult decisions with diminishing funds, the following suggestions for further data collection and analysis may help inform those decisions in a data driven way. The Council may want to consider collecting additional information regarding:

- Parent understanding of **childcare resources and subsidies** available in the region, to be able to target outreach to parents and families in need .
- Reasons why parents don't take their children to **safe outdoor areas where babies and toddlers can play** to understand barriers to accessing these resources;

- Outcomes and satisfaction with **HealthySteps services, to better understand why families continue or do not continue with the program;**
- **Vision screening** needs in outlying areas to better target outreach efforts;
- Parent understanding of the importance of early **oral health care to better target families who feel their child is too young to receive oral health services;** and
- Reasons mothers discontinue **breastfeeding** prior to the child's 6 month birthday to address any barriers mothers in the region face that make it difficult to continue to breastfeed their infant.

Introduction

Family well-being is an important indicator for child success.² Healthy families and healthy communities create a context in which young children can thrive, developing the cognitive, emotional, motor, and social skills they will need to succeed in school and life.³ Early childhood interventions help promote strong families and children.⁴

First Things First (FTF) is one of the critical partners creating a family-centered, comprehensive, collaborative, and high-quality early childhood system that supports the development, health, and early education of all Arizona children from birth through age five. FTF is intent on bolstering current child-focused systems within Arizona as a strategic way to maximize current and future resources. The Council makes strategic investments to support the healthy development and learning of the young children in the region. The Council's priorities include:

- Childcare status;
- Safe outdoor areas where babies and toddlers can play;
- Births at Summit Healthcare that continue to receive healthcare from HealthySteps program;
- Vision screenings;
- Oral Health data; and
- Breastfeeding rates and duration.

About this Report

This is the fifth Needs and Assets report conducted on behalf of the Council. It fulfills the requirement of ARS Title 8, Chapter 13, Section 1161, to submit a biennial report to the Arizona Early Childhood Health and Development Board detailing the assets, coordination opportunities, and unmet needs of children birth through age five and their families in the region. This report is designed to provide updated information to the Council about the needs and assets in their region to help them make important programmatic and funding decisions. This report describes the current circumstances of young children and their families as it relates to unmet needs and assets for the FTF Navajo/Apache Region. The FTF Navajo/Apache Region occupies the southern portion of Navajo and Apache counties, which are located in the eastern portion of Arizona. The surrounding counties in Arizona are Coconino, Gila, Graham, and Greenlee and the state of New Mexico to the east. The largest city in the region is Show Low with just more than 10,000 people. Other cities in the region are Winslow, Snowflake, Holbrook, and St. Johns. The population density of Navajo County is 11 people per square mile and of Apache County is 6 people per square mile, which is much lower than the 57 people per square mile of Arizona as a whole. In addition, the Navajo Nation and White Mountain Apache Tribe border the FTF Navajo/Apache Region.

This report is organized by topic area followed by sub-topics and indicators. When available, data are presented for the state, county, region, and sub regional breakdowns as appropriate. Key data indicators are represented in this report in eight unique domains:

- Population characteristics;
- Economic circumstances;

² Martinez, J., Mehesy, C., & Seely, K. (2003). *What Counts : Measuring Indicators of Family Well-Being Executive Summary Report* (Vol. 8466). Denver, CO.

³ Knitzer, Jane. (2000). *Early childhood mental services: a policy and systems development perspective*. In J. Shonkoff & S. Meisels (Eds.), *Handbook of early childhood intervention* (pp. 416-438). New York, NY: Cambridge University Press.

⁴ Shonkoff, J., & Meisels, S. (2000). *Early Childhood Intervention: The Evolution of a Concept*. New York, NY: Cambridge University Press.

- Educational indicators;
- Early learning;
- Child health;
- Family support and literacy;
- Communication, public information, and awareness;
- System coordination among early childhood programs and services;
- Limitations and Conclusions; and
- Appendices.

Methods

A systematic review designed to reveal the needs and assets of the Navajo/Apache Region was used to collect and summarize data for this report. The assessment included a review of quantitative data components and analysis of current and relevant secondary data describing the FTF Region, Counties, and State of Arizona. Wherever possible, data throughout the report are provided specifically for the FTF Navajo/Apache Region, and are often presented alongside data for Navajo and Apache Counties and the state of Arizona for comparative purposes.

Secondary data was gathered to better understand demographic trends for the FTF Navajo/Apache Region. The assessment was conducted using data from state and local agencies and organizations who provide public data or who have an existing data sharing agreement with FTF. A special request for data was made to the following state agencies by FTF on behalf of Harder+Company Community Research: Arizona Department of Education (ADE), Arizona Department of Economic Security (DES), Arizona Department of Health Services (ADHS), and FTF itself.

Further secondary data were gathered directly from public databases. For example, demographic data included in this report were primarily gathered from the US Census and the American Community Survey (ACS) data. Likewise, early education data were gathered from the US Children's Bureau and Office of the Administration for Children & Families. Understanding the true needs and assets of the region required extracting data from multiple data sets that often do not have similar reporting standards, definitions, or means for aggregating data. This suggests that for some indicators data were only available at the county level, small towns, or certain zip codes. Whereas for other indicators data were available at all levels. Whenever possible this report presents all data available. However, in some cases not enough data are available to make meaningful conclusions about a particular indicator within a region, city, or county. Furthermore, many agencies are collecting data independent of other public entities which results in duplication of data efforts, gaps in the collection of critical indicators, or differences in method of collection, unit of analysis, or geographic level. Many indicators that are of critical importance to understanding the well-being of children zero to five and their families are not currently collected in this region. The analysis presented in this report aims to integrate relevant data indicators from a variety of credible sources; including regional and sub-regional, and/or community-level analyses for a subset of data indicators. This report represents the most up to date representation of the needs and assets of young children and their families in the region and interpretation of the identified strengths of the community (i.e. the assets available in the region).

In addition to systematically reviewing secondary data, key findings and data trends were synthesized and presented to the Council, FTF Research and Evaluation Unit, and FTF Regional Directors which allowed for a deeper discussion on the interpretation of the findings. Whenever possible, the rich context provided by the multiple FTF teams is incorporated throughout the report to help contextualize the findings. To further expand the meaningfulness of data trends, a brief literature review was conducted to ensure the inclusion of other relevant research studies that help

explain the needs and assets of the region.

Per FTF guidelines, data related to social service and early education programming, with counts of fewer than ten, excluding counts of zero (i.e., all counts of one through nine) are suppressed. For data related to health or developmental delay, all counts of fewer than twenty-five, excluding counts of zero (i.e., all counts of one through twenty-four) are suppressed.



Parent Survey

The Parent Survey was administered throughout the FTF Navajo/Apache Region between September 3, 2016 and November 29, 2016. In total, 394 surveys were collected from across the region. Forty-seven surveys were completed at the 2016 Sweet Corn Festival and an additional 347 were administered by parent volunteers throughout the region. This is the third time the Parent Survey has been administered and where possible, 2016 data is compared to Parent Survey data from 2011 and 2013.

Parent volunteers were trained on survey administration prior to taking the survey out into the community. Parent volunteers were compensated \$3 for every complete survey they collected and parents completing the survey were given a children's book as an incentive for completing the survey. Parent Survey respondents were asked to identify which school district their child attends or will attend. These responses were then grouped into 6 areas including:

- Area 1: Vernon/Alpine/Round Valley
- Area 2: Concho/St. Johns
- Area 3: Holbrook/Joseph City/Sanders
- Area 4: Blue Ridge
- Area 5: Show Low/Heber
- Area 6: Snowflake

Some parents did not indicate which school district their child attends or will attend. For those parents, we used the town as a proxy for school district to group them in one of the six areas listed above and in Exhibit I.1.



Exhibit I.1. Parent Survey Responses by School District

School District	n	Percentage
Area 1: Vernon/Alpine/Round Valley	67	17.1%
Area 2: Concho/St. Johns	42	10.7%
Area 3: Holbrook/Joseph City/Sanders	93	23.7%
Area 4: Blue Ridge	30	7.7%
Area 5: Show Low/Heber	89	22.7%
Area 6: Snowflake	71	18.1%
Unknown	2	0.5%

Source: Harder+Company Community Research. (2016). [First Things First – Navajo/Apache Region: Survey for Parents with Children Ages 0-5]. Unpublished raw data.

Limitations

This report relied primarily on secondary data. Most of the data were extracted by teams other than the evaluation team conducting the asset and needs assessment; therefore, conducting quality assurance on some data that were provided for this report was difficult. The demographic and economic profile of the region relied mostly on Census and ACS data. For some of the Census indicators, only 2010 Census data were available. For some of the indicators reported, the most recent data for the region was released in 2014, thus trends may have changed within past four years. For example, the most recent diabetes and obesity data are from 2013 and the most recent data for the number of fitness facilities and access to grocery stores is from 2012.

Another limitation impacting the findings and interpretation of finding is the targeted population included in each of the different data sources. For many domains reported, data were often only available at the county level rather than the regional level and data for children often includes all children under eighteen rather than children under six. ACS estimates are less reliable for small geographic areas or areas with smaller populations. Similarly, rural areas tend to be undercounted along with non-white populations. Federal data also have similar limitations. For example, Head Start and WIC data only include a sample of the young children and families' served.

Another major limitation is the definitions and criteria used by each agency collecting the data. Because various data sources are used for each domain and they each have different definitions, it is difficult to make confident comparisons on indicators between data sources. Given these limitations, interpretation of key findings requires a deep understanding of the region. Contextualizing the findings is equally important as what the data tell us. In addition, some data are not available at the regional level.

Parent Survey data was collected over a two month period throughout the region. Overall, the total number of responses in 2016 was 394 which was nearly half of the total number of responses in 2013. Therefore, there are limitations in being able to compare data across years because of the variance in sample size. In addition, some school districts were oversampled in 2016 including the Holbrook/Joseph City/Sanders area and Show Low/Heber area.



1. Population Characteristics

Why it Matters

The profile of residents in a particular community informs the needs of the community and the types of services offered. It is vitally important for policy and decision makers to understand the demographic profile of the communities they serve in order to make effective decisions that will positively impact the community's well-being. Timely information about the demographics of a region, such as the number of children and families, number of households, racial and ethnic composition, languages spoken, and living arrangements, can help policy makers to understand the needs of the region they serve and the services and resources that would be most culturally and geographically appropriate.

A thorough and comprehensive demographic profile allows policy makers to understand the residents of a region, the strengths they bring, and the needs and barriers they face by providing an overview of the geographic region's population dynamics, projected growth, ethnic and racial composition, languages spoken, immigration trends, and household characteristics (e.g., living arrangements for children). Understanding how the population is changing and where areas of growth will occur can allow decision makers to provide more resources in advance of that community confronting a shortage of resources and supports. Knowing where non-English speakers live and their primary languages allows for translation and interpretation services to be provided so that language barriers do not prevent these families from accessing healthcare and other social services they may need.

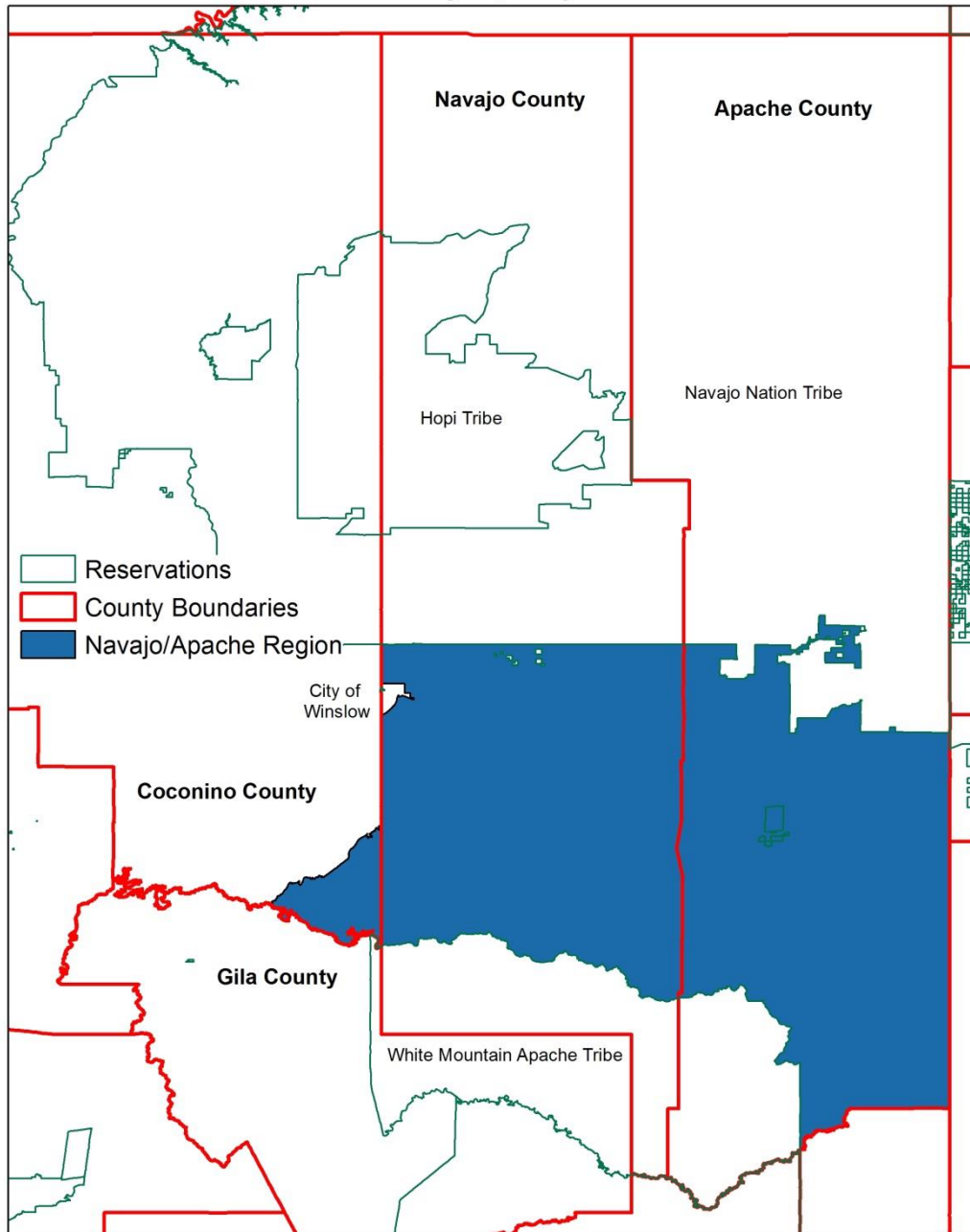
What the data tell us

The FTF Navajo/Apache Region occupies the southern portion of Navajo and Apache counties, which are located in the eastern portion of Arizona. The surrounding counties in Arizona are Coconino, Gila, Graham, and Greenlee and the state of New Mexico to the east (see Exhibit 1.1). The largest city in the region is Show Low with just more than 10,000 people. Other cities in the region are Winslow, Snowflake, Holbrook, and St. Johns. The population density of Navajo County is 11 people per square mile and of Apache County is 6 people per square mile, which is much lower than the 57 people per square mile of Arizona as a whole. The principal industries in Navajo County are tourism, coal mining, manufacturing, timber production, and ranching.⁵ To fully understand the demographic profile of the region, this section of the report will provide data on the current population characteristic indicators to help showcase the current status of young children and their families. The following section provides a more detailed breakdown of the population characteristics of the FTF Navajo/Apache Region and how those characteristics compare to the state.

⁵ Navajo County History. Navajo County Arizona. <http://www.navajocountyaz.gov/Government/Living-in-the-County/History>

Exhibit 1.1. Map of County and FTF Region boundaries

Navajo/Apache



Population Counts and Projections

According to the 2010 Census, the FTF Navajo/Apache Region has a total population of 73,083 residents. There are more than 6,000 children under 6 years old in the region, accounting for 8% of the total population in the region (see Exhibit 1.2). Children between the ages of zero and five make up a similar proportion of the total population in the FTF Navajo/Apache Region than in the state of Arizona. Further age breakdowns are available in Appendix 1.1.

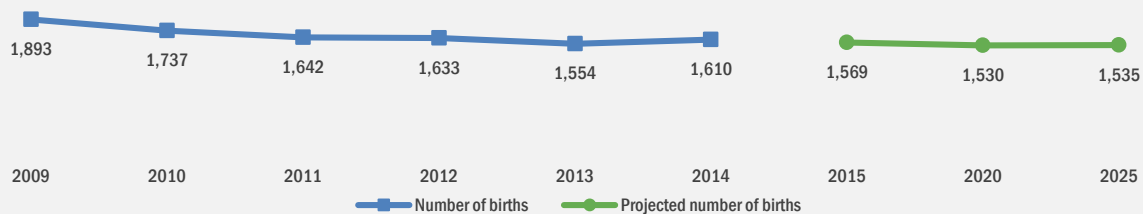
Exhibit 1.2. 2010 Population of Arizona and the FTF Navajo/Apache Region

	Arizona	FTF Navajo/ Apache Region
Total Population	6,392,017	73,083
Population of children zero to five	546,609	6,166
Percent of children zero to five out of total population	8.6%	8.4%

U.S. Census Bureau; 2010 Census Summary File 1; Tables P11 & P14; generated by AZ FTF; using American FactFinder; <<http://factfinder2.census.gov>>

The number of births in Navajo County overall decreased 15% from 2009 to 2014, while the number of births in Apache County overall decreased 18%. This compares to a 6% decrease for Arizona as a whole. Over the next 10 years, the number of births in Navajo County and Apache County are expected to continue to decrease (see Exhibit 1.3 and Exhibit 1.4). The number of births in Navajo County is projected to be 1,535 in 2025, a decrease from 1,610 in 2014, and the number of births in Apache County is projected to be 874 in 2025, a decrease from 1,020 in 2014. The number of children zero to five is also expected to decrease for both counties. The number of children zero to five in Navajo County is expected to be 9,111 in 2025 and in Apache County is expected to be 5,328 (see Exhibit 1.5). Over the same time period, the number of births and number of children zero to five are expected to increase for the state as a whole. Although there will be a slight decrease in the zero to five population, there will continue to be a need for early education and health services for this population in the coming years.

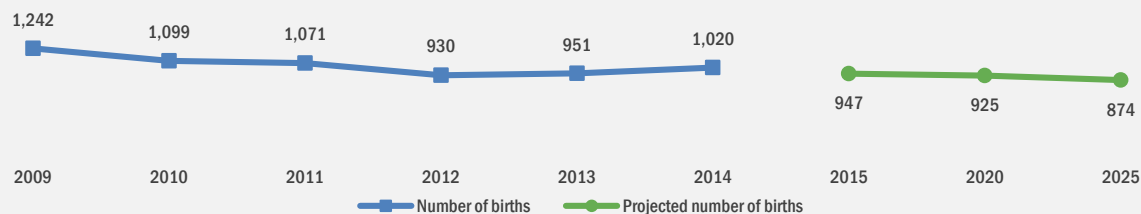
Exhibit 1.3. Number of births from 2009 to 2014 and projected number of births from 2016 to 2025 in Navajo County



Arizona Department of Health Services (2014). Vital Statistics. Provided by AZ FTF.

Arizona Department of Administration, Office of Employment & Population Statistics (2015). Arizona Population Projections: 2015 to 2050, Medium Series

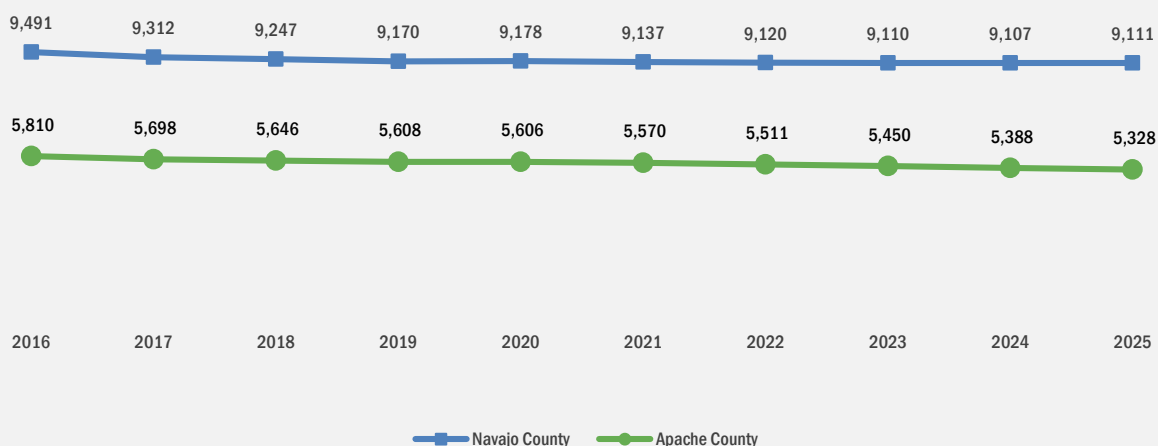
Exhibit 1.4. Number of births from 2009 to 2014 and projected number of births from 2016 to 2025 in Apache County



Arizona Department of Health Services (2014). Vital Statistics. Provided by AZ FTF.

Arizona Department of Administration, Office of Employment & Population Statistics (2015). Arizona Population Projections: 2015 to 2050, Medium Series

Exhibit 1.5. Projected population of children 0-5 in Navajo and Apache Counties



Arizona Department of Administration, Office of Employment & Population Statistics (2015). Arizona Population Projections: 2015 to 2050, Medium Series

Demographics and Language

Health and healthcare disparities occur across many population characteristics, including race/ethnicity, socioeconomic status, age, immigration status, and location of residence. For the FTF Navajo/Apache Region, this is particularly relevant given the rural nature of the region. In the FTF Navajo/Apache Region, 80% of adults 18 and over identify as White, 12% as Hispanic or Latino, and 5% as American Indian. In the region children ages zero to four have slightly different characteristics from adults as 65% identify as White, 23% as Hispanic or Latino, and 8% as American Indian (see Exhibit 1.6 and Exhibit 1.7). Compared to the state, the FTF Navajo/Apache Region has a higher percentage of Whites and lower percentage of Hispanic/Latinos.

Exhibit 1.6. Distribution of Race/Ethnicity in the FTF Navajo/Apache Region

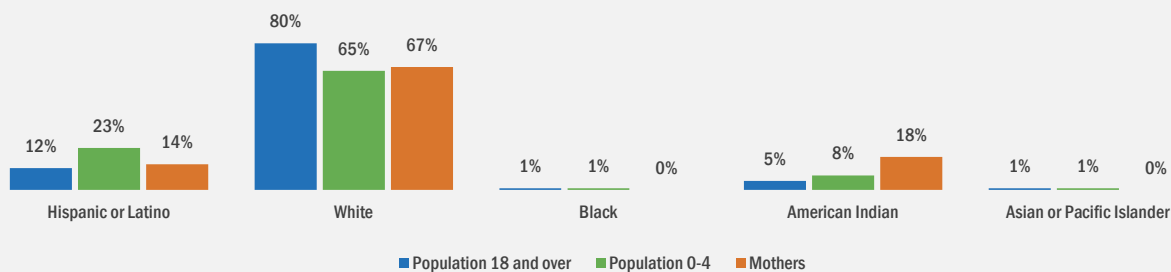
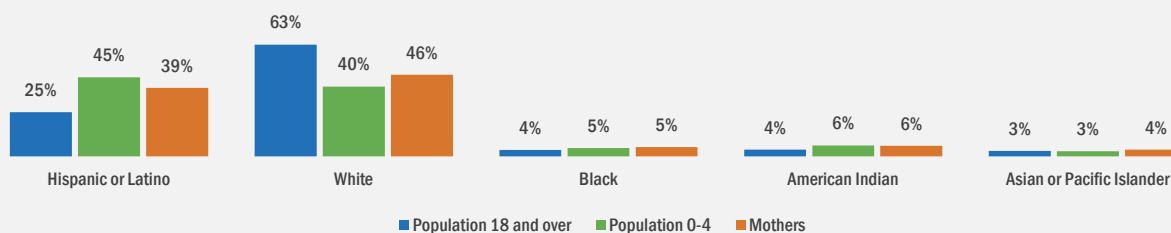


Exhibit 1.7. Distribution of Race/Ethnicity in Arizona



U.S. Census Bureau; 2010 Census Summary File 1; Table P11; generated by AZ FTF using American FactFinder; <http://factfinder2.census.gov>

U.S. Census Bureau; 2010 Census Summary File 1; Tables P12B, P12C, P12D, P12E, P12H, and P12I; generated by AZ FTF using American FactFinder; <http://factfinder2.census.gov>

Arizona Department of Health Services (2014). Vital Statistics Trends in Arizona.

The majority of Parent Survey respondents were female (88%) and Caucasian (62%; see Exhibit 1.8), similar to 2011 and 2013 Parent Survey data. The racial/ethnic breakdown of Parent Survey respondents is similar to the breakdown of mothers' race/ethnicity in the FTF Navajo/Apache Region.



Exhibit 1.8 Race/Ethnicity of Parent Survey Respondents

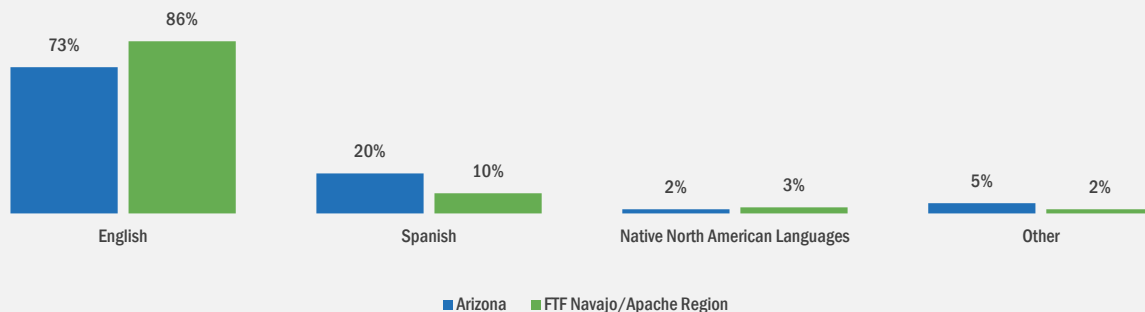
Race/Ethnicity	2011	2013	2016
Caucasian or White	61.6%	62.6%	61.6%
Latino or Hispanic	15.3%	16.7%	17.4%
American Indian	12.9%	13.9%	9.9%
Multi-racial/Multi-ethnic	7.1%	4.0%	10.4%

2011 n = 695; 2013 n = 885; 2016 n = 385

Source: Harder+Company Community Research. (2016). *[First Things First – Navajo/Apache Region: Survey for Parents with Children Ages 0-5]. Unpublished raw data.*

Approximately 86% of households in the region speak English as their primary language, while 10% primarily speak Spanish, 3 % primarily speak a Native North American Language, and 2% speak a language other than English, Spanish, or a Native North American language (see Exhibit 1.9). In addition to the 15% of the population that primarily speak a language other than English at home, 3% speak English less than “very well” and 1% of households are limited English speaking households (see Exhibit 1.10).⁶

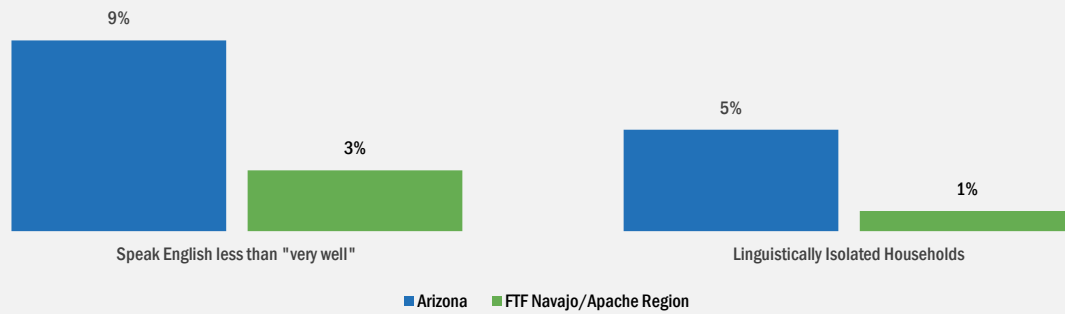
Exhibit 1.9. Primary language spoken at home for population ages 5 and over



U.S. Census Bureau; 2014 American Community Survey 5-Year Estimates, Table B16001; generated by AZ FTF using American FactFinder; <<http://factfinder2.census.gov>>

⁶ The United States Census Bureau defines limited English speaking households as a “household in which no one 14 and over speaks English only or speaks a language other than English at home and speaks English very well.”

Exhibit 1.10. Percentage of population that speaks English less than "very well" and percentage of linguistically isolated households



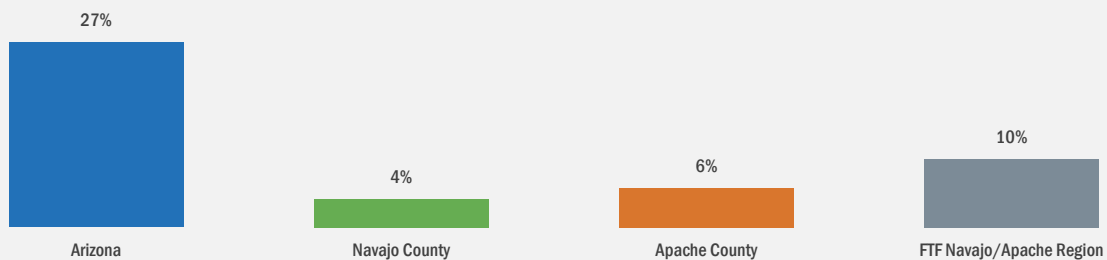
U.S. Census Bureau; 2014 American Community Survey 5-Year Estimates, Tables B16001 & B16002; generated by AZ FTF using American FactFinder; <<http://factfinder2.census.gov>>

In the FTF Navajo/Apache Region, 2% of the population are not U.S. citizens compared to 8% in the state as a whole.⁷ Children zero to five in the FTF Navajo/Apache Region are also less likely to be living with foreign-born parents than children zero to five in Arizona (see Exhibit 1.11). In Navajo County, there were an estimated 51 migrant farmworkers and 37 seasonal farmworkers in 2008 while there were 34 migrant farmworkers and 25 seasonal farmworkers in Apache County (see Exhibit 1.12). Statewide data regarding refugees is available in the Appendix 1.2.

2 Percent of the population in the **FTF Navajo/Apache Region** are not U.S. Citizens

8 Percent of the population in **Arizona** are not U.S. Citizens

Exhibit 1.11. Percentage of children 0-5 living with foreign-born parents



U.S. Census Bureau; 2014 American Community Survey 5-Year Estimates, Table B05009; generated by AZ FTF using American FactFinder; <<http://factfinder2.census.gov>>

⁷ U.S. Census Bureau; American Community Survey, 2014 American Community Survey 5-Year Estimates, Table B05001; generated by AZ FTF; using American FactFinder; <<http://factfinder2.census.gov>>.

Exhibit 1.12. 2008 estimated number of migrant and seasonal farm workers

	Arizona	Navajo County	Apache County
Number of migrant farm workers	39,913	51	34
Number of seasonal farm workers	27,791	37	25

Larson (2008). *Migrant and Seasonal Farmworker Enumeration Profiles Study, Arizona*. Retrieved from <http://aachc.org/wp-content/uploads/2014/01/PDF14-Arizona.pdf>

Household Characteristics

There are over 27,000 households in the FTF Navajo/Apache Region and 4,106 (14.7%) of them include children zero to five years old (see Exhibit 1.13). Although the majority of children zero to five in the region live in married-couple households, 32% of households with children zero to five are single-parent households (see Exhibit 1.14). In the FTF Navajo/Apache Region, 6% of children zero to five live with a relative or non-relatives. Additionally, 13% of children zero to five in the region live in the same household as their grandparents.⁸ Of children under 18 that live in the same household as a grandparent, 65% are primarily cared for by a grandparent, which is higher than the 53% for Arizona as a whole.⁹ There are several advantages to living in a multigenerational household, including an increase in emotional well-being and grandparents serving as role models in the socialization of children. However, this also indicates that young families may not have the resources to live on their own and may be living with their elderly parents. Grandparents raising their grandchildren may also require additional support due to the nontraditional family structure and the changes in parenting practices since grandparents were raising children. Since many older adults live on fixed incomes, they may struggle with caring for dependents. There may also be cultural components that lead to grandparents living in the same household as their grandchildren and being the primary caregiver.

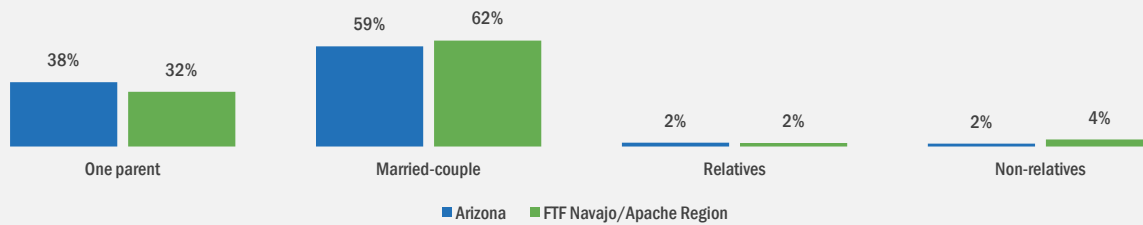
Exhibit 1.13. Number of Households and Household Characteristics

	Arizona	FTF Navajo/ Apache Region
Total number of households	2,380,990	27,887
Households with children 0-5	16.1% (384,441)	14.7% (4,106)
Married-couple households with children 0-5	65.1% (250,217)	70.2% (2,881)
Single-male households with children 0-5	11.3% (43,485)	9.9% (406)
Single-female households with children 0-5	23.6% (90,739)	19.9% (819)

⁸ U.S. Census Bureau; American Community Survey. 2014 American Community Survey 5-Year Estimates, Tables B05009 & B17006; generated by AZ FTF; using American FactFinder; <<http://factfinder2.census.gov>>

⁹ U.S. Census Bureau; American Community Survey. 2014 American Community Survey 5-Year Estimates, Tables B05009 & B17006; generated by AZ FTF; using American FactFinder; <<http://factfinder2.census.gov>>

Exhibit 1.14. Living Arrangements of children 0-5

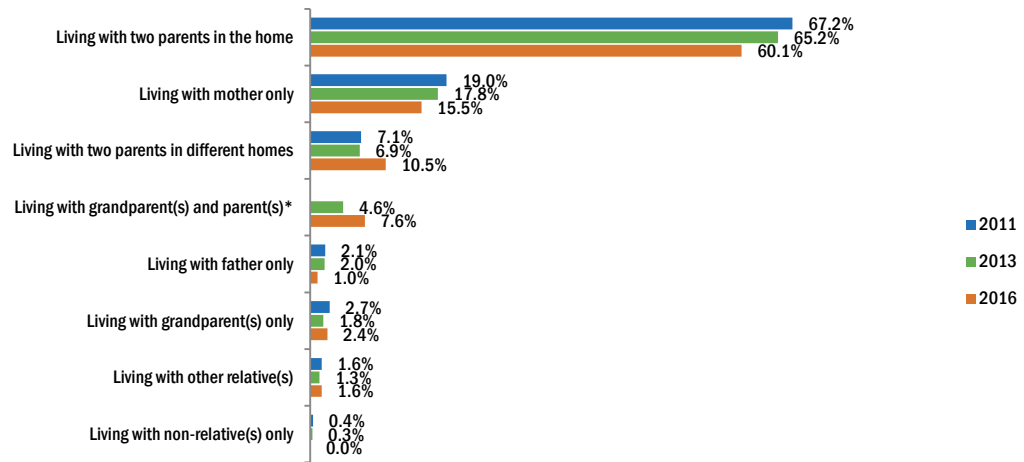


U.S. Census Bureau; 2014 American Community Survey 5-Year Estimates, Tables B05009, B09001, & B17006; generated by AZ FTF using American FactFinder; <<http://factfinder2.census.gov>>

The majority of Parent Survey respondents had children who lived with two parents in the home (60%) followed by children who live only with their mother (16%; see Exhibit 1.15). Parent Survey respondents had more children living with relatives compared to the overall FTF Navajo/Apache Region (see Exhibit 1.15).



Exhibit 1.15 Parent Survey Respondents Child's Living Arrangements



2011 n =707; 2013 n= 894; 2016 n=381

*Response option was added in 2013

Source: Harder+Company Community Research. (2016). [First Things First – Navajo/Apache Region: Survey for Parents with Children Ages 0-5]. Unpublished raw data

DEMOGRAPHIC HIGHLIGHTS

The FTF Navajo/Apache Region is a rural region with a low population density and a high population of children under the age of 6. Therefore, ensuring children zero to five and their families have access to the services they need is critical. The residents of the region predominantly identify as White, though a higher percentage of mothers and children zero to four identify as Hispanic or Latino and American Indian than the overall population of the region. The majority of households speak English as their primary language and 10% primarily speak Spanish. Six percent of children zero to five in the FTF Navajo/Apache Region live with relatives or non-relatives and 13% live in the same household as their grandparents.

Below are key findings that highlight the demographic needs, assets, and data-driven considerations for the Navajo/Apache Region. The considerations provided below do not represent comprehensive approaches and methods for tackling the needs and assets in the region. Instead, the considerations represent possible approaches that early childhood system partners, including FTF, could take to address needs and assets in the region, as conceptualized by the authors of this report.

Assets	Considerations
The population of children under the age of six is projected to stay relatively the same, allowing the region to foresee and prepare for the demands of their youngest residents.	Continue to tailor outreach and programs to support families and children zero to five in the FT Navajo/Apache Region.
The percentage of children under age six identifying as Hispanic or Latino in the FTF Navajo/Apache Region (23%) is greater than the percentage of the total population 18 and over that identifies as Hispanic or Latino in the region (12%). This population is expected to remain steady over the next several decades.	Continue tracking population characteristics in order to be responsive to the needs of the community.

Needs	Considerations
About 30% of children zero to five live in single-parent households. Compared to two parent households, single family homes have significantly less income, and experience additional barriers.	Recognize that all families have strengths and needs, and that community supports need to be varied and available across a wide array of environments.



2. Economic Circumstances

Why it Matters

The economic situation of children and their families has a large impact on their ability to live successful, independent lives as adults. Outcomes such as school achievement, physical health, and emotional well-being are all impacted by a child's economic situation as they are growing and developing.¹⁰ Additionally, being unemployed or living below the federal poverty level means that families have fewer resources to be able to meet their basic needs and support their child's growth and development, such as by having a stable, quality home and being able to provide adequate and nutritional food.

It is critical to support young children and families by maintaining a household where children can thrive, including safe and stable housing and access to nutritious foods. Recent research has shown that housing quality, including the physical housing quality and neighborhood environment, as well as housing stability play an important role in children's development and well-being.^{11,12 13} Poor housing conditions are a strong predictor of emotional and behavioral problems and poor health outcomes.^{14 15} Housing instability, which includes frequent moves, difficulty paying rent, being evicted or being homeless, is also associated with worse health, academic and social outcomes.¹⁶ Children that experience housing instability demonstrate higher grade retention, higher high school dropout rates, and lower educational attainment as adults.¹⁷ Thus, housing is an important component to consider when evaluating the conditions that affect a child's development and well-being during their first five years of life. Lack of access to healthy food and general food insecurity can also lead to numerous issues for children and mothers, including birth complications, delayed development, learning difficulties, and chronic health conditions.^{18 19}

What the data tell us

Employment Indicators

The unemployment rates in Navajo and Apache Counties have declined since 2012. Although the unemployment rates for both counties have declined in recent years, the unemployment rate in both counties is still higher than Arizona as a whole (see Exhibit 2.1). The number of people in the labor force has decreased in both Navajo County and Apache County from 2010 to 2015. In Navajo County the total number of people employed remained relatively constant between 2010 and 2015, but in Apache County the number of people employed decreased (see Exhibit 2.2

¹⁰ Brooks-Gunn, J., & Duncan, G. J. (1997). *The effects of poverty on children. The future of children*, 55-71.

¹¹ U.S. Department of Housing and Urban Development (2014). *Housing's and Neighborhoods' Role in Shaping Children's Future*. Retrieved from <https://www.huduser.gov/portal/periodicals/em/fall14/highlight1.html>

¹² Roy, J., Maynard, M., & Weiss, E. (2009). *The Hidden Costs of the Housing Crisis: The Long-Term Impact of Housing and Affordability and Quality on Young Children's Odds of Success*. Partnership for America's Economic Success. Retrieved from http://www.pewtrusts.org/-/media/legacy/uploadedfiles/wwwpewtrustsorg/reports/partnership_for_americas_economic_success/paeshousingreportfinal1.pdf

¹³ Sandstrom, H. & Huerta, S. (September 2013). *The Negative Effects of Instability on Child Development: A Research Synthesis*. Urban Institute. Retrieved from http://www.urban.org/research/publication/negative-effects-instability-child-development-research-synthesis/view/full_report

¹⁴ U.S. Department of Housing and Urban Development (2014). *Housing's and Neighborhoods' Role in Shaping Children's Future*. Retrieved from <https://www.huduser.gov/portal/periodicals/em/fall14/highlight1.html>

¹⁵ Bashir, S. (2002). *Home Is Where the Harm Is: Inadequate Housing as a Public Health Crisis*. *American Journal of Public Health*, 92(5), 733-738.

¹⁶ Sandstrom, H. & Huerta, S. (September 2013). *The Negative Effects of Instability on Child Development: A Research Synthesis*. Urban Institute. Retrieved from http://www.urban.org/research/publication/negative-effects-instability-child-development-research-synthesis/view/full_report

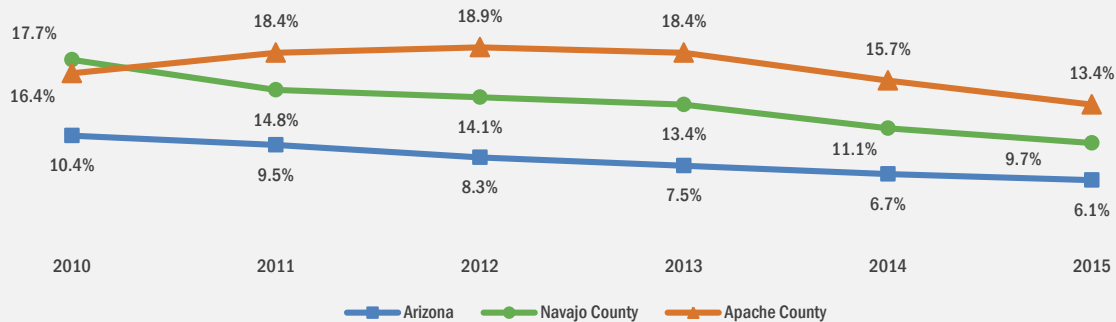
¹⁷ Kushel, M., Gupta, R., Gee, L., & Haas, J. (2005). *Housing Instability and Food Insecurity as Barriers to Health Care Among Low-Income Americans*. *Journal of General Internal Medicine*, 21(1), 71-77.

¹⁸ Feeding America (2016). *Child Development*. Retrieved from <http://www.feedingamerica.org/hunger-in-america/impact-of-hunger/child-hunger/child-development.html>

¹⁹ Ke, Janice, and Elizabeth Lee Ford-Jones. "Food Insecurity and Hunger: A Review of the Effects on Children's Health and Behaviour." *Paediatrics & Child Health* 20.2 (2015): 89-91. Print.

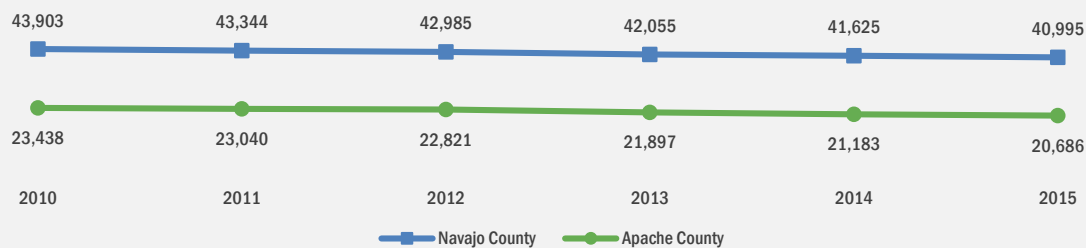
and Exhibit 2.3).

Exhibit 2.1. Average unemployment rates



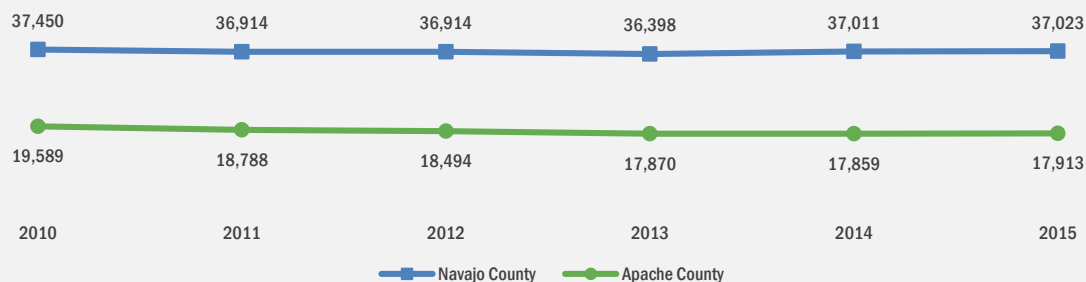
U.S. Department of Labor, Bureau of Labor Statistics (2016). Local Area Unemployment Statistics (LAUS), Arizona Office of Employment.

Exhibit 2.2. Number of people in the labor force



U.S. Department of Labor, Bureau of Labor Statistics (2016). Local Area Unemployment Statistics (LAUS), Arizona Office of Employment.

Exhibit 2.3. Number of people employed

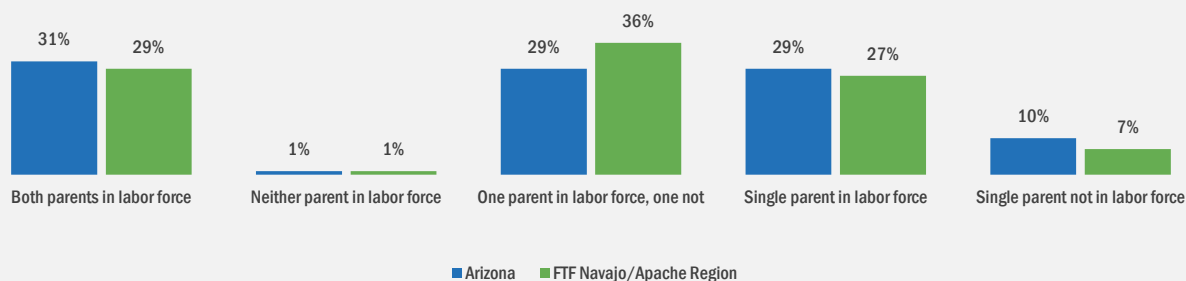


U.S. Department of Labor, Bureau of Labor Statistics (2016). Local Area Unemployment Statistics (LAUS), Arizona Office of Employment.

In the FTF Navajo/Apache Region, over 90% of children zero to five live in a household where at least one adult is in

the labor force (see Exhibit 2.4), which is similar to the percentage for Arizona. More than 50% have either both parents in the labor force or a single parent in the labor force, indicating they likely have some need for childcare and that parents are likely working low wage jobs if both incomes place families in the lower income category.

Exhibit 2.4. Employment status of parents with children 0-5



U.S. Census Bureau; American Community Survey, 2014 American Community Survey Table B23008; generated by AZ FTF; using American FactFinder; <<http://factfinder2.census.gov>>.

The majority of Parent Survey respondents were employed full-time (42%), homemaker (25%) or employed part-time (15%; see Exhibit 2.5). Compared to previous years, fewer parents who responded to the Parent Survey in 2016 were unemployed.



Exhibit 2.5: Employment Status of Parent Survey Respondents

Employment	2011	2013	2016
Employed full-time	35.8%	32.5%	41.9%
Homemaker	23.7%	19.6%	24.6%
Employed part-time	15.3%	15.7%	15.4%
Unemployed	15.3%	21.7%	8.9%
Student	3.1%	1.6%	3.4%
Self-employed part-time	3.0%	1.9%	2.0%
Self-employed full-time	2.1%	4.1%	1.4%
Retired	1.4%	1.8%	2.2%
Seasonal worker	0.1%	1.0%	0.3%

2011 n =699; 2103 n= 879; 2016 n=358

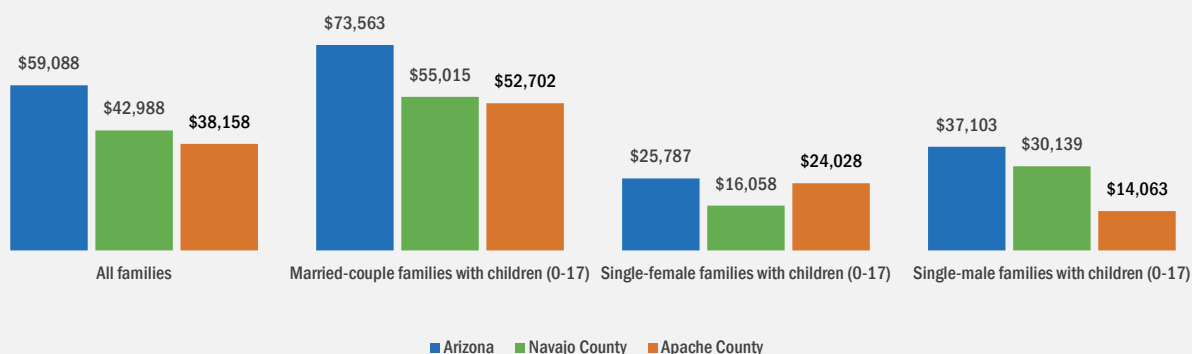
Source: Harder+Company Community Research. (2016). [First Things First – Navajo/Apache Region: Survey for Parents with Children Ages 0-5]. Unpublished raw data.

Median Income and Poverty

The median income of all families in Navajo County is \$42,988, \$16,100 less than the statewide median income of \$59,088. Apache County has an even lower median income for all families at \$38,158. Single-parent families, which comprise over 30% of households with children zero to five, make significantly less, on average, than married-couple families.²⁰ Exhibit 2.6 shows the difference in median income for married-couple families, single-female families, and single-male families.

²⁰ US Census and the US American Survey difference in categories for married vs couple. In the census bureau definition household families are defined as one or more people living in the same household who are related to the householder by birth, marriage, or adoption. For the 2010 census, only spouses of the opposite sex are enumerated as family members of the same household, whereas for the American Community Survey beginning with 2013 data opposite-sex and same-sex married couples are enumerated as family households

Exhibit 2.6. Median income by type of family



U.S. Census Bureau; American Community Survey, 2014 American Community Survey 5-Year Estimates, Table B19126; generated by AZ FTF; using American FactFinder; <<http://factfinder2.census.gov>>.

Parent Survey respondents had a wide range of household incomes (see Exhibit 2.7). However, 48.3% of families had a household income of less than \$25,000. Along with the data provided above, this further highlights the high level of need for families in the FTF Navajo/Apache Region.



Exhibit 2.7 Annual Household Income Distribution of Parent Survey Respondents

Income	2011	2013	2016
Less than \$10,000 per year	21.5%	18.3%	23.3%
\$10,000 to \$14,999 per year	11.8%	15.5%	13.6%
\$15,000 to \$24,999 per year	18.2%	20.6%	11.4%
\$25,000 to \$34,999 per year	14.5%	16.7%	14.4%
\$35,000 to \$49,999 per year	15.2%	11.5%	18.2%
\$50,000 to \$74,999 per year	11.5%	9.9%	11.1%
\$75,000 or more per year	7.3%	7.4%	8.1%

2011 n=685; 2013 n=780; 2016 n=369

Source: Harder+Company Community Research. (2016). *[First Things First – Navajo/Apache Region: Survey for Parents with Children Ages 0-5]. Unpublished raw data.*

According to a 2012 report published by the Center for Women’s Welfare, the annual income needed to be self-sufficient in Navajo County for an adult and infant is \$33,443 and for an adult and preschooler is \$34,680. In Apache County, it is \$31,812 for an adult and infant and \$33,112 for an adult and preschooler (see Exhibit 2.8 and Exhibit 2.9). The self-sufficiency standard income required is over \$12,000 more than the median income for single-female families with children under 18. Families who are living with fewer financial resources than needed to afford basic

needs are likely to encounter challenges that may prevent them from living a healthy life and face significant barriers to securing affordable housing, childcare, and nutritious food.^{21, 22} Living below the self-sufficiency standard negatively impacts health and well-being and may place children zero to five at higher risk for developmental delays and low academic achievement.²³

Exhibit 2.8. Self-sufficiency standard for Navajo County

Wage	Adult	Adult + infant	Adult + preschooler	Adult + school-age	Adult + teenager
Hourly	\$8.43	\$15.83	\$16.42	\$14.30	\$11.91
Monthly	\$1,484	\$2,786	\$2,890	\$2,518	\$2,096
Annual	\$17,813	\$33,433	\$34,680	\$30,211	\$25,157

Center for Women's Welfare (2012). *The Self-Sufficiency Standard for Arizona*. Retrieved from <http://selfsufficiencystandard.org/arizona>

Exhibit 2.9. Self-sufficiency standard for Apache County

Wage	Adult	Adult + infant	Adult + preschooler	Adult + school-age	Adult + teenager
Hourly	\$8.42	\$15.06	\$15.68	\$13.55	\$11.23
Monthly	\$1,482	\$2,651	\$2,759	\$2,384	\$1,976
Annual	\$17,784	\$31,812	\$33,112	\$28,609	\$23,715

Center for Women's Welfare (2012). *The Self-Sufficiency Standard for Arizona*. Retrieved from <http://selfsufficiencystandard.org/arizona>

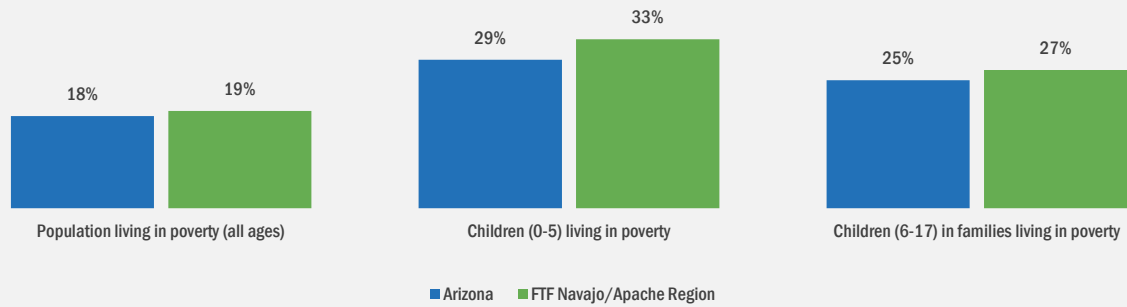
The large number of single-parent families combined with their low median income contributes to a sizable portion of the population in the FTF Navajo/Apache Region living in poverty. In the FTF Navajo/Apache Region, 19% of the population and 33% of children zero to five are living in poverty. This is slightly higher than the 18% and 29%, respectively, for the state of Arizona as a whole (see Exhibit 2.10).

²¹ Brooks-Gunn, J., & Duncan, G. J. (1997). *The effects of poverty on children. The future of children*, 55-71.

²² McLoyd, V. C. (1998). *Socioeconomic disadvantage and child development. American psychologist*, 53(2), 185.

²³ Brooks-Gunn, J., & Duncan, G. J. (1997). *The effects of poverty on children. The future of children*, 55-71.

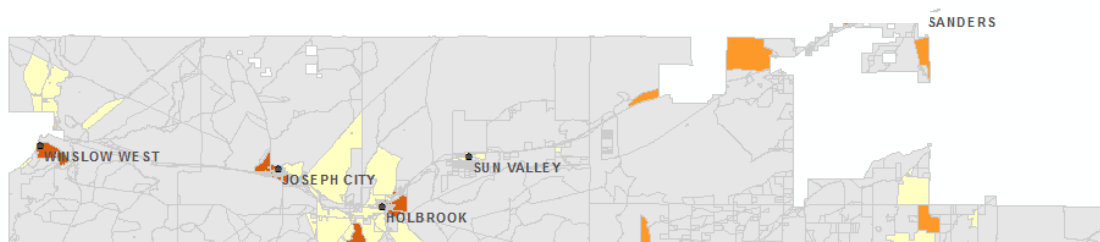
Exhibit 2.10. Percentage of population living in poverty



U.S. Census Bureau; American Community Survey, 2014 American Community Survey 5-Year Estimates, Table B17001; generated by AZ FTF; using American FactFinder; <<http://factfinder2.census.gov>>.

Exhibit 2.11 (on the following page) is a map of poverty and population in the FTF Navajo/Apache Region. There are a few areas near Snowflake, Concho, White Mountain, and Vernon which have high poverty and high population. In addition, there are a few outlying areas which have high poverty and low population.

Exhibit 2.11 Map of Poverty and Population in the FTF Navajo/Apache Region*



Navajo/Apache

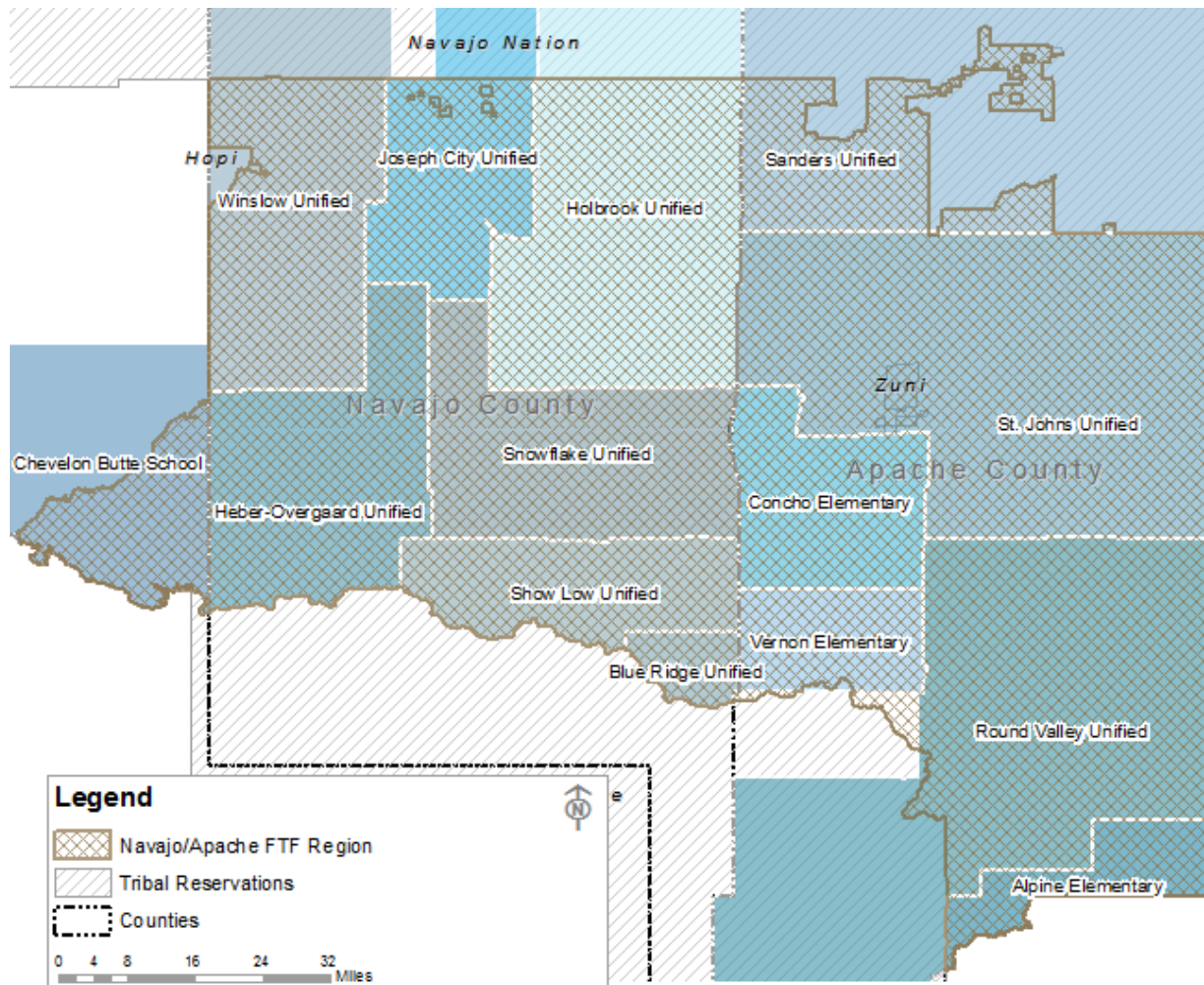
	Legend	# of Census Blocks	Poverty 0-5	Population 0-5	% Poverty
	High Poverty-High Population	587	1,501	4,075	37%
	High Poverty-Low Population	152	164	277	59%
	Low Poverty-High Population	180	75	626	12%
	Low Poverty-Low Population	559	187	667	28%
	No Poverty	9,823	0	521	0%
	Total	11,301	1,927	6,166	31%

**Note: Census 2010 census block data were utilized for the population of children 0-5. The 2007-2011 American Community Survey (ACS) data were used to obtain poverty estimates and proportionally assign them to census blocks because these estimates align better with the Census 2010 population of children 0-5.*

To establish the assignment of each geographical area to one of the categories listed below, the region's median number (children 0-5) for all census blocks was determined (census blocks with no children 0-5 were excluded from the analysis). Those census blocks with the number of children 0-5 below the median were assigned to the "low population" category, while census blocks with the number of children 0-5 above the median were assigned to the "high population" category. The same process was independently followed with the poverty indicator to arrive at the "low poverty" and "high poverty" categories (census blocks with "no poverty" were excluded from the analysis). The combination of categories was ultimately used to assign a geographical area to one of the categories listed below.

Exhibit 2.12 shows a map of the school districts within the FTF Navajo/Apache Region and Exhibit 2.13 shows the percentage of children ages 5 to 17 living in poverty by school district in the Navajo/Apache Region. The Sanders Unified, Concho Elementary, Joseph City Unified, St. Johns Unified, and Vernon Elementary School Districts each have more than 30% of children 5 to 17 living in families in poverty.

Exhibit 2.12 Map of FTF Navajo/Apache Region school districts



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

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

Exhibit 2.13. Children 5 to 17 living in poverty by school district

School district	Estimated % of children 5 to 17 living in families in poverty
Alpine Elementary District	25.5%
Blue Ridge Unified School District No. 32	28.2%
Concho Elementary District	37.8%
Heber-Overgaard Unified District	27.8%
Joseph City Unified District	32.4%
Round Valley Unified District	25.2%
Sanders Unified District	43.4%
Show Low Unified District	27.8%
Snowflake Unified District	20.4%
St. Johns Unified District	30.5%
Vernon Elementary District	32.4%

U.S. Census Bureau; 2014 Small Area Income and Poverty Estimates; generated by Harder+Company Community Research; using American FactFinder; <<http://factfinder2.census.gov>>.

In Navajo County over 30% of individuals who identify as American Indian or Alaskan Native, Native Hawaiian or Other Pacific Islander, Hispanic or Latino, and two or more races are below the federal poverty level. In Apache County, those who identify as White are the only racial or ethnic group with less than 20% of individuals living below the federal poverty level (see Exhibit 2.14).

Exhibit 2.14. Population below the federal poverty level by race/ethnicity

	Arizona	Navajo County	Apache County
Black or African-American	24.7%	27.4%	27.6%
American Indian or Alaskan Native	38.5%	45.5%	41.6%
Asian	13.7%	5.4%	37.2%
Native Hawaiian and Other Pacific Islander	27.5%	38.5%	57.9%
Other Race	29.3%	23.8%	27.9%
Two or More Races	19.9%	31.0%	29.4%
White, not Hispanic	11.3%	15.5%	17.8%
Hispanic or Latino	28.1%	31.9%	24.6%

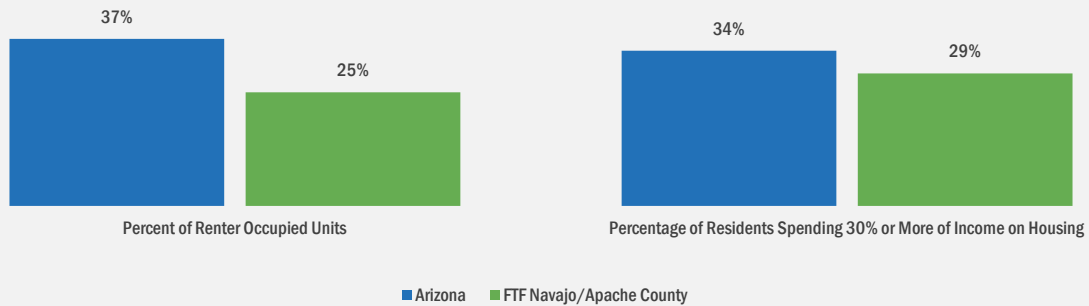
U.S. Census Bureau; American Community Survey, 2014 American Community Survey 5-Year Estimates, Table B17001B, Table B17001C, Table B17001D, Table B17001E, Table B17001F, Table B17001H, Table B17001I; generated by Harder+Company; using American FactFinder; <<http://factfinder2.census.gov>>.

Housing and Food Insecurity

In the FTF Navajo/Apache Region, 25% of occupied housing units are rented and 29% of residents do not have affordable housing, based on the common definition of spending 30% or more of their income on housing (see Exhibit 2.15). In the FTF Navajo/Apache Region, the residential foreclosure rate differs widely throughout the area. Navajo County has a foreclosure rate of one in every 2,625 homes and Apache County has a foreclosure rate of one in every 3,123, both of which are substantially less than the foreclosure rate for Arizona (see Exhibit 2.16). With nearly one in three residents in the region living without affordable housing and a high foreclosure rate in certain cities, some residents are at risk for housing instability.²⁴ The lack of affordable housing may lead to housing instability for many families which can then affect a child's development and well-being by impacting their sleep and emotional security.

²⁴ Roy, J., Maynard, M., & Weiss, E. (2008). *The Hidden Costs of the Housing Crisis. The Partnership for America's Economic Success.*

Exhibit 2.15. Percentage of rented housing units and residents spending 30 percent or more of income on housing

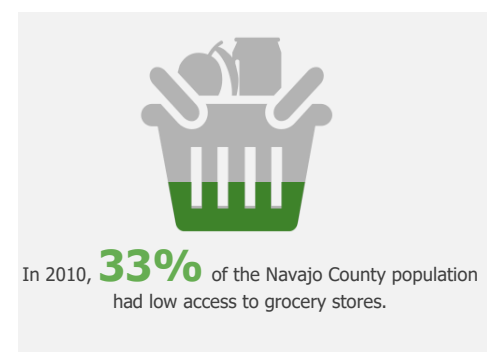
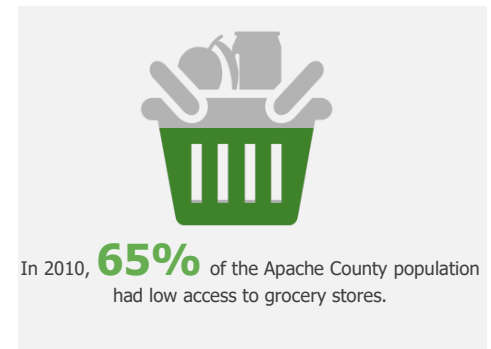


U.S. Census Bureau; American Community Survey, 2014 American Community Survey 5-Year Estimates, Table B25106; generated by AZ FTF; using American FactFinder; <<http://factfinder2.census.gov>>.

Exhibit 2.16. Residential foreclosure and pre-foreclosure rates

Location	Foreclosure and pre-foreclosure rates
Arizona	1 in every 1,721
Navajo County	1 in every 2,625
- Snowflake City	1 in every 692
- Heber City	1 in every 1,041
- Holbrook City	1 in every 1,174
- Show Low City	1 in every 1,925
- Lakeside City	1 in every 3,102
Apache County	1 in every 3,123
- Springville City	1 in every 1,318

RealtyTrac (July 2016). Arizona Real Estate and Market Info. Retrieved from <http://www.realtytrac.com/statsandtrends/foreclosuretrends/az>



In Apache County, 65% of the population has low access to grocery stores, compared to 33% in Navajo County and 19% in Arizona as a whole. Despite a higher percentage of the population having low access to grocery stores in Navajo and Apache counties, there are similar number of grocery stores and more SNAP-authorized and WIC-authorized stores per 1,000 people compared to the state (see Exhibit 2.17). These environmental factors, combined with the poverty rate discussed above, contribute to a large portion of the population in Navajo and Apache counties

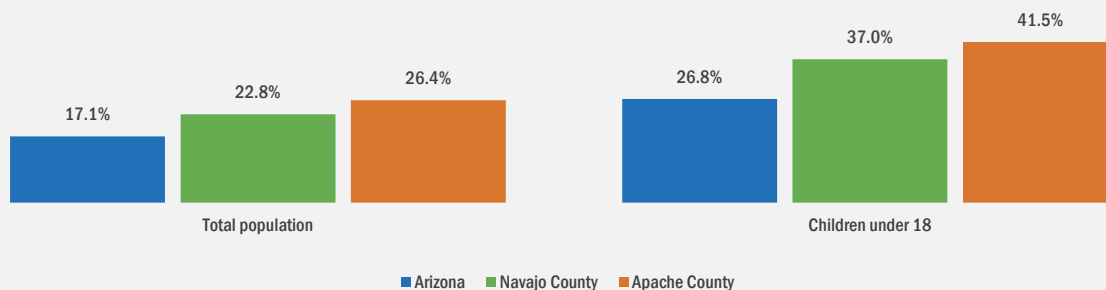
being food insecure, defined as limited or uncertain access to adequate food. In Apache County 42% of children under 18 are food insecure and in Navajo County 37% of children under 18 are food insecure (see Exhibit 2.18). Not having access to adequate or nutritious food can have serious detrimental effects upon young children including learning difficulties, delayed development, and chronic health conditions.^{25, 26}

Exhibit 2.17. Food accessibility indicators

	Year	Arizona	Navajo County	Apache County
% of population with low access to grocery stores	2010	19.0%	33.1%	65.4%
Grocery stores per 1,000 people	2012	0.1259	0.1587	0.1093
Fast food restaurants per 1,000 people	2012	0.6467	0.5042	0.2596
SNAP-authorized stores per 1,000 people	2012	0.5596	0.7820	0.8129
WIC-authorized stores per 1,000 people	2012	0.1106	0.2334	0.4099

United States Department of Agriculture and Economic Research Service (2012). Food Environment Atlas. Retrieved from <http://www.ers.usda.gov/data-products/food-environment-atlas/go-to-the-atlas.aspx>

Exhibit 2.18. Food insecurity rates



Gundersen, C., A. Dewey, A. Crumbaugh, M. Kato & E. Engelhard. Map the Meal Gap 2016: Food Insecurity and Child Food Insecurity Estimates at the County Level. Feeding America, 2016.

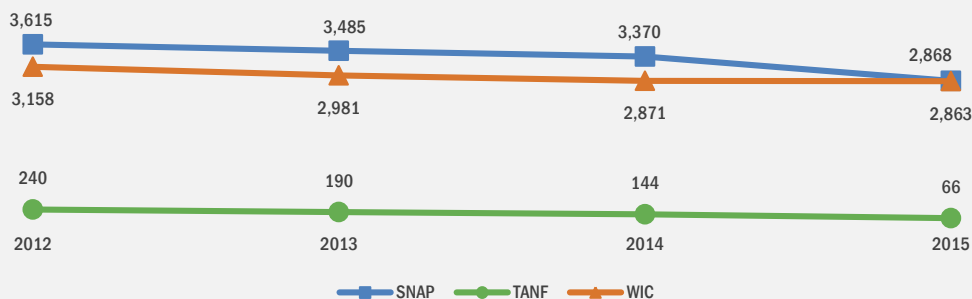
There are several federal and local programs and services aimed at providing families with the food they need, including the Supplemental Nutrition Assistance Program (SNAP), Temporary Assistance for Needy Families (TANF), WIC, CACFP, Summer Food Program (SFP), and free and reduced priced lunch programs for children in schools. Despite the prevalence of these programs, the number of children and families receiving assistance in recent years

²⁵ <http://www.feedingamerica.org/hunger-in-america/impact-of-hunger/child-hunger/child-development.html>

²⁶ Ke, Janice, and Elizabeth Lee Ford-Jones. "Food Insecurity and Hunger: A Review of the Effects on Children's Health and Behaviour." *Paediatrics & Child Health* 20.2 (2015): 89–91. Print.

has decreased in the FTF Navajo/Apache Region. Federal programs such as SNAP, TANF, and WIC have decreased in recent years due to the expiration of benefit increases instituted during the recession.²⁷ These decreases come even as the number of families living in poverty has increased nationally.²⁸ Exhibit 2.19 shows that the number of children and families receiving assistance has decreased in recent years in the FTF Navajo/Apache Region.

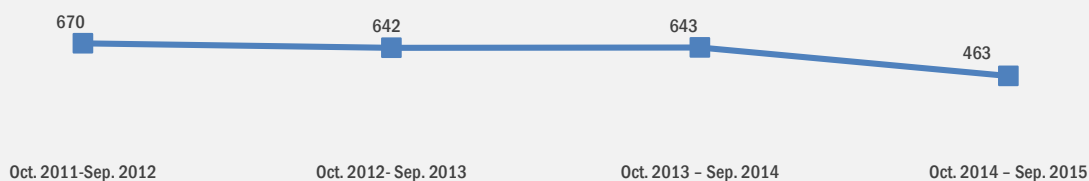
Exhibit 2.19. Number of children served in the FTF Navajo/Apache Region by SNAP, TANF and WIC



Arizona Department of Economic Security (2015). Temporary Assistance for Needy Families (TANF) program. Provided by AZ FTF.
 Arizona Department of Economic Security (2015). Supplemental Nutrition Assistance Program (SNAP).
 Arizona Department of Health Services (2015). Women, Infants & Children (WIC). Provided by AZ FTF.

Exhibit 2.20 shows that the average number of children served by school year across all sites offering CACFP has varied between the 2011-2012 and 2014-2015 school years. During the 2014-2015 school year, on average 463 children were served by CACFP, which is a decrease from previous school years.

Exhibit 2.20. Average Number of Children Served by CACFP by school year in the FTF Navajo/Apache Region



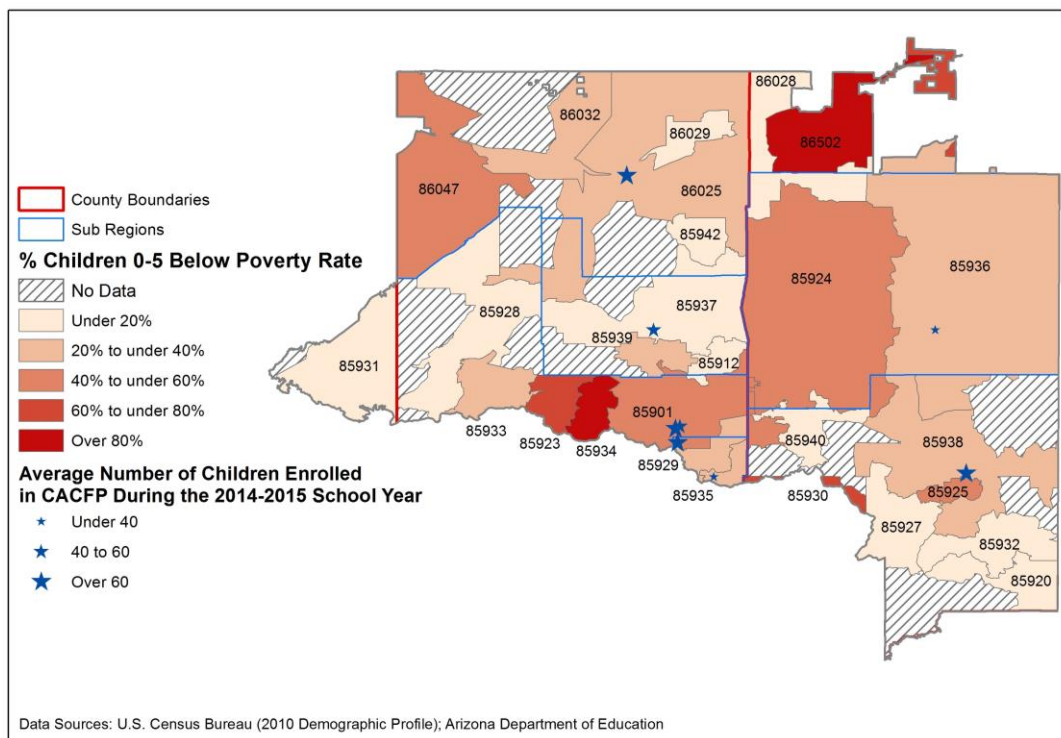
Arizona Department of Education (2015). Child and Adult Food Care Program. Provided by AZ FTF.

Exhibit 2.21 shows that the sites that distribute meals for the CACFP are concentrated in selected areas of the region, leaving some areas underserved. The majority of children enrolled in CACFP in three zip codes including 85901, 85925, and 86025.

²⁷ Rosenbaum, D. & Keith-Jennings, B. (2016). *Snap Costs and Caseloads Declining*. Center on Budget and Policy Priorities. Retrieved from <http://www.cbpp.org/research/food-assistance/snap-costs-and-caseloads-declining>

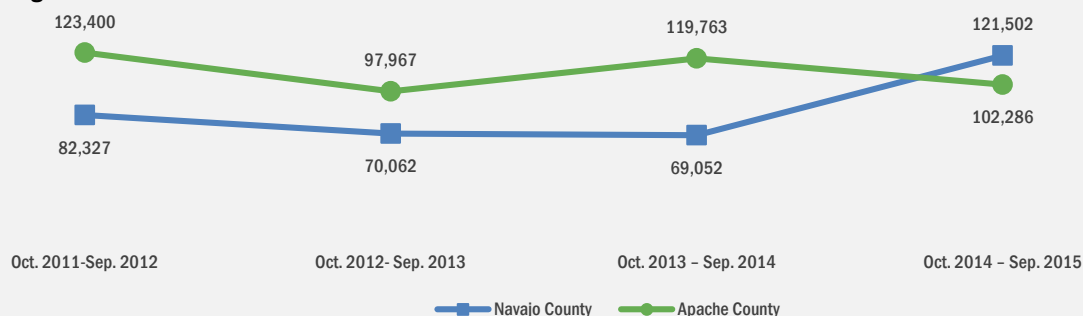
²⁸ Spalding, A. (2012). *Decline of TANF Caseloads Not the Result of Decreasing Poverty*. Kentucky Center for Economic Policy. Retrieved from <http://kypolicy.org/decline-tanf-caseloads-result-decreasing-poverty/>

Exhibit 2.21. Poverty rates and average number of children enrolled in CACFP during the 2014-2015 School Year in FTF Navajo/Apache Region



The total number of meals served to children 18 years and under by the SFP has varied in both Navajo and Apache counties between the 2011-2012 and 2014-2015 school years. During the 2014-2015 school year, 121,502 meals were provided to low-income children 18 years and under in Navajo County and 102,286 meals were provided to low-income children 18 years and under in Apache County (Exhibit 2.22).

Exhibit 2.22. Number of free meals provided to children 18 and younger through Arizona's Summer Food Program



Arizona Department of Education (2015). Summer Food Program. Provided by AZ FTF.

Additional information regarding free and reduced price lunch by school is available in Appendix 2.1. In addition to these federal and state programs, the region has several local food banks that distribute food and other supplies to families in need. Exhibit 2.23 shows the amount of these supplies that were distributed to families in need in 2015.

Exhibit 2.23. Food boxes and other supplies distributed by food banks in the FTF Navajo/Apache Region

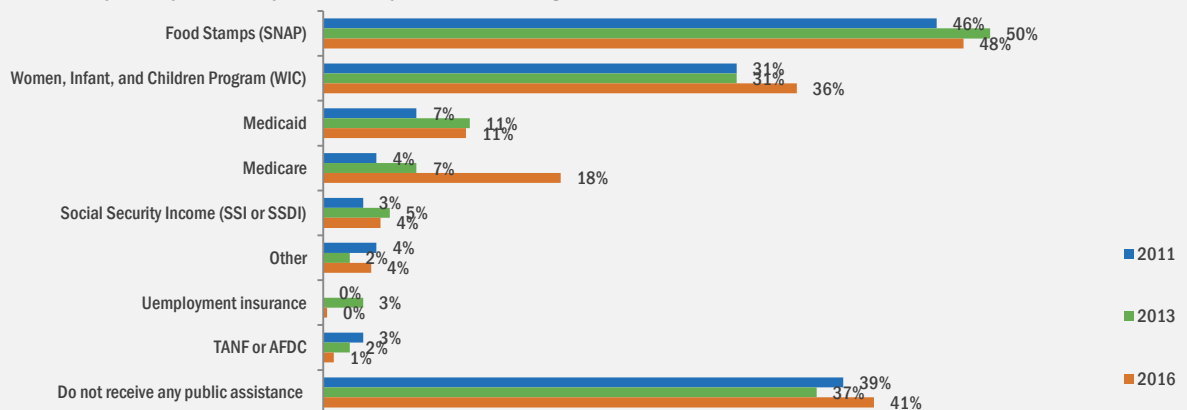
Type of distributions	Number of distributions
Turkey & Holiday Food Boxes	525
Regular Food Boxes	498
Diapers	109
Backpacks & School Supplies	31
Food Pantries	22

Food Bank (2015). Food Box Data. Provided by AZ FTF.

Parent Survey respondents were asked to indicate whether they receive any forms of public assistance. Despite decreases in recent years in the number of children and families receiving public assistance in the FTF Navajo/Apache Region, 48% of respondents said they receive Food Stamps (SNAP), which is similar to the percentage reported in previous years. In 2016, a higher percentage of Parent Survey respondents said they receive WIC and Medicare compared to previous years. However, based on responses, there may be some confusion between Medicaid and Medicare which may account for the increase in the percentage that report they are receiving Medicare (see Exhibit 2.24).



Exhibit 2.24 Do you or your family receive any of the following forms of public assistance?



2011: 403 respondents offering 692 responses; 2013: 795 respondents offering 1,164 responses; 2016: 392 respondents offering 637 responses
Source: Harder+Company Community Research. (2016). [First Things First- Navajo/ Apache Region: Survey for parents with children ages 0-5]. unpublished data. San Diego, CA.
Note: These responses are not mutually exclusive. Early periodic Screening, Diagnosis, and Treatment Program (EPSDT) were not asked in 2013. 8% reported receiving services in 2011.
Note Multiple response question

When looking at subareas within the FTF Navajo/Apache Region, the majority of respondents said they are receiving Food Stamps, WIC, or Medicaid/Medicare. Two-thirds of respondents in the Concho and St. Johns area (67%) are receiving Food Stamps and 48% are receiving WIC. With the exception of the Vernon/Alpine/ Round Valley areas, at least one-third of respondents in each area are receiving WIC and 45% or more are receiving Food Stamps (see Exhibit 2.25).



Exhibit 2.25 Do you or your family receive any of the following forms of public assistance? By First things First Navajo/Apache Region Areas- 2016 (Top 3 Responses)

	Vernon/Alpine/Round Valley Area	Concho/St. Johns Area	Holbrook/Joseph City/Sanders Area	Blue Ridge Area	Show Low/Heber Area	Snowflake Area
Response 1	Food Stamps (33%)	Food Stamps (67%)	Food Stamps (47%)	Food Stamps (63%)	Food Stamps (46%)	Food Stamps (49%)
Response 2	WIC (24%)	WIC (48%)	WIC (37%)	WIC (33%)	WIC (32%)	WIC (45%)
Response 3	Medicare (8%)	Medicare (14%)	Medicaid (24%)	Medicare (17%)	Medicare (30%)	Medicare (27%)

Multiple response questions. Vernon/Alpine/Round Valley (Area 1): 65 Respondents offering 58 responses; Concho/St. Johns (Area 2): 42 respondents offering 60 responses; Holbrook/Joseph City/Sanders (Area 3): 93 respondents offering 118 responses; Blue Ridge (Area 4): 30 respondents offering 38 responses; Show Low/Heber (Area 5): 89 respondents offering 108 responses; Snowflake (Area 6): 71 respondents offering 97 responses.

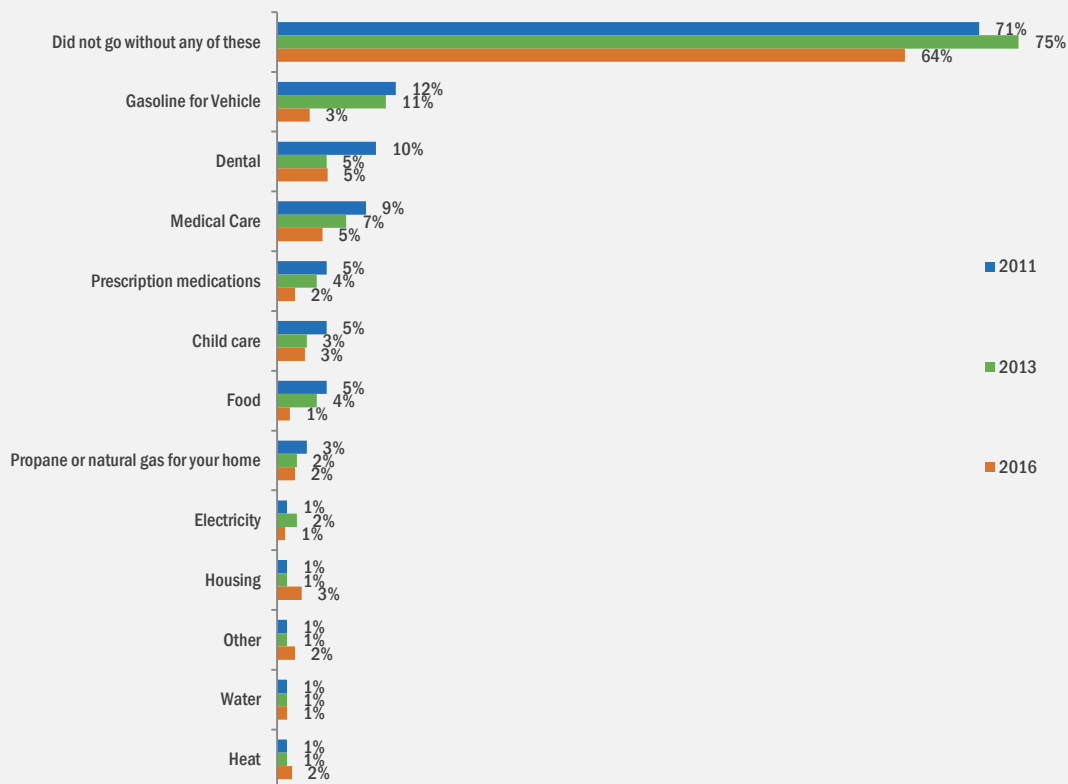
Source: Harder+Company Community Research. (2016). [First Things First- Navajo/ Apache Region: Survey for parents with children ages 0-5]. Unpublished data. San Diego, CA

Parent Survey respondents also provided details about access to basic needs. Families were asked whether they had to go without a basic need being met in the past 12 months. The majority of respondents said they did not go

without a basic need being met (64%). Compared to previous Parent Survey data from 2011 and 2013, fewer families went without most basic needs, with the exception of housing (see Exhibit 2.26).



Exhibit 2.26 In the past 12 months did you or your family go without any of the following?



2011: 651 respondents offering 820 responses; 2013: 785 respondents offering 948 responses; 2016: 394 respondents offering 361 responses.

Source: Harder+Company Community Research. (2016). [First Things First- Navajo/Apache Region: Survey for parents with children ages 0-5]. Unpublished data. San Diego, CA

Note: These responses are not mutually exclusive

Note: Multiple response question

Within the different subareas, responses varied about basic needs that families had to go without (see Exhibit 2.27).



Exhibit 2.27 In the past 12 months did you or your family go without any of the following? By FTF Navajo/Apache Region Area-2016 (Top 3 Responses)

	Vernon/Alpine/Round Valley Area	Concho/St. Johns Area	Holbrook/Joseph City/Sanders Area	Blue Ridge Area	Show Low/Heber Area	Snowflake Area
Response 1	Medical Care (5%)	Electricity (2.4%)	Childcare (4%)	Propane/natural gas for the home (7%)	Dental (8%)	Dental (10%)
Response 2	Dental (3%) Housing (3%) Prescription Medication (3%) Gasoline (3%)	Gasoline (2.4%) Housing (2.4%)	Dental (3%) Housing (3%) Gasoline (3%)	Medical Care (3%) Food (3%) Childcare (3%)	Medical Care (6%)	Medical Care (9%)
Response 3	-		-	-	Gasoline (3%) Housing (3%)	Gasoline (7%)

Multiple response questions. Vernon/Alpine/Round Valley (Area 1): 67 Respondents offering 66 responses; Concho/St. Johns (Area 2): 42 respondents offering 36 responses; Holbrook/Joseph City/Sanders (Area 3): 93 respondents offering 75 responses; Blue Ridge (Area 4): 30 respondents offering 25 responses; Show Low/Heber (Area 5): 89 respondents offering 78 responses; Snowflake (Area 6): 71 respondents offering 78 responses.

Source: Harder+Company Community Research. (2016). [First Things First – Navajo/Apache Region: Survey for parents with children ages 0-5]. Unpublished data. San Diego, CA.

ECONOMIC CHARACTERISTICS HIGHLIGHTS

In the FTF Navajo/Apache Region, 56% of children live in households with either both parents in the labor force or a single parent in the labor force. Single-parent families, which comprise 29.8% of households with children zero to five, earn significantly less, on average, than dual parent households. Additionally, with 30% of the population in the FTF Navajo/Apache Region unable to access affordable housing and experiencing a higher foreclosure rate than the state, families are at higher risk for housing instability and experiencing the negative consequences of living below the self-sufficiency standard. For example, in Apache County 65% of the population has low access to grocery stores and the number of children and families receiving public assistance has decreased in recent years.

Parent Survey respondents had a wide range of household incomes. However, 48.3% of families had a household income of less than \$25,000. More than half of Parent Survey respondents indicated that they received some form of public assistance, with the majority receiving Food Stamps (48%) or WIC (36%).

Below are key findings that highlight the economic needs, assets, and data-driven considerations for the FTF Navajo/Apache Region based on the data highlighted above. The considerations provided below do not represent comprehensive approaches and methods for tackling the needs and assets in the region. Instead, the considerations represent possible approaches that early childhood system partners, including FTF, could take to address needs and assets in the region, as conceptualized by the authors of this report.

Assets	Considerations
The FTF Navajo/Apache Region has several local programs aimed to support the availability of nutritious foods for children under six and their families.	Support local DES and WIC offices' efforts to increase community awareness of nutrition programs available to young children and their families.
Needs	Considerations
About 34% of children under six live in single-parent households, which earn substantially less money than dual parent households, and more than 33% of children 0-5 live in poverty.	Promote supports or resources that can help subsidize child care and housing costs for single parents with young children.
37% of children in Navajo County and 42% of children in Apache County are food insecure.	Support young children and their families by connecting them to existing food box distribution programs and locations, nutrition education, and other resources..
CACFP is not available in two zip codes (85934 and 86502) with high poverty rates.	Promote and encourage expansion of CACFP programs.



3. Educational Indicators

Why it Matters

Children who participate in early care and education programs are more likely to perform better on future educational indicators (e.g., language and math proficiency). Moreover, numerous researchers in the field of early care and education have identified the first five years of life as a critical time for neurodevelopment.²⁹ Specifically, studies have shown that exposure to early literacy skills, informal math knowledge, and certain components of socioemotional development are precursors to academic success.³⁰ Other educational indicators that affect positive student outcomes include, but are not limited to, school attendance, proficiency exams, grades, graduation and dropout rates, and educational attainment.

Research has also demonstrated an association between high school dropout rates and poor attendance as early as kindergarten; for example, on average dropouts have missed 124 days of school by the time they reach 8th grade.³¹ Additionally, irregular attendance has a negative effect on school budgets and could potentially lead to fewer funds for essential classroom needs.³² Higher education in Arizona experienced the nation's highest decrease (47%) in state spending per student from 2008 to 2015.³³ Research has also shown that students dropping out of high school have an increased likelihood of earning less than high school graduates, being unemployed, receiving public assistance, and being incarcerated, therefore likely to confront more barriers while raising a family.³⁴

What the Data Tell Us

Student Attendance

From 2014 to 2015, the percentage of students missing ten or more days of school increased slightly across the state, Navajo and Apache Counties, and the FTF Navajo/Apache Region, with the exception of 2nd graders in Apache County (see Exhibits 3.1-3.3). Attendance is also higher for the FTF Navajo/Apache Region compared to the state across all years and grade levels. In addition, the higher the grade level, the fewer the students that are missing 10 or more days of school. There are many potential explanations for such findings, including that younger children get sick more frequently than older children or that the perception of the value of education changes as children grow

²⁹ Cohen, A. K., & Syme, S. L. (2013). Education: A Missed Opportunity for Public Health Intervention. *American Journal Of Public Health*, 103(6), 997-1001

³⁰ Lonigan, C. J., Phillips, B. M., Clancy, J. L., Landry, S. H., Swank, P. R., Assel, M., & ... School Readiness, C. (2015). Impacts of a Comprehensive School Readiness Curriculum for Preschool Children at Risk for Educational Difficulties. *Child Development*, 86(6), 1773-1793.

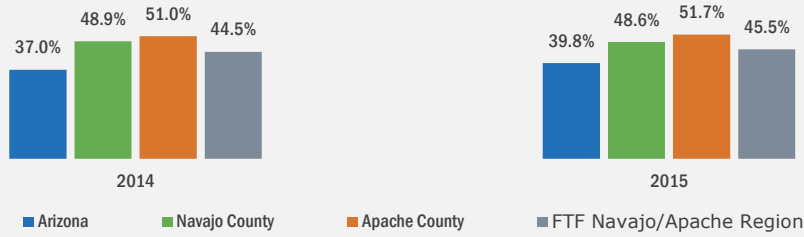
³¹ Why attendance matters. (2016, June 9). Retrieved from <http://www.greatschools.org/gk/articles/school-attendance-issues/>

³² Every school day counts: The forum guide to collecting and using attendance data. (2009, February). Retrieved December 06, 2016, from <https://nces.ed.gov/pubs2009/attendancedata/chapter1a.asp>

³³ Mitchell, M., & Leachman, M. (2015, May 2015). Years of cuts threaten to put college out of reach for more students. Retrieved December 05, 2016, from <http://www.cbpp.org/research/state-budget-and-tax/years-of-cuts-threaten-to-put-college-out-of-reach-for-more-students>

³⁴ Christle, C. A., Jolivette, K., Nelson, M. C. (2007). School characteristics related to high school dropout rates. *Journal of Remedial and Special Education*, 28, 15. www.eric.ed.gov/ERICWebPortal/recordDetail?accno=EJ785964

Exhibit 3.1. Students absent ten or more days of school: 1st graders

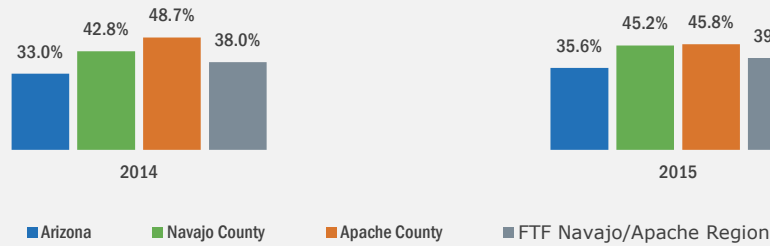


Arizona Department of Education (2015). Chronic Absences. Provided by AZ FTF.

*Data available by school district

AZ: 2014 (n=96,218), 2015 (n=96,232); Navajo County (n=1,668), 2015 (n=1,686); Apache County (n=980), 2015 (n=938); FTF Region (n=1,170), 2015 (n=1,120)

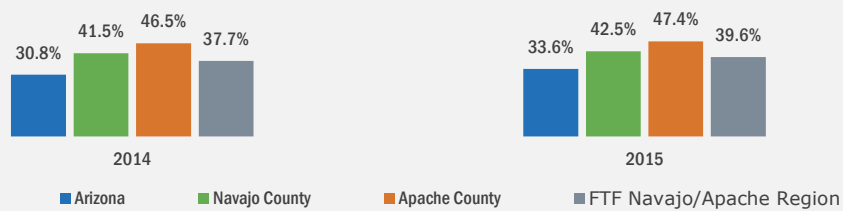
Exhibit 3.2. Students absent ten or more days of school: 2nd graders



Arizona Department of Education (2015). Chronic Absences. Provided by AZ FTF.

AZ: 2014 (n=91,989), 2015 (n=94,767); Navajo County (n=1,531), 2015 (n=1,596); Apache County (n=927), 2015 (n=890); FTF Region (n=1,053), 2015 (n=1,059)

Exhibit 3.3. Students absent ten or more days of school: 3rd graders



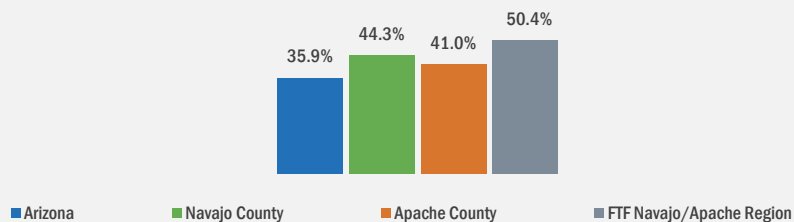
Arizona Department of Education (2015). Chronic Absences. Provided by AZ FTF.

AZ: 2014 (n=89,935), 2015 (n=92,148); Navajo County (n=1,517), 2015 (n=1,502); Apache County (n=927), 2015 (n=887); FTF Region (n=1,088), 2015 (n=1,024)

Early Achievement

The American Community Survey (ACS) collects information on children who attend nursery school, preschool, or kindergarten³⁵. According to responses to the ACS, 50.4% of all children in the FTF Navajo/Apache Region who are between 3 and 4 years old are enrolled in nursery school, preschool, or kindergarten, which is higher than Arizona, Navajo County, and Apache County (see Exhibit 3.4). It is important to note that data captured on the ACS includes information on nursery school which could be interpreted to include Sunday school and may only be a few hours per week. Therefore, the 50% does include children who may not be enrolled in an Early Care and Education Program.

Exhibit 3.4. 2014 Children ages 3-4 enrolled in nursery school, preschool, or kindergarten



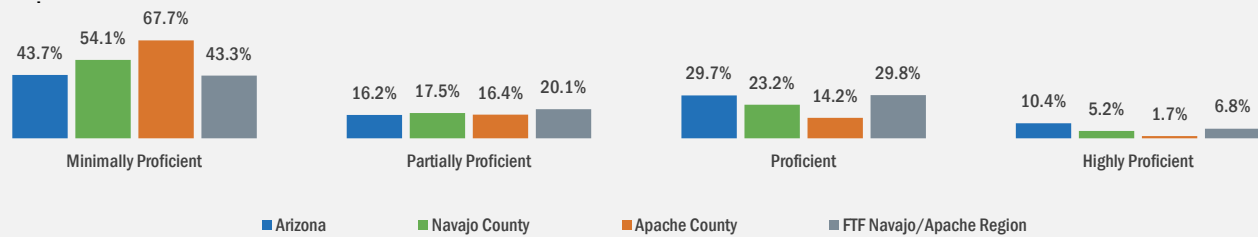
U.S. Census Bureau American Community Survey, 2014 American Community Survey 5-Year Estimates, Table B14003; generated by AZ FTF; using American Fact Finder; <<http://factfinder2.census.gov>>.

AZ (n=184,637); Navajo County (n=3,532); Apache County (n=2,432); FTF Region (n=2,125)

In Arizona the Department of Education (ADE) uses AzMERIT, a statewide achievement test for English Language Arts and Mathematics, to assess academic proficiencies. English Language Arts (ELA) assessment results demonstrated that close to 37% of all 3rd graders in the FTF Navajo/Apache Region scored “proficient” or “highly proficient”, which is lower than the state, but higher than Navajo County and Apache County, individually (see Exhibit 3.5). Slightly more, about 44% of 3rd graders, scored “proficient” or highly proficient” on the Math assessment test in the FTF Navajo/Apache Region, which is higher than the state, Navajo County, and Apache County (see Exhibit 3.6). Council members shared that higher math scores could be due to the focus placed on Science, Technology, Engineering, and Math (STEM). In addition to STEM, the statewide focus on math due to poor scores on a previous version of the proficiency assessment known as Arizona’s Instrument to Measure Standards (AIMS), could be contributing to higher overall math scores. Council members also shared that low proficiency scores on the ELA assessment could be due to English as a Second Language (ESL) learners, which may suggest there is a need for increased bilingual support and resources in schools. Although Math assessment results are higher than the ELA assessment results, overall more than half of all 3rd graders are not meeting the standard for both assessment tests.

³⁵ The ACS asks “At any time IN THE LAST 3 MONTHS, has this person attended school or college? Include only nursery or preschool, kindergarten, elementary school, home school, and schooling which leads to a high school diploma or a college degree.” <https://www2.census.gov/programs-surveys/acs/methodology/questionnaires/2016/quest16.pdf>

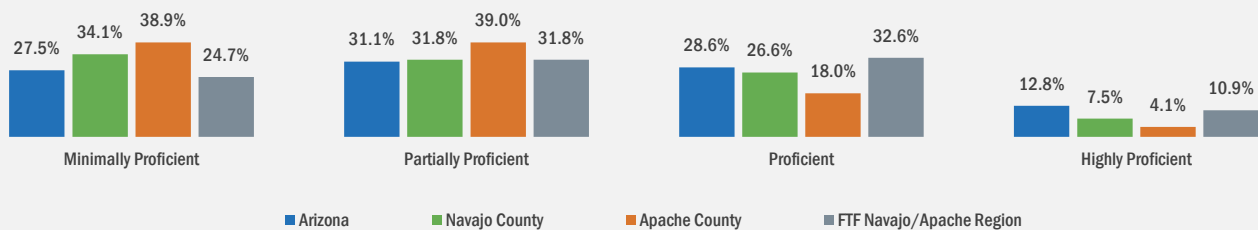
Exhibit 3.5. 2015 AzMERIT English Language Arts Assessment results for 3rd grade



Arizona Department of Education (2015). AzMERIT Reports. Provided by AZ FTF.

AZ (n=85,053); Navajo County (n=1,348); Apache County (n=810); FTF Region (n=914)

Exhibit 3.6. 2015 AzMERIT Math Assessment results for 3rd grade students



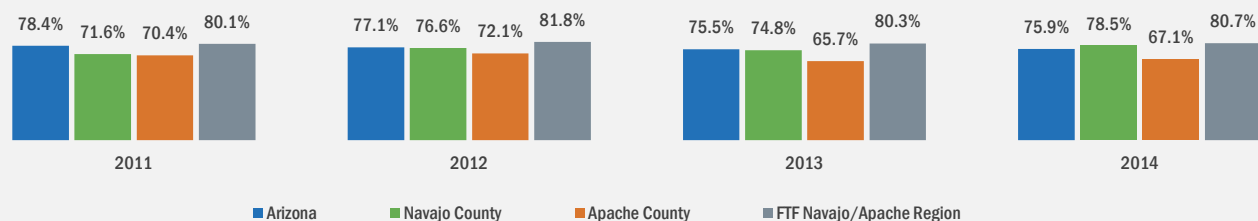
Arizona Department of Education (2015). AzMERIT Reports. Provided by AZ FTF.

AZ (n=85,495); Navajo County (n=1,354); Apache County (n=821); FTF Region (n=920)

High School Graduation & Dropout Rates

Between 2011 and 2014, the 4-year high school graduation rates decreased for the state and Apache County while the rates for Navajo County increased. The 4-year graduation rate remained relatively constant for the FTF Navajo/Apache Region over the same time period (see Exhibit 3.7). By 2014, the 4-year graduation rates for the FTF Navajo/Apache Region were higher than the state, Navajo County, and Apache County. During that same time period, the state and Apache County also experienced a decrease in the 5-year graduation rate while Navajo County and the FTF Navajo/Apache Region saw an increase (see Exhibit 3.8). By 2014, the 5-year graduation rates for the FTF Navajo/Apache Region were higher than the state, Navajo County, and Apache County.

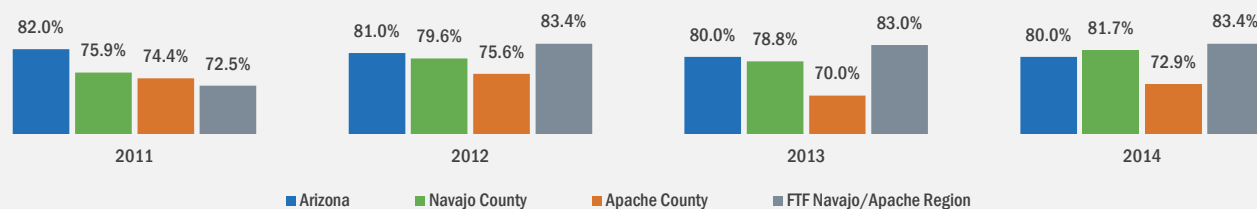
Exhibit 3.7. 2011-2014 High school graduation rates: 4-year cohort



Arizona Department of Education (2014). Graduation Rate 2018 Cycle. Provided by AZ FTF.

**The four-year graduation rate counts a student who graduates with a regular high school diploma in four years or less as a high school graduate in his or her original cohort

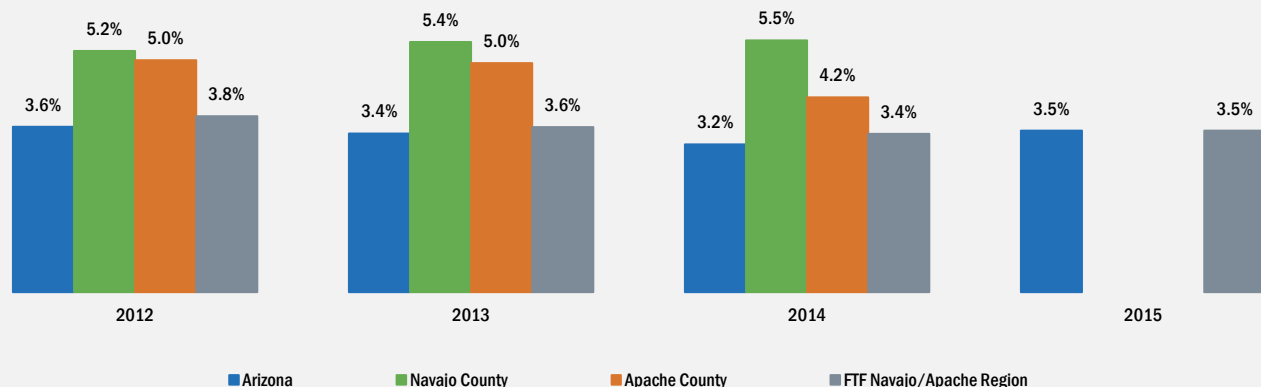
Exhibit 3.8. 2011-2014 High school graduation rates: 5-year cohort



Arizona Department of Education (2014). Graduation Rate 2018 Cycle. Provided by AZ FTF.

From 2012-2015, the percentage of students dropping out of high school in Arizona fluctuated between 3 to 4%. In comparison, the percentage of students dropping out in the FTF Navajo/Apache Region dropped by less than 1% (see Exhibit 3.9).

Exhibit 3.9. 2012-2015 High school dropout rates



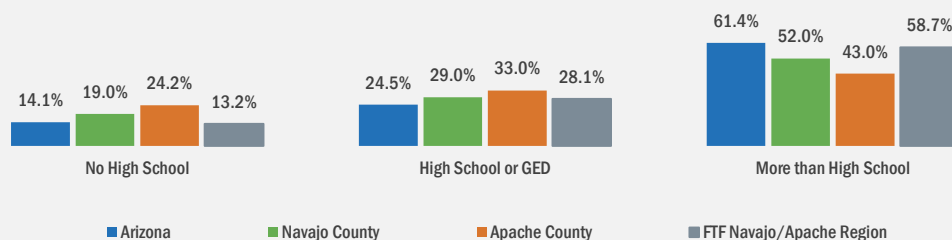
Arizona Department of Education (2014). Graduation Rate 2018 Cycle. Provided by AZ FTF.

*Data for high school dropout rate were not available at the County level in 2015

Educational Attainment

The percentage of adults 25 and older who have completed more than high school is slightly lower in the FTF Navajo/Apache Region than the state (see Exhibit 3.10). In the FTF Navajo/Apache Region, 86.8% of adults have a high school degree/GED or higher, which is higher than the state, Navajo County, and Apache County.

Exhibit 3.10. 2014 Educational attainment of adults 25 and older

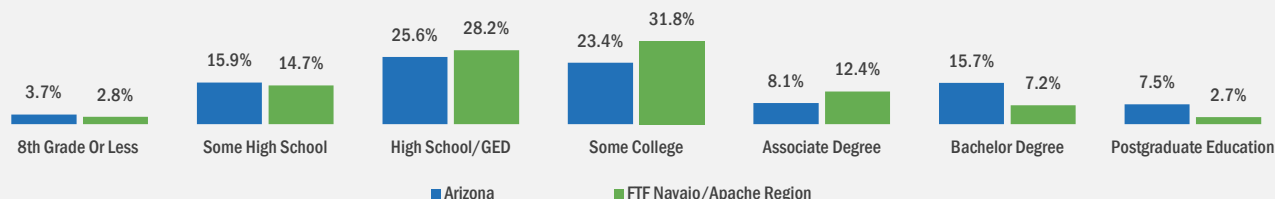


U.S. Census Bureau; American Community Survey, 2014 American Community Survey; generated by AZ FTF; using American FactFinder; <<http://factfinder2.census.gov>>.

AZ (n=4,284,776); Navajo County (n=66,359); Apache County (n=42,767); FTF Region (n=48,470)

The majority of mothers in the FTF Navajo/Apache Region (54%) have completed more than high school which is similar to the state (see Exhibit 3.11). Approximately 18% of mothers do not have a high school education in the FTF Navajo/Apache Region, which is 2% lower than Arizona (20%). To see more about school indicators such as race or ethnicity of children by school, school report-card letter grade, and/or school enrollment (by school and district), refer to Appendices 3.1-3.3.

Exhibit 3.11. 2014 Percentage of live births by mother's educational attainment



Arizona Department of Health Services (2014). Vital Statistics. Provided by AZ FTF.

** Statewide data rounded to nearest tens unit due to non-zero addend less than 6

EDUCATION HIGHLIGHTS

Based on the review of education indicator data, student absences are increasing across Arizona, Apache County, and the FTF Navajo/Apache Region, although attendance is better in the FTF Navajo/Apache region across all years and grades compared to the state. About 50% of children between the ages of 3-4 are enrolled in nursery school (which includes Sunday school), preschool, or kindergarten. Students in the FTF Navajo/Apache Region are scoring higher on math than the English Language Arts (ELA) proficiency assessment. The state and Apache County experienced a decrease in the 4-year and 5-year graduation rate while Navajo County and the FTF Navajo/Apache Region experienced an increase. In addition, the state, Apache County, and the FTF Navajo/Apache Region experienced a slight decrease in dropout rates while Navajo County had a slight increase. In the FTF Navajo/Apache Region, 86.8% of adults have a high school degree/GED or higher, which is higher than the state, Navajo County and Apache County. The majority of mothers in the FTF Navajo/Apache Region (54%) have completed more than high school which is similar to the state.



4. Early Learning

Why it Matters

Early Care and Education (ECE) programs encompass educational programs and strategies designed to improve future school performance for children under the age of eight.³⁶ Research suggests that the first five years of life are considered to be the most crucial stage in children's development, as they undergo the most rapid phase of growth during that period.³⁷ Research also shows that children's participation in high-quality early care and education environments leads to higher educational achievement later in life. Children who participate in ECE programs are better prepared for kindergarten, have greater success in elementary school, and are more likely to graduate from high school and prosper well into adulthood.^{38, 39} The quality and type of care provided to children also significantly influences the development of social and behavioral skills.⁴⁰

The adult to child ratio for licensed child care centers is set by the Arizona Department of Health Services (DHS) Bureau of Child Care Licensing (BCCL) and should not be exceeded. Research suggests that a smaller adult to child ratio in child care settings leads to a higher quality of interaction between child and caregiver, which in turn leads to better outcomes for young children.⁴¹ On average, services that are delivered in the home have an adult to child ratio between 1:5 and 1:6.⁴² However, the adult to child ratio changes for DHS Licensed Child Care Centers. State licensing requires specific adult to child ratios depending on the child's age. These requirements impact the ability of child care centers to care for children, and limit the opportunities for families to access child care services. The requirements also make it difficult to track the number of vacancies and the total number of children enrolled because data can only be collected at a specific point in time to demonstrate enrollment compliance. Although it is difficult to track, understanding the number of children enrolled in early learning can help provide an estimate of the number of children who may be in need of quality early care and education.

Key indicators of early learning that help identify the needs of children include, but are not limited to, the availability of early care and education centers and homes, enrollment in ECE programs, the availability of ECE professionals, costs of child care and availability of child care subsidies or scholarships, and capacity to serve special needs children. Research shows that investments in early childhood programs yields long-term benefits and can reduce crime rates, increase earnings, and encourage education.⁴³ In addition, the research also shows that investments in ECE have long-term health effects and help prevent disease and promote health.

What the Data Tell Us

Early Care and Education



There are **26** early care and education centers and homes in the FTF Navajo/Apache Region and

3,157 in Arizona

³⁶ Early Childhood Education. (2016, September 06). Retrieved from <http://k6educators.about.com/od/education/g/earlychildhoodeducation/>

³⁷ Early Childhood Education. (n.d.). Retrieved from <https://teach.com/where/levels-of-schooling/early-childhood-education/>

³⁸ Reynolds, A. J., Temple, J. A., Ou, S. R., Robertson, D. L., Mersky, J. P., Topitzes, J. W., & Niles, M. D. (2007). Effects of a school-based, early childhood intervention on adult health and well-being: A 19-year follow-up of low-income families. *Archives of Pediatrics & Adolescent Medicine*, 161(8), 730-739.

³⁹ Weiland, C., & Yoshikawa, H. (2013). Impacts of a prekindergarten program on children's mathematics, language, literacy, executive function, and emotional skills. *Child Development*, 84(6), 2112-2130.

⁴⁰ Stein, R. (2010, May 14). Study finds that effects of low-quality child care last into adolescence. Retrieved from <http://www.washingtonpost.com/dyn/content/story/2010/05/14/ST2010051401954.html?sid=ST2010051401954>

⁴¹ De Schipper, E. J., Marianne Riksen-Walraven, J., & Geurts, S. A. (2006). Effects of child-care provider ratio on the interactions between caregivers and children in child-care centers: An experimental study. *Child Development*, 77(4), 861-874.

⁴² Child Care Resource and Referral (CCR&R). Meeting Arizona's Childcare Needs: Quality Indications. Retrieved from <http://www.arizonachildcare.org/childcare-indicators.html?lang=en>.

⁴³ Campbell, F., Conti, G., Heckman, J. J., Moon, S. H., Pinto, R., Pungello, E., & Pan, Y. (2014). Early childhood investments substantially boost adult health. *Science*, 343(6178), 1478-1485.

The capacity of early care and education centers and homes is **1,248** in the FTF Navajo/Apache Region and **229,440** in Arizona

There are 26 licensed childcare centers and homes with a capacity of 1,148 children ages 6 weeks through 12 years in the FTF Navajo/Apache Region.⁴⁴ There are 6,166 children ages zero to five in the FTF Navajo/Apache Region and 38,551 children ages 12 years of age or under in Navajo and Apache counties.⁴⁵ The 1,148 slots can only reach a small portion of the total population that needs care.

Additionally, although the capacity is determined by the square footage of the facility, the facility may not always serve the total number of children they are licensed to serve. The number of children served mainly depends on the center's ability to meet the adult to child ratio, which varies by child's age, in order to be in compliance with licensing requirements.



Approximately **56%** of households in the FTF Navajo/Apache Region with children 0 to 5 have all parents employed

As previously mentioned, 50% of children between the ages of 3 and 4 are enrolled in nursery school, preschool, or kindergarten programs in the FTF Navajo/Apache Region (see Exhibit 3.2). This is lower than the 56% assumed to need child care since all adults in the household are employed (see Exhibit 2.4). Parents who do not have access to stable child care may find themselves missing work to care for their children. In addition, research has consistently demonstrated that lack of access to child care has negative effects on families and decreases parents' chances of sustaining

employment.⁴⁶

Early Childhood Education professionals are tasked with the early care and education of young children. The responsibilities of ECE professionals include guiding children (often through play and activities) and acting as their partner in the learning process. In addition, they are responsible for shaping the intellectual and social development of young children, which can have an effect on a child's future academic performance.⁴⁷ However, an ECE professional's ability to provide quality care and education can depend on many factors. As previously mentioned, Arizona pays its ECE professionals one of the lowest annual salaries. This may help explain why almost half of teachers (45%) maintain their employment for less than five years. The exception is the 71% of Head Start teachers who stay five or more years, which may be due to the trend that Head Start teachers are paid the highest of all providers.⁴⁸ For additional data on ECE professionals, see Appendices 4.1-4.5.



About **45%** of Early Care and Education teachers in Arizona are employed less than five years

Head Start and Early Head Start

Head Start and Early Head Start are federally funded programs that promote the school readiness of children ages five and under from low income families. These programs provide comprehensive services to support child development, including early learning, health services, and family well-being and engagement. The Office of Head Start funds agencies in local communities to implement Head Start and Early Head Start programs.⁴⁹ Generally

⁴⁴ Arizona Department of Economic Security (2015). *Childcare Providers and Capacity*. Provided by AZ FTF.

⁴⁵ U.S. Census Bureau; 2010 Census Summary File 1; Tables P11 & P14; generated by AZ FTF; using American FactFinder; <<http://factfinder2.census.gov>>

⁴⁶ Greenberg, M. (2007). *Next steps for federal child care policy. The Next Generation of Antipoverty Policies*, 17, 2.

⁴⁷ Bano, N., Ansari, M., & Ganai, M. Y. (2016). *A study of personality characteristics and values of secondary school teachers in relation to their classroom performance and students' likings*. Anchor Academic Publishing.

⁴⁸ *First Things First – Arizona's Unknown Education Issue* (2013). *Early Learning Workforce Trends*. Provided by AZ FTF.

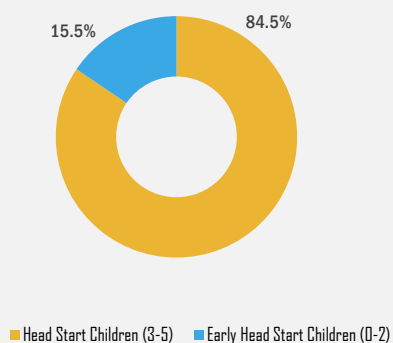
⁴⁹ *Head Start Programs*. (2016, August 15). Retrieved from <http://www.acf.hhs.gov/ohs/about/head-start>

children who attend Head Start tend to score higher on all domains of cognitive and social-emotional development in comparison to children not enrolled in Head Start and of the same socioeconomic background. In addition, Head Start children are also more likely to improve their social skills, impulse control, and approaches to learning while concurrently decreasing their problem behaviors – becoming less aggressive and hyperactive over the course of a year.

As of 2016, NACOG, a public organization that serves local governments and citizens in the region, was the sole federal grantee for Head Start and Early Head Start for four Northern Arizona counties including: Apache, Coconino, Navajo, and Yavapai. In the FTF Navajo/Apache Region, NACOG operates both center-based Head Starts and home-based Early Head Starts. Head Start programs are available in Holbrook, Snowflake, Show Low, Pinetop, Springerville, and St. Johns. Data presented are aggregated for these four counties.

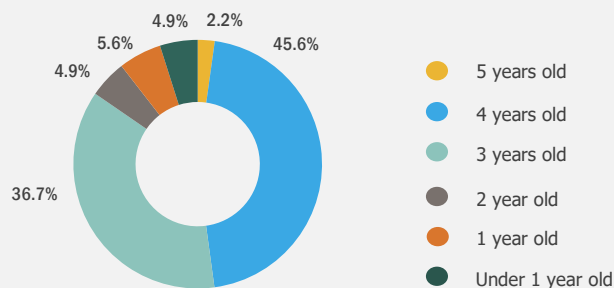
There are a total of 2,073 children enrolled in Head Start and Early Head Start in the northern Arizona counties. Of those enrolled, 85% are enrolled in Head Start and approximately 16% are enrolled in Early Head Start (see Exhibit 4.1). In addition, close to 46% of children enrolled in Head Start were 4 years old (see Exhibit 4.2). The lower enrollment rates of younger children could be due to several factors including lack of caregivers needed to meet state licensing requirements, lack of qualified professionals, capacity issues at individual centers, or the lack of center-based Early Head Starts in the region. Eighty-two percent of children and pregnant women who were eligible for Head Start qualified because their income was below 100% of the federal poverty level (see Exhibit 4.3). In addition, 7% of children and pregnant women were eligible because their income did not exceed 130% of the federal poverty level. Those who exceed 130% of the federal poverty level are not eligible to receive services. Although low-income families benefit from their qualification for free early education services through Head Start, there are likely many families that lie just outside of the qualifying income brackets who cannot afford other

Exhibit 4.1. 2016 Cumulative enrollment in Head Start and Early Head Start programs



Office of Head Start (2016). Head Start Data. Retrieved from <https://hses.ohs.acf.hhs.gov/pir/>

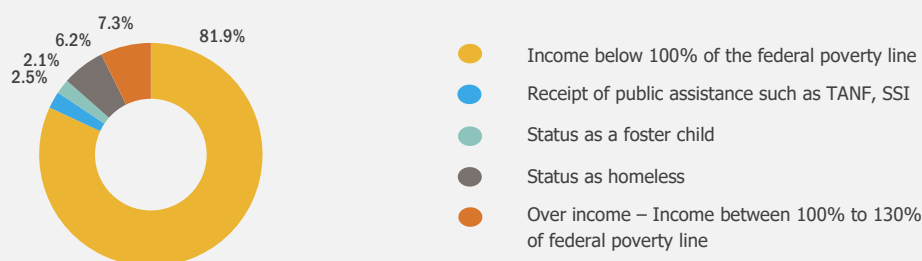
Exhibit 4.2. 2016 Cumulative enrollment of children in Head Start and Early Head Start by age*



Office of Head Start (2016). Head Start Data. Retrieved from <https://hses.ohs.acf.hhs.gov/pir/>
 *5 years and older omitted due to data suppression

quality early education programs.

Exhibit 4.3. 2016 Head Start: Type of Eligibility*

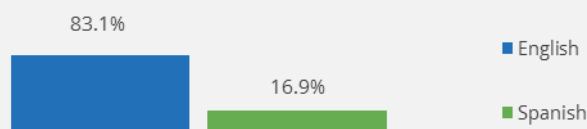


Office of Head Start (2016). Head Start Data. Retrieved from <https://hses.ohs.acf.hhs.gov/pir/>

*Count of enrollees exceeding the allowed over income with family incomes over 130 percent of the federal poverty line is zero

Of the children and families that were enrolled in Head Start, 83% reported speaking English and 17% reported speaking Spanish (see Exhibit 4.4). For additional Head Start data, such as enrollment by race/ethnicity and funded enrollment, see Appendices 4.6 and 4.7.

Exhibit 4.4. 2016 Primary language of family at home for children/pregnant women enrolled in Head Start



Office of Head Start (2016). Head Start Data. Retrieved from: <https://hses.ohs.acf.hhs.gov/pir/>

Quality of Early Care and Education Programs

Quality First is a signature program of FTF that is designed to improve the quality of early learning for children birth to five. Quality First partners with early care and education programs and preschools across Arizona to provide coaching and funding meant to improve the quality of their services. Quality First implemented a statewide standard of quality for early care along with star ratings. The star ratings allow parents to easily take quality into consideration when deciding on care providers. The star rating ranges from one to five and attainment of quality standards begins at three stars.⁵⁰ Quality First is about continuous quality improvement. The standards are high, and reaching the quality levels is often a long-term process.



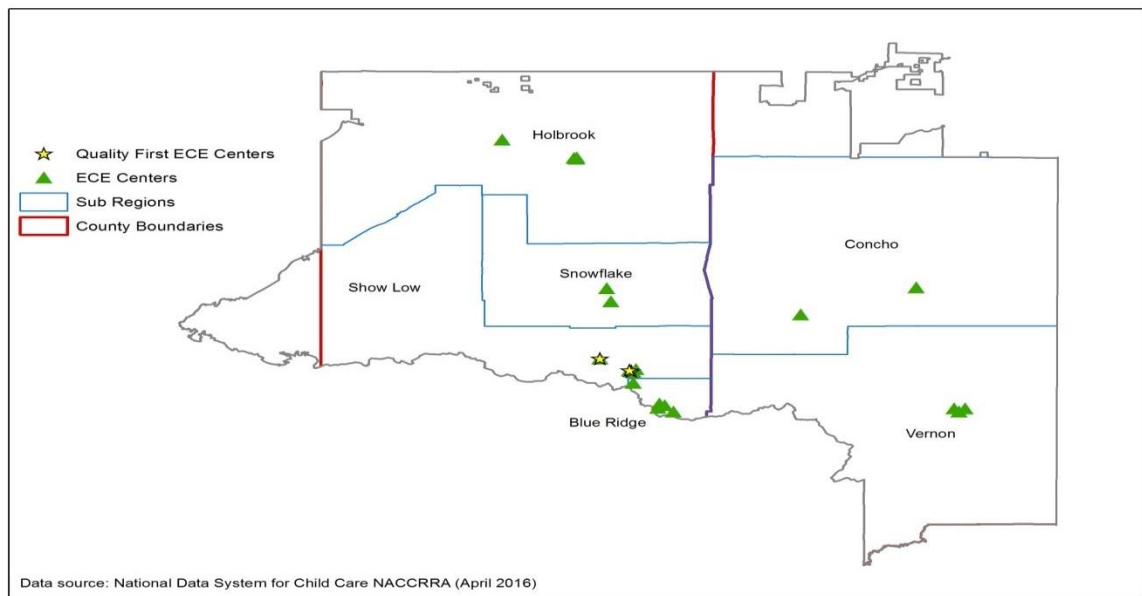
⁵⁰ Arizona First Things First (October 2016). Quality First.



Progressing Star	Approaching quality standards
Rising Star	Committed to quality improvement
No Rating	Program is enrolled in Quality First but does not yet have a public rating

In the FTF Navajo/Apache Region, there are four Quality First Centers/homes, three of which are rated 3-stars (Ehmkes Childhaven Preschool, Sprouts Preschool, and Tracy's Child Care) and one which is rated 2-stars (Holbrook Educational Day Care). In total, 77 children are enrolled in 3-star centers and homes and less than 25 children with special need are enrolled in 3-star centers (data not shown).⁵¹ Looking at the population of children zero to five (see Exhibit 1.2), children enrolled in Quality First 3-5 star centers comprise less than 2% of the population. With the exception of White Mountain Montessori School, there are no other accredited programs in the region. Parents do not have other high-quality licensed choices for child care in the region. For additional data on star ratings for centers and providers, see Appendix 4.8. Exhibit 4.5 highlights the locations of early care and education centers in the FTF Navajo/Apache Region. Quality First ECE centers at a 'Quality' level are located in the Show Low subregion.

Exhibit 4.5 Location of Early Care and Education Centers



Costs of Child Care & Access

In addition to supporting improvements in the quality of child care, FTF provides scholarships for low-income children to attend quality child care centers. Previous research has shown that low-income mothers receiving child care subsidies, a form of financial assistance, are more likely than other low-income mothers to work, sustain employment, and work longer hours.⁴⁶ Further, the negative effects of not accessing child care include the possibility

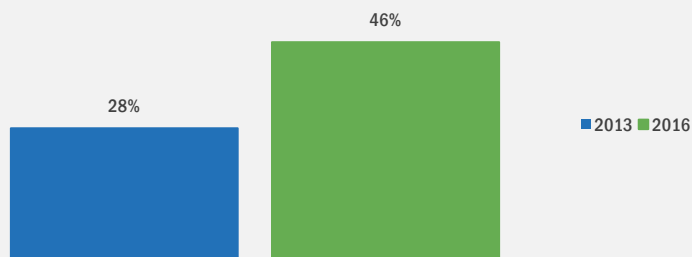
⁵¹ Arizona First Things First (July 2015). *Quality First*.

of incurring financial debt, choosing child care that is lower quality and less stable, and losing time from work.

Fort-six percent of Parent Survey respondents indicated that they have regular childcare for their child for 10 hours or more per week (see Exhibit 4.6), which is an increase from the 2013 Parent Survey data (28%).



Exhibit 4.6. Percentage of Parent Survey Respondents with 10 hours or more per week of childcare



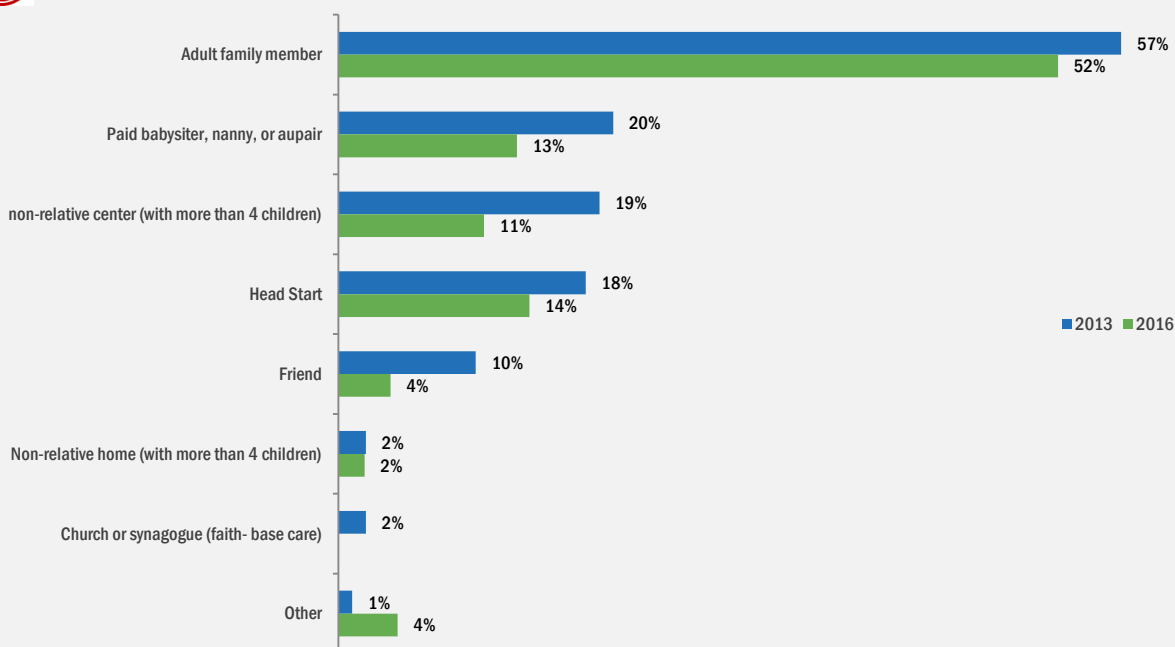
2013 n = 898; 2016 n = 375

Source: Harder+Company Community Research. (2016). (First Things First - Navajo/Apache Region: Survey for parents with children

The majority of Parent Survey respondents indicated that an adult family member is the primary source of child care (52%), which is a slight decrease from 2013 (57%; See Exhibit 4.7). Although more parents in 2016 indicated they need childcare, there was a decrease in the percentage indicating the type of childcare they use for every category



Exhibit 4.7 Type of Childcare for Parent Survey Respondents



Multiple response question: 2013: 234 respondents offering 303 responses; 2016: 375 respondents offering 208 responses

Source: Harder+Company Community Research. (2016). (First Things First - Navajo/Apache Region: Survey for parents with children ages 0-5). Unpublished data. San Diego, CA.

Note: These responses are not mutually exclusive

^Of respondents who reported using non-relative care centers, 25 of 28 reported the center was licensed

^^Of respondents who reported using non-relative homes, 3 of 11 reported the home was licensed

besides “Other”.

When looking at specific areas within the FTF Navajo/Apache Region, the highest percentage of respondents in each region indicated their primary source of childcare was an adult family member, although the percentages varied by region (see Exhibit 4.8). Blue Ridge had the highest percentage of children in Head Start.



Exhibit 4.8. If you have a regular source of child care for 10 hours or more per week, what is your primary source of child care? By First things First Navajo/Apache Region Area 2016 (Top 3 Responses)

	Vernon/Alpine/ Round Valley Area	Concho/St. Johns Area	Holbrook/Joseph City/Sanders Area	Blue Ridge Area	Show Low/ Heber Area	Snowflake Area
Response 1	Adult Family Member (50%)	Adult Family Member (69%)	Adult Family Member (51%)	Adult Family Member (48%)	Adult Family Member (54%)	Adult Family Member (51%)
Response 2	Head Start (18%)	Head Start (19%)	Paid babysitter ¹ (23%)	Head Start (24%)	Non relative Center (15%)	Paid babysitter ¹ (14%)
Response 3	Non relative Center (16%) Paid babysitter ¹ (16%)	Friend Watches Child (6%) Other (6%)	Head Start (14%)	Non Relative Center (14%)	Head Start (12%)	Non Relative Center (14%) Friend watches child (14%)

Vernon/Alpine/Round Valley (Area 1): 38 Respondents; Holbrook/Joseph City/Sanders (Area 3): 57 respondents; Blue Ridge (Area 4): 21 respondents; Show Low/Heber (Area 5): 41 respondents; Snowflake (Area 6): 35 respondents

Source: Harder + Company Community Research. (2016). [First Things First- Navajo/Apache Region: Survey for parents with children ages 0-5]. Unpublished data. San Diego, CA

¹Responses option included nanny and au pair

Across the state and District 3 (Apache, Coconino, Navajo, and Yavapai), licensed centers have the highest cost per day, certified group homes have the second highest cost per day, and approved family homes have the lowest cost per day (see Exhibit 4.9). The median cost per day for licensed centers in District 3 is lower than the state whereas approved family homes in District 3 have a higher cost per day in comparison to the state. High child care prices likely place a financial strain on families who already report barely making ends meet and having difficulty affording housing and food.

Exhibit 4.9. 2014 Median cost per day of Early Childhood Care*

	Arizona	District 3**
Cost for one infant Licensed Centers	\$42.00	\$32.00
Cost for one infant Approved Family Homes	\$22.00	\$24.00
Cost for one infant Certified Group Homes	\$27.00	\$28.00
Cost for one child (1-2) Licensed Centers	\$38.00	\$27.60
Cost for one child (1-2) Approved Family Homes	\$20.00	\$22.00
Cost for one child (1-2) Certified Group Homes	\$25.00	\$25.00
Cost for one child (3-5) Licensed Centers	\$33.00	\$25.25
Cost for one child (3-5) Approved Family Homes	\$20.00	\$21.00
Cost for one child (3-5) Certified Group	\$25.00	\$25.50

Arizona Department of Economic Security (2014). Child Care Market Rate Survey. Provided by AZ FTF.

* District 3 represents Apache, Coconino, Navajo, Yavapai

Based on the median cost per day, the median cost of child care per year for one infant in District 3 is approximately \$8,320 a year for licensed centers, \$7,280 for certified group homes, and \$6,240 a year for approved family homes. Compared against the median income of married-couple families in Navajo and Apache counties with children 0 to 17 (see Exhibit 2.6), licensed centers comprise approximately 15%, certified group homes comprise 13%, and approved family homes comprise nearly 11% of the regional median income. The median cost per year of child care comprises an even higher proportion of the median income for single families with children 0 to 17 in Navajo and Apache counties (see Exhibits 4.10 and 4.11).

Exhibit 4.10. 2014 Percent of Income Spent on Childcare in Navajo County

	Licensed Centers	Certified Group Homes	Approved Homes
Families with Children 0-17	15%	13%	11%
Single Female Families	52%	45%	39%
Single Male Families	28%	24%	21%

Arizona Department of Economic Security (2014). Child Care Market Rate Survey. Provided by AZ FTF and U.S. Census Bureau; American Community Survey, 2014 American Community Survey 5-Year Estimates, Table B19126; generated by AZ FTF; using American FactFinder; <http://factfinder2.census.gov>.

Exhibit 4.11. 2014 Percent of Income Spent on Childcare in Apache County

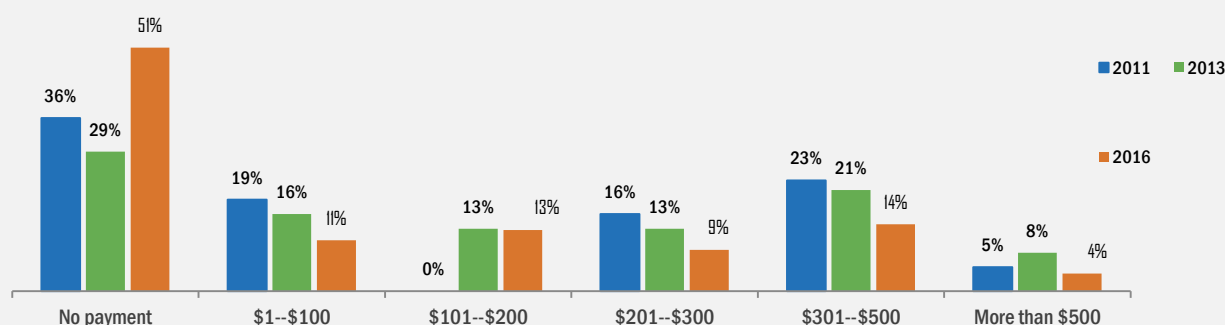
	Licensed Centers	Certified Group Homes	Approved Homes
Families with Children 0-17	16%	14%	12%
Single Female Families	35%	30%	26%
Single Male Families	59%	52%	44%

Arizona Department of Economic Security (2014). Child Care Market Rate Survey. Provided by AZ FTF and U.S. Census Bureau; American Community Survey, 2014 American Community Survey 5-Year Estimates, Table B19126; generated by AZ FTF; using American FactFinder; <http://factfinder2.census.gov>.

Parent Survey respondents were asked to indicate the amount they pay per month for all of their children's child care combined. Compared to 2011 and 2013, more Parent Survey respondents stated that they had no child care payment which may be due to the increase in family, friend, and neighbor care (see Exhibit 4.12). Parent Survey respondents with a child care payment of \$300 or more per month likely have their children in center based childcare.



Exhibit 4.12. Parent Survey: What is the amount you pay per month for all of your children's child care combined?

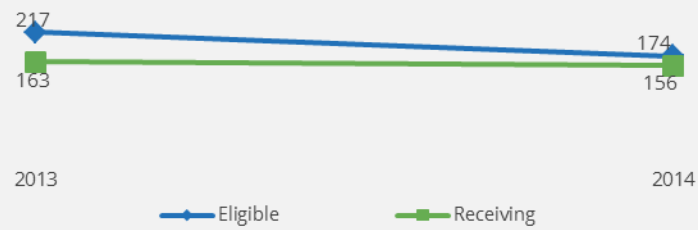


2011: n= 228; 2013: n=172; 2016: n=245

Source: Harder+Company Community Research. (2016). [First Things First- Navajo/Apache Region: Survey for parents with children ages 0-5]. Unpublished data. San Diego, CA
Note: Survey question asked the total amount parents paid for child care minus any subsidies and round to the nearest 100

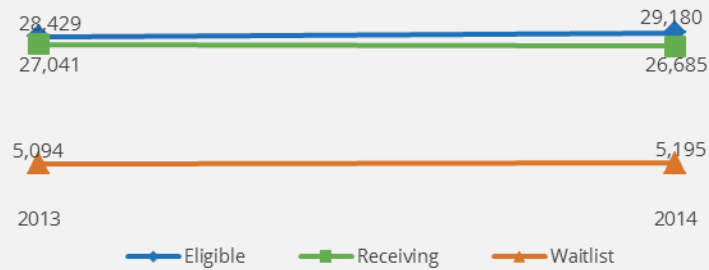
The FTF Navajo/Apache Region experienced a decrease in the number of children that were eligible and received child care subsidies between 2013 and 2014 (see Exhibit 4.13). During the same time frame, the number of children on the waitlist remained under 25 (data not shown). In comparison, the state experienced an increase in the number of children who were eligible and on the waitlist, and a decrease in the number of children receiving child care subsidies (see Exhibit 4.14). In addition, Council members shared that they were unsure if parents knew that subsidies were available or how to access them. This may be problematic because previous research has shown that low-income mothers receiving child care subsidies, a form of financial assistance, are more likely than other low-income mothers to work, sustain employment, and work longer hours.⁴⁶ Further, the negative effects of not accessing child care include the possibility of incurring financial debt, choosing child care that is lower quality and less stable, and losing time from work.

Exhibit 4.13. 2013-2014 Children eligible and receiving child care subsidies in FTF Navajo/Apache Region



Arizona Department of Economic Security (2015). AzEIP Referred and Served Children. Provided by AZ FTF.

Exhibit 4.14. 2013-2014 Children eligible, receiving, and on waitlist for child care subsidies in Arizona

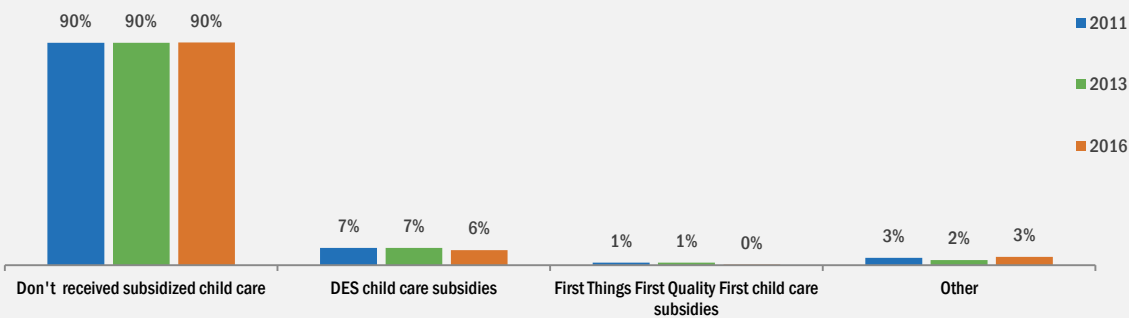


Arizona Department of Economic Security (2015). AzEIP Referred and Served Children. Provided by AZ FTF.

The majority of Parent Survey respondents indicated that they did not receive subsidized child care, which is similar to previous years (see Exhibit 4.15), and further supports the fact that fewer children in the FTF Navajo/Apache Region are receiving child care subsidies. An additional explanation may be that the Department of Economic Security (DES) closed the waitlist for some time so parents did not apply for subsidies.



Exhibit 4.15 Percentage of Parent Survey Respondents Who Receive Subsidized Child care



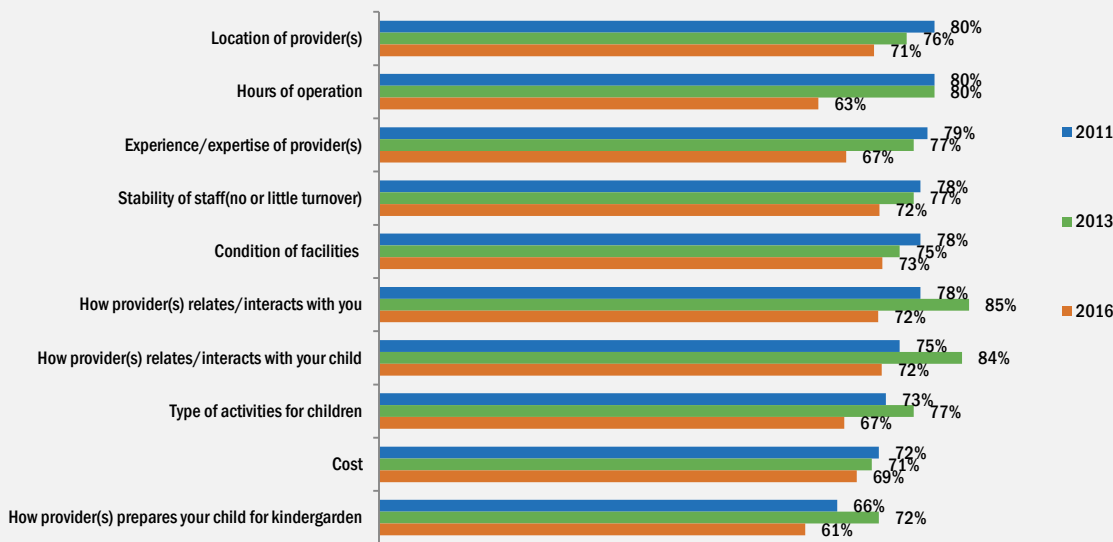
2011: 403 respondents offering 692 responses; 2013: 795 respondents offering 1,164 responses; 2016: 394 respondents offering 296 responses
Source: Harder+Company Community Research. (2016). [First Things First- Navajo/Apache Region: Survey for parents with children ages 0-5]. Unpublished data. San Diego, CA

Parent Survey respondents were also asked to rate their level of satisfaction with their child care arrangements.

Overall, there is a high level of satisfaction with child care arrangements; although respondents were less satisfied than in previous years (see Exhibit 4.16).



Exhibit 4.16. Parent Survey: How Satisfied are you with the following aspects of your child care arrangement? (Respondents answering "Very Satisfied")



2011 n: Condition=294, interaction with child=284, experience/expertise=287, interaction with you=286, stability of staff=285, activities=288, location=289, hours=292, preparation for kindergarten=284, cost=287; 2013 n: Condition=204, interaction with child=198, experience/expertise=198, interaction with you=199, stability of staff=199, activities=198, location=198, hours=203, preparation for kindergarten=198, cost=200; 2016 n: Condition=229, interaction with child=225, experience/expertise=223, interaction with you=224, stability of staff=222, activities=224, location=223, hours=229, preparation for kindergarten=220, cost=224
Source: Harder+Company Community Research. (2016). [First Things First- Navajo/Apache Region: Survey for parents with children ages 0-5]. Unpublished data. San Diego, CA

Developmental Delays and Special Needs

Issues in teaching young children with special needs reflect significant changes in public policy and professional philosophy across the nation. Diverse perspectives on how to effectively teach young children with developmental delays and special needs are held.⁵² The Individuals with Disabilities Education Act (IDEA) is a law ensuring services to children with disabilities throughout the nation. IDEA governs how states and public agencies provide early intervention, special education, and related services to more than 6.5 million eligible infants, toddlers, children, and youth with disabilities. Infants and toddlers with disabilities (birth-age 2) and their families receive early intervention services under IDEA Part C. Children and youth (ages 3-21) receive special education and related services under IDEA Part B.⁵³

The Arizona Early Intervention Program (AzEIP) is a statewide program that offers services and assistance to families and their children with disabilities or delays under the age of 3. The purpose of the program is to intervene at an early stage to help children develop to their highest potential.⁵⁴ Research shows that children and youth with mild

⁵² Dyson, A. (2001). *Special needs education as the way to equity: an alternative approach?* *Support for Learning*, 16, 3.

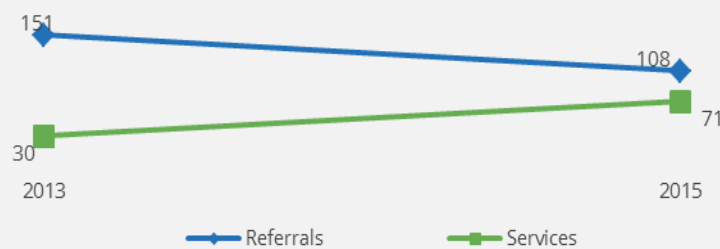
⁵³ US Department of Education: Office of Special Education and Rehabilitative Services. <https://www2.ed.gov/about/offices/list/osep/osep-idea.html>

⁵⁴ ADES, 2016 : <https://des.az.gov/services/disabilities/early-intervention/about-arizona-early-intervention-program-azeip>

intellectual disabilities are behind in academic skills compared to their peers.⁵⁵ Without proper intervention, this can lead to delays in learning to read and perform basic math and to further difficulties in other academic areas that require use of those skills. A child is eligible for AzEIP if he/she is between birth and 36 months of age and is developmentally delayed or has an established condition which has a high probability of resulting in a developmental delay, as defined by the state.⁵⁶

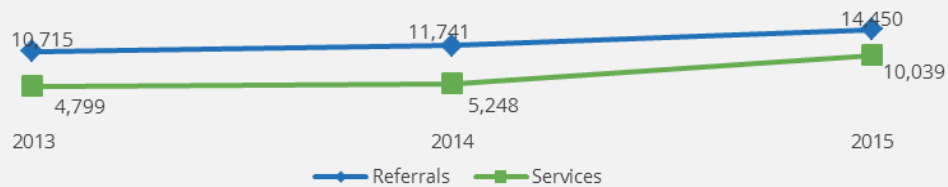
In the FTF Navajo/Apache Region, of those who received referrals to AzEIP, 65.7% received services in 2015. In addition, the number of children receiving services increased by more than double between 2013 and 2015 for the state and the FTF Navajo/Apache Region (see Exhibit 4.17 and 4.18).

Exhibit 4.17. 2013-2015 Children receiving AzEIP referrals and services in FTF Navajo/Apache Region



Arizona Department of Economic Security (2015). AzEIP Referred and Served Children. Provided by AZ FTF.

Exhibit 4.18. 2013-2015 Children receiving AzEIP referrals and services in Arizona



Arizona Department of Economic Security (2015). AzEIP Referred and Served Children. Provided by AZ FTF.

To qualify for Division of Developmental Disabilities (DDD) services, an individual must have a cognitive disability, cerebral palsy, autism, epilepsy, or be at risk for a developmental disability. Children under the age of six are eligible if they show significant delays in one or more of these areas of development: physical, cognitive, communication, social emotional, or self-help. Between 2013-2015, the number of children receiving referrals for developmental screenings increased for the state while the number of children receiving services decreased (see Exhibit 4.19). In 2015, there were less than 25 children in the FTF Navajo/Apache Region who received referrals (see Exhibit 4.20). See Appendices 4.9 and 4.10 for further breakdown and unduplicated counts of children 0-2 and children 3-5 receiving screenings and services.

⁵⁵ Rosenberg, 2013 - <http://www.education.com/reference/article/characteristics-intellectual-disabilities/>

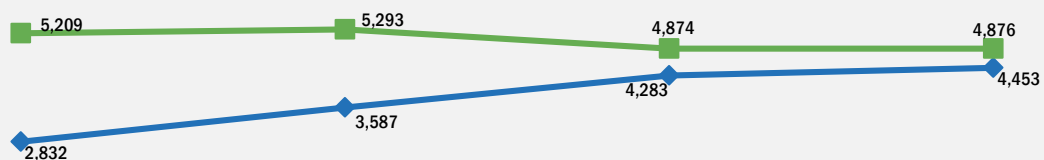


Exhibit 4.19. 2012-2015 Number of children receiving referrals and services from the Division of Developmental Disabilities in Arizona

Arizona Department of Economic Security (2015). Division of Developmental Disabilities. Provided by AZ FTF.

Exhibit 4.20. Total number of children receiving referrals for screenings Division of Developmental Disabilities in the FTF Navajo/Apache Region

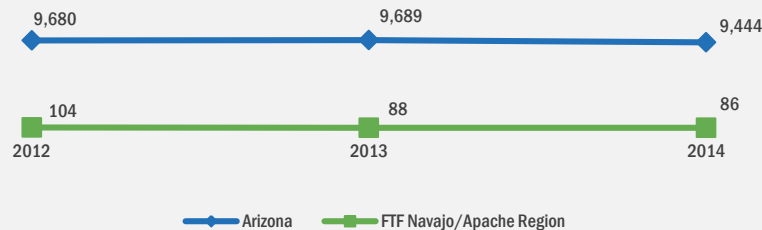
Year	FTF Navajo/Apache Region
2012	<25
2013	<25
2014	29
2015	<25

Arizona Department of Economic Security (2015). Division of Developmental Disabilities. Provided by AZ FTF.

ADE Special Education

The ADE collects information on special education pre-k children who entered kindergarten without the need for an IEP. Between 2012 to 2014, the total number of preschool children identified with developmental disabilities decreased for Arizona and for the FTF Navajo/Apache Region (see Exhibit 4.21). The most common types of disabilities for preschool children were developmental delays and speech/language impairments.⁵⁷ For further information on disabilities including types of disabilities of preschool children, types of speech/language/hearing service providers, and information on Individual Family Service plans, see Appendices 4.11 – 4.14.

Exhibit 4.21. Total number of preschool children with disabilities



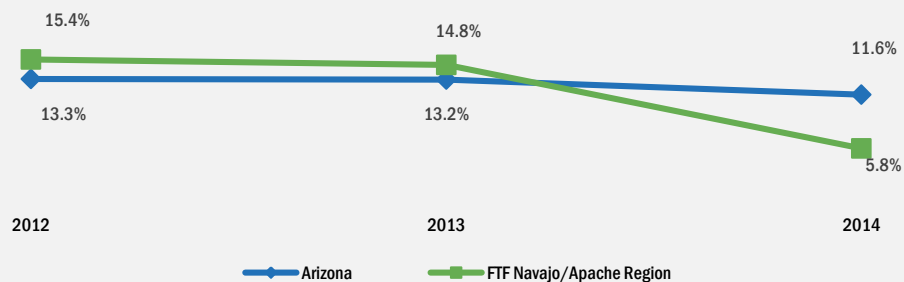
Arizona Department of Education (2015). Special Education. Provided by AZ FTF.

*The data presented are unduplicated (i.e., children diagnosed with multiple disabilities are counted only one time in the Federal Primary Need [FPN] category).

In the FTF Navajo/Apache Region, there was a decrease in the percentage of students who participate in preschool special education but no longer require special education in kindergarten (see Exhibit 4.22). This may indicate that developmental delays are being identified and treated early and, therefore, more children are able to transition to kindergarten.

⁵⁷ Arizona Department of Education (2015). Special Education. Provided by AZ FTF.

Exhibit 4.22. Percentage of students transitioning out of preschool special education to kindergarten regular education



Arizona Department of Education (2015). *Special Education*. Provided by AZ FTF.

From 2013 to 2014, about **88%** of children with disabilities in the FTF Navajo/Apache Region had developmental delays and speech/language impairments



EARLY LEARNING HIGHLIGHTS

Based on the review of education indicator data, there are 33 early care and education centers and homes with a capacity of 1,645 children in the FTF Navajo/Apache Region. About 50% of children between 3 and 4 are enrolled in nursery school, preschool, or kindergarten programs which is less than the 56% assumed to need child care. Forty-six percent of Parent Survey respondents indicated that they have regular childcare for their child for 10 hours or more per week, which is an increase from the 2013 Parent Survey data (28%). Licensed centers across District 3 (Apache, Coconino, Navajo, and Yavapai) have the highest cost per day, certified group homes have the second highest cost per day, and approved family homes have the lowest cost per day. With respect to childcare subsidies, fewer children are becoming eligible and fewer children are receiving childcare subsidies. In addition, the number of children on the waitlist remained under 25.

AzEIP referrals are decreasing in the FTF Navajo/Apache Region and referrals for screenings from the Division of Developmental Disabilities are increasing for the region as well as the percentage of students who transition from preschool special education to mainstream kindergarten classrooms. Moreover, the number of preschoolers with disabilities is decreasing in the region and the most common disabilities are developmental delays and speech/language impairments.

Below are key findings that highlight the economic needs, assets, and data-driven considerations for the FTF Navajo/Apache Region based on the data highlighted above. The considerations provided below do not represent comprehensive approaches and methods for tackling the needs and assets in the region. Instead, the considerations represent possible approaches that early childhood system partners, including FTF, could take to address needs and assets in the region, as conceptualized by the authors of this report.

Assets	Considerations
The Quality First and the Community Based Professional Development Strategies have been increasing the quality, and stability, of child care programs in the region.	Continue to promote Quality First and Community Based Professional Development opportunities in the region to increase the opportunities for children to receive quality early care and education experiences..
Needs	Considerations
Less than half (45%) of Early Childhood Education professionals in the state remain in their position for over five years.	Explore opportunities to encourage quality early childhood professionals to retain, and build, their skills in the early childhood field and reduce staff turnover. Monitor the impact of the minimum wage increase in AZ and how this will affect the early childhood workforce.
The number of child care subsidies awarded in the region decreased from 163 in 2013 to 156 in 2014.	Promote the importance of subsidies in providing low income children access to early care and education..
5.8% of students in preschool special education transitioned to mainstream kindergarten classrooms.	Support early identification of children who exhibit developmental delays to ensure that children receive needed intervention and supports, and are ready to enter kindergarten .



5. Child Health

Why it Matters

Ensuring healthy development through early identification and treatment of children's health issues helps prepare children for school.⁵⁸ In addition, helping families understand healthy developmental pathways and proactive prevention when health issues affect children's learning supports children's school readiness. There are many health factors that impact the well-being of children zero to five and their families. The availability of resources and services for families is one key factor that contributes to their overall health. For example, during prenatal care visits, expecting mothers are provided with information and resources to promote a healthy pregnancy and increase the healthy development of their child. At a routine prenatal visit, physicians often remind expectant mothers of the importance of abstaining from substance use, maintaining a healthy diet, and the benefits of breastfeeding. Discussing risky health behaviors can be very important since they may influence a baby's development. For example, being overweight during pregnancy has been associated with many negative health consequences such as miscarriages, pre-term birth, low-birth weight, birth defects, lower IQ, hypertension, diabetes, and developmental delays.⁵⁹

Engaging in healthy preventive practices, such as breastfeeding and vaccinating children during early childhood, may help protect children from negative health outcomes and developmental delays. Breastfeeding provides children with the nutrition they need early in life.⁶⁰ Children who have not been vaccinated are at a higher risk of contracting diseases and tend to have more health issues later in life. Research has found that it is important for children to receive their immunizations early on because children under the age of 5 are at the highest risk of contracting severe illnesses since their bodies have not yet built a strong immune system.⁶¹ Another factor that may impact health outcomes that may be deemed less important by parents is early oral health. According to the Center for Disease Control and Prevention (CDC), tooth decay is one of the most chronic diseases in children.⁶² Tooth decay can cause infections that can spread to multiple teeth and may affect a child's growth. Fortunately, tooth decay is also one of the most preventable diseases in children.

In addition, vision problems in early ages can also have a negative effect for children's development and school success.⁶³ The American Association for Pediatric Ophthalmology and Strabismus recommends that children receive multiple vision screenings during ages zero to five to ensure that children are being treated early on for vision problems.⁶⁴ This chapter provides an overview of the health indicators for the FTF Navajo/Apache Region that highlight the well-being of children zero to five and their families. This chapter will include local data that was collected from Living Hope Centers, the Overgaard Ponderosa Lions Club, and the Summit Healthcare Regional Medical Center. Living Hope Centers is a place where young single mothers can go for prenatal support and pregnancy tests, and to receive parenting classes. From 2014-2016, the primary reason why mothers went to visit the Living Hope Centers was to participate in the "Earn While You Learn" program, where parents receive gifts for their

⁵⁸ *Schools & Health* (2016). *Impact of Health on Education*. Retrieved from <http://www.schoolsandhealth.org/pages/Anthropometricstatusgrowth.aspx>

⁵⁹ *The State of Obesity*, (N.D). *Prenatal and Maternal Health*. Retrieved from <http://stateofobesity.org/prenatal-maternal-health/>

⁶⁰ *Office on Women's Health* (2014). *Why breastfeeding is important*. Retrieved from <https://www.womenshealth.gov/breastfeeding/breastfeeding-benefits.html>

⁶¹ *Centers for Disease Control and Prevention* (2016). *Infant Immunizations*. Retrieved from <http://www.cdc.gov/vaccines/parents/parent-questions.html>

⁶² *Center for Disease Control and Prevention Division of Oral Health* (n.d) *Oral Health Care*. Retrieved from http://www.cdc.gov/oralhealth/children_adults/child.htm

⁶³ *American Optometric Association* (N.D). *Preschool Vision*. Retrieved from <http://www.aoa.org/patients-and-public/good-vision-throughout-life/childrens-vision/preschool-vision-2-to-5-years-of-age?sso=y>

⁶⁴ *American Association for pediatric Ophthalmology and Strabismus* (2014). *Vision Screening Recommendations*. Retrieved from <https://www.aapos.org/terms/conditions/131>

baby if they participate in parenting classes.⁶⁵ In addition, the Overgaard Ponderosa Lions Club is an organization that provides screenings for hearing and vision health to local residents in Navajo and Apache Counties. Since June 2014, the Overgaard Ponderosa Lions Club has provided vision screenings to over 1,000 children ages zero to five in the FTF Navajo/Apache Region. Additional information regarding these local organizations is provided in Appendix 5.1-Appendix 5.12.

Healthy People 2020 (HP 2020) set 10-year national objectives for improving the health of all Americans. Healthy People established these benchmarks to encourage collaborations across communities and sectors, empower individuals toward making informed health decisions, and measure the impact of prevention activities.⁶⁶ When appropriate, these benchmarks will be presented throughout this chapter as comparison points for certain indicators.

What the Data Tell Us

Access to Health Services

Lack of access to affordable healthcare is a major impediment to receiving proper care and an issue that disproportionately affects women living in poverty, placing their children at risk for health issues even before they are born and perpetuating health disparities.⁶⁷ Consequently, lack of medical attention negatively impacts a child's ability to grow and thrive. In a rural region with limited transportation, being geographically distant from health service providers and lacking adequate health insurance are challenging barriers for community members to overcome. Such barriers are exacerbated by the lack of financial resources that are needed to travel from remote areas to where providers are located.⁶⁸

⁶⁵ Living Hope Centers (2016). Case Intake Form. Provided by AZ FTF.

⁶⁶ Healthy People 2020. About Healthy People Retrieved from <https://www.healthypeople.gov/2020/About-Healthy-People>

⁶⁷ LaVeist, Gaskin and Richard (2009). *The Economic Burden of Health Inequalities in the United States*. Joint Center for Political and Economic Studies.

⁶⁸ Rural Health Information Hub (n.d.). *Healthcare Access in Rural Communities Introduction*. Retrieved from <https://www.ruralhealthinfo.org/topics/healthcare-access>

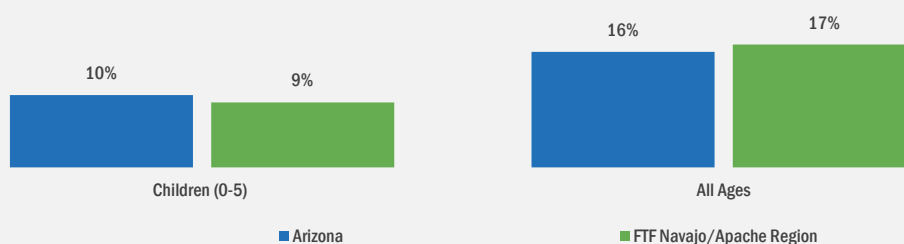
Exhibit 5.1. 2015 Ratio of Population (All Ages) to Primary-Care Providers, by PCA

Location	Ratio-Population:Provider
Statewide	449:1
Navajo County	514:1
Apache County	1,267:1
Primary Care Area	
Winslow- (Navajo)	456:1
Snowflake/Heber- (Navajo)	1,123:1
Show Low- (Navajo)	304:1
Springerville/Eager- (Apache)	1,060:1

Arizona Department of Health Services (2015). Primary Care Area Statistical Profiles. Retrieved from <http://www.azdhs.gov/prevention/health-systems-development/data-reports-maps/index.php#statistical-profiles-pca>

There is generally greater lack of access to providers and healthcare in Navajo County and Apache County than the statewide average. The ratio of population to primary caregivers is more than double in some areas, such as Snowflake/Heber⁶⁹, Navajo Nation, and Springerville/Eager, compared to the state (see Exhibit 5.1). Additionally, in 2014, 9% of children ages zero to five in the FTF Navajo/Apache Region reported not having any health insurance (see Exhibit 5.2), which is similar to the percentage of parents who reported their child does not have insurance on the Parent Survey (7%; see Exhibit 5.3). The HP 2020 target is for 100% of Americans to have medical insurance by 2020.⁷⁰ Though lower than the state rate and other age groups, this could potentially place children at risk for long term health complications if they fall ill but their parents do not have the sufficient funds to seek care.

Exhibit 5.2. Estimated percentage without health insurance



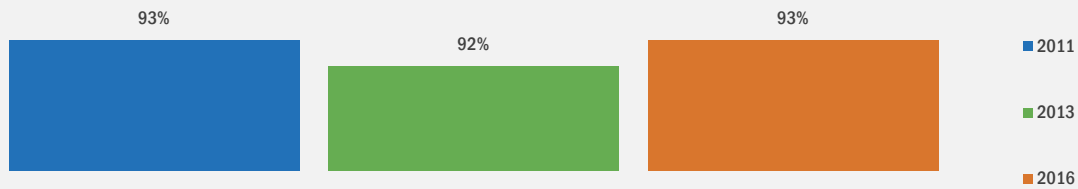
U.S. Census Bureau; American Community Survey, 2014 American Community Survey 5-Year Estimates, Table B27001; generated by AZ FTF; using American FactFinder; <http://factfinder2.census.gov>.

⁶⁹ For Parent Survey Data Show Low and Heber are combined.

⁷⁰ Healthy People 2020. About Healthy People Retrieved from <https://www.healthypeople.gov/2020/About-Healthy-People>



Exhibit 5.3. Parent Survey: Does your child have health insurance?



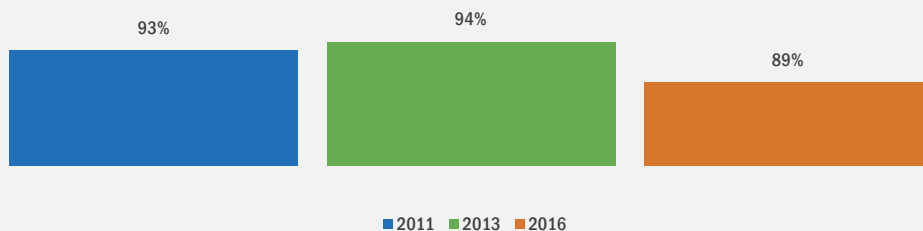
2011 n=691; 2013 n=818; 2016 n=376

Source: Harder+Company Community Research. (2016). *[First Things First – Navajo/Apache Region: Survey for parents with children ages 0-5]. Unpublished data. San Diego, CA.*

Despite challenges such as lack of transportation and health insurance, most families in the FTF Navajo/Apache Region (91%) report taking their children to regular doctor visits.⁷¹ On the Parent Survey, 89% of respondents indicated that their child was able to receive the medical care he/she needed, which is a decrease from 2011 and 2013 (see Exhibit 5.4).



Exhibit 5.4. Parent Survey: In the last 12 months, how often was your child able to receive the medical care she/he needed? (Respondents Answering "All" or "Most of the Time")



2011 n=492; 2013 n=827; 2016 n=294.

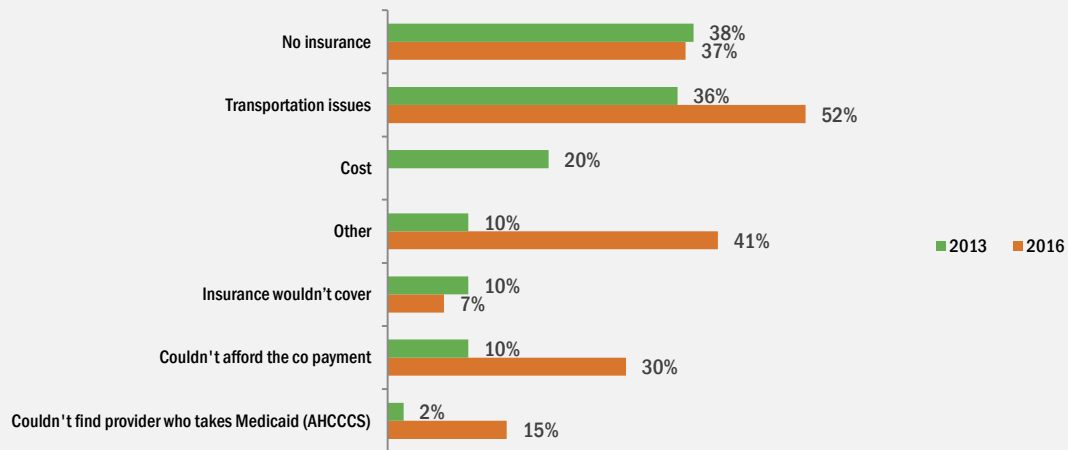
Source: Harder+Company Community Research. (2016). *[First Things First – Navajo/Apache Region: Survey for parents with children ages 0-5]. Unpublished data. San Diego, CA.*

For those who indicated their child was only "some of the time" or "never" able to receive the medical care he/she needed, respondents indicated that lack of insurance, transportation, or cost were the main reasons as to why their child was unable to receive care (see Exhibit 5.5).

⁷¹ Arizona First Things First (2012). *Family and Community Survey.*



Exhibit 5.5. Parent Survey: If 'some of the time' or 'never', why was your child unable to receive the care she/he needed?

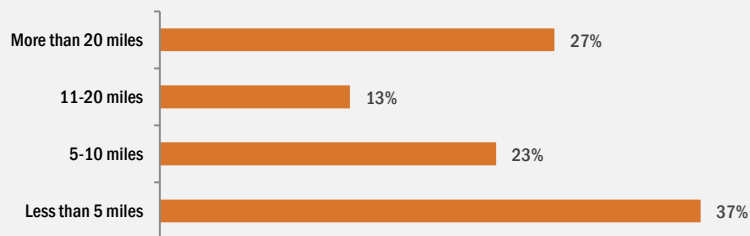


2013 Multiple response question with 50 respondents offering 63 responses; 2016 Multiple response question with 27 respondents offering 49 responses.
Source: Harder+Company Community Research. (2016). [First Things First – Navajo/Apache Region: Survey for parents with children ages 0-5]. Unpublished data. San Diego, CA.
*Cost not offered as a response in 2016

The majority of Parent Survey respondents indicated that they have to travel less than 5 miles (37%) while 27% have to travel more than 20 miles for medical care (see Exhibit 5.6).



Exhibit 5.6. Parent Survey: How far do you travel to get medical care for your child?

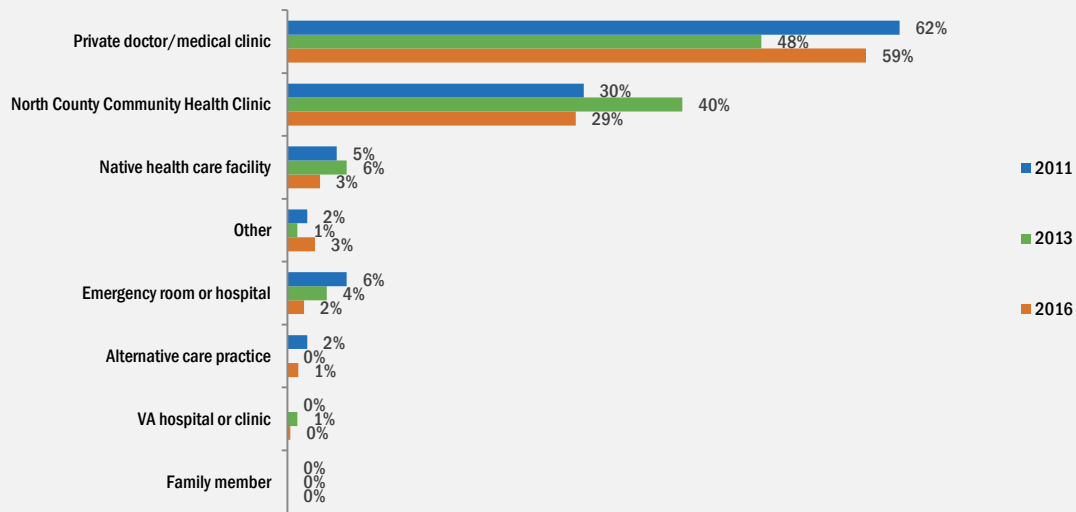


2016 n=373.
Source: Harder+Company Community Research. (2016). [First Things First – Navajo/Apache Region: Survey for parents with children ages 0-5]. Unpublished data. San Diego, CA.

The majority of Parent Survey respondents indicated that their child goes to a private doctor or medical clinic for care (59%) followed by North Country Community Health Clinic (29%). Compared to previous years, fewer respondents are relying on the Emergency Room or hospital for standard medical care (see Exhibit 5.7).



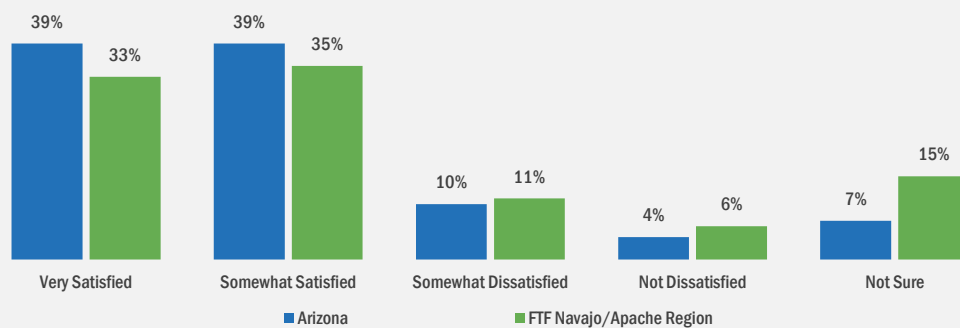
Exhibit 5.7. Parent Survey: Where does your child usually go to receive medical care?



2011 Multiple response question with 701 respondents offering 749 responses. 2013 Multiple response question with 617 respondents offering 854 responses. 2016: 394 respondents offering 360 responses. Source: Harder+Company Community Research. (2016). *First Things First – Navajo/Apache Region: Survey for parents with children ages 0-5*. Unpublished data. San Diego, CA.

When asked about the perception of services available in the region, 68% of parents responding to the Arizona FTF Family and Community Survey reported being very satisfied or somewhat satisfied with the resources available to help their child’s healthy development (see Exhibit 5.8).

Exhibit 5.8. Parents satisfied with the community information and resources available about children’s development and health



Arizona First Things First (2012). Family and Community Survey.

Prenatal Care

Research suggests that the lack of prenatal care is associated with many negative health issues for both the mother and the child.⁷² Research also shows that children of mothers who did not obtain prenatal care were three times more likely to have a low birth weight and five times more likely to experience fatal outcomes than those born to mothers who did receive prenatal care.⁷³ In addition, studies show that women who are at the highest risk of not receiving prenatal care are mothers younger than 19 years old and unmarried mothers.^{74 75} Educational attainment has also been associated with mothers receiving prenatal care, such that the higher a mother's educational attainment, the more likely they are to seek prenatal care.⁷⁶ It is important that mothers seek and receive prenatal care at an early stage in their pregnancy so physicians can treat and prevent any health issues that may occur.⁷⁷

HP 2020 aims to bring the proportion of pregnant women receiving prenatal care in the first trimester to 77.9%.⁷⁸ In the FTF Navajo/Apache Region, the percentage of mothers who received prenatal care during their first trimester decreased from 2009-2014 and is 5% lower than the state (see Exhibit 5.9). However, from 2009-2014 the percentage of mothers who had not received any prenatal care remained below 2%.⁷⁹ This may indicate that mothers may still be receiving prenatal care but beginning to receive it during their second or third trimester. Additionally, only 22% of parent respondents to the

FTF Family and Community Survey in the FTF

22% of parents believed they could

Exhibit 5.9. Percentage of women who began prenatal care in first trimester

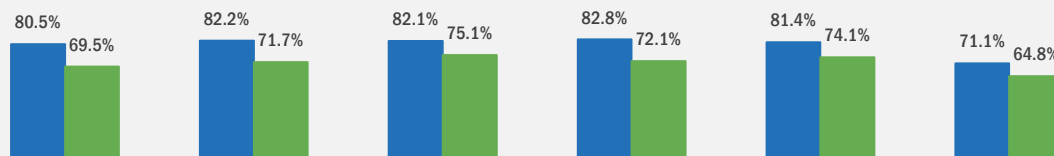


Exhibit 5.10. Percentage births with medical risks*

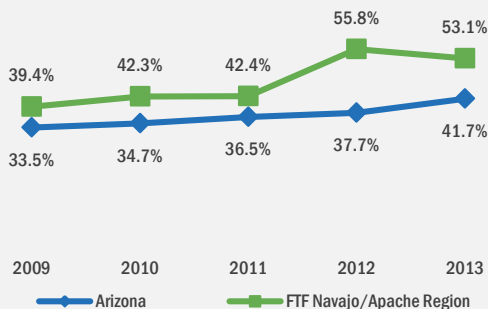
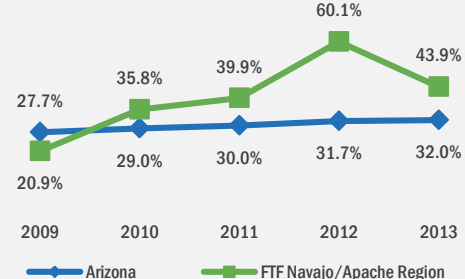


Exhibit 5.11. Percentage of mothers who had complications with labor and delivery



Washington (DC): National Academies Press (US); 1988. Chapter 1, Who Obtains Insufficient Prenatal Care? Retrieved from

ht ⁷⁶ | Arizona Department of Health Services (2014). Vital Statistics. Provided by AZ FTF.

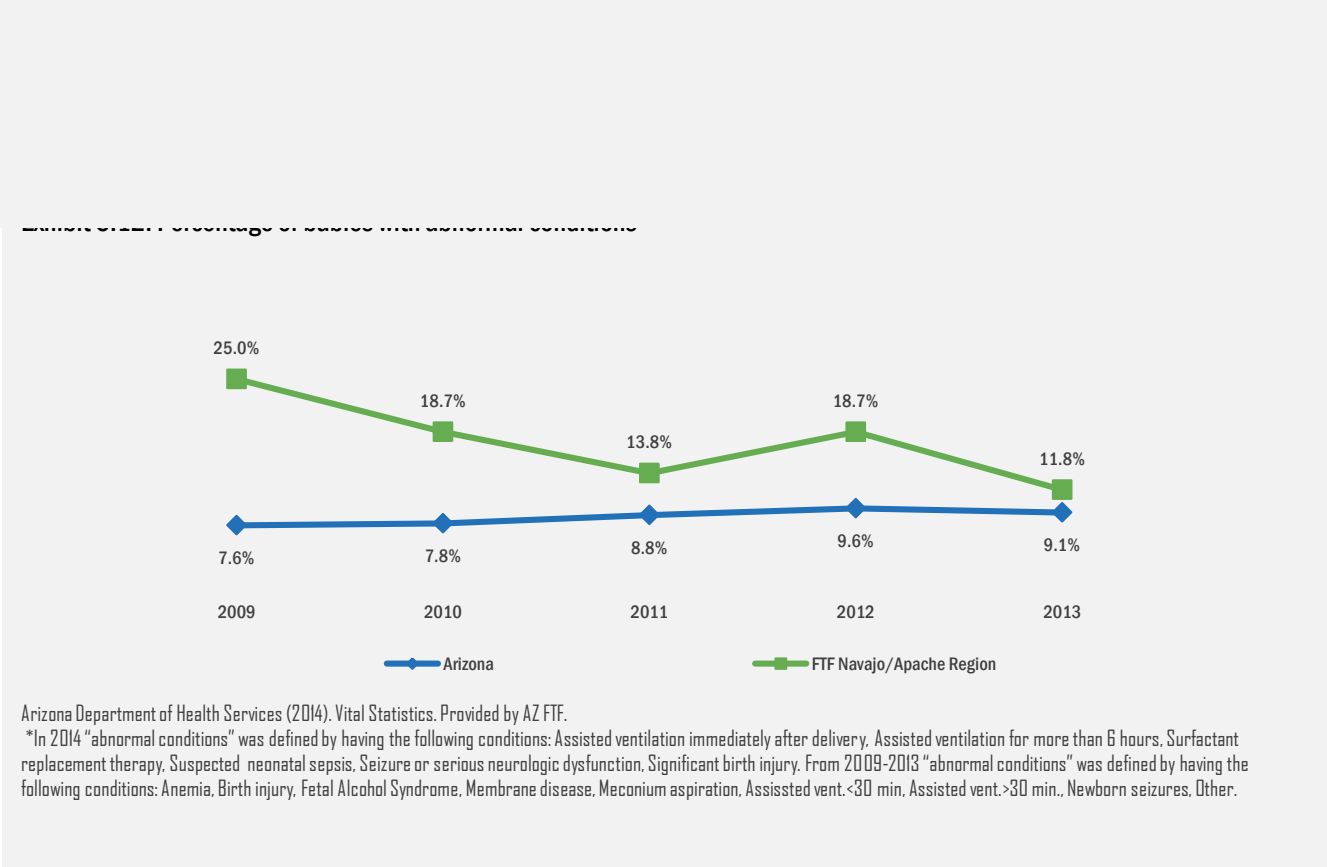
ht ⁷⁶ | *In 2014, 'medical risks' was defined by having the following conditions: Pre-existing diabetes, Gestational diabetes, Pre-existing hypertension, Gestational hypertension, Eclampsia, Previous preterm birth, Other previous poor pregnancy outcome, Gonorrhea, Syphilis, Chlamydia, Hepatitis B,
 ht ⁷⁶ | Hepatitis C. From 2009-2013 medical risk was defined by having the following conditions: Anemia, Cardiac disease, Lung disease, Diabetes,
 ht ⁷⁶ | Genital herpes, Hydramnios, Hemoglobinopathy, Chronic hypertension, Pregnancy associated hypertension, Eclampsia, Previous infant 4000+g,
 ht ⁷⁶ | Previous SGA infant, Renal disease, RH sensitization, Uterine bleeding, Incompetent cervix, Other.

ca

⁷⁹ Vital Statistics Birth (2014). Provided by AZ FTF.

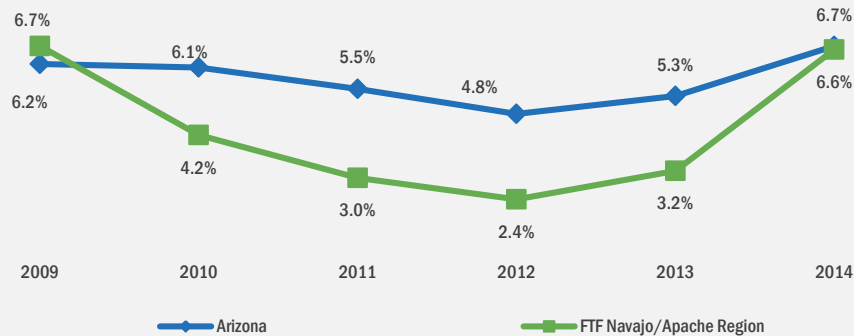
Navajo/Apache Region reported believing that they could impact their child’s brain during the prenatal period.⁸⁰ This may indicate a lack of knowledge around the importance of prenatal care and the impact on a child’s growth and development. Additional information regarding health access is provided in Appendix 5.13-Appendix 5.20.

In the FTF Navajo/Apache Region, the percentage births with medical risks or complications with labor and delivery increased from 2009-2012, however this trend started to decrease in 2013 (see Exhibit 5.10 and 5.11). Similarly, the percentage of babies born with abnormal conditions dropped 7% from 2012-2013 (see Exhibit 5.12). In 2014, the percentage of births in the FTF Navajo/Apache Region with medical risks (47.1%), births with complications (18.6%) and infants born with abnormal conditions (5.0%) decreased significantly⁸¹ This drop may potentially be due to changes in data collection and definitions. as the 2014 definition of medical risks did not include cardiac disease. lung



⁸⁰ Arizona First Things First (2012). Family and Community Survey.
⁸¹ Arizona Department of Health Services (2014). Vital Statistics. Provided by AZ FTF

Exhibit 5.13. Percentage of newborn babies who were admitted to the Intensive Care Unit



Arizona Department of Health Services (2014). Vital Statistics. Provided by AZ FTF.

In 2013, 90% of mothers in the FTF Navajo/Apache Region reported not drinking or smoking during their pregnancy and the number of infants born with drug withdrawal symptoms continued to be less than 25 infants.^{82,83}

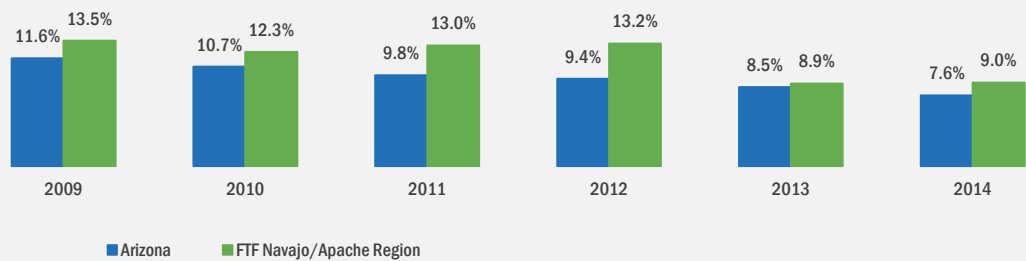
Additional factors that place mothers at risk of not receiving prenatal care, such as teen pregnancy, unmarried mothers, and mothers with lower education levels, have decreased or remained steady over the past few years. In the FTF Navajo/Apache Region, the percentage of teen mothers decreased from 2009-2014, though it was still slightly higher than the state (see Exhibit 5.14). The percentage of mothers who are not married remained stable from 2009 to 2014 and was lower than the state (43% versus 46%) in 2014.⁸⁴ In addition, 54% of mothers in the region had a high school education or more (see Exhibit 3.11). Additional information regarding prenatal care is provided in Appendix 5.21-Appendix 5.32.

⁸² Arizona Department of Health Service (2014). Drug withdrawal syndrome in infants of dependent mothers by race/ethnicity and county of residence. Retrieved from <http://azdhs.gov/plan/hip/index.php?p=drugs>

⁸³ Arizona Department of Health Services (2014). Vital Statistics. Provided by AZ FTF.

⁸⁴ Arizona Department of Health Services (2014). Vital Statistics. Provided by AZ FTF.

Exhibit 5.14. Percentage of mothers who are 19 years old or younger



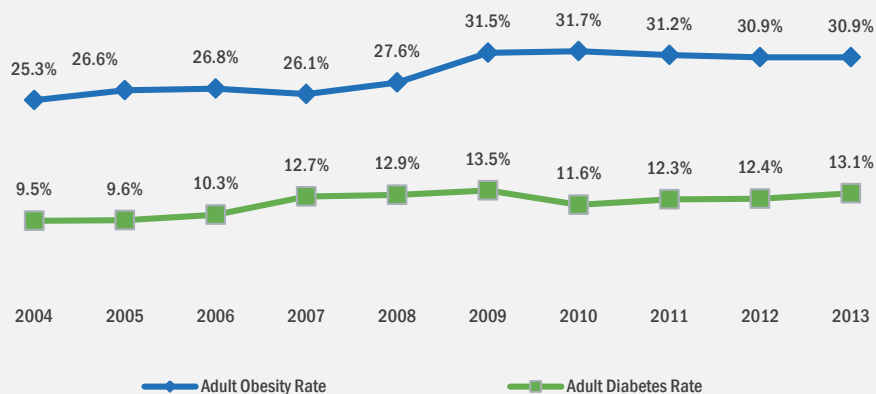
Arizona Department of Health Services (2014). Vital Statistics. Provided by AZ FTF.

Obesity

Obesity has been a concern in the U.S due to associated health outcomes, such as high risk for diabetes, cancer, and heart disease.⁸⁵ Diabetes has also been associated with many negative health complications such as blindness, kidney failure, and amputation of limbs.⁸⁶

According to the College of Obstetricians and Gynecologists (ACOG), mothers who are obese during pregnancy are at risk of developing gestational diabetes, preeclampsia, and sleep apnea.⁸⁷ According to the CDC, obesity can be prevented by increasing physical activity and maintaining a healthy diet.⁸⁸ HP 2020 aims to reduce the proportion of adults who are obese to 30.5% and the proportion of children and adolescents who are obese to 14.5%.⁸⁹ In Navajo County, the percentage of obese adults has increased from 25% to 31% between the years 2004–2013 (see Exhibit 5.15). Within the same timeframe, the percentage of adults with diabetes increased from 10% to 13% (see Exhibit 5.15). Similarly, in Apache County, the percentage of obese adults increased from 29% to 35% and the percentage of adults with diabetes from 11% to 14% (see Exhibit 5.16).

Exhibit 5.15. Percentage of obese adults and adults with diabetes in Navajo County



¹Centers for Disease Control and Prevention (2013). Diagnosed Diabetes.

²Centers for Disease Control and Prevention (2013). Obesity.

⁸⁵ Center for Disease Control and Prevention. (n.d.). Adult Obesity Facts. Retrieved from <https://www.cdc.gov/obesity/data/adult.html>

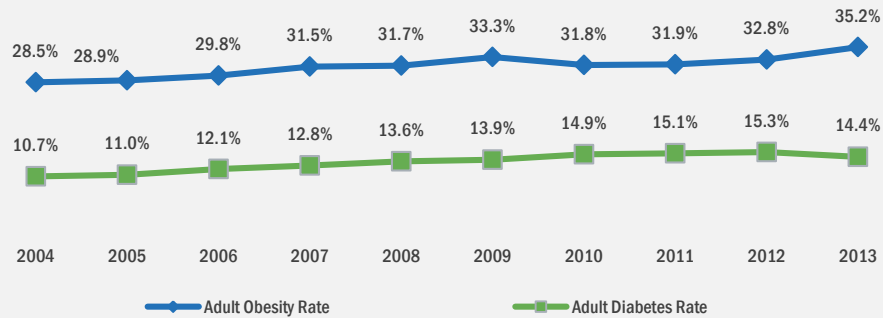
⁸⁶ Chronic Disease Prevention and Health Promotion. (n.d.). Diabetes At A Glance Reports. Retrieved from <http://www.cdc.gov/chronicdisease/resources/publications/aag/diabetes.htm>

⁸⁷ COG (2016). Obesity and Pregnancy. Retrieved from <http://www.acog.org/Patients/FAQs/Obesity-and-Pregnancy>

⁸⁸ Chronic Disease Prevention and Health Promotion. (n.d.). Diabetes At A Glance Reports. Retrieved from <http://www.cdc.gov/chronicdisease/resources/publications/aag/diabetes.htm>

⁸⁹ Healthy People 2020. About Health People Retrieved from <https://www.healthypeople.gov/2020/About-Healthy-People>

Exhibit 5.16. Percentage of obese adults and adults with diabetes in Apache County

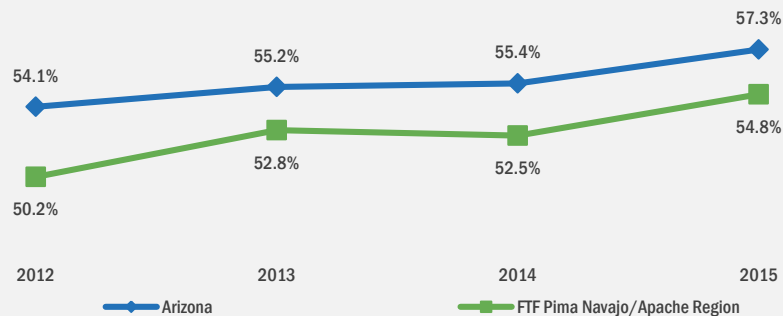


¹Centers for Disease Control and Prevention (2013). Diagnosed Diabetes.

²Centers for Disease Control and Prevention (2013). Obesity.

In the FTF Navajo/Apache Region and the state as a whole, over 50% of mothers reported being overweight or obese pre-pregnancy in 2015 and that percentage has been increasing since 2012 (see Exhibit 5.17). As previously described in the demographic chapter, 33% of the population in Navajo County and 65% of the population in Apache County have low access to grocery stores (see Exhibit 2.17). Furthermore, there are very few recreation and fitness facilities where residents of Navajo and Apache counties can stay active.⁹⁰ The combination of having few grocery store and places where residents can engage in fitness activities may contribute to the increasing percentages of mothers and children who are obese or have diabetes in Navajo County and Apache County. Additional information regarding obesity is provided in Appendix 5.33- Appendix 5.35.

Exhibit 5.17. Percentage of mother's participating in WIC who were overweight and obese pre-pregnancy



Arizona Department of Health Services (2015). Women, Infants & Children (WIC). Provided by AZ FTF.

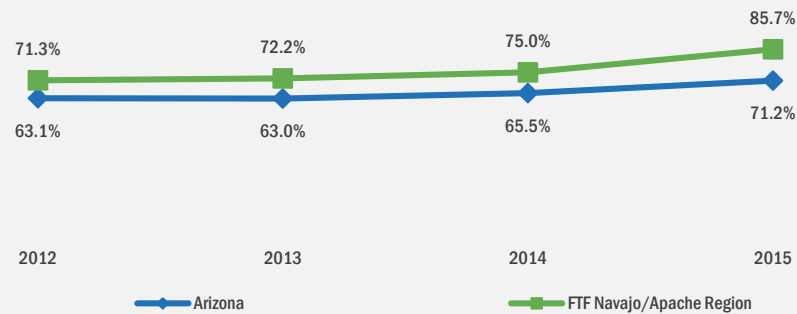
Engaging in Healthy Behaviors

Many doctors recommend that mothers breastfeed for the first six months after giving birth. Breast milk has antibodies that prevent babies from getting ill and it has been shown to decrease the likelihood of babies becoming

⁹⁰ United States Department of Agriculture and Economic Research Service (2012). Food Environment Atlas.

obese.⁹¹ In addition, vaccinations can protect children from measles, mumps, and whooping cough which are all severe illnesses currently still present and potentially fatal to young children.⁹² Lastly, being vaccinated is not only a protective factor to oneself, but to the community's immunity.⁹³

Exhibit 5.18. Percentage of mothers who participate in WIC who breastfeed their infant on average at least once a day



Arizona Department of Health Services (2015). Women, Infants & Children (WIC). Provided by AZ FTF

HP 2020 aims to increase the proportion of infants who are breastfed at six months to 60.6%.⁹⁴ In the FTF Navajo/Apache Region, the percentage of mothers participating in WIC who breastfed has increased from 2012-2015 and was 15% higher than the state in 2015 (see Exhibit 5.18). However, 2015 WIC reports from Apache County show that although many mothers (95%) initially plan to breastfeed, less than half continued to breastfeed by the time they were seen for their family follow-up (see Exhibit 5.19). In addition, WIC reports from Navajo County also show that only 35% of mothers were exclusively breastfeeding their child at 6 months.⁹⁵ Similarly, in Navajo County, 2015 WIC reports showed that 83% of mothers initiated breastfeeding however only 35% of mothers reported breastfeeding at 6 months (see Exhibit 5.20). The drop of breastfeeding at 3 and 6 months may be due to the fact that mothers have to return to work after maternity leave which typically only last 12 weeks. Council members stated that some mothers may choose to stop breastfeeding because they have to choose between receiving a breastfeeding pump or formula in WIC centers. Additional information regarding breastfeeding is provided in Appendix 5.36.



In 2015, 35% of 6-month old low-income infants from WIC in Navajo County were exclusively feeding.

⁹¹ Office on Women's Health (2014). Why breastfeeding is important. Retrieved from <https://www.womenshealth.gov/breastfeeding/breastfeeding-benefits.html>

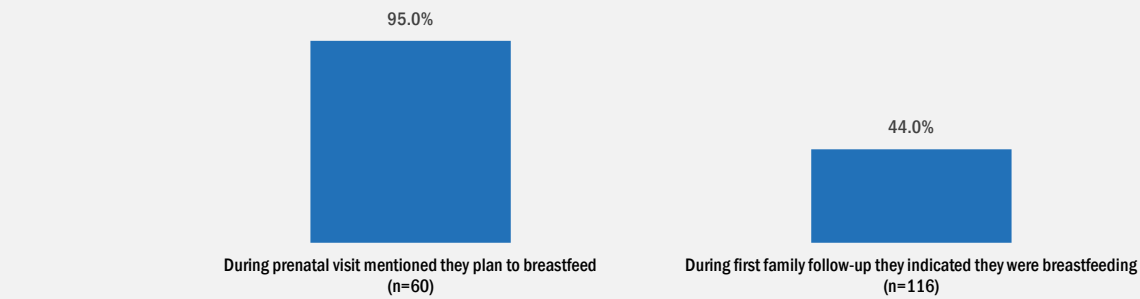
⁹² Basic Vaccines (2016). Importance of Vaccines. Retrieved from <http://www.vaccineinformation.org/vaccines-save-lives/>

⁹³ U.S Department of Health and Human Services (2016). Community Immunity. Retrieved from http://www.health.ny.gov/prevention/immunization/vaccine_safety/

⁹⁴ Healthy People 2020. About Health People Retrieved from <https://www.healthypeople.gov/2020/About-Healthy-People>

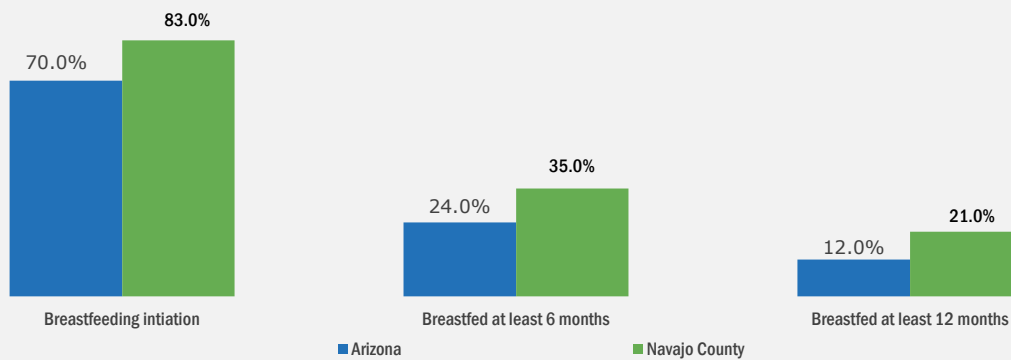
⁹⁵ Women, Infants & Children (2015). Breastfeeding Data. Provided by AZ FTF.

Exhibit 5.19. Percentage of mothers from Health Start Clients in Apache County who breastfed their child/ren



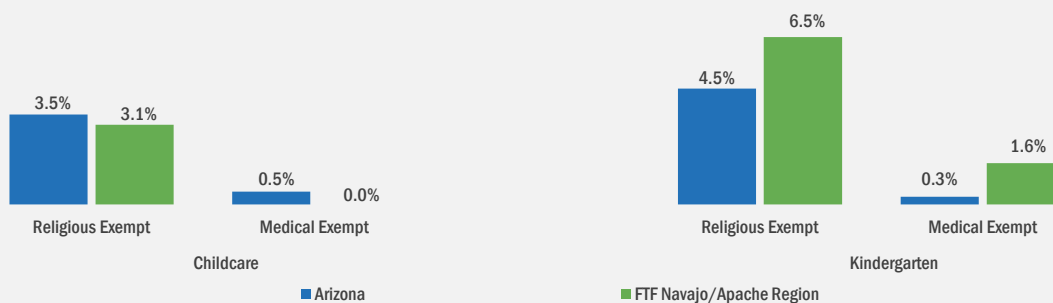
Women, Infants & Children (2015). *Breastfeeding Feeding Data*. Provided by AZ FTF.

Exhibit 5.20. Percentage of low-income mothers who participate in WIC in Navajo County who breastfeed



Women, Infants & Children (2015). *Breastfeeding Data*. Provided by AZ FTF.

Exhibit 5.21. Percentage of children in childcare and kindergarten that have been exempt from receiving immunizations

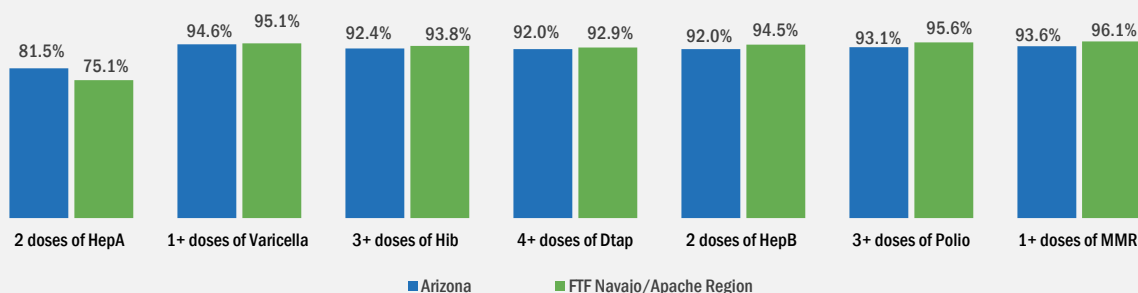


Immunization Data Reports (2015). Provided by AZ FTF.

In the FTF Navajo/Apache Region, the percentage of children in child care who are exempt from immunizations for

religious or medical reasons is slightly lower than the state overall (see Exhibit 5.21). On the contrary, the percentage of children in kindergarten who are exempt from receiving immunizations due to both religious and medical reasons is higher than the state (see Exhibit 5.21). Compared to the state, the FTF Navajo/Apache Region has slightly more children who have received Hib, DTaP, MMR, Hep B, polio, and varicella vaccines (see Exhibit 5.22). Given that state regulations require children enrolled in child care to be up to date on immunizations, it is possible that the rates of immunization for children in child care are higher than immunization rates for children not in child care.

Exhibit 5.22. Percentage of children in childcare who have received immunizations received by type of immunization

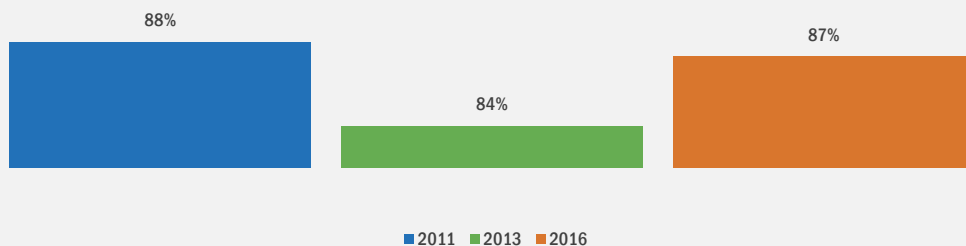


Immunization Data Reports (2015). Provided by AZ FTF.

Eighty-seven percent of Parent Survey respondents indicated that their child had received all of his/her vaccines (Exhibit 5.23). At a subregional level, Snowflake had the lowest percentage of Parent Survey respondents indicating that their child is vaccinated. Concho/St. Johns had nearly 20% of respondents indicate that their child was not vaccinated, although there was a large decrease from the 2013 Parent Survey (see Exhibit 5.24).



Exhibit 5.23. Parent Survey: Is your child current on all the recommended vaccines?

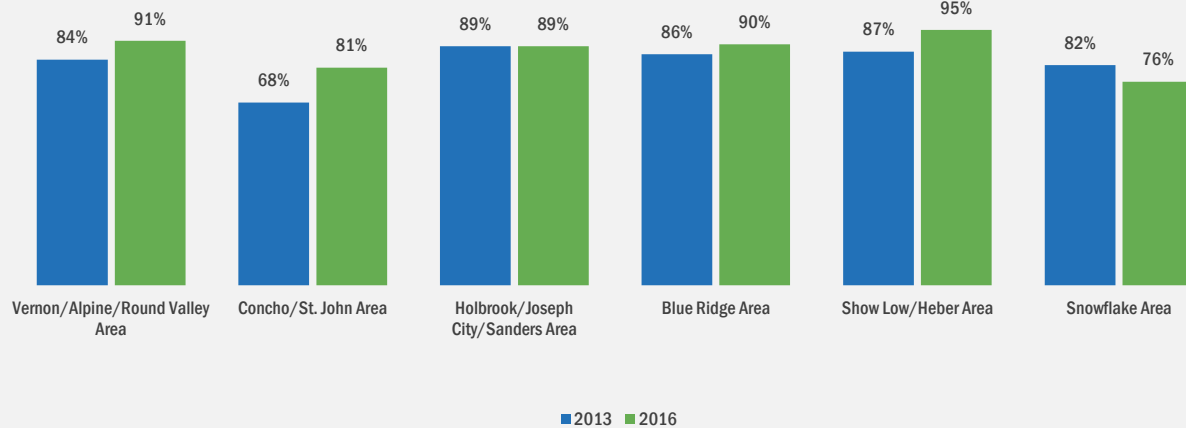


2011 n=704; 2013 n=825; 2016 n=378.

Source: Harder+Company Community Research. (2016). [First Things First – Navajo/Apache Region: Survey for parents with children ages 0-5]. Unpublished data. San Diego, CA.



Exhibit 5.24. Parent Survey: Is your child current on all the recommended vaccines? By First Things First Navajo/Apache Region Area- 2016 by FTF Navajo/Apache Region Area



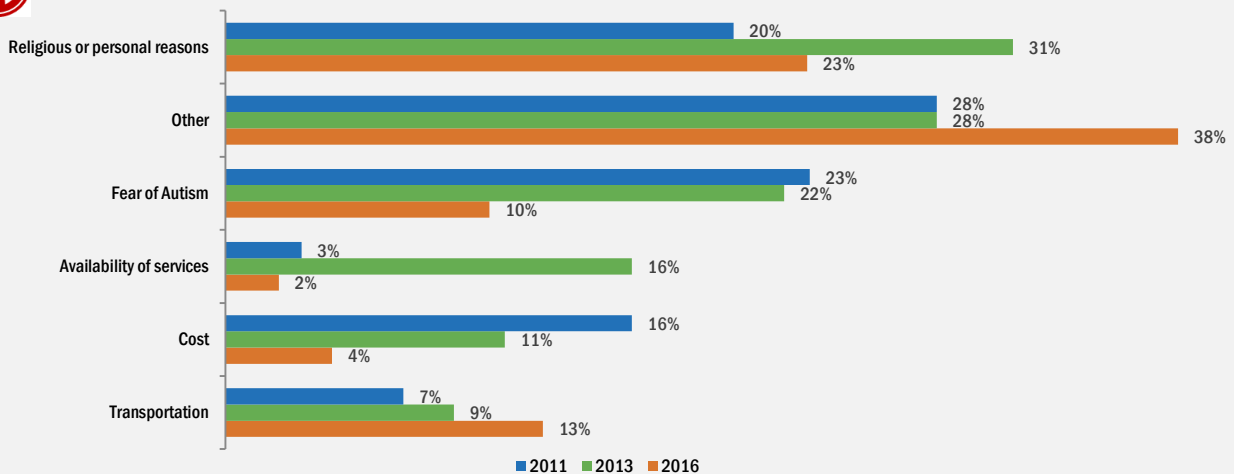
Vernon/Alpine/Round Valley (Area 1) 2013 n=124, 2016 n=65; Concho/St. Johns (Area 2) 2013 n=40, 2016 n=42; Holbrook/Joseph City, Sanders (Area 3) 2013 n=179, 2016 n=92; Blue Ridge (Area 4) 2013 n=128, 2016 n=29; Show Low/Heber (Area 5) 2013 n=181, 2016 n=82; Snowflake (Area 6) 2013 n=173, 2016 n=66.

Source: Harder+Company Community Research. (2016). [First Things First – Navajo/Apache Region: Survey for parents with children ages 0-5]. Unpublished data. San Diego, CA.

Those respondents who indicated their child was not up to date with vaccinations cited religious or personal reasons (23%) and transportation issues (13%) as the main reasons their child was not vaccinated (see Exhibit 5.25). Other reasons children were not vaccinated include lack of insurance, preference for a delayed schedule, and work schedule. Both cost and availability have decreased as reasons why children were not vaccinated since 2001 and 2013. By making vaccines available and affordable, the percentage of children vaccinated will continue to stay high. Additional information regarding immunization is provided in Appendix 5.37.



Exhibit 5.25. Parent Survey: If no, why hasn't your child been vaccinated?



2011: Multiple response question with 80 respondents offering 83 responses. 2013: Multiple response question with 64 respondents offering 75 responses. 2016: Multiple response question with 48 respondents offering 43 responses

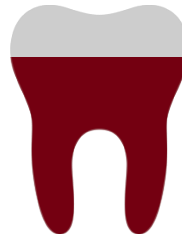
Source: Harder+Company Community Research. (2016). [First Things First – Navajo/Apache Region: Survey for parents with children ages 0-5]. Unpublished data. San Diego, CA.

Oral Health

Severe forms of tooth decay can have negative effects on a child's speech, jaw development, malnourishment, and anemia, and may lead to life-threatening infections.^{96,97} Fortunately, tooth decay has been found to be one of the most preventable diseases. It can be prevented by using fluoridated water, brushing and flossing teeth, taking a child to see a dentist regularly starting by the age of 1, and mothers practicing good oral health care during pregnancy. Baby bottle tooth decay generally includes the front four teeth and is generally caused by the frequent, prolonged exposure of the baby's teeth to drinks that contain sugar. Tooth decay can occur when the baby is put to bed with a bottle, or when a bottle is used as a pacifier for a fussy baby.⁹⁸



Of the parents who have AHCCCS insurance in Arizona, **22%** reported that their child(ren) do not have dental insurance.



69% of parents indicated their child(ren) regularly visited the same dental provider

The *Healthy Smiles Healthy Bodies Survey* was designed to obtain information on the prevalence and severity of tooth decay among Arizona's kindergarten children.⁹⁹ In addition, the survey collected information on behavioral and demographic characteristics associated with this condition. *Healthy Smiles Healthy Bodies* included the following primary components: (1) a dental screening and (2) an optional parent/caregiver questionnaire. During the 2014-2015 school year, *Healthy Smiles Healthy Bodies* collected information from children at 84 non-reservation district and charter schools throughout Arizona.¹⁰⁰ A total of 3,630 kindergarten children in Arizona received a dental screening. In the FTF Navajo/Apache Region, 209 children received a dental screening.

Sampling

Healthy Smiles Healthy Bodies sampled children in kindergarten and third grade. District and charter elementary schools with at least 20 children in kindergarten were included in the sampling frame. The following were excluded from the sampling frame: (1) alternative, detention, and state schools for the deaf and the blind plus (2) schools located in tribal communities (based on the Arizona Department of Health Services list of tribal communities). To ensure a representative sample from every county and FTF region, the sampling frame was initially stratified by county. Where a county included more than one FTF region (Maricopa and Pima), the sampling frame was further stratified by FTF region. This resulted in 21 sampling strata; 13 county-level strata, 2 FTF strata within Pima County, and 6 FTF strata within Maricopa County. Within each stratum, schools were ordered by their National School Lunch Program (NSLP) participation rate. A systematic probability proportional to size sampling scheme was used to select a sample of five schools per stratum.¹⁰¹ Three counties (Apache, Greenlee, and La Paz) had fewer than five schools in the sampling frame. For these counties, all schools in the sampling frame were asked to participate. If a selected school did not have kindergarten or third grade, the appropriate feeder school was added to the sample. A systematic sampling scheme was used to select 99 schools. Of these, five did not have kindergarten or third grade so

⁹⁶ National Children's Oral Health Foundation (2015). *Facts About Tooth Decay*. Retrieved from <http://www.ncohf.org/resources/tooth-decay-facts/>

⁹⁷ Raising Children Network. (n.d.). *Tooth decay*. Retrieved from http://raisingchildren.net.au/articles/tooth_decay.html

⁹⁸ American Dental Association. *Mouth Healthy*. Retrieved from: <http://www.mouthhealthy.org/en/az-topics/b/baby-bottle-tooth-decay>

⁹⁹ Using another funding source, ADHS expanded data collection to include 3rd grade children but that information is not included in this report.

¹⁰⁰ Schools serving children with special needs and schools located in tribal communities were excluded.

¹⁰¹ Probability proportional to size sampling: a sampling technique where the probability that a particular school will be chosen in the sample is proportional to the enrollment size of the school

five feeder schools were added to the sample resulting in 104 schools representing 99 sampling intervals, of which 84 agreed to participate.

Survey Limitations

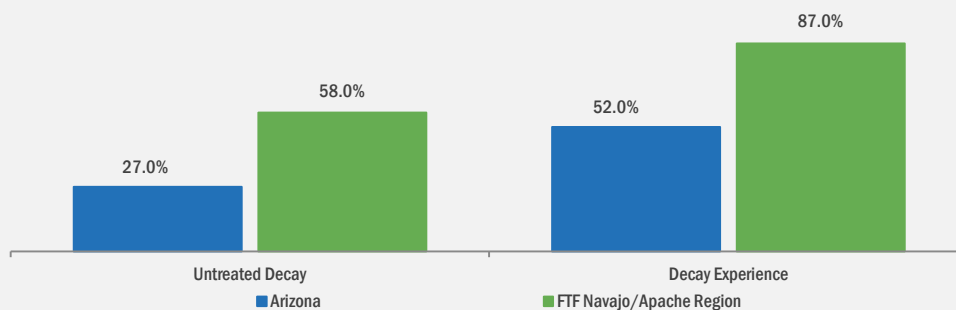
Although the original sample was representative of the state, not all schools participated, which may bias the results. The percentage of children eligible for the NSLP was 58% for schools in the sampling frame but 72% for schools that participated, suggesting that lower income schools were more likely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

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

In the FTF Navajo/Apache Region, 71% of residents have some type of dental insurance, which is 5% lower than the state (76%). Many Arizona residents (48%) have AHCCCS insurance yet many parents are unaware that AHCCCS includes dental benefits for their children.¹⁰² Over half of parents (69%) who responded to the *Healthy Smiles Healthy Bodies* survey in the FTF Navajo/Apache Region reported that they regularly take their children to dental visits.¹⁰³ In addition, from 2014-2016, over 5,000 children participated in the Overgaard Ponderosa Lions Foundation Dental Education Program in Navajo and Apache Counties.¹⁰⁴

However, there are still over 80% of children screened through the *Healthy Smiles Healthy Bodies* survey in the FTF Navajo/Apache Region who suffer from tooth decay (see Exhibit 5.26) and, in 2014, about half of the residents living in Arizona did not have access to public water systems that were fluoridated¹⁰⁵. Additional information regarding oral health is provided in Appendix 5.38.

Exhibit 5.26. *Healthy Smiles Healthy Bodies* Survey: Children who have experienced tooth decay



Arizona First Things First (2016). Oral Health Report.

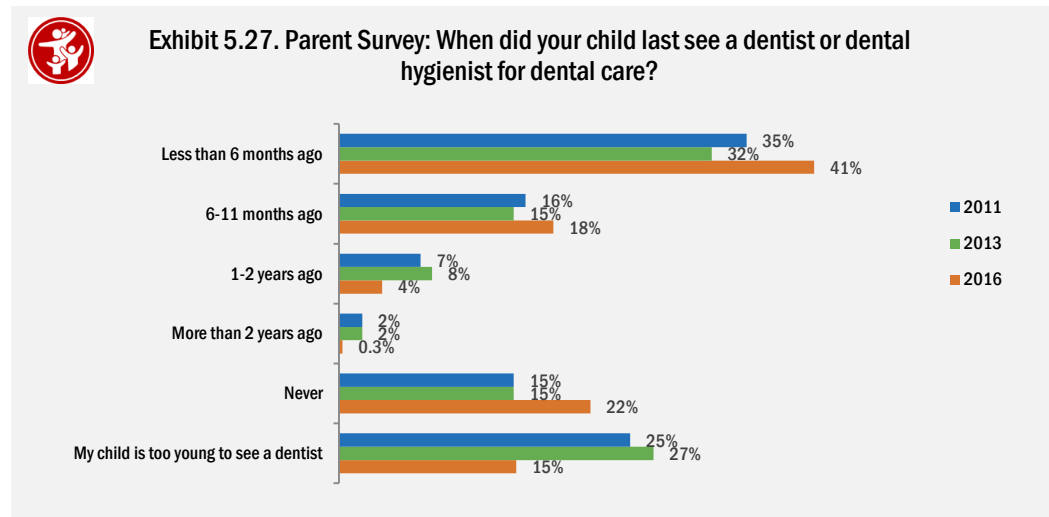
¹⁰² Arizona First Things First (2016). Oral Health Report.

¹⁰³ Arizona First Things First (2012). Family and Community Survey.

¹⁰⁴ Overgaard Ponderosa Lions Foundation (2016). Provided by AZ FTF.

¹⁰⁵ Fluoride Action Network (2014). State Fluoride Database. Retrieved from <http://fluoridealert.org/researchers/states/arizona/>


The majority of Parent Survey respondents indicated that their child had seen the dentist less than six months ago (41%), an increase from 2011 and 2013. Nevertheless, 22% of respondents indicated that their child had never seen a dentist or that their child was too young to see a dentist (15%; see Exhibit 5.27). These responses may provide some indication as to why there are high rates of untreated decay in the FTF Navajo/Apache Region. In addition, there is only one pediatric dentist in the FTF Navajo/Apache Region.



2011 n=701; 2013 n=820; 2016 n=375.

Source: Harder+Company Community Research. (2016). *FTF Navajo/Apache Region Oral Health Survey*. Unpublished data. San Diego, CA

When looking at subareas within the FTF Navajo/Apache Region, the Holbrook/Joesph City/Sanders Area respondents had the highest percentage of children who had never seen a dentist (26%) followed by the Concho/St. Johns area (22%). Blue Ridge had the highest percentage of children who had seen a dentist within the past six months (66%; see Exhibit 5.28).

 **Exhibit 5.28. Parent Survey: When did your child last see a dentist or dental hygienist for dental care? By First Things First Navajo/Apache Region Area**

	Vernon/Alpine/Round Valley Area	Concho/St. Johns Area	Holbrook/Joesph City/Sanders Area	Blue Ridge Area	Show Low/Heber Area	Snowflake Area
My child is too young to see a dentist	16%	20%	24%	7%	6%	15%
Never	18%	22%	26%	10%	21%	25%
More than 2 years ago	0%	0%	1%	0%	0%	0%
1-2 years ago	2%	2%	3%	3%	7%	3%
6-11 months ago	19%	17%	22%	14%	21%	12%

Less than 6 months ago	46%	39%	23%	66%	45%	45%
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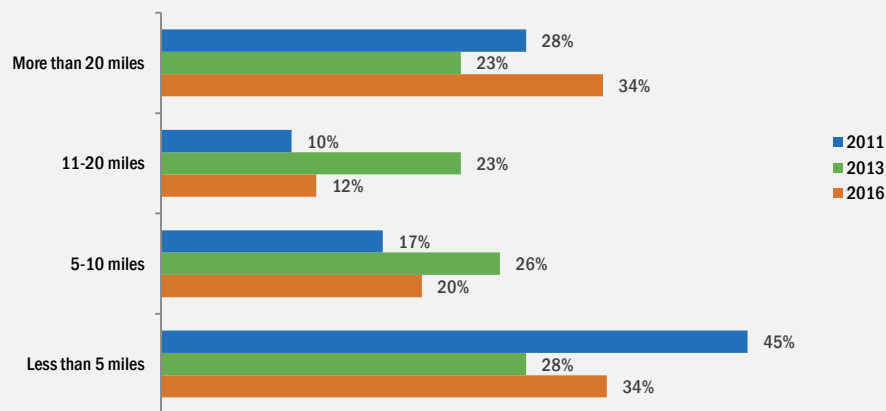
Vernon/Alpine/ Round Valley (Area 1) n=63; Concho/St. Johns (Area 2) n=41; Holbrook/Joseph City/Sanders (Area 3) n=91; Blue Ridge (Area 4) n=29; Show Low/Heber (Area 5) n=82; Snowflake (Area 6) n=67.

Source: Harder+Company Community Research. (2016). [First Things First – Navajo/Apache Region: Survey for parents with children ages 0-5]. Unpublished data. San Diego, CA.

Similar to distance traveled for medical care, the majority of Parent Survey respondents travel less than five miles (34%) or more than 20 miles (34%) for dental care for their child (see Exhibit 5.29). A subarea breakdown of distance traveled for dental care can be found in Exhibit 5.30.



Exhibit 5.29. Parent Survey: How far do you travel to get dental care for your child?



2011 n=681; 2013 n=803; 2016 n=345.

Source: Harder+Company Community Research. (2016). [First Things First – Navajo/Apache Region: Survey for parents with children ages 0-5]. Unpublished data. San Diego, CA.



Exhibit 5.30. Parent Survey: How far do you travel to get dental care for your child? By First Things First Navajo/Apache Region Area

	Vernon/Alpine / Round Valley Area	Concho/ St. Johns Area	Holbrook/ Joseph City/ Sanders Area	Blue Ridge Area	Show Low/ Heber Area	Snowflake Area
Less than 5 miles	44%	53%	29%	50%	21%	30%
5-10 miles	30%	13%	4%	35%	30%	27%
11-20 miles	3%	8%	4%	15%	26%	15%
More than 20 miles	33%	28%	63%	0%	23%	28%

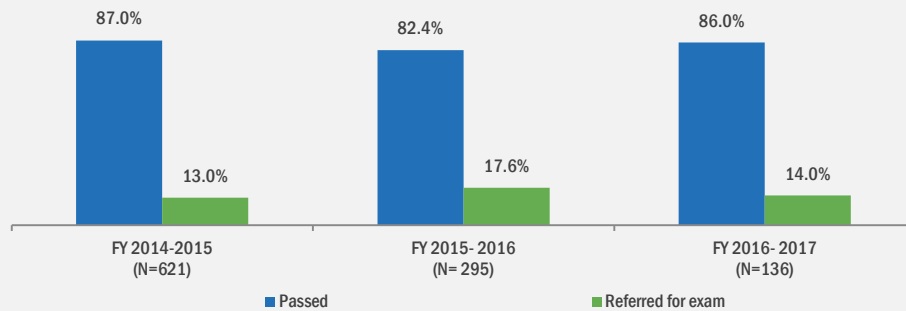
Vernon/Alpine/Round Valley (Area 1) n=61; Concho/St. Johns (Area 2) n=40; Holbrook/Joseph City/Sanders (Area 3) n=79; Blue Ridge (Area 4) n=26; Show Low/Heber (Area 5) n=77; Snowflake (Area 6) n=60.

Source: Harder+Company Community Research. (2016). [First Things First – Navajo/Apache Region: Survey for parents with

Vision Health

Vision impairments can affect a child's ability to achieve academically due to not being able to see work that is either too far or too close to them, such as reading from a book or reading from the whiteboard.¹⁰⁶ For example, many children who have myopia may not be able to see their teacher's notes on the whiteboard. Some potential signs that children may exhibit if they are experiencing vision problems include squinting, avoiding close work, rubbing eyes, headaches, performing below potential, or holding reading material closer than normal.¹⁰⁷ Fortunately, vision screenings may help with early identification of vision problems. In Navajo and Apache Counties, the Overgaard Ponderosa Lions Foundation has provided vision screenings to children for the past three years. Over 80% of the children they screened have passed the vision screening and over 10% of the children have been given referrals to receive a full vision exam (see Exhibit 5.31). Additional information regarding vision screenings and referrals is provided in Appendix 5.39-Appendix 5.40.

Exhibit 5.31. Percentage of Navajo/Apache children who passed or were referred to receive an exam after a vision screening



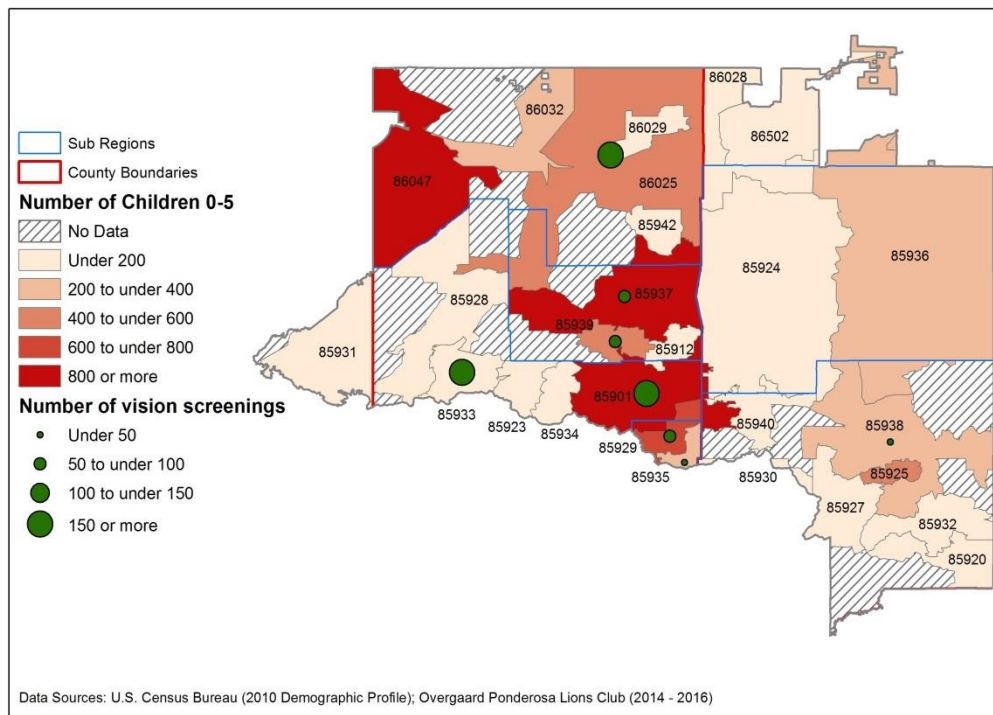
Overgaard Ponderosa Lions Foundation (2016). Provided by AZ FTF.
*This includes HeadStart data

Exhibit 5.32 displays the number of vision screenings by zip code. The majority of vision screenings have been concentrated in three zip codes including 86025, 85933, and 85901. Two zip codes with more than 800 children did not receive any vision screenings (86047 and 85939). This map may be used to further target areas to offer vision screenings, especially in areas with a large number of children zero to five.

¹⁰⁶ Unite for Sight (N.D). *The Importance of Vision Screening for Children*. Retrieved from <http://www.uniteforsight.org/eye-health-teachers/importance-vision-screening-for-children>

¹⁰⁷ IBID.

Exhibit 5.32. Vision Screenings and Children 0-5 by Zip Code



HE

Both Navajo and Apache Counties have high rates of health insurance. Although the majority of residents have health insurance (83%). Additionally, on the Parent Survey, 89% of respondents indicated that their child was able to receive the medical care he/she needed which is a decrease from 2011 and 2013. Another risk indicator, the percentage of adults with obesity and diabetes has increased or stayed relatively the same in both Navajo and Apache Counties since 2010. The percentage of mothers overweight and obese pre-pregnancy has been increasing since 2012 in both counties.

Despite the lower rate of early prenatal care and higher rate of obesity amongst mothers, the percentage of infants born with abnormal conditions remained steady or declined. Additionally, in 2013, 90% of mothers reported not drinking or smoking during pregnancy, indicating an understanding that substance use is not recommended during pregnancy. However, the percentage of newborns born with medical risks was on the rise until 2014 when the definition was changed and the percentage of newborns who were admitted to the Intensive Care Unit increased between 2013 and 2014.

Families in the FTF Navajo/Apache Region have mostly been successful in implementing the healthy preventive practices of breastfeeding and vaccinating their children. The percentage of mothers participating in WIC who breastfeed their infant at least once a day has increased to 71% in 2015, although this percentage is 14% less than the state. The breastfeeding rate for Health Start Clients in Apache County and WIC clients in Navajo County at 6 months are both less than 50%. Additionally, 3% of preschoolers and 8% of kindergartners are exempt from immunizations. Eighty-seven percent of Parent Survey respondents indicated that their child had received all of his/her vaccines. Although 69% of parents who responded to the *Healthy Smiles Healthy Bodies* survey in the FTF Navajo/Apache Region report regularly taking their children to dental visits, 87% of children who participated in the *Healthy Smiles Healthy Bodies* survey in the region have had tooth decay and more than half (58%) have had untreated decay. Twenty-two percent of Parent Survey respondents indicated that their child had never seen a dentist and 15% indicated that their child was too young to see a dentist.

Below are key data trends that highlight the health assets and needs and data-driven re considerations for the FTF Navajo/Apache Region based on the data highlighted above. The considerations provided below do not represent comprehensive approaches and methods for tackling the needs and assets in the region. Instead, the considerations represent possible approaches that early childhood system partners, including FTF, could take to address needs and assets in the region, as conceptualized by the authors of this report.

Assets	Considerations
Almost all children in the region are receiving immunizations.	Promote healthy preventive behaviors like receiving immunizations.
Many women who participate in WIC are initiating breastfeeding with their infants (85.7%)	Provide education and support for breastfeeding initiation with a focus on continuing until the infant is at least 6 months of age, and ideally until 12 months of age.



6. Family Support and Literacy

Why it Matters

The first five years of life have a significant impact on children's intellectual, social, and emotional development and research shows that parents have a profound impact on their child's development during this time period.¹⁰⁸ Support for young families is an essential piece of the holistic efforts around kindergarten readiness and long term success for children. FTF supports families through evidence-based home visitation and parenting education programs and through parent outreach and awareness programs. Parenting education and support to improve parenting practices can reduce stressors and lead to enriched child development and reduction of removals of children from their homes.

Given the importance of the first years of life on children's development and the role that parents can play, it is crucial that parents understand their child's needs and use effective parenting techniques while raising their child. Gaining more knowledge about parenting and child development allows parents to improve their parenting practices and provide their children with the experiences they need to succeed in kindergarten and beyond.¹⁰⁹

Children exposed to domestic violence or who are the victims of abuse or neglect are also at increased risk to experience depression and anxiety and are more disposed to physical aggression and behavior problems.¹¹⁰ Early abuse and neglect have been shown to affect neurodevelopment and psychosocial development and potentially impact long term mental, medical, and social outcomes.¹¹¹ Understanding the impact of trauma has led to identifying opportunities to both prevent and mitigate the adverse effects through family support services like home visitation and parent education, as well as prioritizing out-of-home placements with family members or foster families. Given the negative outcomes associated with children who enter the system or are exposed to trauma or violence at a young age, it is important to understand the prevalence of these experiences in the FTF Navajo/Apache Region to provide the necessary support to children and their families.

What the Data Tell Us

Family Caregiver Survey 2012 Survey Methodology

The Family and Community Survey was designed to measure many critical areas of parent knowledge, skills, and behaviors related to their young children. The survey contained over sixty questions, some of which were drawn from the national survey, *What Grown-Ups Understand About Child Development*.¹¹² Survey items explored multiple facets of parenting. The FTF Family and Community Survey had six major areas of inquiry:

A total of 3,708 parents with children under six (FTF's target population) responded to the 2012 survey. The majority of respondents (83%) were the child's parent. The remaining respondents were grandparents (13%) or other relatives (4%). In the FTF Navajo/Apache Region, XXX parents participated in the survey.

¹⁰⁸ Center for the Study of Social Policy (2013). *Knowledge of Parenting and Child Development*. Retrieved from http://www.cssp.org/reform/strengthening-families/2013/SF_Knowledge-of-Parenting-and-Child-Development.pdf

¹⁰⁹ Center for the Study of Social Policy (2013). *Knowledge of Parenting and Child Development*. Retrieved from http://www.cssp.org/reform/strengthening-families/2013/SF_Knowledge-of-Parenting-and-Child-Development.pdf

¹¹⁰ Evans, S. E., Davies, C., & DiLillo, D. (2008). *Exposure to domestic violence: A meta-analysis of child and adolescent outcomes*. *Aggression and violent behavior*, 13(2), 131-140.

¹¹¹ Putnam, F. (2006). *The impact of trauma on child development*. *Juvenile and Family Court Journal*, 57 (1) 1-11.

¹¹² CIVITAS Initiative, ZERO TO THREE, and BRIO Corporation, Researched by DYG, Inc. 2000. *What Grown-ups Understand About Child Development: A National Benchmark Survey*. Online, INTERNET, 06/20/02. http://www.civitasinitiative.com/html/read/surveypdf/survey_public.htm

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

As discussed in the Health section, less than one-quarter (22%) of parents in the FTF Navajo/Apache Region understand they can significantly impact their child's brain development prenatally, compared to 32% of parents statewide. Similarly, results show that 29% of parents in the region understand that an infant can take in and react to the world around them right from birth, compared to 35% in Arizona. Less than half of parents in the region (46%) understand that a baby can sense whether or not his parent is depressed or angry and can be affected by his parents' mood from birth to one month. Over 90% of parents in the FTF Navajo/Apache Region understand that the first year of life has a major impact on school performance, which is 8% higher than statewide.¹¹³ This indicates that, while most parents may understand the importance of early child development, survey results indicate that not all parents are aware of all of the stages of development and the impact they have on their child, beginning prenatally.



22.1% of parents in the FTF Navajo/Apache Region understand that they can significantly impact their child's brain development in the prenatal stage, which is **9.6%** lower than Arizona



28.9% of parents in the FTF Navajo/Apache Region understand that an infant or young child can really take in and react to the world around them right from birth, which is **5.8%** lower than Arizona



46.4% of parents in the FTF Navajo/Apache Region understand that a baby can sense whether or not his parent is depressed or angry, and can be affected by his parents' mood from birth to one month, which is **4.7%** lower than Arizona



91.1% of parents in the FTF Navajo/Apache Region understand that the first year of life has a major impact on school performance, which is **8.4%** higher than Arizona

¹¹³ Arizona First Things First (2012). Family and Community Survey.

Over three-quarters of parents in the state of Arizona (77%) and FTF Navajo/Apache Region (86%) understand that a child's capacity for learning is not set from birth and can be increased or decreased by parental interaction. Survey results also show that nearly three-quarters of parents (74%) understand that children receive a greater benefit from talking to a person in the same room compared to hearing someone talk on the TV. Additionally, 98% of parents in the FTF Navajo/Apache Region understand emotional closeness can strongly influence a child's intellectual development, which is 2% higher than the state.¹¹⁴



86.0% of parents in the FTF Navajo/Apache Region understand that a child's capacity for learning is not set from birth and can be increased or decreased by parental interaction, which is **8.6%** higher than Arizona



73.7% of parents understand that children receive a greater benefit from talking to a person in the same room compared to hearing someone talk on the TV, which is **10.3%** higher than Arizona

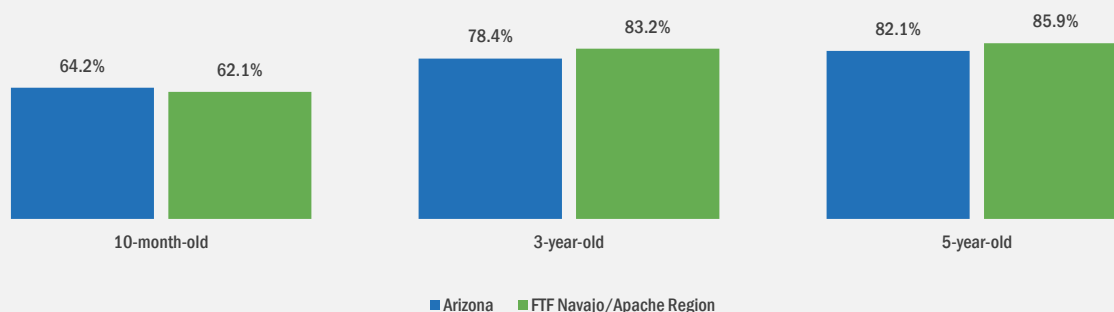


98.2% of parents in the FTF Navajo/Apache Region understand that emotional closeness can strongly influence a child's intellectual development, which is **1.9%** higher than Arizona.

In the FTF Navajo/Apache Region, parents also understand the importance of play for young children of all ages. Over 60% of parents recognize the crucial importance of play for children 10 months old and more than 80% understand that play is important for 3-year-olds and 5-year-olds (see Exhibit 6.1).

¹¹⁴ Arizona First Things First (2012). Family and Community Survey.

Exhibit 6.1. Percentage of parents that understand the crucial importance of play for children of different ages



Arizona First Things First (2012). Family and Community Survey.

The FTF Family and Community Survey also asked respondents about their understanding of age appropriate behaviors and expectations for children. A series of questions asked about a scenario where a child walks up to the TV and begins to turn the TV on and off repeatedly. About 80% of parents in the region correctly identified that this behavior likely means that the child wants to get her parents' attention or enjoys learning about what happens when buttons are pressed. Additionally, 72% correctly responded that it is not at all likely that the child is angry at her parents (see Exhibit 6.2).

Exhibit 6.2. Parent understanding of child behaviors in the FTF Navajo/Apache Region

If a child walks up to the TV and begins to turn the TV on and off repeatedly, how likely is it that...	Very likely	Somewhat likely	Not at all likely	Not sure
The child wants to get her parents' attention	64.3%	16.8%	18.9%	0.0%
The child enjoys learning about what happens when buttons are pressed	72.6%	6.6%	20.9%	0.0%
The child is angry at her parents for some reason or she is trying to get back at them	7.2%	20.6%	72.2%	0.0%

Arizona First Things First (2012). Family and Community Survey.

The FTF Family and Community Survey assessed parent or caregiver perceptions around spoiling their child. About half of survey respondents in the region (48%) correctly responded that a 15-month-old baby should not be expected to share her toys with other children and almost two-thirds (66%) correctly responded that a 3-year-old child should not be expected to sit quietly for an hour or so. Although more than half of respondents correctly identified appropriate behaviors for children, less than 30% correctly responded that a six-month-old is too young to spoil. Less than half of respondents correctly identified that picking up a three-month-old every time she cries as an appropriate behavior. In addition, 58% of respondents correctly identified letting a two-year-old get down from the dinner table to play before the rest of the family as an appropriate behavior (see Exhibit 6.3).

48.0

Percent of respondents said a 15-month-old baby should not be expected to share her toys with other children

65.7

Percent of respondents said a 3-year-old child should not be expected to sit quietly for an hour or so

29.1

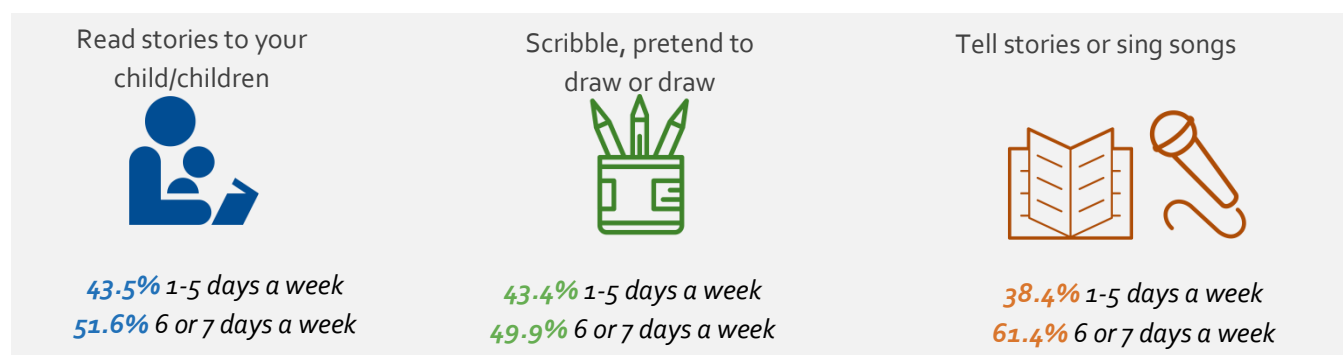
Percent of respondents said a 6-month-old is too young to spoil

Exhibit 6.3. Parent understanding of appropriate and spoiling behavior with their child in the FTF Navajo/Apache Region

Please rate the following behavior, on the part of a parent or caregiver, as appropriate, or as something that will likely spoil a child, if done too often	Appropriate	Will likely spoil the child	Not sure
Picking up a three-month-old every time she cries	39.2%	53.7%	7.1%
Letting a two-year-old get down from the dinner table to play before the rest of the family	58.0%	31.2%	10.8%
Letting a five-year-old choose what to wear to school every day	72.6%	24.8%	2.7%

Arizona First Things First (2012). Family and Community Survey.

About 50% of parents or other family members in the FTF Navajo/Apache Region reported either reading, drawing, or telling stories/singing songs to their children six or seven days a week.¹¹⁵

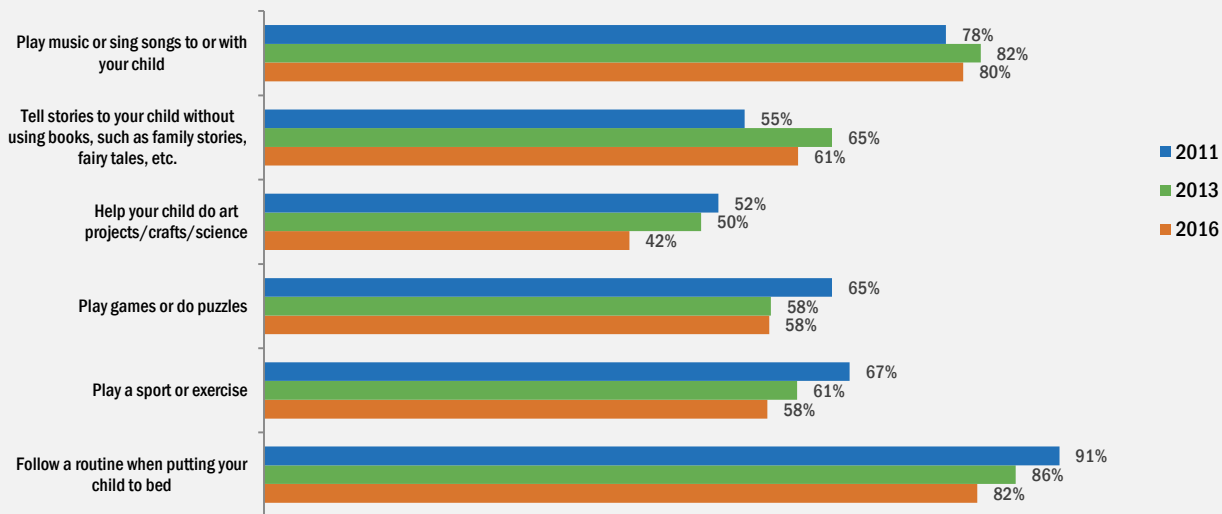


Parent Survey respondents were also asked a similar question regarding activities they engage in with their child. More than 80% indicated they played music or sang with their child or followed a routine when putting their child to bed within the last week (see Exhibit 6.4). All categories showed slight decreases from previous years.

¹¹⁵ Arizona First Things First (2012). Family and Community Survey.



Exhibit 6.4. Parent Survey: In the last week, how often did you or a family member do any of the following with your child? (Respondents who reported "Always" or "Frequently")



2016: Play music: n=384, Tell stories n=381, Art Projects n=371, Games or Puzzles n=379, Play Sport n=371, Follow Routine n=380

2013: Play music: n=874, Tell stories n=875, Art Projects n=860, Games or Puzzles n=859, Play Sport n=857, Follow Routine n=868 2011: Play music: n=698, Tell stories n=693, Art Projects n=690, Games or Puzzles n=686, Play Sport n=688, Follow Routine n=690

Source: Harder+Company Community Research. (2016). *First Things First - Navajo/Apache Region: Survey for parents with children ages 0-5*. Unpublished data. San Diego, CA.

Within the FTF Navajo/Apache Region subareas, fewer respondents in the Concho/St. Johns area (71%) and the Holbrook/Joseph City/Sanders Area (79%) reported following a routine when putting their child to bed compared to other regions. More than 80% of respondents in each subarea, with the exception of the Concho/St. Johns Area, indicated that they play music or sing songs with their child (see Exhibit 6.5).



Exhibit 6.5. Parent Survey: In the last week, how often did you or a family member do any of the following with your child? (Respondents who reported “Always” or “Frequently”)? By First Things First Navajo/Apache Region Area- 2016

	Vernon/Alpine /Round Valley Area	Concho/St. Johns Area	Holbrook/Joseph City/Sanders Area	Blue Ridge Area	Show Low/ Heber Area	Snowflake Area
Follow a routine when putting your child to bed	85%	71%	79%	100%	80%	84%
Play a sport or exercise	59%	26%	60%	67%	62%	62%
Play games or do puzzles	62%	31%	62%	57%	62%	59%
Help your child do art projects, crafts, or science projects	52%	21%	46%	43%	38%	44%
Tell stories to your child without using books, such as family stories, fairy tales, etc.	59%	40%	61%	64%	62%	76%
Play music or sing songs to or with your child	80%	55%	80%	90%	82%	88%

Vernon/Alpine/Round Valley (Area 1) n=66; Concho/St. Johns (Area 2) n=42; Holbrook/Joseph City/Sanders (Area 3) n=90; Blue Ridge (Area 4) n=28; Show Low/Heber (Area 5) n=85; Snowflake (Area 6) n=67.

Source: Harder+Company Community Research. (2016). [First Things First – Navajo/Apache Region: Survey for parents with children ages 0-5]. Unpublished data. San Diego, CA.

According to the Arizona FTF Family and Community Survey, more than half of parents in the FTF Navajo/Apache Region (53%) indicated that they have more than 100 books in their home and 41% reported having 100 or more children’s books in their home. Both of these numbers are higher than statewide.¹¹⁶



38% of parents reported having 100 or more books* in their home, which is **10%**



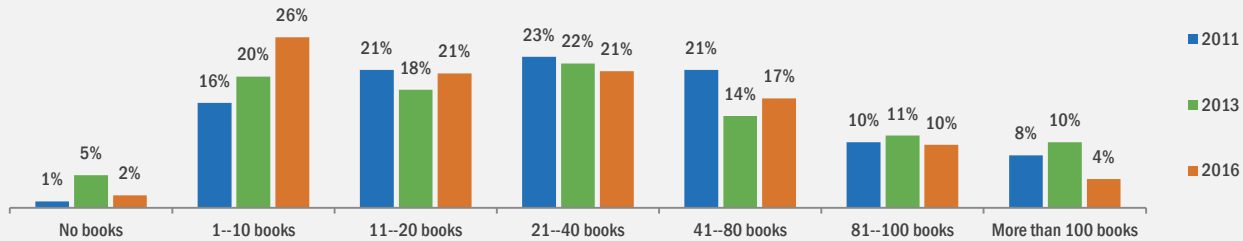
20% of parents reported having 100 or more children’s books* in their home, which is **10%**

¹¹⁶ Arizona First Things First (2012). Family and Community Survey.

Fewer Parent Survey respondents indicated they had more than 100 books at home, however Parent Survey trends have stayed consistent in 2011, 2013, and 2016 (see Exhibit 6.6).



Exhibit 6.6. Parent Survey: How many children's books (including e books) are in your home?



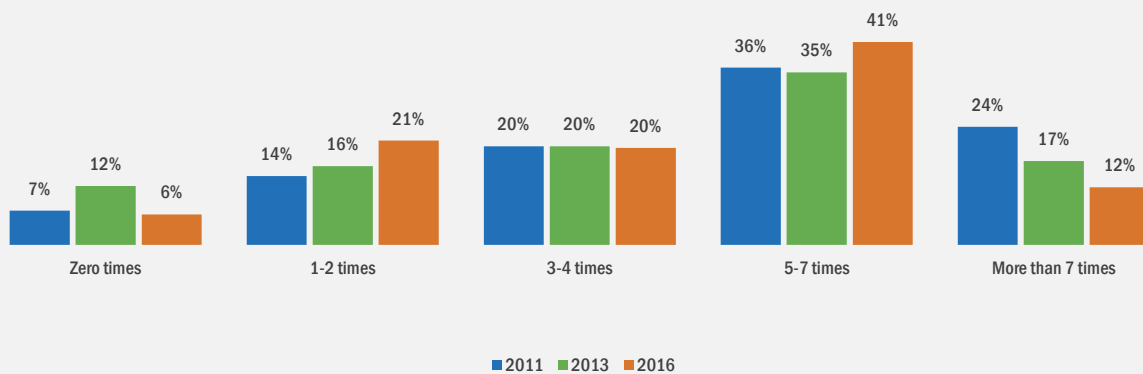
2011 n=536; 2013 n=661; 2016 n=365

Source: Harder+Company Community Research. (2016). [First Things First- Navajo/Apache Region: Survey for parents with children ages 0-5]. Unpublished data. San Diego, CA

When asked how often they read to their child, the majority of Parent Survey respondents indicated they read to their child five or more times per week (53%), similar to previous years (see Exhibit 6.7).



Exhibit 6.7. Parent Survey: How many times last week did you or another family member read or share books with your child?



2011 n=645; 2013 n=731; 2016 n=325

Source: Harder+Company Community Research. (2016). [First Things First – Navajo/Apache Region: Survey for parents with children ages 0-5]. Unpublished data. San Diego, CA.

With the exception of Blue Ridge, all of the FTF Navajo/Apache Region subareas had at least 45% of Parent Survey respondents indicating they read to their child five or more times per week (see Exhibit 6.8).



Exhibit 6.8. Parent Survey: How many times last week did you or another family member read or share books with your child? By First Things First Navajo/Apache Region Area- 2016

	Vernon/Alpine/ Round Valley Area	Concho/St. Johns Area	Holbrook/ Joseph City/ Sanders Area	Blue Ridge Area	Show Low/ Heber Area	Snowflake Area
Zero times	2%	8%	9%	7%	6%	6%
1-2 times	19%	26%	17%	15%	25%	26%
3-4 times	17%	15%	20%	44%	12%	24%
5-7 times	54%	51%	42%	22%	40%	33%
More than 7 times	9%	0%	13%	11%	18%	13%

Vernon/Alpine/Round Valley (Area 1) n=X; Concho, St. Johns (Area 2) n=X; Holbrook, Joseph City, Sanders (Area 3) n=X; Blue Ridge (Area 4) n=X; Show Low, Heber (Area 5) n=X; Snowflake (Area 6) n=X.

Source: Harder+Company Community Research. (2016). *[First Things First – Navajo/Apache Region: Survey for parents with children ages 0-5]*. Unpublished data. San Diego, CA.

Child Abuse and Domestic Violence

Maltreatment of children during early childhood has been shown to negatively affect child development, including cognitive development, attachment, and academic achievement.¹¹⁷ Research shows that family support services, like home visiting, can improve parenting skills and home environments, which are likely associated with improved child well-being and decreases in maltreatment over time.¹¹⁸

From October 2014 to September 2015, there were 880 reports of maltreatment of children under age 18 and 93 substantiated cases of child abuse and neglect in Navajo County. In Apache County, there were 213 reports of maltreatment of children under age 18 and 9 substantiated cases of child abuse and neglect. During the same time period there were 18,657 children under 18 in foster placements in Arizona and 12,754 children under 18 who entered out-of-home care, including 116 in Navajo County and 33 in Apache County (see Exhibit 6.9 and Exhibit 6.10).

¹¹⁷ Child Welfare Information Gateway. Retrieved from <https://www.childwelfare.gov/topics/can/impact/development/>

¹¹⁸ Howard, K. & Brooks-Gunn, J. (2009). *The Role of Home-Visiting Programs in Preventing Child Abuse and Neglect. The Future of Children* 19 (2) 119-146.

Exhibit 6.9. Substantiated cases of child abuse and neglect for children under 18 between October 2014 and September 2015

	Arizona	Navajo County	Apache County
Total	5,461	93	9
Neglect	4,619	77	7
Physical abuse	712	14	2
Sexual abuse	125	1	0
Emotional abuse	5	1	0

Arizona Department of Child Services (2015). Child Welfare Reporting Requirements Semi-Annual Report. Retrieved from https://dcs.az.gov/sites/default/files/SEMIANNUAL-CHILD-WELFARE-REPORTING-REQUIREMENTS-4-15-9-15_FINAL-Revised.pdf

Exhibit 6.10. Children under 18 in foster placements and entering out-of-home care between October 2014 and September 2015

	Arizona	Navajo County	Apache County
Children under 18 in foster placements	18,657	N/A	N/A
Children under 18 entering out-of-home care	12,754	116	33

Arizona Department of Child Services (2015). Child Welfare Reporting Requirements Semi-Annual Report. Retrieved from https://dcs.az.gov/sites/default/files/SEMIANNUAL-CHILD-WELFARE-REPORTING-REQUIREMENTS-4-15-9-15_FINAL-Revised.pdf

In Navajo County, there are three domestic violence shelters and in 2015 they served a total of 437 people and provided over 13,000 hours of support services (see Exhibit 6.11). There are no domestic violence shelters in Apache County.

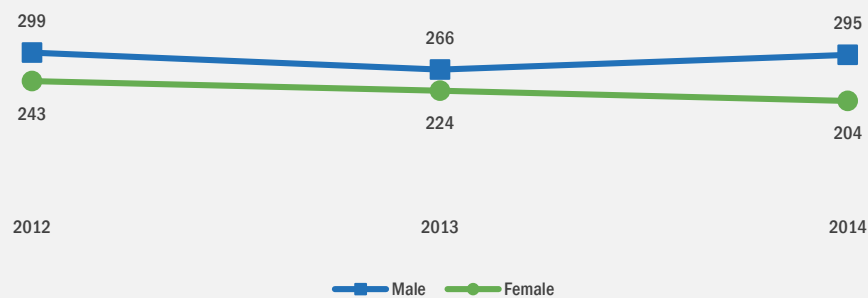
Exhibit 6.11. Domestic violence shelters, people served, and hours of support services provided

	Arizona	Navajo County	Apache County
Number of domestic violence shelters	31	3	0
Number of adults served	3,862	232	n/a
Number of children served	3,705	205	n/a
Hours of support services provided	144,025	13,451	n/a
Average length of stay in emergency shelter (days)	39	24	n/a

Arizona Department of Economic Security (2015). Domestic Violence Shelter Fund Report. Retrieved from <https://des.az.gov/services/basic-needs/domestic-violence-program>

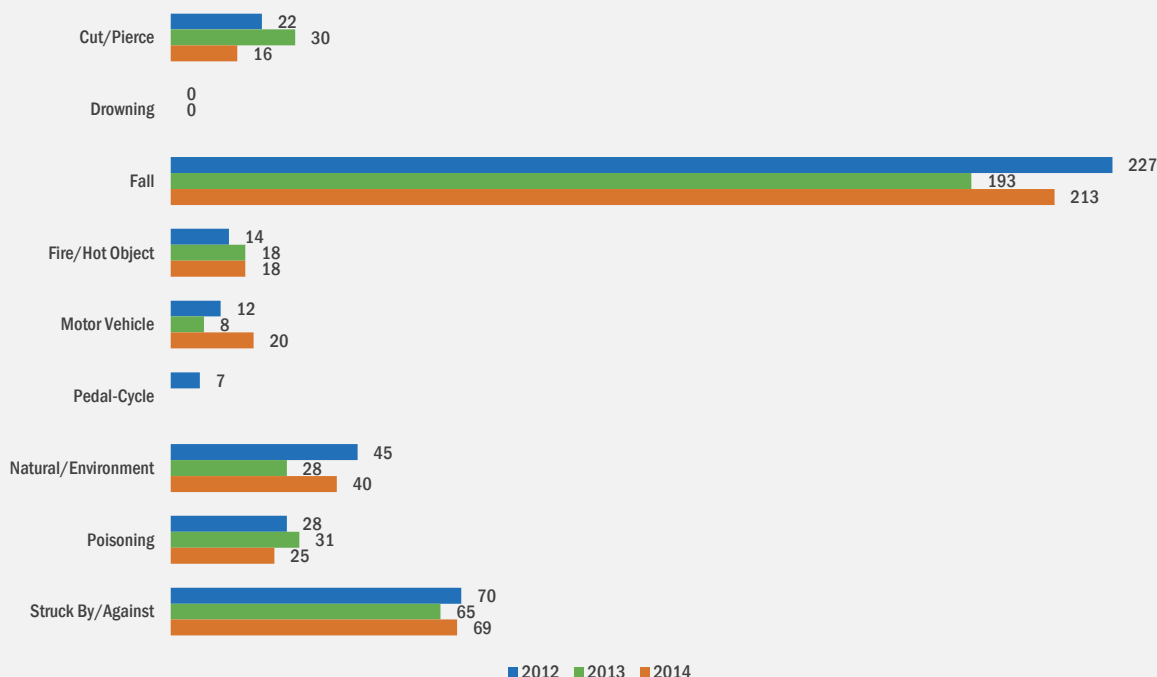
In the FTF Navajo/Apache Region, the number of children zero to five that went to the emergency department for non-fatal injuries decreased from 542 in 2012 to 499 in 2014 (see Exhibit 6.12). The most common reasons for children zero to five to visit the emergency department were falls or being struck by or against an object (see Exhibit 6.13).

Exhibit 6.12. Non-fatal emergency department visits for children 0-5 in the FTF Navajo/Apache Region



Arizona Department of Health Services (March 2016). Unintentional Injuries in Children 0-5, Arizona 2012-2014. Provided AZFTF

Exhibit 6.13. Non-fatal emergency department visits for children 0-5 in the FTF Navajo/Apache Region



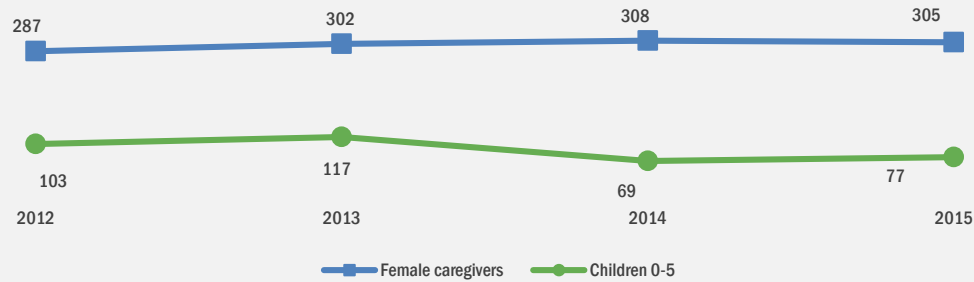
Arizona Department of Health Services (March 2016). Unintentional Injuries in Children 0-5, Arizona 2012-2014. Provided AZFTF

Behavioral Health Services

Behavioral health focuses on the promotion of family well-being through the prevention or intervention of mental health issues, such as depression or addiction. Children of parents with mental health issues often grow up in inconsistent and unpredictable family environments and are at risk for developing social, emotional, and/or behavioral problems.¹¹⁹ The behavioral health services discussed in this section include behavioral health day programs, crisis intervention services, inpatient services, medical services, rehabilitation services, support services, and treatment services. In the FTF Navajo/Apache Region, 305 female caregivers and 77 children zero to five received behavioral health services from the Arizona Department of Health Services in 2015. Exhibit 6.14 and Exhibit 6.15 show that the number of female caregivers and children served has varied over the years.

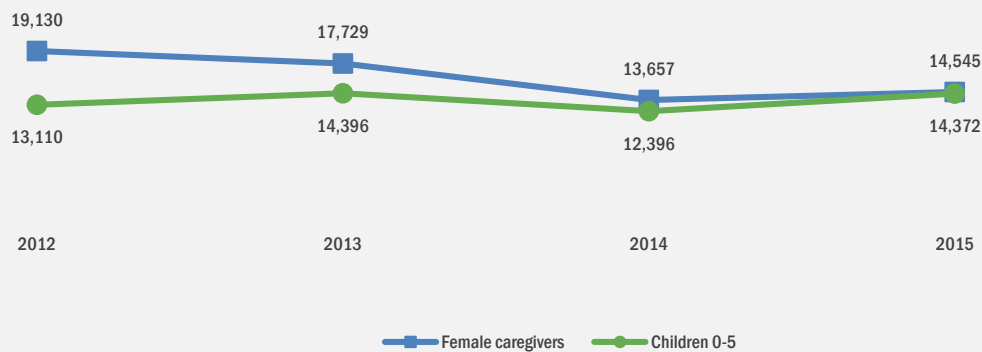
¹¹⁹ Mental Health America. Retrieved from <http://www.mentalhealthamerica.net/parenting>

Exhibit 6.14. Number of female caregivers and children receiving behavioral health services in the FTF Navajo/Apache Region



Arizona Department of Health Services (2014). Behavioral Health. Provided by AZ FTF.

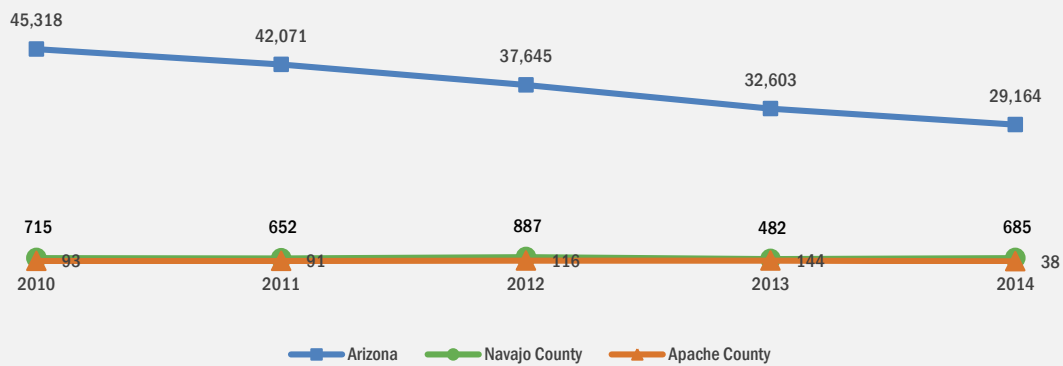
Exhibit 6.15. Number of female caregivers and children receiving behavioral health services in Arizona



Arizona Department of Health Services (2014). Behavioral Health. Provided by AZ FTF.

The number of juvenile arrests for children ages 8 to 17 decreased from 2010 to 2014 in Navajo and Apache Counties and statewide (see Exhibit 6.16). See Appendix 6.1-6.2 for additional information on the type and number of arrests in Navajo County, Apache County, and Arizona.

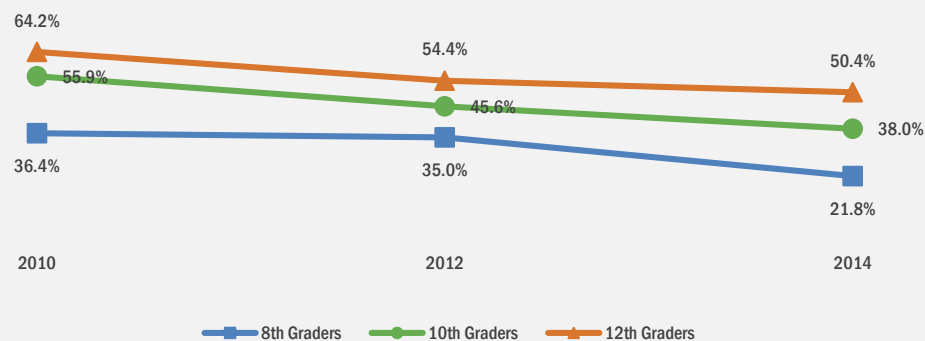
Exhibit 6.16. Arrests of children ages 8 to 17



Kids Count Data Center (2014). Juvenile Arrests. Retrieved from <http://datacenter.kidscount.org/>

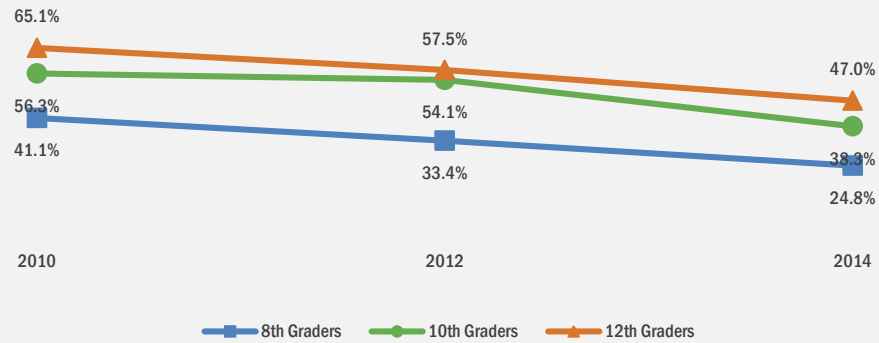
In Navajo and Apache Counties, the use of alcohol and cigarettes by adolescents declined from 2010 to 2014. In both counties, alcohol use declined among adolescents, with 12th graders seeing nearly a 15% decrease in both counties (see Exhibit 6.17 and Exhibit 6.18). Cigarette use among adolescents also decreased in both counties (see Exhibit 6.19 and Exhibit 6.20). Between 2010 and 2014, marijuana use decreased slightly for 10th and 12th graders, and increased slightly for 8th graders in Navajo County (see Exhibit 6.21). In Apache County, the percent of 8th graders and 12th graders who had used marijuana decreased from 2010 to 2014, though the percent of 10th graders who had used marijuana increased slightly during that time period (see Exhibit 6.22).

Exhibit 6.17. Alcohol use by adolescents in Navajo County



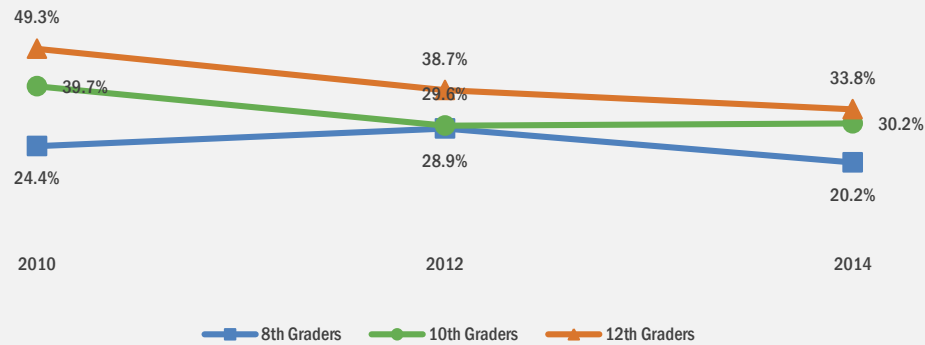
Arizona Criminal Justice Commission (2014) Arizona Youth Survey State Report. Retrieved from <http://www.azcjc.gov/acjc.web/sac/ay.aspx>

Exhibit 6.18. Alcohol use by adolescents in Apache County



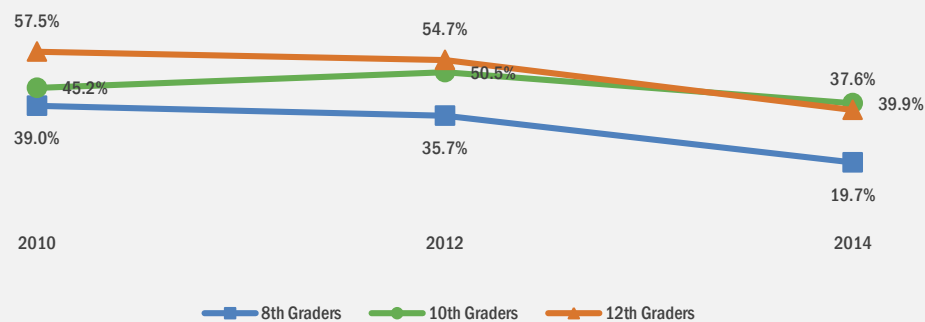
Arizona Criminal Justice Commission (2014) Arizona Youth Survey State Report. Retrieved from <http://www.azcjc.gov/acjc.web/sac/ays.aspx>

Exhibit 6.19. Cigarette use by adolescents in Navajo County



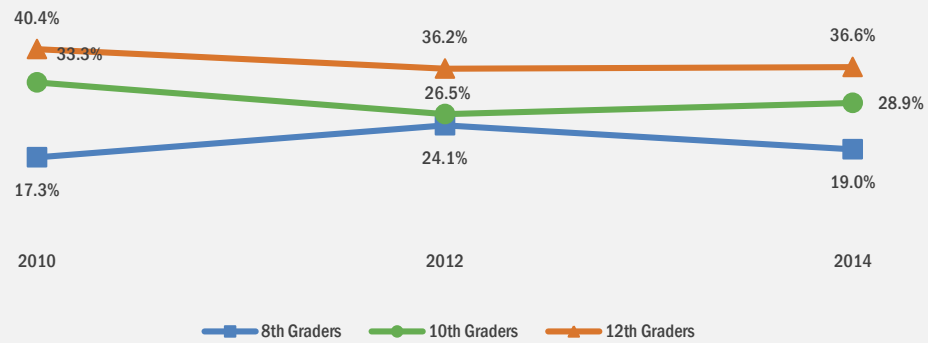
Arizona Criminal Justice Commission (2014) Arizona Youth Survey State Report. Retrieved from <http://www.azcjc.gov/acjc.web/sac/ays.aspx>

Exhibit 6.20. Cigarette use by adolescents in Apache County



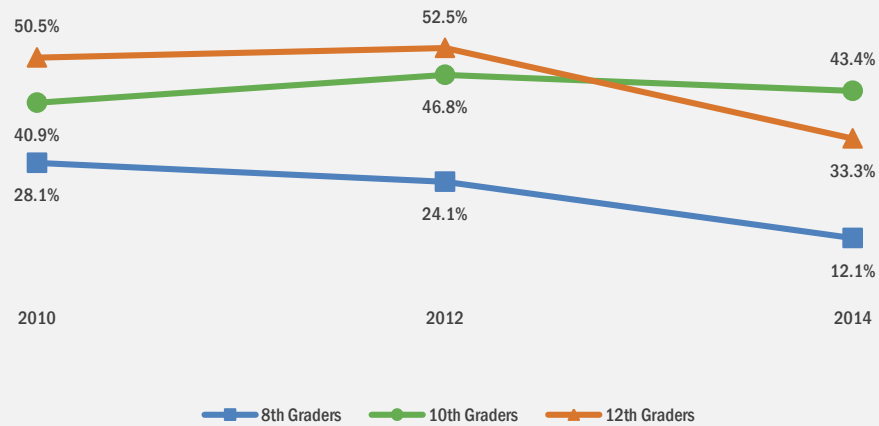
Arizona Criminal Justice Commission (2014) Arizona Youth Survey State Report. Retrieved from <http://www.azcjc.gov/acjc.web/sac/ays.aspx>

Exhibit 6.21. Marijuana use by adolescents in Navajo County



Arizona Criminal Justice Commission (2014) Arizona Youth Survey State Report. Retrieved from <http://www.azcjc.gov/acjc.web/sac/ays.aspx>

Exhibit 6.22. Marijuana use by adolescents in Apache County



Arizona Criminal Justice Commission (2014) Arizona Youth Survey State Report. Retrieved from <http://www.azcjc.gov/acjc.web/sac/ays.aspx>

FAMILY SUPPORT AND LITERACY HIGHLIGHTS

One-quarter of respondents to the FTF Family and Community Survey understood that parents can significantly impact their child's brain development prenatally and that infants can take in and react to the world around them right from birth. Additionally, about half of respondents correctly identified appropriate behaviors and behaviors that will likely spoil the child. More than half of respondents reported that they or a family member reads (52%), draws or pretend draws (50%), or tells stories and sings songs with their children (61%) 6 or more days a week. More than 80% of Parent Survey respondents indicated they played music or sang with their child or followed a routine when putting their child to bed within the last week. When asked how often they read to their child, the majority of Parent Survey respondents indicated they read to their child five or more times per week (53%).

From October 2014 to September 2015, there were 880 reports of maltreatment of children under age 18 and 93 substantiated cases of child abuse and neglect in Navajo County. In Apache County, there were 213 reports of maltreatment of children under age 18 and 9 substantiated cases of child abuse and neglect. During the same time period there were 6,451 children under 18 in foster placements in Arizona and 12,754 children under 18 who entered out-of-home care, including 116 of these in Navajo County and 33 in Apache County. Although there are three domestic violence shelters in Navajo County, there are none in Apache County. The domestic violence shelters in Navajo County served more than 400 people and provided 13,000 hours of support services in 2015. In the FTF Navajo/Apache Region, parental knowledge about child development and proper parenting practices is slightly lower than in Arizona.

Below are some data trends that highlight the needs, assets, and data-driven considerations for the FTF Navajo/Apache Region based on the data highlighted above. The considerations provided below do not represent comprehensive approaches and methods for tackling the needs and assets in the region. Instead, the considerations represent possible approaches that early childhood system partners, including FTF, could take to address needs and assets in the region, as conceptualized by the authors of this report.

Assets	Considerations
Parents in the region scored higher on some child development questions than in the state.	Support regional effort to educate parents on parents' impact on their child's development, especially starting at the prenatal stage..
Needs	Considerations
The majority of parents understand the importance of play but less than half read (49.6%), draw or tell stories 5-7 days a week.	Educate parents on the importance of play and engaging in developmentally stimulating activities with their children daily and increase availability of books to ensure parents have the resources needed to read to their children..



7. Communication, Public Information, and Awareness

Why it Matters

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 age five, 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 (SFY) 2011, FTF 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; and
- Statewide paid media campaigns about the importance of early childhood from SFY2010 through SFY2015 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 SFY2015 alone, the media campaign yielded over 40 million media impressions.

In addition, FTF 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 FTF 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 SFY2016. These actions range from sharing early childhood information at community events and 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 1: First Things First Engagement of Early Childhood supporters, SFY2014 through SFY2016.

	Friends	Supporters	Champions
Navajo/Apache Region	559	73	41
Arizona	21,369	3,102	908

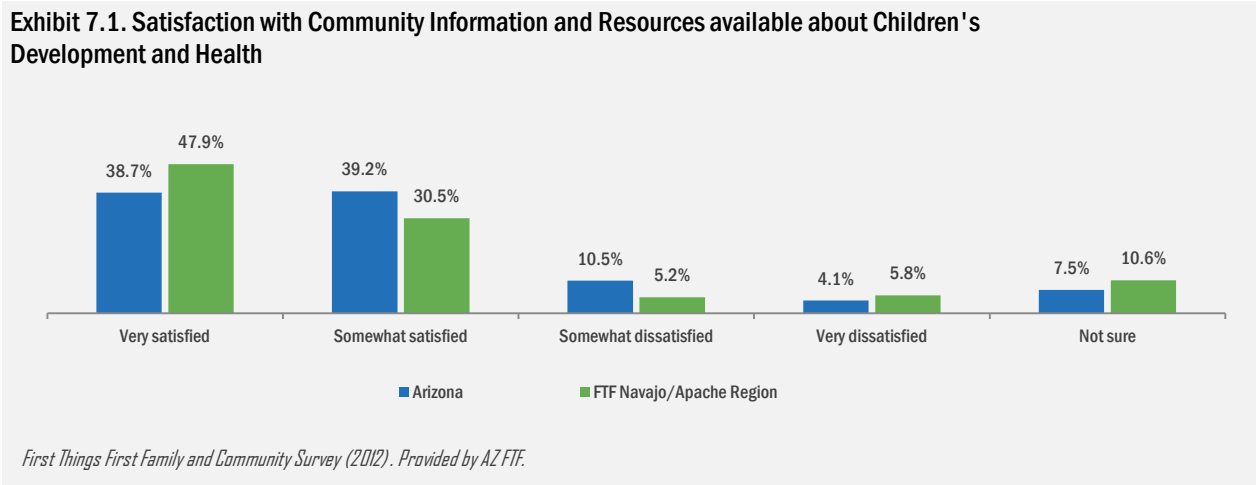
In addition to these strategic communications efforts, FTF has also led a concerted effort of policymaker awareness-building throughout the state. This includes meetings with all members of the legislature to build their awareness of the importance of early childhood. FTF sends emails to all policymakers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

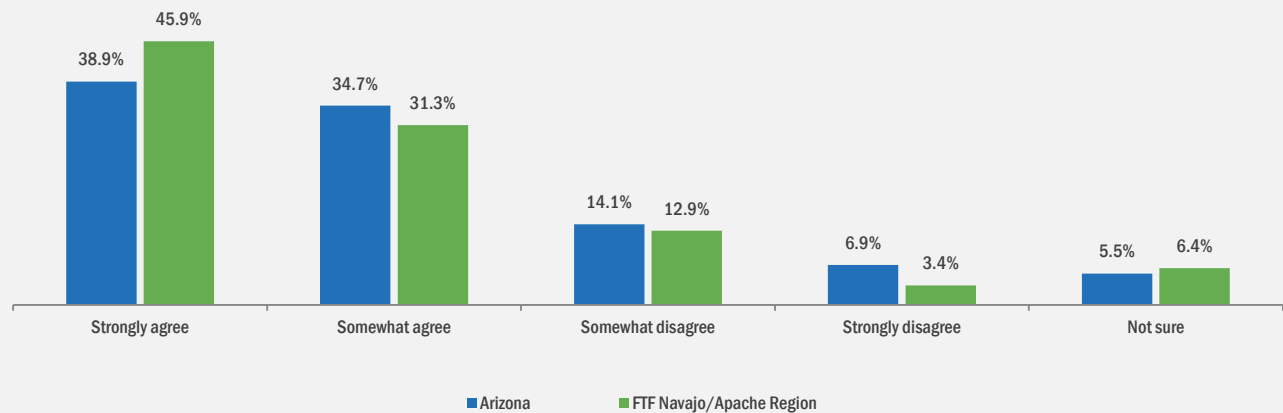
Parent Knowledge and Perception of Services

The majority of respondents to the FTF Family and Community Survey in both Arizona and the FTF Navajo/Apache Region reported being either very or somewhat satisfied (78% and 78%, respectively) with the community information and resources available to them about children's development and health (see Exhibit 7.1).



When asked about the ease of locating needed services, about three-quarters of respondents in the FTF Navajo/Apache Region (77%) strongly or somewhat agreed that it is easy to locate services that they need or want. Approximately three-fourths of respondents in the FTF Navajo/Apache Region and Arizona somewhat or strongly agreed that it was easy to locate services that they need or want (see Exhibit 7.2). This indicates that, although the FTF Navajo/Apache Region is a large rural region and transportation is an issue, services are distributed widely enough that the majority of parents can access them fairly easily.

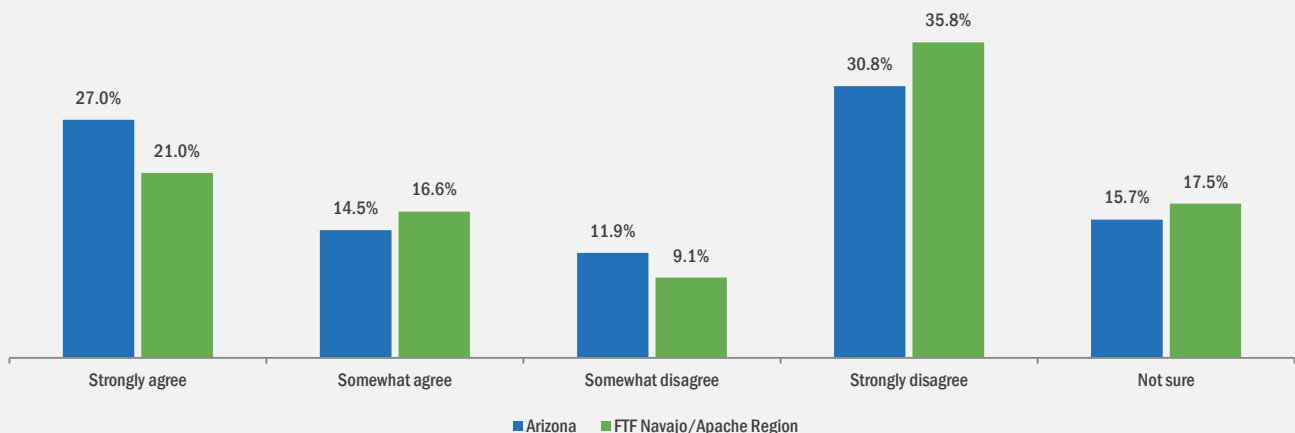
Exhibit 7.2 It is easy to locate services that I need or want



First Things First Family and Community Survey (2012). Provided by AZ FTF.

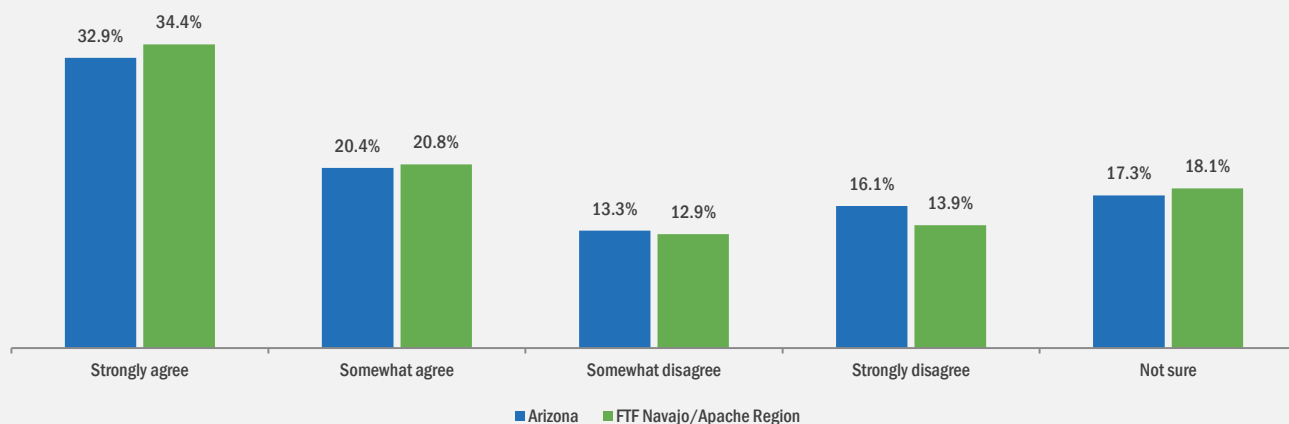
Nearly 40% of respondents in the region strongly or somewhat agreed that they do not know if they are eligible to receive services (see Exhibit 7.3) and over half (55%) strongly or somewhat agreed that they are asked to fill out paperwork or eligibility forms multiple times when trying to access services (see Exhibit 7.4). These high percentages in the FTF Navajo/Apache Region indicate that there is an opportunity to streamline the eligibility and enrollment processes.

Exhibit 7.3 I do not know if I am eligible to receive services



First Things First Family and Community Survey (2012). Provided by AZ FTF.

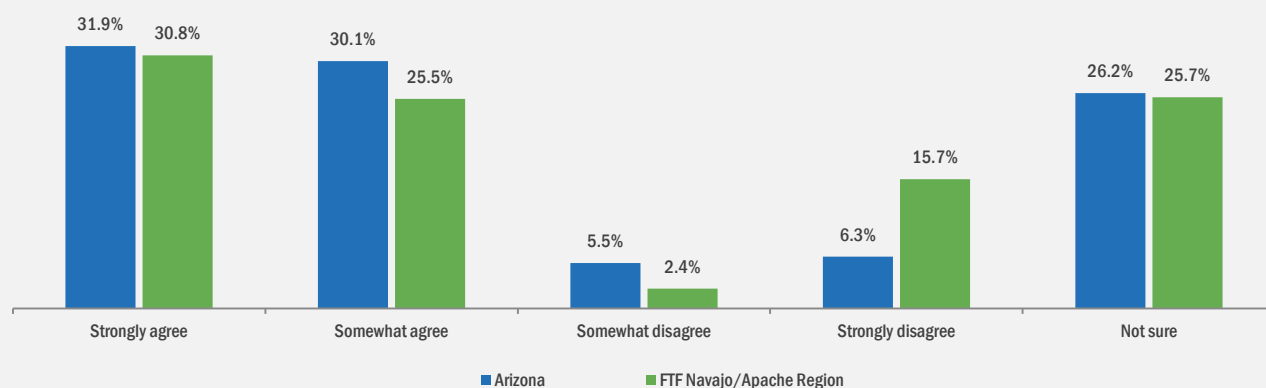
Exhibit 7.4 I am asked to fill out paperwork or eligibility forms multiple times.



First Things First Family and Community Survey (2012). Provided by AZ FTF.

The FTF Family and Community Survey asked respondents about the quality of services available to them. More than half of respondents (56%) felt that available services are very good, which is slightly lower than statewide (62%; see Exhibit 7.5).

Exhibit 7.5 Available services are very good

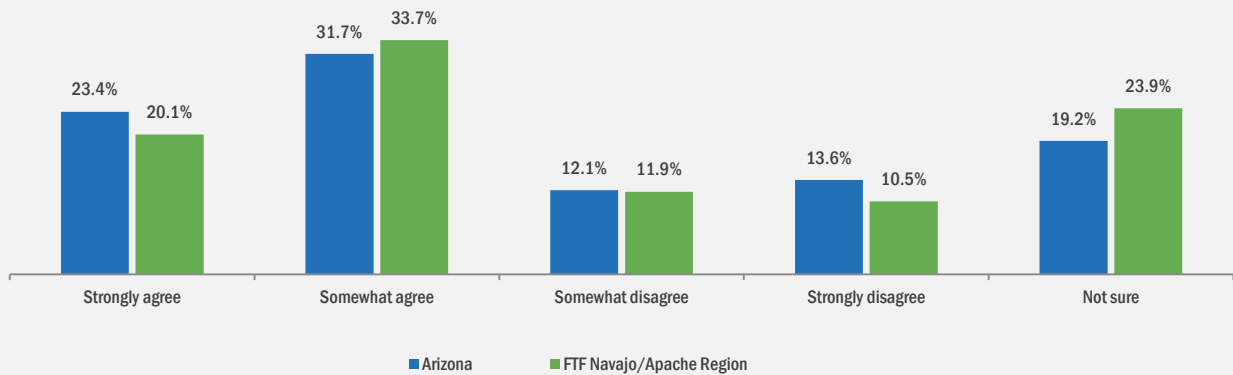


First Things First Family and Community Survey (2012). Provided by AZ FTF.

About half of survey respondents in the region (54%) felt that the available services reflect their cultural values, while 24% of the FTF Navajo/Apache Region and 19% of statewide respondents were not sure (see Exhibit 7.6). Additionally, the majority of respondents in the FTF Navajo/Apache Region (76%) felt services and materials were provided in their language, however, only 40% felt that services are available at times or locations that are convenient.¹²⁰ As the Hispanic/Latino population continues to grow, the need for linguistically and culturally appropriate services will likely rise.

¹²⁰ *First Things First Family and Community Survey (2012). Provided by AZ FTF.*

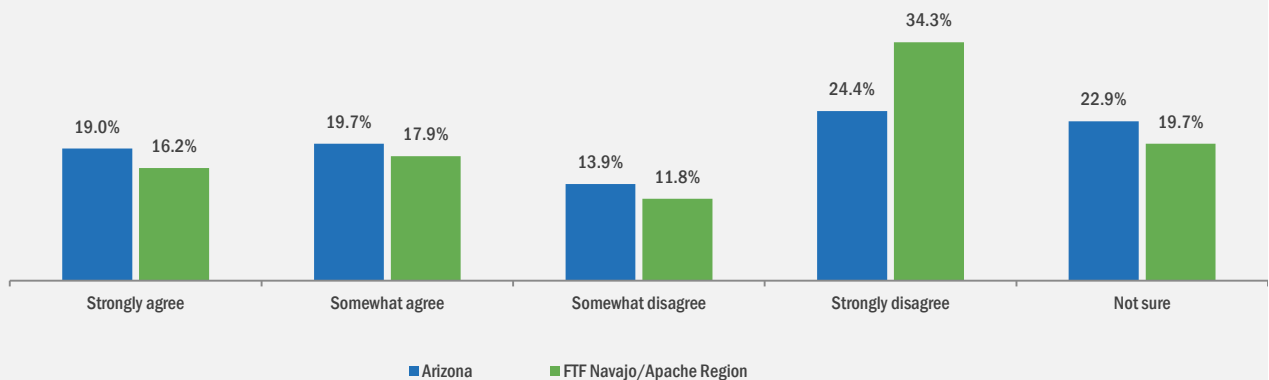
Exhibit 7.6 Available Services Reflect my Cultural Values



First Things First Family and Community Survey (2012). Provided by AZ FTF.

Survey respondents were asked about the ability of available services to fill their needs. About one-third of respondents in the region (34%) strongly or somewhat agreed that available services fill some of their needs, but do not meet the needs of their whole family. A higher percentage of respondents in the FTF Navajo/Apache Region strongly disagreed or somewhat disagreed (46%) that available services fill some needs, but do not meet the needs of the whole family compared to the state (38.3%; see Exhibit 7.7).

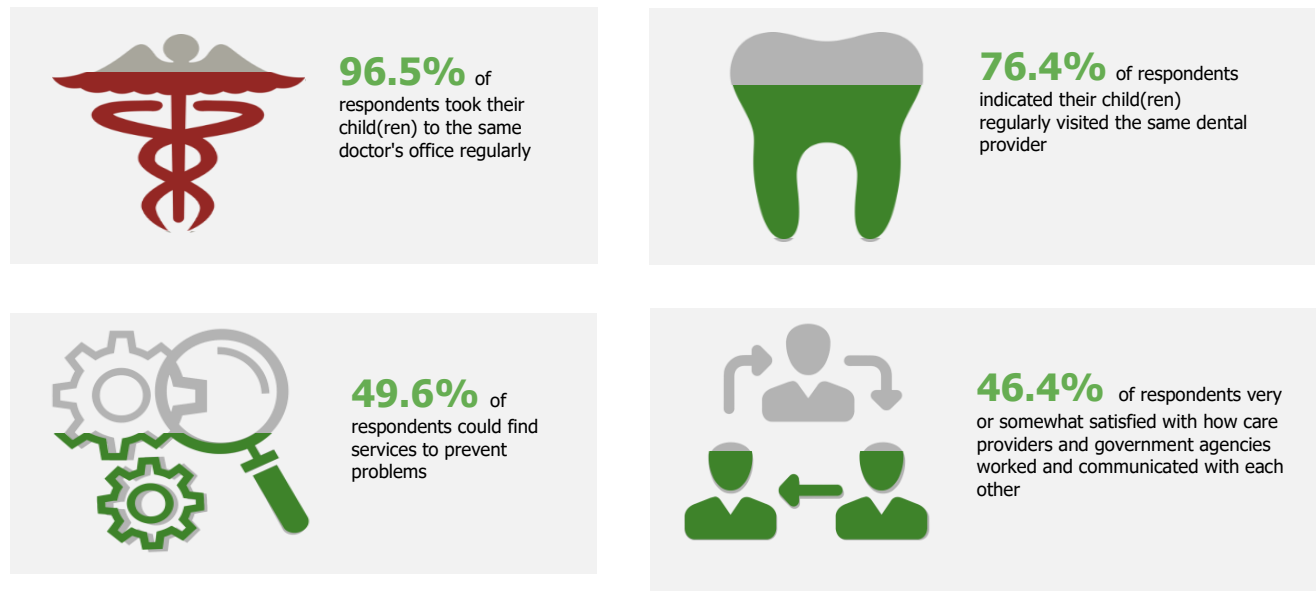
Exhibit 7.7 Available services fill some needs, but do not meet the needs of the whole family



First Things First Family and Community Survey (2012). Provided by AZ FTF.

Nearly all respondents in the FTF Navajo/Apache Region (97%) strongly or somewhat agreed that their children age 5 and under have regular visits at the same doctor's office and the majority (76%) reported that their child/children age

5 and under have regular visits with the same dental provider.¹²¹ However, only half of those in the region (50%) reported being able to access preventive services, as most only qualified when problems became severe.¹²²



When asked about inter-agency cooperation, just under half of respondents (46%) were very or somewhat satisfied with how care providers and government agencies worked and communicated with each other.¹²³

An important resource for families in the FTF Navajo/Apache Region is the HealthySteps Program which helps families with young children learn about parenting, child development, and other needs the families may have.¹²⁴ HealthySteps services are most concentrated in several zip codes including: 86025, 85936, 85937, 85939, 85901, and 85929. Three zip codes with high poverty rates, 86502, 85934, and 85923 do not receive HealthySteps services (see Exhibit 7.8). However, most of the HealthySteps services are concentrated in zip codes with the highest number of children, with the exception of 86407 (see Exhibit 7.9).

¹²¹ First Things First Family and Community Survey (2012). Provided by AZ FTF.

¹²² First Things First Family and Community Survey (2012). Provided by AZ FTF.

¹²³ First Things First Family and Community Survey (2012). Provided by AZ FTF.

¹²⁴ Summit Healthcare HealthySteps: <http://summithealthcare.net/healthy-steps-for-young-children/>

Exhibit 7.8. Poverty Rates and HealthySteps Services

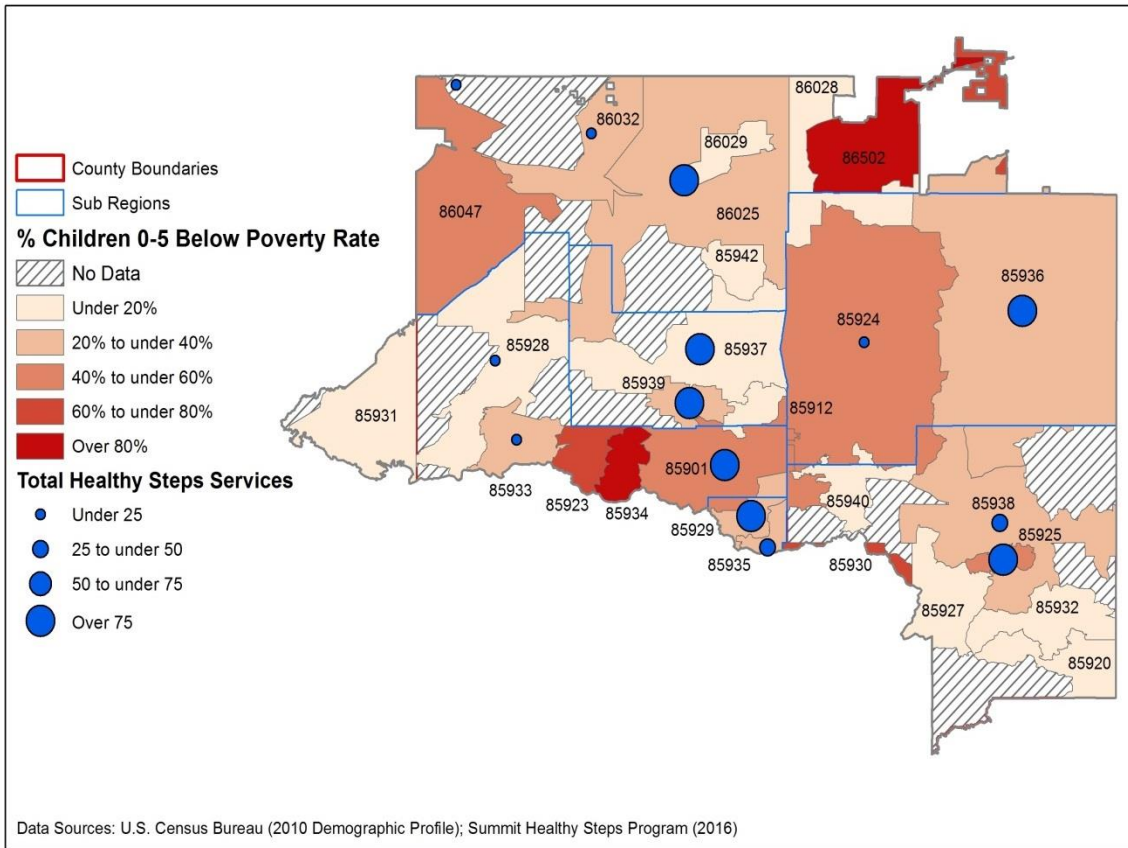
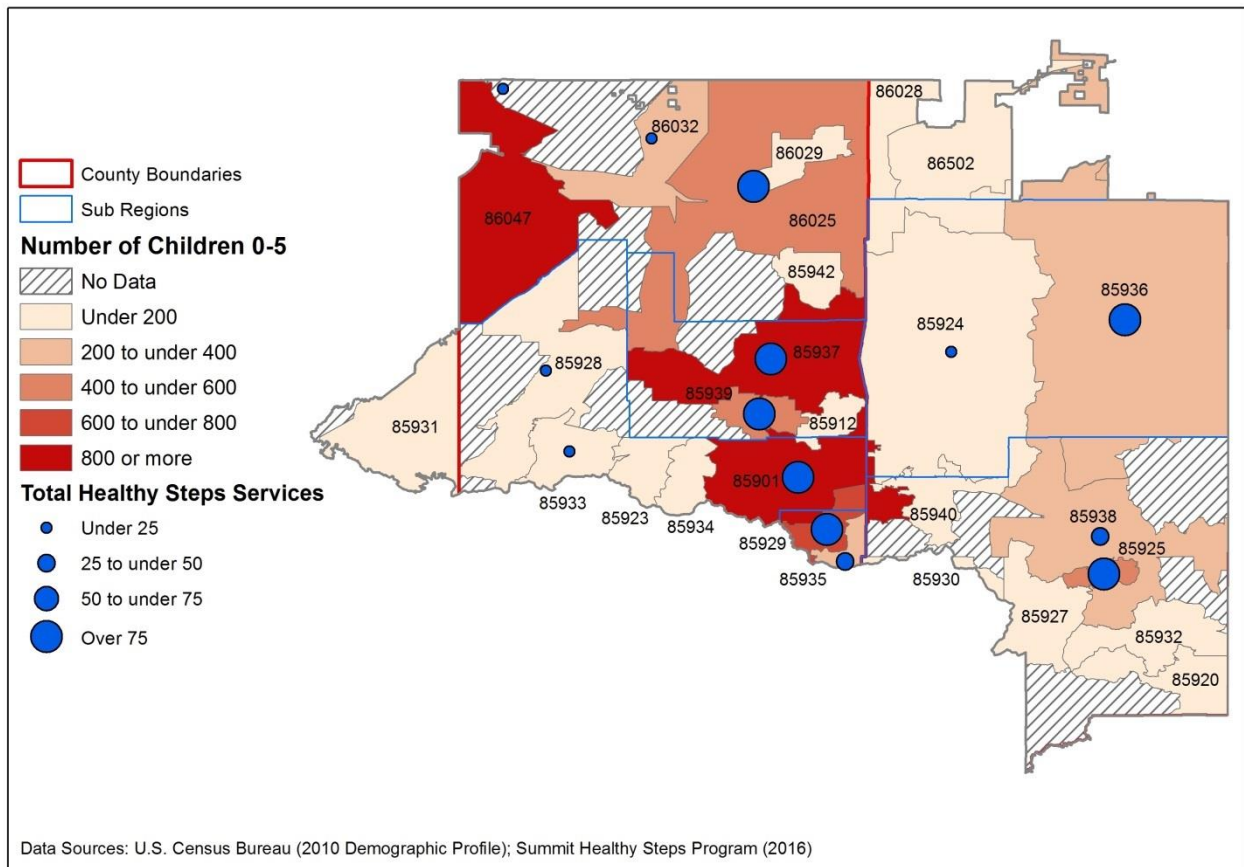


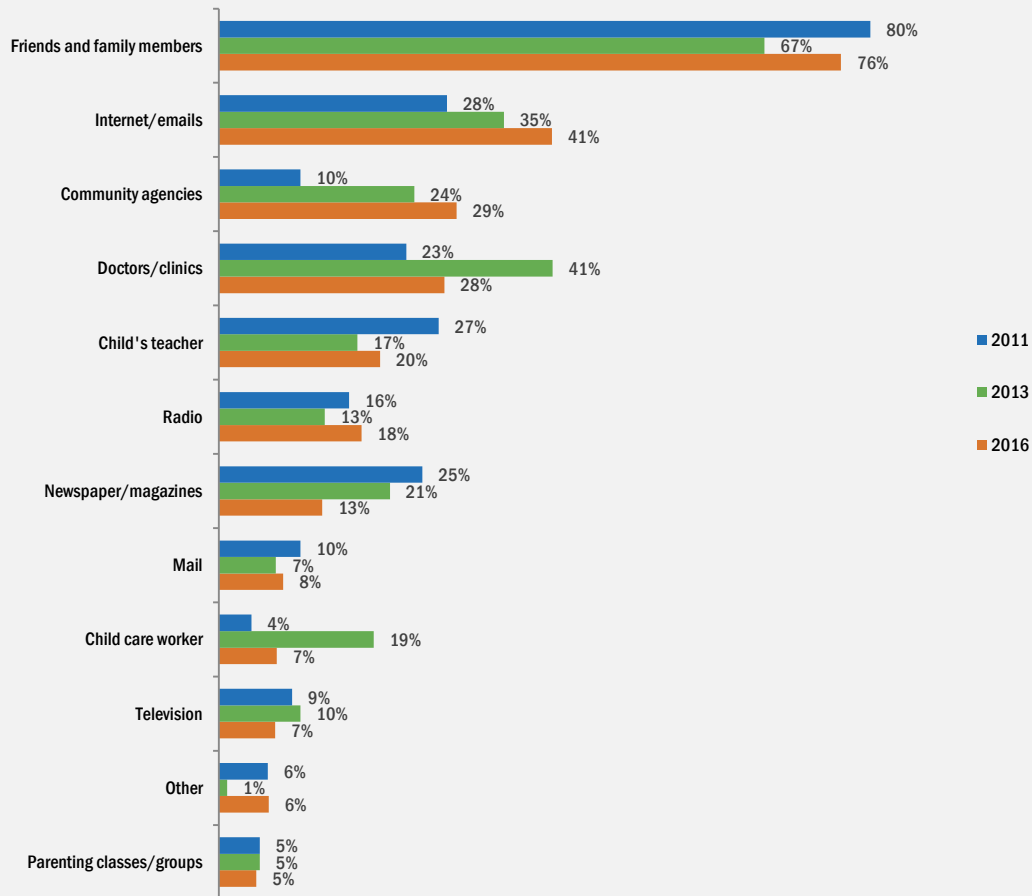
Exhibit 7.9. Population and HealthySteps Services



Parent Survey respondents were asked how they get important information about activities and services (such as HealthySteps) for their child and family. The majority indicated they rely on family and friends (76%) followed by the internet (41%) and community agencies (29%; see Exhibit 7.10).



Exhibit 7.10. Parent Survey: How do you get important information about activities and services for your child and family?



2011: Multiple response question with 669 respondents offering 1,628 responses; 2013: Multiple response question 793 respondents offering 2,053 responses; 2016 394 respondents offering 1,011 responses.

Source: Harder+Company Community Research. (2016). [First Things First – Navajo/Apache Region: Survey for parents with children ages 0-5]. Unpublished data. San Diego, CA.

Multiple response question.

Responses by the FTF Navajo/Apache Region subareas were similar with most indicating that they rely on friends and family for information about activities and services as their top response. The Concho, St. Johns Area respondents rely on community agencies (50%) while the Holbrook, Joseph City, Sanders Area respondents rely on doctors or clinics for information (44%). The other four areas also frequently rely on the internet to find needed resources (see Exhibit 7.11).



Exhibit 7.11. Parent Survey: How do you get important information about activities and services for your child and family? By First Thing First Navajo/Apache Region (Top 5 Responses)

	Vernon/Alpine /Round Valley Area	Concho/St. Johns Area	Holbrook/Jos eph City/Sanders Area	Blue Ridge Area	Show Low/Heber Area	Snowflake Area
Response 1	Friends and family members (75%)	Friends and family members (91%)	Friends and family members (74%)	Friends and family members (67%)	Friends and family members (85%)	Friends or family members (66%)
Response 2	Internet Child's teacher (37%)	Community agencies (50%)	Doctors or clinics (44%)	Internet (60%)	Internet (45%)	Internet (48%)
Response 3		Internet (36%)	Internet (30%)	Radio (37%)	Community agencies (32%)	Community agencies (28%)
Response 4	Community agencies (34%)	Doctors or clinics Child's teacher (29%)	Radio Child's teacher (18%)	Doctors or clinics (27%)	Radio Doctors or clinics (20%)	Doctors or clinics (23%)
Response 5	Doctors or clinics (19%)			Community agencies Child's teacher (23%)		Radio (18%)

Multiple response question. Vernon/Alpine/Round Valley (Area 1): 67 respondents offering 178 responses; Concho/St. Johns (Area 2): 42 respondents offering 106 responses; Holbrook/Joseph City/Sanders (Area 3): 93 respondents offering 224 responses; Blue Ridge (Area 4): 30 respondents offering 94 responses; Show Low/Heber (Area 5): 89 respondents offering 216 responses; Snowflake (Area 6): 71 respondents offering 178 responses

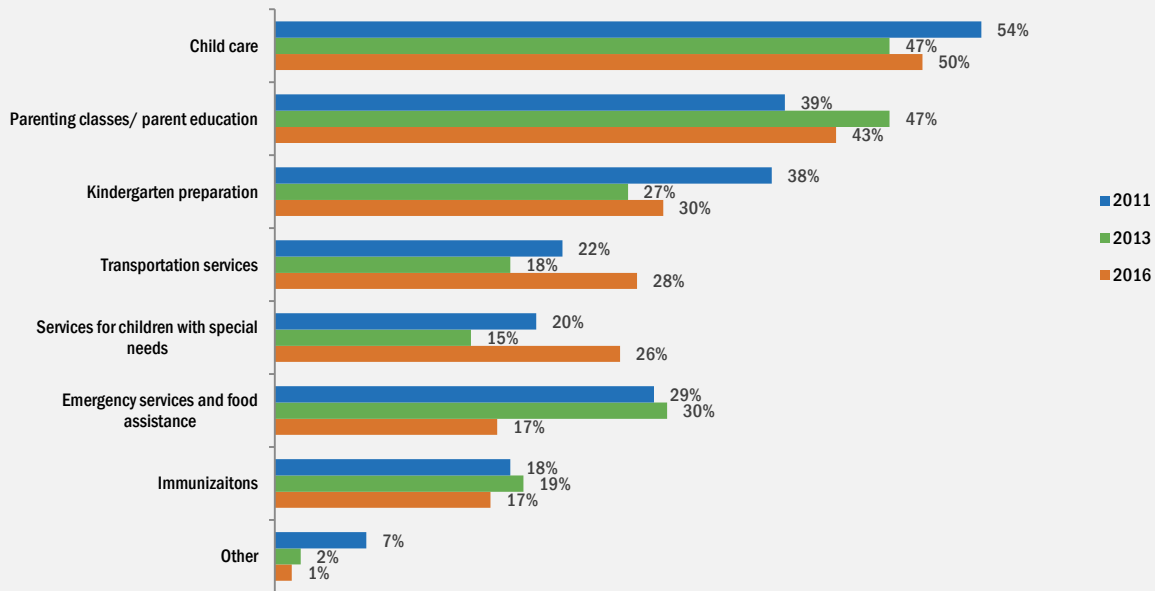
Source: Harder+Company Community Research. (2016). [First Things First – Navajo/Apache Region: Survey for parents with children ages 0-5]. Unpublished data. San Diego, CA.

Note: These responses are not mutually exclusive.

Parent Survey respondents were also asked which services are most needed in the FTF Navajo/Apache Region. The majority indicated child care (50%) and parenting classes/parent education (43%). Compared to previous Parent Surveys, more respondents in 2016 indicated that transportation (28%) and services for children with special needs (26%) are needed (see Exhibit 7.12).



Exhibit 7.12. Parent Survey: Which of the following services for children under the age of 6 and their families do you think are most needed in the First Things First Navajo/Apache Region?



Multiple response question. 2011: 625 respondents offering 1,426 responses; 2013: 740 respondents offering 1,516 responses. 2016: 394 respondents offering 1,034 responses.

Source: Harder+Company Community Research. (2016). [First Things First – Navajo/Apache Region: Survey for parents with children ages 0-5]. Unpublished data. San Diego, CA.

Note: These responses are not mutually exclusive; respondents were asked to mark their top two priorities for the region.

Within the subareas, Concho, St. Johns respondents indicated there is a need for childcare (62%), services for children with special needs (55%), and transportation services (45%). Other subarea responses are highlighted in Exhibit 7.13.



Exhibit 7.13. Parent Survey: Which of the following services for children under the age of 6 and their families do you think are most needed in the First Things First Navajo/Apache Region? By First Things First Navajo/Apache Region Area- 2016

	Vernon/Alpine /Round Valley Area	Concho/St. Johns Area	Holbrook/ Joseph City/ Sanders Area	Blue Ridge Area	Show Low/ Heber Area	Snowflake Area
Child care	49%	62%	62%	47%	46%	38%
Parenting classes/parent education	43%	24%	38%	40%	55%	48%
Kindergarten preparation	33%	14%	41%	37%	27%	23%
Emergency services and food assistance	12%	38%	22%	23%	10%	10%
Transportation services	37%	45%	26%	30%	19%	21%
Services for children with special needs	22%	55%	24%	27%	21%	24%
Immunizations	15%	14%	10%	30%	18%	21%
Other	0%	0%	1%	0%	3%	0%

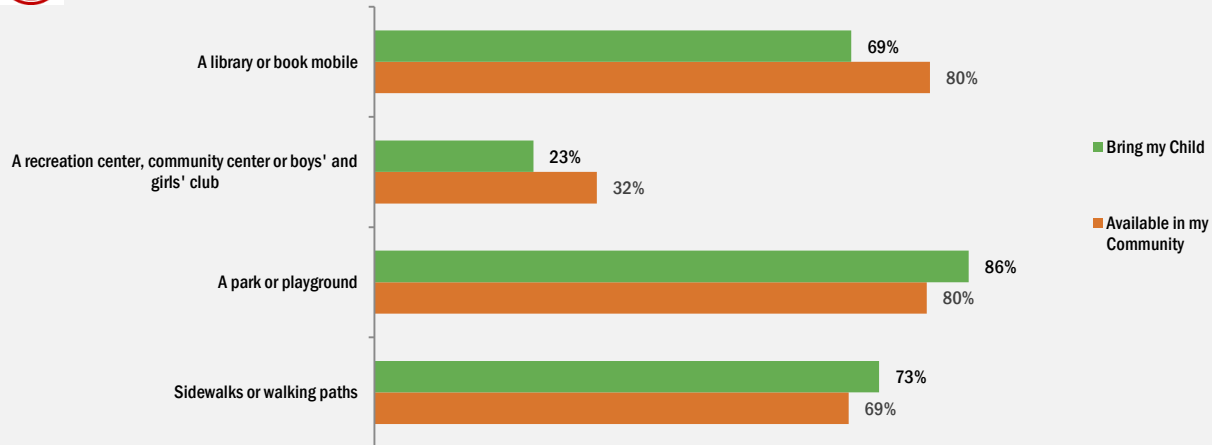
Multiple response question. Vernon/Alpine/Round Valley (Area 1): 67 respondents offering 142 responses; Concho/ St. Johns (Area 2): 42 respondents offering 106 responses; Holbrook/Joseph City/Sanders (Area 3): 93 respondents offering 207 responses; Blue Ridge (Area 4): 30 respondents offering 70 responses; Show Low/Heber (Area 5): 89 respondents offering 178 responses; Snowflake (Area 6): 71 respondents offering 131 responses

Source: Harder+Company Community Research. (2016). [First Things First – Navajo/Apache Region: Survey for parents with children ages 0-5]. Unpublished data. San Diego, CA.

Parent Survey respondents were asked about the availability and use of community resources such as libraries or parks. The majority of respondents said they have access to a library (80%) or park (80%). Fewer said they have access to sidewalks or walking paths (69%) or a recreation club (32%). Fewer respondents indicated that they bring their children to a library or recreation center while more respondents indicated they brought their child to a park or playground or walking path (see Exhibit 7.14).



Exhibit 7.14 . Parent Survey: Availability and Use of Community Resources



Sidewalks n=389; Recreation Center n=385; Park n=389; Library n=387

Source: Harder+Company Community Research. (2016). [First Things First – Navajo/Apache Region: Survey for parents with children ages 0-5]. Unpublished data. San Diego, CA.

When looking at the subareas, there are areas without access to some of these community resources. Only 38% of respondents from the Concho/St. Johns Area said they have access to sidewalks or walking paths and only 59% of respondents in the Holbrook/Joseph City/Sanders Area have access to a library or book mobile (see Exhibit 7.15). In all areas, even if resources are available, fewer respondents indicate that they bring their child to utilize those resources (see Exhibit 7.16).



Exhibit 7.15. Parent Survey: Please tell me if any of the following things are available to children in your neighborhood, even if your child does not actually use them? By First Things First Navajo/Apache Region Area- 2016

	Vernon / Alpine/Round Valley Area	Concho/St. Johns Area	Holbrook/ Joseph City/ Sanders Area	Blue Ridge Area	Show Low/ Heber Area	Snowflake Area
A library or book mobile	91%	98%	59%	63%	90%	84%
A recreation center, community center or boys' and girls' club	68%	5%	23%	40%	34%	21%
A park or playground	88%	100%	58%	67%	88%	85%
Sidewalks or walking paths	62%	38%	63%	63%	88%	78%

Vernon/Alpine/Round Valley (Area 1): rec center and sidewalks n= 66, park and library n=67; Concho/St. Johns (Area 2): n=42; Holbrook/Joseph City/Sanders (Area 3): library n=90, sidewalks and park n= 91, rec center n=89; Blue Ridge (Area 4): n=30; Show Low/Heber (Area 5): library, sidewalks and park n=89, rec center n=88; Snowflake (Area 6): library n=67, sidewalks n=69, and park and rec center n=68

Source: Harder+Company Community Research. (2016). [First Things First – Navajo/Apache Region: Survey for parents with children ages 0-5]. Unpublished data. San Diego, CA.



Exhibit 7.16. Parent Survey: Do you take your child to any of the following places? By First Things First Navajo/Apache Region Area- 2016

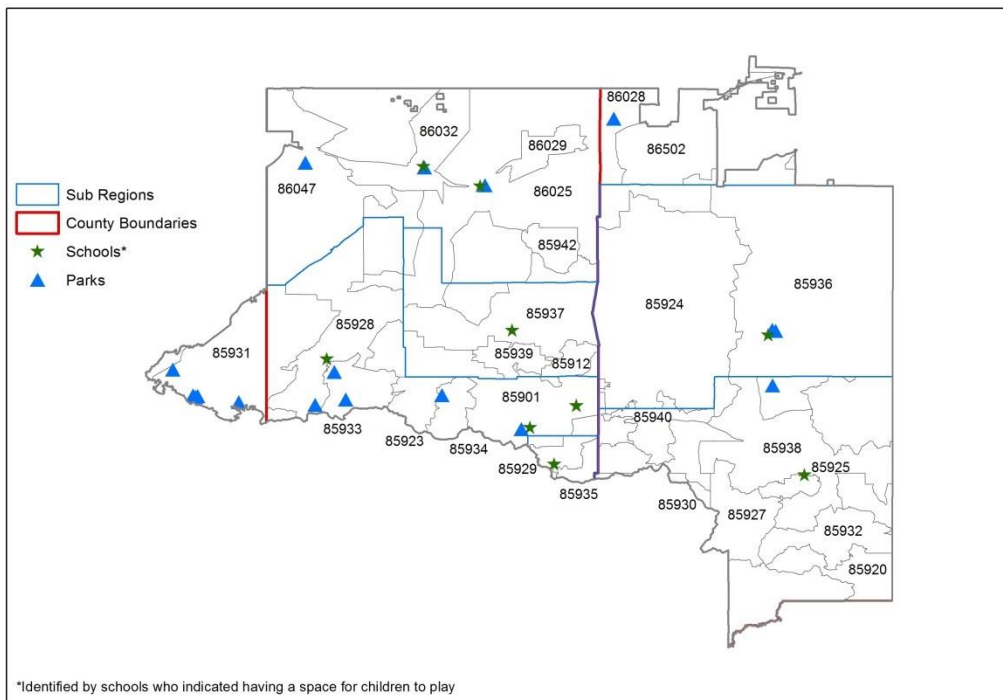
	Vernon / Alpine/Round Valley Area	Concho/St. Johns Area	Holbrook/ Joseph City/ Sanders Area	Blue Ridge Area	Show Low/ Heber Area	Snowflake Area
A library or book mobile	26%	29%	52%	68%	23%	20%
A recreation center, community center or boys' and girls' club	34%	0%	19%	29%	24%	24%
A park or playground	99%	95%	65%	93%	86%	94%
Sidewalks or walking paths	75%	36%	62%	86%	83%	89%

Vernon/Alpine/Round Valley (Area 1): rec center and sidewalks n= 66, park and library n=67; Concho/St. Johns (Area 2): n=42; Holbrook/Joseph City/Sanders (Area 3): library n=90, sidewalks and park n= 91, rec center n=89; Blue Ridge (Area 4): n=30; Show Low/Heber (Area 5): library, sidewalks and park n=89, rec center n=88; Snowflake (Area 6): library n=67, sidewalks n=69, and park and rec center n=68

Source: Harder+Company Community Research. (2016). [First Things First – Navajo/Apache Region: Survey for parents with children ages 0-5]. Unpublished data. San Diego, CA.

Exhibit 7.17 identifies safe places for children to play, as identified by schools in the region. There are notably few identified safe places and several are concentrated in close proximity. This, along with Exhibits 7.15 and 7.16, further highlights the lack of places for children and families to be active in certain subareas of the FTF Navajo/Apache Region.

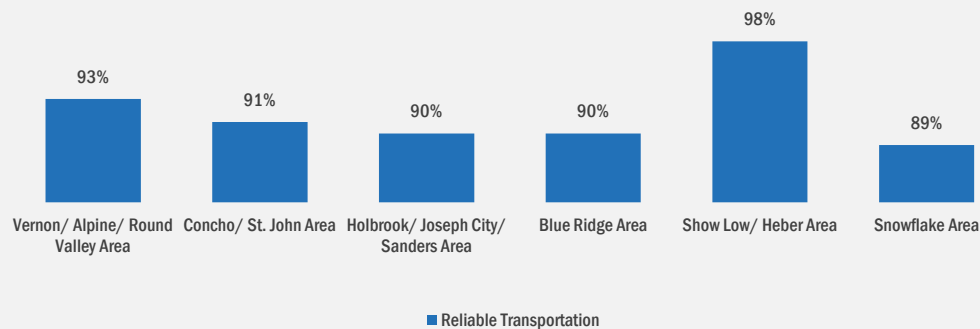
Exhibit 7.17. Safe Places* for Children to Play



In addition to having limited access to places for families to be active, some people do not have reliable transportation and/or there are unpaved roads or rough terrain that make it difficult to access services (see Exhibits 7.18 and 7.19).



Exhibit 7.18. Parent Survey: Do you usually have reliable transportation to services you need, such as the grocery store, church, school, the doctor, or child care? by First Things First Navajo/Apache Region Area.

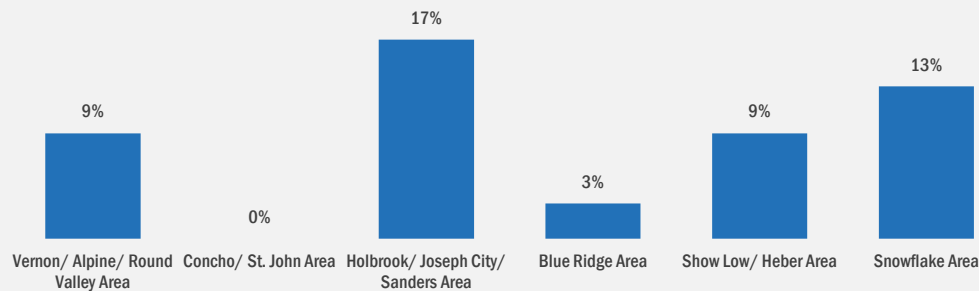


Vernon/Alpine/Round Valley (Area 1): n=67; Concho/St. Johns (Area 2): n=42; Holbrook/Joseph City/Sanders (Area 3): n=90; Blue Ridge (Area 4): n=30; Show Low/Heber (Area 5): n=88; Snowflake (Area 6): n=70.

Source: Harder+Company Community Research. (2016). [First Things First – Navajo/Apache Region: Survey for parents with children ages 0-5]. Unpublished data. San Diego, CA.



Exhibit 7.19. Parent Survey: Are there any unpaved roads or rough terrain that makes transportation to and from health care or child care services difficult? by First Things First Navajo/Apache Region Area.



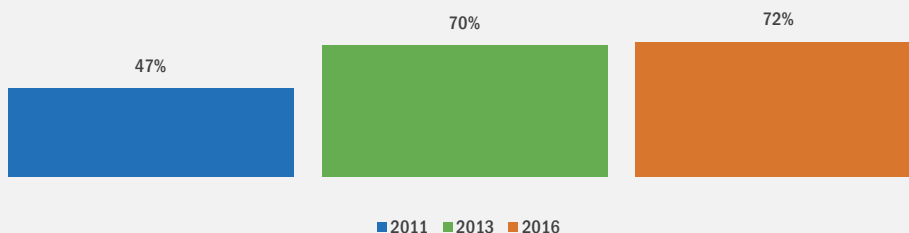
Vernon/Alpine/Round Valley (Area 1): n=67; Concho/St. Johns (Area 2): n=42; Holbrook/Joseph City/Sanders (Area 3): n=91; Blue Ridge (Area 4): n=30; Show Low/Heber (Area 5): n=88; Snowflake (Area 6): n=71.

Source: Harder+Company Community Research. (2016). [First Things First – Navajo/Apache Region: Survey for parents with children ages 0-5]. Unpublished data. San Diego, CA.

When asked about their knowledge of FTF services, nearly three-quarters of Parent Survey respondents were aware of FTF services in the FTF Navajo/Apache Region. Compared to previous years, more Parent Survey respondents were familiar with what FTF does in their community (see Exhibit 7.20). More than 80% of respondents in the Concho/St. Johns Area, Vernon/Alpine/Round Valley Area and Blue Ridge Area were aware of FTF services. Respondents in the Snowflake Area (61%) and Show Low/Heber Area (64%) were less familiar with FTF (see Exhibit 7.21).



Exhibit 7.20. Parent Survey: How knowledgeable are you about what First Things First does in your community? (Respondents Answering "Somewhat" or "Very Knowledgeable")

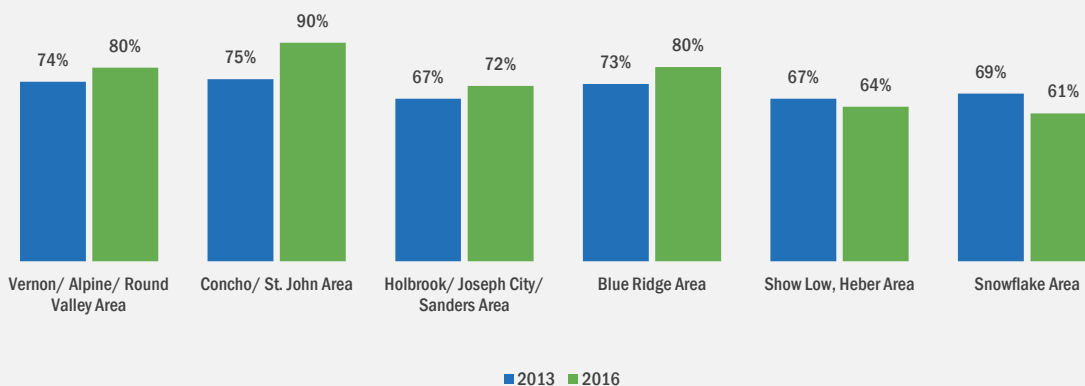


n: 2011=688; 2013 n=811; 2016 n=383.

Source: Harder+Company Community Research. (2016). [First Things First – Navajo/Apache Region: Survey for parents with children ages 0-5]. Unpublished data. San Diego, CA.



Exhibit 7.21. Parent Survey: How knowledgeable are you about what First Things First does in your community? (Respondents Answering "Somewhat" or "Very Knowledgeable.")



Vernon/Alpine/Round Valley (Area 1) 2013 n=116, 2016 n=64; Concho/St. Johns (Area 2) 2013 n=40, 2016 n=40; Holbrook/Joseph City, Sanders (Area 3) 2013 n=176, 2016 n=90; Blue Ridge (Area 4) 2013 n=127, 2016 n=30; Show Low/Heber (Area 5) 2013 n=180, 2016 n=88; Snowflake (Area 6) 2013 n=172, 2016 n=69.

Source: Harder+Company Community Research. (2016). [First Things First – Navajo/Apache Region: Survey for parents with children ages 0-5]. Unpublished data. San Diego, CA.

COMMUNICATION, PUBLIC INFORMATION AND AWARENESS HIGHLIGHTS

In the FTF Navajo/Apache Region, 110 people completed the FTF Family and Community Survey providing feedback on the programs and services available in their communities. Overall, the findings from the survey suggest that parents are satisfied with the services in their communities. Seventy-eight percent of respondents in the region are satisfied with the community information and resources available to them, 77% agreed that it is easy to locate the services they want or need, and 56% agreed that available services are very good. In addition to these positive findings, there are areas for improvement. Nearly 40% of respondents agreed that they do not know if they are eligible to receive services and more than half felt services are not available times or locations that are convenient. Additionally, nearly one-third of respondents agreed that they cannot find services to prevent problems.

The majority of Parent Survey respondents indicated they rely on family and friends (76%) followed by the internet (41%) and community agencies (29%) for important information about activities or services. Parent Survey respondents were also asked which services are most needed in the FTF Navajo/Apache Region. The majority indicated child care (50%) and parenting classes/parent education (43%). Compared to previous Parent Surveys, more respondents in 2016 indicated that transportation (28%) and services for children with special needs (26%) are needed. Parent Survey respondents were asked about the availability and use of community resources such as libraries or parks. The majority of respondents said they have access to a library (80%) or park (80%). Fewer said they have access to sidewalks or walking paths (69%) or a recreation club (32%). Fewer respondents indicated that they bring their children to a library or recreation center while more respondents indicated they brought their child to a park or playground or walking path (see Exhibit 7.16). Compared to previous years, more Parent Survey Respondents are familiar with what FTF does in their community.

Below are key data trends that highlight the communication needs, assets, and data-driven considerations for the FTF Navajo/Apache Region based on the data highlighted above. The considerations provided below do not represent comprehensive approaches and methods for tackling the needs and assets in the region. Instead, the considerations represent possible approaches that early childhood system partners, including FTF, could take to address needs and assets in the region, as conceptualized by the authors of this report.

Assets	Considerations
More than three-quarters of respondents are satisfied with the quality of the services in the region	Promote the current services and programs that young children and their families access.
Needs	Considerations
More than half of respondents agree that services are not available at convenient times and locations and more than half agree that they are asked to fill out paperwork or eligibility forms multiple times.	Explore opportunities for customization of services to meet the demands of specific populations. Also consider supporting a care coordination system that helps link families to information and services and reduces redundancies in paperwork.
40% of respondents do not know if they are eligible to receive services.	Support partners' efforts to clearly communicate availability of services, and the criteria that make children 0-5 and their families eligible to receive services..
Transportation is a barrier for some to access needed services.	Include support for transportation costs and logistics to support funded partners in delivering services, supports, and programming to remote communities and families.



8. System Coordination Among Early Childhood Programs and Services

Why it Matters

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

In January 2010, the Arizona Early Childhood Taskforce was convened by FTF to establish a common vision for young children in Arizona, and to identify priorities and roles to build an early childhood system that will lead to this vision. System coordination was identified as one of the priority areas by Arizona's early childhood system partners. The Taskforce identified six system outcomes including that the "early childhood system is coordinated, integrated and comprehensive." FTF's role to realize this outcome 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 both FTF funded and non-FTF funded, FTF is focused on developing approaches to connect various areas of the early childhood system. When the system operates holistically, the expectation is a more seamless system of coordinated services that families 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:

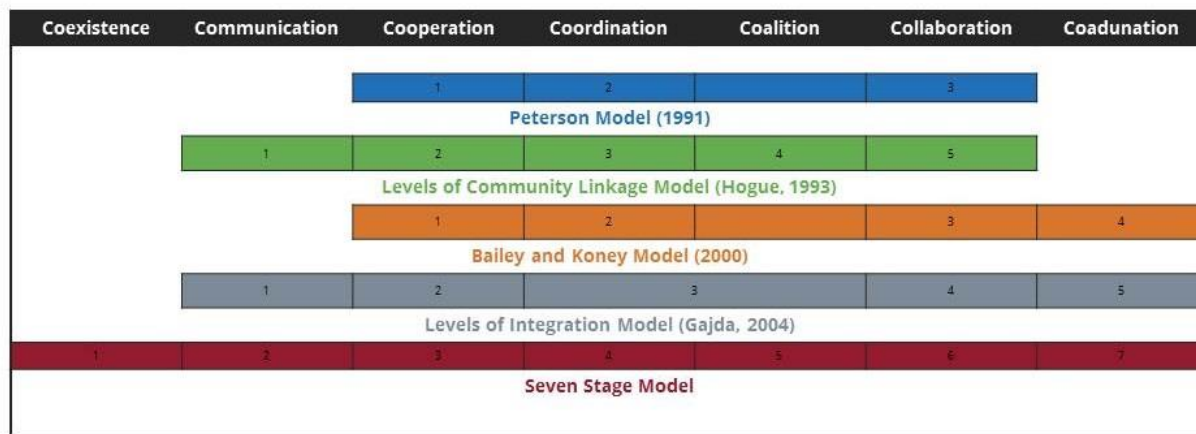
- Build stronger collaborative relationships amongst providers
- Increase availability and access of services for families and children
- Reduce duplication
- Maximize resources
- Enhance long term sustainability
- Leverage existing assets
- Improve communication
- Reduce fragmentation
- Foster leadership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

Several authors have examined coordination and collaboration efforts in terms of stages or levels of collaboration among organizations (see Exhibit 8.1 below). Frey et al. noted that stage theories describe levels of collaboration, with the lowest level being little or no collaboration and the highest level being full collaboration or some form of coordination or unification.¹²⁵ These models may differ on the number of stages, the range of levels included, and the

¹²⁵ Frey, B.B., Lohmeier, J.H, Lee, S.W., & Tollefson, N. (2006) *Measuring collaboration among grant partners. American Journal of Evaluation*, 27, 383.

definitions of various stages, but they have much in common. The figure below depicts numerous stage models in the research literature along a continuum of collaboration.

Exhibit 8.1. Levels of Collaboration



Grounded in the work of stage theorists, FTF adopted a 5 stage level of collaboration model based on the following levels of a continuum of collaboration: No Interaction, Networking, Cooperation, Coordination and Collaboration.

- **No Interaction:** No interactions occurring at all.
- **Networking:** Activities that result in bringing individuals or organizations together for relationship building and information sharing. Networking results in an increased understanding of the current system of services. There is no effort directed at changing the existing system. There is no risk associated with networking.
- **Cooperation:** Characterized by short-term, informal relationships that exist without a clearly defined mission, structure, or planning effort. Cooperative partners share information only about the subject at hand. Each organization retains authority and keeps resources separate. There is very little risk associated with cooperation.
- **Coordination:** Involves more formal relationships in response to an established mission. Coordination involves some planning and division of roles and opens communication channels between organizations. Authority rests with individual organizations, however, risk increases. Resources are made available to respondents and rewards are shared.
- **Collaboration:** Collaboration is characterized by a more durable and pervasive relationship. Respondents bring separate organizations into a new structure, often with a formal commitment to a common mission. The collaborative structure determines authority and leadership roles. Risk is greater. Partners pool or jointly secure resources, and share the results and rewards.

Coordination and Collaboration Survey

To gain a better understanding of the coordination and collaboration occurring among early childhood system partners within FTF regions, FTF developed the Coordination and Collaboration Survey that was disseminated to system partners via an online survey in October of 2016. Data were collected from system partners in 18 FTF county-based regions. Ten regions elected to conduct independent surveys including, Cochise, Coconino, Gila, Graham/Greenlee, La Paz Mohave, Navajo/Apache, Pinal, Santa Cruz, Yavapai, and Yuma. Additionally, the six FTF regions in Maricopa County (i.e., Phoenix North, Phoenix South, East Maricopa, Northwest Maricopa, Southeast Maricopa, and Southwest Maricopa), and the two FTF regions in Pima County (Pima North and Pima South), elected

to conduct combined county-wide surveys. FTF tribal regions will be surveyed at a later date, once tribal approvals are sought and received for this work.

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

What the Data Tell Us

The results are based on the responses from 25 respondents that participated in the survey from the FTF Navajo/Apache Region out of 59 that were contacted to participate, for a 42% survey response rate. The respondents represent the following FTF Navajo/Apache Partnership. The majority of the respondents work for K-12 Education (28%), Health Care or Medical Organizations (14%), and State Agencies (12%), while philanthropic organizations, higher education organizations, businesses, family support/social services, and advocacy organizations were not largely represented in this survey (see Exhibit 8.2).

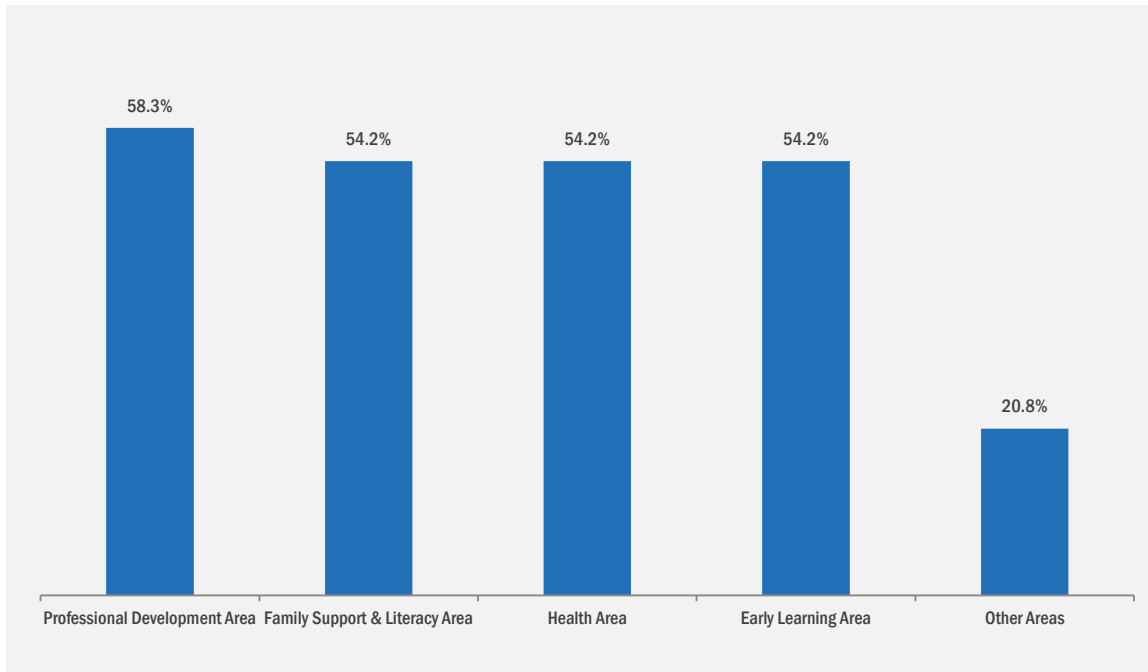
Exhibit 8.2. Sectors with which organizations work (n=25)

Sector	Percentage
State Agency	12.0%
Early Care and Education	8.0%
K-12 Education	28.0%
Local/Public Entity	8.0%
Higher Education Organization	8.0%
Health Care or Medical Organization	14.3%
Other Type of Organization	11.9%

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

The majority of respondents (92%) consider themselves to be a part of the Early Childhood System in the FTF Navajo/Apache Region. Furthermore, survey respondents reported that they engaged with all four areas of the early childhood system: Family Support and Literacy, Early Learning, Child's Health, and Professional Development. Respondents represented multiple sectors (see Exhibit 8.2) and more than half of respondents engage with each of the areas of the early childhood system (see Exhibit 8.3).

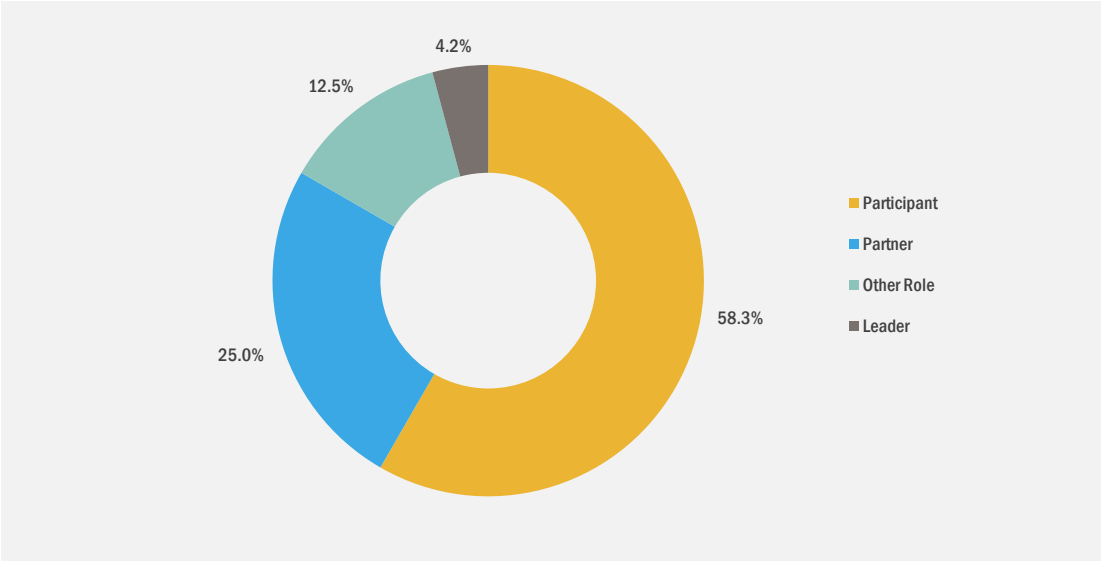
Exhibit 8.3. Area(s) of the early childhood system that organizations engage with (n=24)



Role of an Organization in the Early Childhood System

An organization may take on different roles in an early childhood system. An organization may be a participant, partner, or leader. In the role of a participant, the organization is one of many community members involved in a community-based initiative. As a partner, the organization is part of a group responsible for co-convening and/or facilitating and is one of many community members involved in a community-based initiative. Finally, as a leader, the organization is responsible for convening and facilitating a group of community members (i.e., taking a lead role to bring community members together to implement an initiative).

Exhibit 8.4. Role of organization in the development and advancement of the Early Childhood System in the FTF Navajo/Apache Region (n=24)



When asked about their organizations’ role in the development and advancement of the Early Childhood System in the FTF Navajo/Apache Region, the majority of respondents viewed their organization’s role as a Participant (58%), one of many community organizations involved in supporting the Early Childhood System. This was followed by Partner (25%) and then Leader (4%; see Exhibit 8.4).

In their role as participant, partner, or leader, survey respondents noted several successful partnerships. Respondents reported partnering with other FTF community organizations to further the health and literacy of children ages zero to five, allowing them to provide direct health care evaluations, assessment, treatments, and anticipatory guidance for children, infants, and teens in collaboration with outreach programs to assist children and their families. Some key partnerships included HealthySteps, Reach Out and Read, and family oriented programs at North Country Healthcare to help children gain access to health insurance, dental care, Arizona Early Intervention Program, and community support services. Respondents also mentioned working in collaboration with other child healthcare providers, such as local hospital and emergency services and the County Health Department. Co-facilitating and partnering with FTF to provide Early Childhood Education professional development was also mentioned as an area of success; one respondent commented that a number of their K-2 teachers have pursued Early Childhood certification, and that their school enjoys participating with Navajo County Health programs to offer healthy lifestyles for their families.

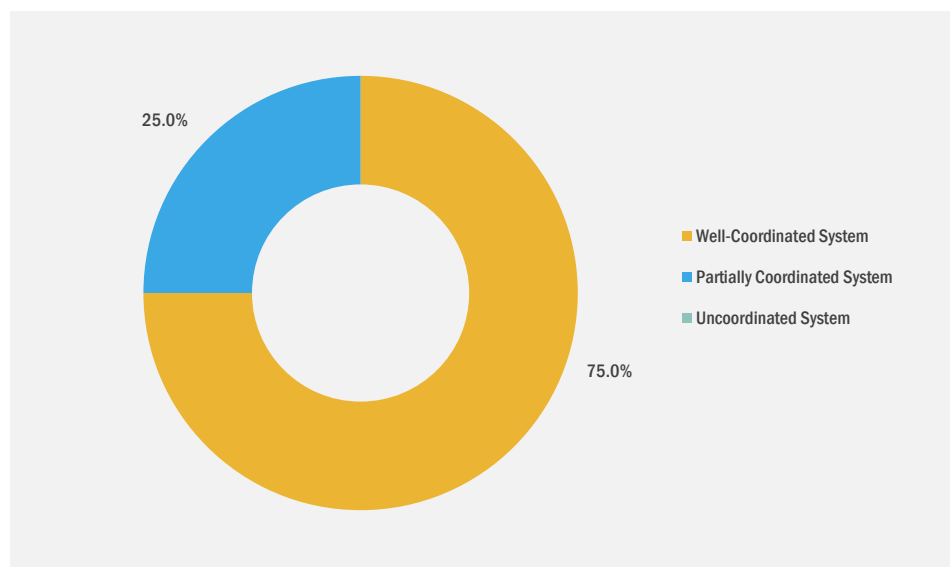
One specific key success mentioned by respondents included grantee coordination meetings held every other month to bring all FTF grantees together in partnership to develop a coordinated system of care. This partnership opportunity provides a mechanism from which partners help each other navigate non-FTF systems and services. Each grantee partner is supported through these efforts, and respondents felt it has been instrumental in the success of comprehensive program and system building throughout the Navajo/Apache Region. The FTF grantees for care coordination and partners in the early childhood system outside of the grantee group gather every other month to discuss any barriers either individuals or care providers face. This meeting also provides an opportunity for those involved in the healthcare of the region's zero to five population to present successes and to identify specific needs,

allowing partners to devise solutions to barriers which trickle down to best practices.

System Partners' Perspective on Systems Building

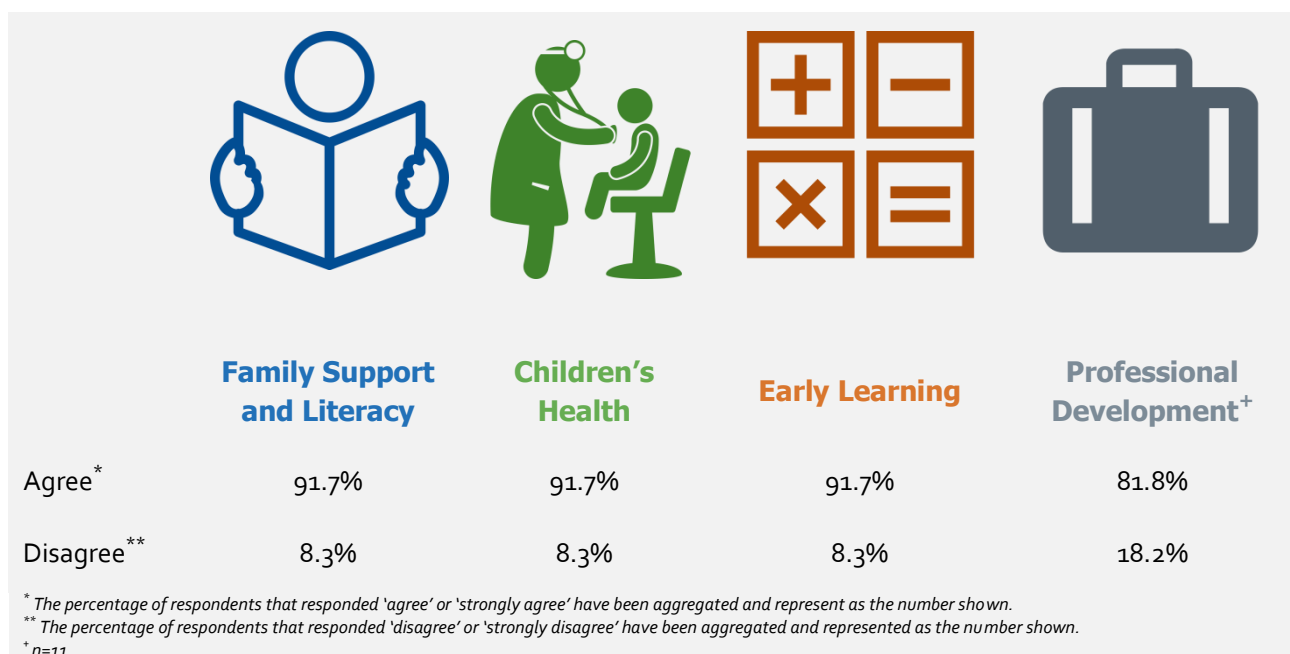
Respondents were also asked to provide their perspective on the early childhood system and systems building. Early childhood system building is the ongoing process of developing approaches and connections that make all the components of an early childhood system operate as a whole to promote shared results for children and families. In Arizona, early childhood system partners work to promote and establish a seamless, coordinated, and comprehensive array of services that can meet the multiple and changing needs of young children and families to help ensure that kids arrive at school healthy and ready to succeed.

Exhibit 8.5. Describe the Early Childhood System in the FTF Navajo/Apache Region (n=12)



Overall, a majority of survey respondents describe the early childhood system in the FTF Navajo/Apache Region as a well-coordinated system (75%), with one quarter of respondents describing the system as a partially coordinated system, and no respondents viewing the early childhood system as a group of separate, uncoordinated system partners working in isolation (see Exhibit 8.5).

Exhibit 8.6. Extent to which the Early Childhood System in the FTF Navajo/Apache Region effectively addresses the needs of young children and their families across Early Childhood Development System (n=12)



The majority of respondents across all areas agreed that the early childhood system in the FTF Navajo/Apache Region effectively addresses the needs of young children (see Exhibit 8.6). The percentage of agreement was equally high for the areas of Family Support and Literacy, Children's Health, and Early Learning. Nearly 20% of respondents felt that Professional Development does not effectively meet the needs of young children and families in their region which may be due to the fact that the ECE coursework at Northland Pioneer College has historically been based on outdated curriculum and has not been on par with other colleges in the state. Additionally, the Council funds a Community-Based Professional Development strategy which is intended to be an alternate instructional format that would lead toward course completion for participants, and course credit is available through Rio Solado Community College online.

Continuum of Collaboration in the Early Childhood System Areas

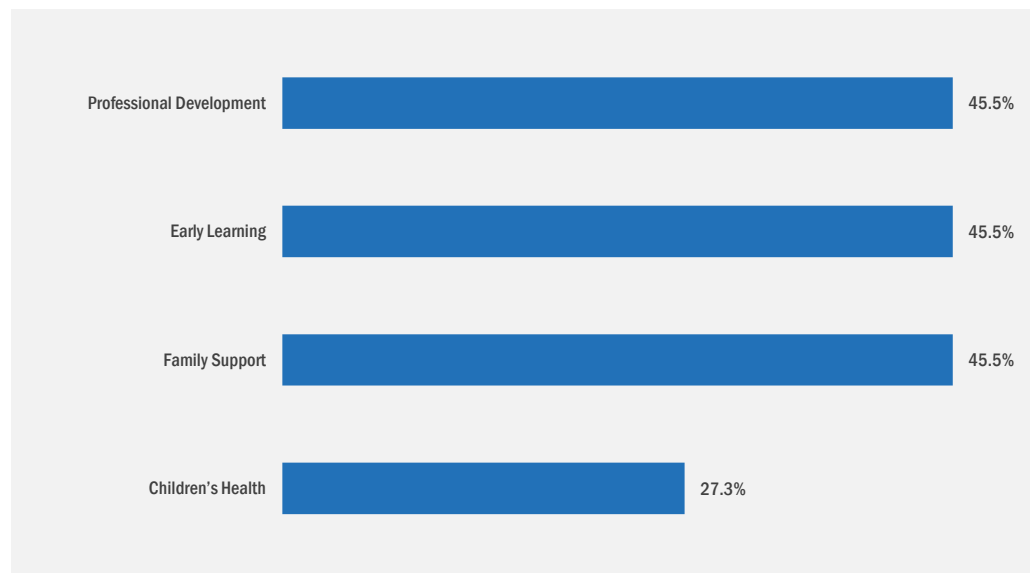
FTF has adopted a five level continuum of collaboration model grounded in the work of stage theorists based on the following levels of collaboration: No Interaction, Networking, Cooperation, Coordination, and Collaboration.¹²⁶ These five levels were defined (see Exhibit 8.1) and utilized to gain a better understanding of system partners' perspectives on the level of collaboration that is occurring among partners in the FTF Navajo/Apache Region within each area of the early childhood system.

Exhibit 8.7. The five levels of the Continuum of Collaboration

¹²⁶ Frey, B.B., Lohmeier, J.H, Lee, S.W., & Tollefson, N. (2006) Measuring collaboration among grant partners. *American Journal of Evaluation*, 27, 383.

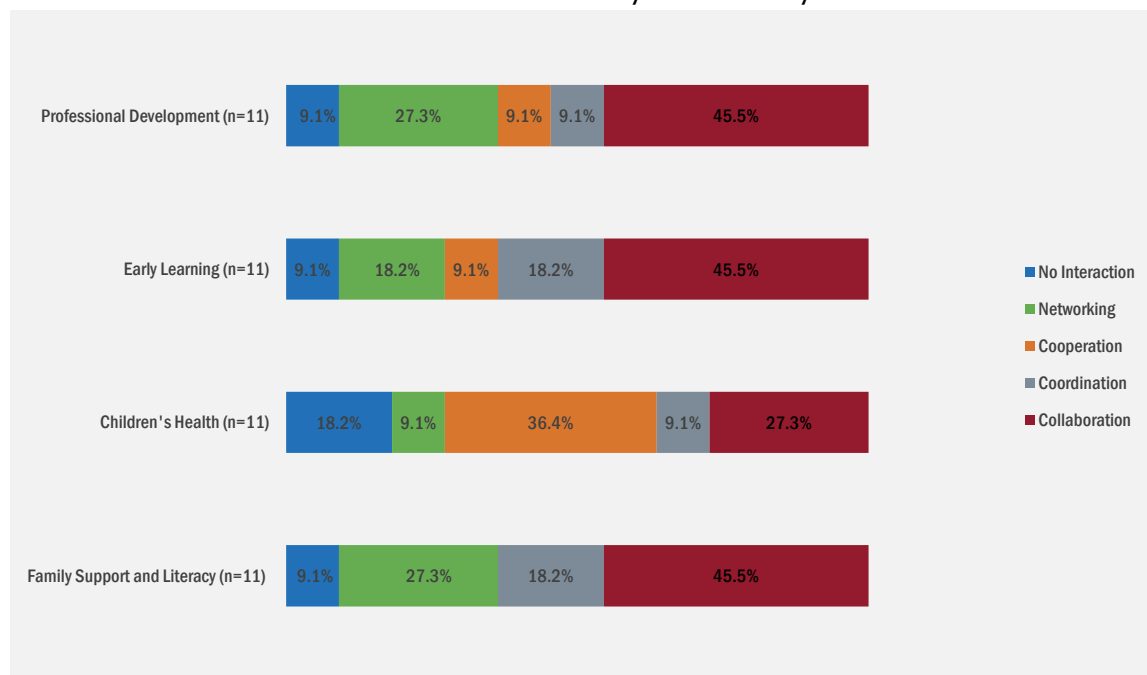


Exhibit 8.8. Collaboration in the Early Childhood System Areas (n=11)



Respondents were asked to refer to the Continuum of Collaboration (see Exhibit 8.7), and indicate the level of collaboration that is occurring among partners in the Navajo and Apache counties for each area of the Early Childhood System. The results indicate moderately high levels of support for the highest and most intense level of system partners working together along the Continuum of Collaboration. Within the area of Professional Development (45%), Early Learning (45%), and Family Support (45%) respondents indicated that Collaboration was occurring among partners in the FTF Navajo/Apache Region (see Exhibit 8.8).

Exhibit 8.9. Continuum of Collaboration in the Early Childhood System Areas



In the Family Support and Literacy (45%), Early Learning (45%), and Professional Development (45%) areas, almost half of the respondents noted that there was Collaboration among system partners; a relationship characterized by Exhibit 8.9. In the area of Children's Health, 27% of respondents selected Collaboration, whereas more than one third selected Cooperation. This is somewhat different from the Professional Development area, where respondents indicated Collaboration (45%) and Networking (27%) as the most prevalent mode of relationships between system partners. Cooperative partners share information only about the subject at hand. Each organization retains authority and keeps resources separate.

Sectors Involved in the Early Childhood Building

Respondents were also asked to indicate which sectors are involved in systems building within each of the four areas of the Early Childhood System. Respondents noted that the sectors engaged in the system building work within the Family Support and Literacy area are largely Early Care and Education (80%) and Local/Public Entity (60%). This was followed by K-12 Education (50%), Family Support and Social Service Agency (50%), Advocacy (50%), and Health Care and Medical (50%, see Exhibit 8.10).

In the area of Children's Health, respondents indicated that the Health Care and Medical (70%), and Family Support and Social Service Agency (60%) were the most engaged in systems buildings.

In Early Learning, Early Care and Education (90%) played the largest role, followed by the Local/Public Entity (60%) and Advocacy (50%) sectors.

Finally, in the area of Professional Development, respondents indicated that Early Care and Education (70%) was mostly involved, followed by the K-12 Education (50%) sector.

Exhibit 8.10. The sectors involved in/engaged in system building work in the FTF Navajo/Apache Region.

	N	State Agency	Early Care & Edu	Family Support/ Social Service Agency	Philanthropy	K-12 Edu	Higher Edu	Advocacy	Local/ Public Entity	Business	Health Care/ Medical	Other
Family Support and Literacy	10	30.0%	80.0%	50.0%	30.0%	50.0%	20.0%	50.0%	60.0%	10.0%	50.0%	10.0%
Children's Health	10	40.0%	50.0%	60.0%	40.0%	40.0%	20.0%	40.0%	40.0%	20.0%	70.0%	0.0%
Early Learning	10	20.0%	90.0%	20.0%	30.0%	40.0%	20.0%	50.0%	60.0%	20.0%	40.0%	10.0%
Professional Development	10	40.0	70.0%	30.0%	10.0%	50.0%	40.0%	30.0%	40.0%	20.0%	40.0%	30.0%

While earlier items asked system partners about the level of collaboration occurring among system partners, when a survey item asked respondents about how frequently key activities were occurring that are known indicators of collaborative work, many respondents indicated they only somewhat know how often activities related to system building work were occurring in the FTF Navajo/Apache Region, while several other respondents know a lot about how often the activities are occurring. Those that did respond (n=10) noted that system partners within Family Support and Literacy have a lot of shared development of program materials, coordination of outreach and referrals, and shared approaches to informing the public of available services. Participation in standing inter-agency committees is another key activity that system partners identified doing together. When thinking about activities along the continuum of collaboration, the types of activities that respondents indicated are occurring represent networking, cooperation, and coordination type activities within the continuum. Areas where a high number of respondents indicated that the activity was not happening at all (10% to 25%) was in the use of shared facility space, leveraging resources or funding across partners, jointly implementing policy changes, and co-location of programs or services which are key activities that align to a high level of collaboration between system partners and represent areas of continued growth for system partners (see Exhibit 8.11).

Exhibit 8.11. Activities: Family Support & Literacy

Activity	Not At All	A little/So mewhat	A Lot	Don't Know
Leveraging resources/funding across partners	20.0%	30.0%	30.0%	20.0%
Sharing facility space	20.0%	20.0%	40.0%	20.0%
Shared development of program materials	0.0%	18.2%	72.7%	9.1%
Coordination of outreach and referrals	0.0%	40.0%	50.0%	10.0%
Knowledge of other programs' intake requirements/referral process	0.0%	40.0%	40.0%	20.0%
Shared record keeping and management of data information systems	12.5%	25.0%	25.0%	37.5%
Co-location of programs or services	25.0%	12.5%	25.0%	37.5%
Partner in program evaluation and/or assessment	20.0%	30.0%	40.0%	10.0%
Jointly conducting staff training	20.0%	50.0%	20.0%	10.0%
Shared approach to informing the public of available services	10.0%	30.0%	50.0%	10.0%
Jointly implement policy changes	25.0%	25.0%	0.0%	50.0%
Common forms (e.g., intake and/or referral forms)	14.3%	28.6%	0.0%	57.1%
Child/Family service plan development OR PD plan for ECE professionals	0.0%	14.3%	0.0%	85.7%
Participation in standing inter-agency committees	0.0%	44.4%	44.4%	11.1%
Informal agreements	0.0%	28.6%	14.3%	57.1%
Formal written agreements (e.g., MOUs)	0.0%	42.9%	14.3%	42.9%
Environmental scan of other organizations in the community that provide services to young families	0.0%	33.3%	22.2%	44.4%
Other (please describe below)	0.0%	0.0%	50.0%	50.0%

Activities varied in the Children's Health area with activities such as common forms and jointly conducting staff training not happening at all (see Exhibit 8.12).

Exhibit 8.12. Activities: Children's Health

Activity	Not At All	A little/ Somewhat	A Lot	Don't Know
Leveraging resources/funding across partners	0.0%	22.2%	44.4%	33.3%
Sharing facility space	0.0%	37.5%	25.0%	37.5%
Shared development of program materials	0.0%	37.5%	50.0%	12.5%
Coordination of outreach and referrals	0.0%	25.0%	62.5%	12.5%
Knowledge of other programs' intake requirements/referral process	0.0%	25.0%	50.0%	25.0%
Shared record keeping and management of data information systems	12.5%	25.0%	50.0%	12.5%
Co-location of programs or services	28.6%	14.3%	28.6%	28.6%
Partner in program evaluation and/or assessment	28.6%	14.3%	57.1%	0.0%
Jointly conducting staff training	37.5%	25.0%	25.0%	12.5%
Shared approach to informing the public of available services	12.5%	25.0%	62.5%	0.0%
Jointly implement policy changes	25.0%	37.5%	12.5%	25.0%
Common forms (e.g., intake and/or referral forms)	37.5%	0.0%	25.0%	37.5%
Child/Family service plan development OR PD plan for ECE professionals	0.0%	14.3%	14.3%	71.4%
Participation in standing inter-agency committees	0.0%	50.0%	37.5%	12.5%
Informal agreements	14.3%	28.6%	14.3%	42.9%
Formal written agreements (e.g., MOUs)	0.0%	50.0%	12.5%	37.5%
Environmental scan of other organizations in the community that provide services to young families	0.0%	37.5%	12.5%	50.0%
Other (please describe below)	0.0%	0.0%	50.0%	50.0%

For Early Learning, respondents reported a lot of shared development of programs and coordination of outreach and referrals (see Exhibit 8.13).

Exhibit 8.13. Activities: Early Learning

Activity	Not At All	A little/ Somewhat	A Lot	Don't Know
Leveraging resources/funding across partners	0.0%	30.0%	40.0%	30.0%
Sharing facility space	0.0%	44.4%	44.4%	11.1%
Shared development of program materials	0.0%	22.2%	66.7%	11.1%
Coordination of outreach and referrals	0.0%	22.2%	66.7%	11.1%
Knowledge of other programs' intake requirements/referral process	0.0%	55.6%	22.2%	22.2%
Shared record keeping and management of data information systems	12.5%	12.5%	37.5%	37.5%
Co-location of programs or services	28.6%	14.3%	14.3%	42.9%
Partner in program evaluation and/or assessment	22.2%	33.3%	33.3%	11.1%
Jointly conducting staff training	20.0%	50.0%	20.0%	10.0%
Shared approach to informing the public of available services	10.0%	30.0%	50.0%	10.0%
Jointly implement policy changes	25.0%	25.0%	0.0%	50.0%
Common forms (e.g., intake and/or referral forms)	14.3%	28.6%	0.0%	57.1%
Child/Family service plan development OR PD plan for ECE professionals	0.0%	14.3%	0.0%	85.7%
Participation in standing inter-agency committees	0.0%	44.4%	33.3%	22.2%
Informal agreements	0.0%	28.6%	14.3%	57.1%
Formal written agreements (e.g., MOUs)	0.0%	42.9%	0.0%	57.1%
Environmental scan of other organizations in the community that provide services to young families	0.0%	33.3%	22.2%	44.4%
Other (please describe below)	0.0%	0.0%	50.0%	50.0%

For the Professional Development area, respondents reported frequent shared development of programs materials and coordination of outreach and referrals (see Exhibits 8.13 and 8.14).

Exhibit 8.14. Activities: Professional Development

Activity	Not At All	A little /Somewhat	A Lot	Don't Know
Leveraging resources/funding across partners	0.0%	50.0%	40.0%	10.0%
Sharing facility space	0.0%	50.0%	40.0%	10.0%
Shared development of program materials	0.0%	30.0%	60.0%	10.0%
Coordination of outreach and referrals	0.0%	30.0%	60.0%	10.0%
Knowledge of other programs' intake requirements/referral process	10.0%	40.0%	30.0%	20.0%
Shared record keeping and management of data information systems	12.5%	12.5%	25.0%	50.0%
Co-location of programs or services	28.6%	14.3%	14.3%	42.9%
Partner in program evaluation and/or assessment	22.2%	33.3%	33.3%	11.1%
Jointly conducting staff training	10.0%	50.0%	30.0%	10.0%
Shared approach to informing the public of available services	10.0%	30.0%	50.0%	10.0%
Jointly implement policy changes	25.0%	25.0%	0.0%	50.0%
Common forms (e.g., intake and/or referral forms)	14.3%	28.6%	0.0%	57.1%
Child/Family service plan development OR PD plan for ECE professionals	0.0%	14.3%	0.0%	85.7%
Participation in standing inter-agency committees	0.0%	44.4%	44.4%	11.1%
Informal agreements	14.3%	28.6%	14.3%	42.9%
Formal written agreements (e.g., MOUs)	0.0%	50.0%	12.5%	37.5%
Environmental scan of other organizations in the community that provide services to young families	0.0%	33.3%	22.2%	44.4%
Other (please describe below)	0.0%	0.0%	0.0%	100%

Barriers and Future Directions

Respondents were also asked to reflect on barriers in moving the system forward with other Early Childhood System partners. Some main barriers identified included time, limited resources, and funding. Lack of funding was mentioned as a barrier that prevents the region from realizing its potential to comprehensively meet the needs of young children. Additionally, poverty and a struggling economy were highlighted as major challenges in the region as well, with families focused on a survival based existence in many respects, due to lack of a vibrant economy and very limited economic opportunities in the area.

Many respondents identified the lack of a specific mental health strategy aimed at infant-toddler and parent mental health beyond that of child care. One respondent commented that there are many infant-toddler and parent mental health needs being addressed by one healthcare system but this work is provided in-kind. Finally, respondents were asked to reflect on the role of the Council in supporting Early Childhood System Building and collaboration efforts in the FTF Navajo/Apache Region. Respondents felt the Council could support Early Childhood System Building and partner collaboration efforts in the region by continuing current efforts, and expanding exposure by publicizing those efforts. Increased publicity was mentioned as a recommendation, and as a way to increase participation and thus expand the benefits received by current programs and services offered. Similarly, respondents called for more communication with centers about what programs the Council offers.

SYSTEM COORDINATION HIGHLIGHTS

In the FTF Navajo/Apache Region, 25 system partners responded to the FTF Coordination and Collaboration Survey providing insight on the system building efforts, level of collaboration, and the Council's role in their county. Overall the findings from the survey suggest that partners consider the region to have a well-coordinated early childhood system of care and the majority feel that all four areas (Family Support and Literacy, Children's Health, Early Learning, and Professional Development) are effective in addressing the needs of children and their families in the region. Respondents felt that Family Support and Literacy, Early Learning, and Children's Health were the most collaborative, followed by Professional Development.

Below are key data trends that highlight the system coordination related needs, assets, and data-driven considerations for the FTF Navajo/Apache Region. The considerations provided below do not represent comprehensive approaches and methods for tackling the needs and assets in the region. Instead, the considerations represent possible approaches that early childhood system partners, including FTF, could take to address needs and assets in the region, as conceptualized by the authors of this report.

Assets	Considerations
Seventy-five percent of respondents feel the region's early childhood system is well-coordinated.	Identify more system leaders that will take initiative and guide the system partners and participants towards a more coordinated and collective network that will even more efficiently serve children and families.
High Quality ECE Partner meetings and Care/Coordination Medical Home partner meetings bring partners in the region together	Identify key successes from partner meetings and apply them to similar meetings to further strengthen Professional Development and Children's Health collaboration.

Needs	Considerations
Children's Health was considered to be the least collaborative area.	Identify successes from the Family Support, Early Learning, and Professional Development collaboration efforts that can be applied to the other areas. Consider learning from other FTF regions that have strong collaborations to identify how they developed their system and apply recommendations to Navajo/Apache as appropriate.

Conclusion

The FTF Navajo/Apache Region occupies the southern portion of Navajo and Apache counties, which are located in the eastern portion of Arizona. The surrounding counties in Arizona are Coconino, Gila, Graham, and Greenlee and the state of New Mexico to the east. The largest city in the region is Show Low with just more than 10,000 people. Other cities in the region are Winslow, Snowflake, Holbrook, and St. Johns. The region has a strong collaborative system of providers that are dedicated to the well-being of the region's youngest children and their families, yet it remains difficult to overcome barriers like high poverty and limited access to food, transportation, and early education and healthcare services. FTF is a great asset in the region, as they play a large role in funding and supporting the area's early childhood system.

The following tables combine the assets, needs, and considerations from the eight domains presented in this report. These key findings are intended to provide information to the Council and the community as a whole around the needs and assets of the region's zero to five population and their families.

Assets

Assets	Considerations
Population Characteristics	
The population of children under the age of six is projected to stay relatively the same, allowing the region to foresee and prepare for the demands of their youngest residents.	Continue to tailor outreach and programs to support families and children zero to five in the FT Navajo/Apache Region.
The percentage of children under age six identifying as Hispanic or Latino in the FTF Navajo/Apache Region (23%) is greater than the percentage of the total population 18 and over that identifies as Hispanic or Latino in the region (12%). This population is expected to remain steady over the next several decades.	Continue tracking population characteristics in order to be responsive to the needs of the community.
Economic Circumstances	
The FTF Navajo/Apache Region has several local programs aimed to support the availability of nutritious foods for children under six and their families.	Support local DES and WIC office's efforts to increase community awareness of nutrition programs available to young children and their families.
Education	
The majority of adults in the region have completed high school, received a GED or pursued further education (87%), and nearly 20% of high school students across the region do not graduate.	Promote the benefits of completing a high school education.
Early Learning	

The Quality First and the Community Based Professional Development Strategies have been increasing the quality, and stability, of child care programs in the region.	Continue to promote Quality First and Community Based Professional Development opportunities in the region to increase the opportunities for children to receive quality early care and education experiences.
Child Health	
Almost all children in the region are receiving immunizations.	Promote healthy preventive behaviors like receiving immunizations.
Many women who participate in WIC are initiating breastfeeding with their infants (85.7%)	Provide education and support for breastfeeding initiation with a focus on continuing until the infant is at least 6 months of age, and ideally until 12 months of age.
Family Support and Literacy	
Parents in the region scored higher on some child development questions than in the state.	Support regional efforts to educate parents on parents' impact on their child's development, especially starting at the prenatal stage.
Communication, Public Information and Awareness	
More than three-quarters of respondents are satisfied with the quality of the services in the region	Promote the current services and programs that young children and their families access.
System Coordination	
Seventy-five percent of respondents feel the region's early childhood system is well-coordinated.	Identify more system leaders that will take initiative and guide the system partners and participants towards a more coordinated and collective network that will even more efficiently serve children and families.
High Quality ECE Partner meetings and Care/Coordination Medical Home partner meetings bring partners in the region together	Identify key successes from partner meetings and apply them to similar meetings to further strengthen Professional Development and Children's Health collaboration.

Needs

Needs	Considerations
Population Characteristics	
About 30% of children 0-5 live in single-parent households. Compared to two parent households, single family homes have significantly less income, and experience	Recognize that all families have strengths and needs, and that community supports need to be varied and available across a wide array of environments.

additional barriers.	
Economic Circumstances	
About 34% of children under six live in single-parent households, which earn substantially less money than dual parent households, and more than 33% of children 0-5 live in poverty.	Promote supports or resources that can help subsidize child care and housing costs for single parents with young children.
37% of children in Navajo County and 42% of children in Apache County are food insecure.	Support young children and their families by connecting them to existing food box distribution programs and locations, nutrition education, and other resources.
CACFP is not available in two zip codes (85934 and 86502) with high poverty rates.	Promote and encourage expansion of CACFP programs.
Education	
The percentage of students in first, second or third grade missing less than ten days of school increased slightly from 2014 to 2015.	Support local school districts' in efforts to increase parent knowledge and understanding of the importance of school attendance, starting in preschool and Kindergarten; possible approaches might include peer mentors, parenting classes or school-based campaigns.
Less than half of third graders are meeting proficiency requirements for English Language Arts and Math (37% and 44%, respectively) and half of preschool-aged children in the FTF Navajo/Apache Region are enrolled in early education (50%).	Increase awareness of early education programs to support learning and school readiness from an early age.
Early Learning	
Less than half (45%) of Early Childhood Education professionals in the state remain in their position for over five years.	Explore opportunities to encourage quality early childhood professionals to retain, and build, their skills in the early childhood field and reduce staff turnover. Monitor the impact of the minimum wage increase in AZ and how this will affect the early childhood workforce.
The number of child care subsidies awarded in the region decreased from 163 in 2013 to 156 in 2014.	Promote the importance of subsidies in providing low income children access to early care and education.
5.8% of students in preschool special education transitioned to mainstream kindergarten classrooms.	Support early identification of children who exhibit developmental delays to ensure that children receive needed intervention and supports, and are ready to enter kindergarten.
Child Health	

More than three fourths of parents (78%) are unaware of the impact they have on their child's development during the prenatal stage.	Provide outreach and education regarding prenatal care and child development, especially targeting first-time and teen mothers.
87% of children were reported to have experienced tooth decay and 58% of children had untreated tooth decay.	Promote good oral health through other FTF programs, such as home visitation, and consider partnering with pediatricians to encourage oral health practices during well-child visits.
There are two zip codes with a high population of children that do not have vision screenings, including 86047 and 85939.	Explore opportunities to expand vision screenings into additional zip codes in the region, especially in regions with a high number of children 0-5.
Family Support and Literacy	
The majority of parents understand the importance of play but less than half read (49.6%), draw or tell stories 5-7 days a week.	Educate parents on the importance of play and engaging in developmentally stimulating activities with their children daily and increase availability of books to ensure parents have the resources needed to read to their children.
Communication, Public Information and Awareness	
More than half of respondents agree that services are not available at convenient times and locations and more than half agree that they are asked to fill out paperwork or eligibility forms multiple times.	Explore opportunities for customization of services to meet the demands of specific populations. Also consider supporting a care coordination system that helps link families to information and services and reduces redundancies in paperwork.
40% of respondents do not know if they are eligible to receive services.	Support partners' efforts to clearly communicate availability of services, and the criteria that make children 0-5 and their families eligible to receive services.
Transportation is a barrier for some to access needed services.	Include support for transportation costs and logistics to support funded partners in delivering services, supports, and programming to remote communities and families.
System Coordination	
Children's Health was considered to be the least collaborative area.	Identify successes from the Family Support, Early Learning, and Professional Development collaboration efforts that can be applied to the other areas. Consider learning from other FTF regions that have strong collaborations to identify how they developed their system and apply recommendations to Navajo/Apache as appropriate.

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Appendix A

Chapter 1

Appendix 1.1. Detailed age breakdown for children 0-5

	Arizona	Navajo/ Apache Region

0 years old	87,557	942
1 year old	89,746	973
2 years old	93,216	1,072
3 years old	93,880	1,048
4 years old	91,316	1,097
5 years old	90,894	1,034

U.S. Census Bureau; 2010 Census Summary File 1; Tables P11 & P14; generated by AZ FTF; using American FactFinder; <<http://factfinder2.census.gov>>

Appendix 1.2. Number of refugee arrivals to Arizona

Year	Arizona
1981	744
1982	1,011
1983	1,083
1984	928
1985	1,191
1986	1,149
1987	872
1988	762
1989	1,130
1990	1,715
1991	1,904
1992	1,966
1993	1,318
1994	1,561
1995	1,889
1996	1,927
1997	2,318

Appendix 1.2. Number of refugee arrivals to Arizona

Year	Arizona
1998	2,861
1999	3,144
2000	2,546
2001	2,597
2002	1,134
2003	1,187
2004	2,446
2005	2,169
2006	2,024
2007	2,414
2008	3,408
2009	4,740
2010	3,888
2011	2,552
2012	2,845
2013	3,600
2014	3,882
2015	4,138

Arizona Department of Economic Security
(2016). About Refugee Resettlement.
Retrieved from
https://des.az.gov/sites/default/files/REFREPT_May2017.pdf

Chapter 2

Appendix 2.1. Top 25 schools in the FTF Navajo/Apache Region with the highest percentage of students eligible for free and reduced price lunch

School	% of students eligible for free and reduced price lunch in 2014
Northern AZ Academy for Career Dev. - Taylor	95.1%
Sanders Middle School	92.1%
Sanders Elementary School	88.0%
Valley High School	88.0%
Concho Elementary School	87.4%
Holbrook Junior High School	79.3%
Park Elementary School	77.1%
Nikolaus Homestead Elementary School	76.1%
Hulet Elementary School	73.6%
Vernon Elementary School	70.8%
Jefferson Academy of Advanced Learning	69.4%
Sequoia Village School	67.4%
Capps Elementary School	64.9%
Mountain Meadows Primary	63.1%
Whipple Ranch Elementary School	60.5%
Holbrook High School	59.9%
Taylor Intermediate School	59.5%
Mogollon High School	59.4%
Coronado Elementary School	59.1%
St Johns Middle School	58.4%
Blue Ridge Middle School	58.4%
Round Valley Elementary School	57.6%
Show Low Junior High School	56.1%
Round Valley Middle School	55.8%
Blue Ridge Elementary School	55.4%

Arizona Department of Education (2014). Students Eligible for Free and Reduced-price Lunch. Provided by AZ FTF.

Appendix 3.1. Race or ethnicity of children by school

School	American Indian/ Alaska Native	Asian	Black /African American	Hispanic/ Latino	Native Hawaiian/ Other Pacific	White	Multi-racial
Alpine Elementary School	5	0	0	6	0	51	0
Blue Ridge Elementary School	114	4	2	146	0	284	20
Blue Ridge High School	151	10	2	170	2	400	41
Blue Ridge Jr High School	53	4	0	73	0	169	13
Blue Ridge Middle School	89	2	2	124	0	250	15
Capps Elementary School	1	1	1	14	0	82	2
Concho Elementary School	5	1	0	48	2	108	7
Coronado Elementary School	23	4	2	57	2	142	2
Highland Primary School	19	2	0	74	0	333	26
Holbrook High School	474	1	9	87	0	124	11
Holbrook Junior High School	204	1	3	52	0	86	19
Hulet Elementary School	110	1	2	87	1	109	20
Jefferson Academy of Advanced Learning	0	1	0	31	1	73	3
Joseph City Elementary School	33	0	0	27	0	137	17
Joseph City High School	11	1	0	10	0	89	4
Joseph City Junior High School	8	0	0	7	0	44	3
Linden Elementary School	4	0	0	12	0	151	7
Mogollon High School	7	0	0	19	0	104	3
Mogollon Jr High School	2	0	0	10	0	59	2
Mountain Meadows Primary	2	1	0	29	0	114	3
Navajo County Instruction for Success (NCIS)	0	0	0	5	0	8	0
Nikolaus Homestead Elementary School	29	0	2	96	1	358	8
Northern AZ Academy for Career Dev. - Taylor	0	0	2	15	0	37	2
Park Elementary School	120	1	3	69	1	75	19

Appendix 3.1. Race or ethnicity of children by school

School	American Indian/ Alaska Native	Asian	Black /African American	Hispanic/ Latino	Native Hawaiian/ Other Pacific	White	Multi-racial
Round Valley Elementary School	34	1	2	132	0	389	7
Round Valley High School	21	3	2	89	2	265	1
Round Valley Middle School	7	2	1	83	0	260	2
Sanders Elementary School	267	0	0	8	0	3	4
Sanders Middle School	216	0	0	1	0	3	3
Sequoia Choice - Village	2	0	1	5	0	64	1
Sequoia Village School	17	4	2	28	2	253	10
Show Low High School	21	3	8	112	1	614	21
Show Low Junior High School	20	3	4	91	1	417	14
Show Low Preschool	1	0	0	4	0	6	1
Snowflake High School	37	2	2	67	1	578	17
Snowflake Intermediate School	23	0	0	42	0	254	15
Snowflake Junior High School	23	3	1	41	0	324	13
Snowflake Preschool	0	0	0	2	0	23	1
St Johns High School	21	1	1	60	0	178	5
St Johns Middle School	35	3	2	73	1	188	6
St. Johns Learning Center	1	0	0	4	0	11	0
Taylor Elementary School	11	0	0	55	0	229	11
Taylor Intermediate School	11	0	2	36	2	149	10
Valley High School	242	0	1	8	0	2	3
Vernon Elementary School	4	0	2	13	0	84	1
Whipple Ranch Elementary School	20	5	4	91	1	298	12
White Mountain Institute	1	0	0	1	0	4	0
WMI ON LINE	3	0	0	2	0	10	0
Grand Total	2502	65	65	2316	21	7993	405

Arizona Department of Education (2015). Enrollment. Provided by AZ FTF.

Appendix 3.2. 2014 School Report-Card Letter Grade for Districts

School District	Growth Points	Composite Points	Total Points	Final Letter Grade
Navajo County Accommodation District #99	-	-	-	P
Alpine Elementary District	56	100	156	A
Joseph City Unified District	59	84	143	A
Heber-Overgaard Unified District	57	85	142	A
Snowflake Unified District	50	88	138	B
St Johns Unified District	57	80	137	B
Round Valley Unified District	54	76	130	B
Concho Elementary District	50	79	129	B
Blue Ridge Unified District	50	78	128	B
Show Low Unified District	44	82	126	B
Edkey, Inc. - Sequoia Choice Schools	45	69	114	C
Vernon Elementary	42	71	113	C
Edkey, Inc. - Sequoia Village School	41	68	109	C
Sanders Unified District	45	41	86	D
Founding Fathers Academies, Inc	-	-	79	D

Arizona Department of Education (2014). Letter Grades for All Schools. Retrieved from <http://www.azed.gov/accountability/state-accountability/>

Appendix 3.3. 2015 Enrollment by district and school

District & School	Sum of Total Enrollment
Alpine Elementary School	73
Alpine Elementary School	62
Round Valley High School	11
Blue Ridge Unified School District No. 32	2,087
Blue Ridge Elementary School	570
Blue Ridge High School	723
Blue Ridge Jr High School	312
Blue Ridge Middle School	482
Career Development, Inc.	56
Northern AZ Academy for Career Dev. –Taylor	56
Concho Elementary District	240
Blue Ridge High School	12
Concho Elementary School	171
Show Low High School	19
St. Johns High School	35
St. Johns Learning Center	3
Edkey Inc. –Sequoia Choice Schools	73
Sequoia Choice-Village	73
Edkey, Inc. –Sequoia Village School	316
Sequoia Village School	316
Founding Fathers Academies, Inc.	109
Jefferson Academy of Advanced Learning	109
Heber-Overgaard Unified District	456
Capps Elementary School	101
Mongollon High School	133

Appendix 3.3. 2015 Enrollment by district and school

District & School	Sum of Total Enrollment
Mongollon Jr High School	73
Mountain Meadows Primary	149
Holbrook Unified District	1,689
Holbrook High School	706
Holbrook Junior High School	365
Hulet Elementary School	330
Park Elementary School	288
Joseph City Unified District	391
Joseph City Elementary School	214
Joseph City High School	115
Joseph City Junior High School	62
McNary Elementary District	31
Blue Ridge High School	31
Navajo County Accommodation District #99	13
Navajo County Instruction for Success (NCIS)	13
Round Valley Unified District	1292
Round Valley Elementary School	565
Round Valley High School	372
Round Valley Middle School	355
Sanders Unified District	761
Sanders Elementary	282
Sanders Middle School	223
Valley High School	256
Show Low Unified District	2,410
Linden Elementary	174

Appendix 3.3. 2015 Enrollment by district and school

District & School	Sum of Total Enrollment
Nikolaus Homestead Elementary School	494
Show Low High School	728
Show low Junior High School	550
Show Low Preschool	12
Whipple Ranch Elementary School	431
White Mountain Institute	6
WMI ON LINE	15
Snowflake Unified District	2,439
Highland Primary School	454
Snowflake High School	704
Snowflake Intermediate School	334
Snowflake Junior High School	405
Snowflake Preschool	26
Taylor Elementary School	306
Taylor Intermediate School	210
St. Johns Unified District	784
Coronado Elementary School	232
St. Johns High School	231
St. Johns Middle School	308
St. Johns Learning Center	13
Vernon Elementary District	147
Blue Ridge High School	10
Show Low High School	33
Vernon Elementary School	104

Arizona Department of Education (2015). Enrollment. Provided by AZ FTF.

Appendix 4.1. 2012 ECE Professional Development Programs

	Early Care and Education Centers
Reimbursed employees for college tuition	53%
Paid for workshop registration fees	81%
Paid for staff development days	78%

First Things First – Arizona’s Unknown Education Issue (2013). Early Learning Workforce Trends. Provided by AZ FTF.

Appendix 4.2. 2007 and 2012 Compensation of ECE Professionals: Median Salary

Year, Number of Responses, and sample size	For Profit <4 Sites	For Profit 4+ Sites	Head Start	Public Schools	Other Nonprofit	All Types
Assistant Teachers						
2007 Median	\$7.75	\$8.00	\$10.25	\$10.00	\$8.50	\$9.00
Number of Responses	325	212	23	160	355	1,075
Number Assistant Teachers	1,528	1,119	730	2,088	2,041	7,506
2012 Median	\$8.50	\$8.75	\$10.53	\$10.00	\$9.00	\$9.66
Number of Responses	298	160	28	174	318	978
Number Assistant Teachers	1,153	699	864	1,629	1,834	6,179
Teachers						
2007 Median	\$8.50	\$9.00	\$15.00	\$13.50	\$11.00	\$9.75
Number of Responses	409	261	24	183	394	1,271
Number Teachers	3,034	3,305	705	1,654	2,372	11,070
2012 Median	\$9.00	\$9.80	\$16.00	\$14.50	\$11.50	\$10.00
Number of Responses	431	251	29	176	381	1,268
Number Teachers	2,825	2,936	868	1,206	2,410	10,245
Teacher Directors						
2007 Median	\$11.56	\$11.50	\$15.00	\$14.31	\$14.50	\$13.50
Number of Responses	245	137	11	87	227	707
Number Teacher Directors	321	189	70	284	307	1,171
2012 Median	\$11.00	\$12.00	\$20.00	\$14.00	\$14.50	\$13.50
Number of Responses	302	136	15	101	236	790
Number Teacher Directors	428	192	119	337	428	1,504
Administrative Directors						
2007 Median	\$14.50	\$14.00	\$20.00	\$21.47	\$16.75	\$16.82
Number of Responses	225	198	24	121	246	814
Number Administrative Directors	305	321	168	188	311	1,293

Appendix 4.2. 2007 and 2012 Compensation of ECE Professionals: Median Salary

Year, Number of Responses, and sample size	For Profit <4 Sites	For Profit 4+ Sites	Head Start	Public Schools	Other Nonprofit	All Types
2012 Median	\$14.00	\$16.00	\$21.16	\$22.00	\$17.00	\$16.80
Number of Responses	286	218	25	92	253	874
Number Administrative Directors	371	317	119	143	337	1,287

First Things First – Arizona’s Unknown Education Issue (2013). Early Learning Workforce Trends. Provided by AZ FTF.

Appendix 4.3. 2007 and 2012 Compensation of ECE Professionals: Lowest Starting Salary

Year, Number of Responses, and sample size	For Profit <4 Sites	For Profit 4+ Sites	Head Start	Public Schools	Other Nonprofit	All Types
Assistant Teachers						
2007 Median	\$7.00	\$7.25	\$9.22	\$8.75	\$7.50	\$8.00
Number of Responses	328	212	24	162	359	1,085
Number Assistant Teachers	1,548	1,119	743	2,109	2,063	7,582
2012 Median	\$7.98	\$8.00	\$9.71	\$8.77	\$8.25	\$8.50
Number of Responses	298	160	28	174	318	978
Number Assistant Teachers	1,153	699	864	1,629	1,834	6,179
Teachers						
2007 Median	\$7.50	\$8.00	\$11.75	\$11.71	\$9.50	\$8.25
Number of Responses	412	262	25	187	399	1,285
Number Teachers	3,063	3,313	711	1,725	2,436	11,248
2012 Median	\$8.00	\$8.00	\$14.83	\$13.46	\$9.89	\$8.99
Number of Responses	430	251	29	176	380	1,266
Number Teachers	2,822	2,936	868	1,206	2,387	10,219
Teacher Directors						
2007 Median	\$10.00	\$10.00	\$16.38	\$13.00	\$12.19	\$11.90
Number of Responses	242	136	11	86	219	694
Number Teacher Directors	318	189	70	293	298	1,168
2012 Median	\$10.00	\$11.00	\$16.25	\$13.80	\$12.13	\$12.00
Number of Responses	301	136	15	101	236	789
Number Teacher Directors	427	192	119	337	428	1,503
Administrative Directors						
2007 Median	\$12.00	\$12.00	\$15.92	\$18.00	\$14.40	\$13.69
Number of Responses	215	195	24	113	233	780
Number Administrative Directors	293	322	168	179	297	1,259

Appendix 4.3. 2007 and 2012 Compensation of ECE Professionals: Lowest Starting Salary

Year, Number of Responses, and sample size	For Profit <4 Sites	For Profit 4+ Sites	Head Start	Public Schools	Other Nonprofit	All Types
2012 Median	\$12.00	\$14.40	\$15.32	\$19.00	\$15.86	\$15.00
Number of Responses	286	218	24	92	253	873
Number Administrative Directors	371	317	118	143	337	1,286

First Things First – Arizona’s Unknown Education Issue (2013). Early Learning Workforce Trends. Provided by AZ FTF.

Appendix 4.4. 2007 and 2012 Compensation of ECE Professionals: Highest Starting Salary

Year, Number of Responses, and sample size	For Profit <4 Sites	For Profit 4+ Sites	Head Start	Public Schools	Other Nonprofit	All Types
Assistant Teachers						
2007 Median	\$8.25	\$8.50	\$12.77	\$12.00	\$9.50	\$10.00
Number of Responses	328	212	23	162	359	1,084
Number Assistant Teachers	1,548	1,119	730	2,109	2,063	7,569
2012 Median	\$9.00	\$9.50	\$13.35	\$11.77	\$10.00	\$10.50
Number of Responses	293	160	28	174	318	978
Number Assistant Teachers	1,153	699	864	1,629	1,834	6,179
Teachers						
2007 Median	\$10.00	\$11.00	\$18.33	\$17.00	\$13.39	\$12.00
Number of Responses	412	261	25	191	397	1,286
Number Teachers	3,060	3,305	711	1,730	2,407	11,213
2012 Median	\$10.75	\$11.50	\$21.12	\$16.80	\$13.50	\$12.50
Number of Responses	431	250	29	176	381	1,267
Number Teachers	2,825	2,921	868	1,206	2,410	10,230
Teacher Directors						
2007 Median	\$13.00	\$12.60	\$18.25	\$15.76	\$15.00	\$14.50
Number of Responses	246	138	11	88	227	710
Number Teacher Directors	322	191	70	295	307	1,185
2012 Median	\$11.52	\$13.00	\$23.75	\$15.38	\$15.00	\$14.28
Number of Responses	302	136	15	101	236	790
Number Teacher Directors	428	192	119	337	428	1,504
Administrative Directors						
2007 Median	\$15.00	\$16.00	\$23.44	\$28.93	\$17.30	\$18.00
Number of Responses	225	200	24	121	246	816
Number Administrative Directors	305	325	168	188	311	1,297

Appendix 4.4. 2007 and 2012 Compensation of ECE Professionals: Highest Starting Salary

Year, Number of Responses, and sample size	For Profit <4 Sites	For Profit 4+ Sites	Head Start	Public Schools	Other Nonprofit	All Types
2012 Median	\$15.00	\$17.30	\$24-35	\$24.00	\$18.70	\$17.78
Number of Responses	286	218	25	92	253	874
Number Administrative Directors	371	317	119	143	337	1,287

First Things First – Arizona’s Unknown Education Issue (2013). Early Learning Workforce Trends. Provided by AZ FTF.

Appendix 4.5. 2013 Average Length of Employment for ECE Professionals by Provider Type

Average Length of Employment	For Profit <4 Sites	For Profit 4+ Sites	Head Start	Public Schools	Other Nonprofit	All Types
Assistant Teachers						
6 months or less	7%	8%	-	2%	3%	4%
7-11 months	8%	7%	-	1%	2%	3%
One Year	31%	22%	12%	10%	12%	16%
Two Years	19%	14%	2%	18%	18%	15%
Three Years	9%	16%	28%	38%	24%	24%
Four Years	6%	9%	30%	7%	7%	10%
5 years or More	21%	24%	28%	24%	34%	27%
Don't Know/Refused	0%	0%	-	0%	0%	0%
Teachers						
6 months or less	3%	2%	-	2%	2%	2%
7-11 months	4%	1%	-	2%	2%	2%
One Year	13%	9%	11%	13%	5%	10%
Two Years	20%	18%	2%	8%	13%	15%
Three Years	17%	23%	14%	13%	15%	18%
Four Years	9%	10%	1%	6%	7%	8%
5 years or More	33%	37%	71%	56%	55%	45%
Don't Know/Refused	0%	1%	-	-	0%	1%
Teacher Directors						
6 months or less	4%	6%	3%	2%	4%	4%
7-11 months	5%	1%	-	1%	1%	2%
One Year	8%	10%	19%	5%	3%	7%
Two Years	9%	7%	17%	4%	10%	8%
Three Years	11%	13%	29%	10%	17%	14%
Four Years	10%	12%	-	29%	15%	15%

Appendix 4.5. 2013 Average Length of Employment for ECE Professionals by Provider Type

Average Length of Employment	For Profit <4 Sites	For Profit 4+ Sites	Head Start	Public Schools	Other Nonprofit	All Types
5 years or More	52%	49%	31%	48%	50%	49%
Don't Know/Refused	1%	1%	-	1%	0%	1%
Administrative Directors						
6 months or less	4%	3%	1%	1%	3%	3%
7-11 months	3%	3%	1%	1%	2%	2%
One Year	8%	6%	5%	4%	4%	6%
Two Years	7%	8%	3%	8%	7%	7%
Three Years	10%	11%	-	7%	6%	8%
Four Years	7%	10%	2%	5%	6%	7%
5 years or More	60%	56%	89%	74%	71%	66%
Don't Know/Refused	2%	2%	-	1%	2%	2%

First Things First – Arizona's Unknown Education Issue (2013). Early Learning Workforce Trends. Provided by AZ FTF.

Appendix 4.6. 2016 Race and ethnicity for children/pregnant women enrolled in Northern Arizona Council of Governments Head Start Programs*

Race/Ethnicity	# of children/Pregnant women (Hispanic or Latino Origin)	# of children/pregnant women (Non-Hispanic or Non-Latino origin)
American Indian or Alaska Native	0	425
Asian	<25	<25
Black or African American	0	<25
Native Hawaiian or other pacific Islander	0	<25
White	651	706
Biracial/Multi-racial	<25	253
Other	0	0
Unspecified	0	<25

Office of Head Start (2016). Head Start Data. Retrieved from: <https://hhses.ohs.acf.hhs.gov/pir/>

*Northern Arizona Council of Governments is a Head Start grantee for four northern Arizona counties: Apache, Coconino, Navajo and Yavapai counties. Data presented are aggregated for all five counties

Appendix 4.7. 2016 Funded Enrollment by Program Option for Northern Arizona Council of Governments Head Start Programs*

Funded enrollment by program option -children	# of children
Center-based program- 5 days per week	
Full day enrollment	88
Of these, the number available as full-working-day	88
Of these, the number available for full-calendar-year	0
Part-day enrollment	0
Of these, the number in double sessions	0
Center-based program- 4 days per week	
Full-day enrollment	198
Part-day enrollment	1,109
Of these, the number in double sessions	0
Home-based program	308
Combination option program	0
Family child care program	0
Of these, the number available as full-working-day enrollment	0
Of these, the number available for full-calendar-year	0
Locally designed option	0

Office of Head Start (2016). Head Start Data. Retrieved from: <https://hses.ohs.acf.hhs.gov/pir/>

*Northern Arizona Council of Governments is a Head Start grantee for four northern Arizona counties: Apache, Coconino, Navajo and Yavapai counties. Data presented are aggregated for all five counties

Appendix 4.8. Quality First Enrollment by Quality First Star Ratings for Centers and Providers

Center Data	FTF Navajo/Apache Region**
Total Quality First licensed participants	<25
Total Licensed Capacity 3-5 Star	106
Number of sites 3-5 Star	<25
Number of Non-Quality First licensed centers	27
Total Non-Quality First licensed providers	42

Arizona First Things First (July 2015). Quality First.

Appendix 4.9. 2012-2015 Number of children receiving screenings and services from the Division of Developmental Disabilities

Year	Arizona	FTF Navajo/Apache Region
Total screenings for services		
2012	1,401	0
2013	1,045	0
2014	943	0
2015	1,196	0
Total number of children (ages 0-2) receiving services		
2012	2,646	<25
2013	2,693	<25
2014	2,341	<25
2015	2,336	<25
Total number of children (ages 3-5) receiving services		
2012	2,536	<25
2013	2,600	<25
2014	2,533	<25
2015	2,540	<25

Arizona Department of Economic Security (2015). Division of Developmental Disabilities. Provided by AZ FTF.

Appendix 4.10. 2012-2015 Service visits for developmental needs received by children
(unduplicated count)

Year	Arizona	FTF Navajo/Apache Region
Total number of visits for children ages 0-2		
2012	168,992	313
2013	158,496	554
2014	130,486	1,092
2015	120,519	551
Total number of visits for children ages 3-5		
2012	363,468	1,934
2013	374,440	1,584
2014	367,590	1,699
2015	358,322	821

Arizona Department of Economic Security (2015). Division of Developmental Disabilities. Provided by AZ FTF.

Appendix 4.11. Types of Disabilities of Preschool Children

Year	Type of Disability	Arizona	FTF Navajo/Apache Region
2012			
	Deaf-Blind	<25	<25
	Developmental Delay	3,672	38
	Hearing impaired	160	<25
	PSD	2,164	<25
	Speech/Language Impairment	3,560	49
	Visual Impairment	111	<25
	Total	9,680	104
2013			
	Deaf-Blind	<25	-
	Developmental Delay	3,774	30
	Hearing impaired	157	-
	PSD	2,187	<25
	Speech/Language Impairment	3,437	49
	Visual Impairment	118	<25
	Total	9,689	88
2014			
	Deaf-Blind	<25	-
	Developmental Delay	3,747	41
	Hearing impaired	154	-
	PSD	1,921	<25
	Speech/Language Impairment	3,503	35
	Visual Impairment	105	<25
	Total	9,444	86
2015			
	Deaf-Blind	3,571	-
	Developmental Delay	63	41
	Hearing impaired	1,859	-

Appendix 4.11. Types of Disabilities of Preschool Children

Year	Type of Disability	Arizona	FTF Navajo/Apache Region
	PSD	3,155	<25
	Speech/Language Impairment	54	35
	Visual Impairment	-	<25
	Total	8,702	84

Arizona Department of Education (2015). Special Education. Provided by AZ FTF.

Appendix 4.12. Types of Speech, Language, and Hearing Service Providers

Types of Service Provider	Navajo County	Apache County
Number of Audiologists	1	0
Number of Dispensing Audiologists	4	0
Number of Specialized DUI/DVTX Audiologists	0	1
Number of Hearing Aid Dispensers	3	1
Number of Special Licensing Pathologists	0	0
Number of Speech Language Assistants	4	5
Number of Speech Language Pathologists	24	13
Number of Speech Language Pathologists (Limited Licensed)	6	4
Number of Temporary Hearing Aid Dispensers	0	0
Number of Temporary Speech Language Pathologists	1	0

Arizona Department of Health Services (2016). Speech, Language and Hearing Providers. Retrieved from <http://azdhs.gov/licensing/special/index.php#databases>

Appendix 4.13. Infants and toddlers with an Individual Family Service Plan (IFSP) who received an evaluation assessment and IFSP within 45 days of referral^{1*}

Indicators	Federal Fiscal Year 2012	Federal Fiscal Year 2013
Infants and toddlers with IFSPs who receive timely services**	87%	82.19%
Infants and toddlers who had initial IFSP within 45 days ***	94%	75.85%
Infants and toddlers who primarily receive services in natural environment ****	95%	94.67%

Data were gathered from AzEIP's SPP/APR which are submitted in federal reports can be found on <https://www.azdes.gov/reports>.

**Monitoring data; cannot report in the requested format for the requested years

***Cannot provide child level data at this time with addresses and zip codes

****Cannot provide child level data with addresses and zip codes for the requested years

Appendix 5.1. 2014-2016 Living Hope Primary Reason for Visit of Clients Served

Primary Purpose for Visit	2014 n=3,340	2015 n=2,959	2016 N=1,461
Earn While You Learn	1,909	1,700	741
Baby/maternity Supplies	439	387	130
Pregnancy Test	315	286	323
Life Coaching	187	274	115
EWYL Spanish	201	109	27
Ultrasound	72	56	<25
Client Support	115	<25	<25
Group Class	<25	66	33
Unknown	25	34	<25
Crisis Support	27	<25	<25
Other	<25	<25	<25
Bible Study	0	0	<25
FPU	0	<25	0
Ultrasound Model	<25	<25	0
Post-Abortion	<25	0	0
Group Class	<25	0	0
Crisis Call	<25	<25	0
DCS	0	0	<25
EarlyStart/HealthySteps	0	0	<25

Living Hope Centers (2016). Case Intake Form. Provided by AZ FTF

Appendix 5.2 2014-2016 Living Hope Primary Language of Clients Served

Primary Language	2014 n=1,109	2015 n=634	2016 (Jan. –Jun.) n=453
English	863	547	354
Spanish	94	31	75
Unknown	137	35	13
Other	13	21	11
German	1	0	0
Russian	1	0	0

Living Hope Centers (2016). Case intake Form. Provided by AZ FTF

Appendix 5.3. 2014-2016 Living Hope Ethnicity of Clients Served

Ethnicity	2014 n=1,109	2015 n=634	2016 n=453
African	1	1	0
African American	3	0	13
Asian	3	1	1
Caribbean	0	1	0
Caucasian	456	254	96
East Indian	1	1	1
First Indian	0	1	1
Hispanic	187	76	198
Jewish	1	0	0
Native American	366	261	120
Other	32	6	5
Unknown	59	32	18

Living Hope Centers (2016). Case intake Form. Provided by AZ FTF

Appendix 5.4. 2014-2016 Living Hope Clients Abortion and Miscarriage History

	2014 n=1,109	2015 n=634	2016 (Jan. - Jun.) n=453
No Prior Abortion or Miscarriages	1,080	598	428
One Abortion or Miscarriages	<25	27	<25
Two Abortion or Miscarriages	<25	<25	<25
Three or More Abortions or Miscarriages	<25	<25	0

Living Hope Centers (2016). Case intake Form. Provided by AZ FTF

Appendix 5.5. 2014-2016 Living Hope Gender by County of Clients Served

	2014 n=1,109	2015 n=634	2016 (Jan. – Jun.) n=453
Arizona			
All sex	1,056	548	366
Female	845	453	339
Male	211	95	24
Unknown	0	0	3
Alpine			
All Sex	2	2	1
Female	2	1	1
Male	0	1	0
Unknown	-	-	-
Concho			
All Sex	14	11	5
Female	10	10	5
Male	4	1	0
Unknown	-	-	-
Heber			
All Sex	2	0	0
Female	2	0	0
Male	-	-	-
Unknown	-	-	-
Holbrook			
All Sex	2	1	0
Female	1	1	0
Male	1	0	0
Unknown	-	-	-

Appendix 5.5. 2014-2016 Living Hope Gender by County of Clients Served

	2014 n=1,109	2015 n=634	2016 (Jan. – Jun.) n=453
Joseph City			
All Sex	0	0	1
Female	-	-	-
Male	-	-	-
Unknown	0	0	1
Saint Johns			
All Sex	19	2	3
Female	14	2	3
Male	5	0	0
Unknown	-	-	-
Show Low			
All Sex	296	108	37
Female	239	90	31
Male	57	18	6
Unknown	-	-	-
Snowflake			
All Sex	25	18	4
Female	19	16	3
Male	6	2	1
Unknown	-	-	-
Vernon			
All Sex	5	1	6
Female	5	1	3
Male	0	0	3
Unknown	-	-	-

Appendix 5.5. 2014-2016 Living Hope Gender by County of Clients Served

	2014 n=1,109	2015 n=634	2016 (Jan. – Jun.) n=453
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Living Hope Centers (2016). Case intake Form. Provided by AZ FTF

Appendix 5.6. 2014-2016 Living Hope Religion of Clients Served

Religion	2014 (n=1,109)	2015 (n=634)	2016 (Jan. –Jun.)
Christian	500	338	208
Christian (Catholic)	123	61	114
None	115	98	58
Unknown	145	43	17
Mormon	81	55	26
Native American	86	14	12
Other	36	13	9
Jehovah's Witness	9	3	2
Atheist	4	3	4
WCCA	6	3	1
Buddhist	2	1	0
Hindu	1	2	0
Jewish	1	0	2

Living Hope Centers (2016). Case intake Form. Provided by AZ FTF

Appendix 5.7. 2014-2016 Living Hope Income of Clients Served

Income Level	2014 n=1,109	2015 n=634	2016 (Jan. –Jun.) n=453
\$0-\$14,000	201	130	177
\$15,000-\$29,000	96	55	79
\$30,000-\$44,000	37	23	18
\$45,000-\$59,000	13	21	2
\$60,000+	31	22	7
Unknown	155	31	18
Dependent	104	72	42
Unemployed	371	212	74
Welfare/SSI	101	65	36

Living Hope Centers (2016). Case intake Form. Provided by AZ FTF

Appendix 5.8. 2014-2016 Living Hope Martial Status Clients Served

Marital Status	2014 n=1,109	2015 n=634	2016 (Jan. –Jun.) n=453
Divorced	59	39	23
Engaged	70	30	22
Living Together	164	116	58
Married	322	189	136
Never Married	99	69	112
Remarried	11	5	2
Separated	28	17	7
Single	227	145	78
Unknown	121	19	11
Widowed	8	5	4

Living Hope Centers (2016). Case intake Form. Provided by AZ FTF

Appendix 5.9. 2014-2016 Living Hope Students Status Clients Served

Student Status	2014 n=1,109	2015 n=634	2016 (Jan. – Jun.) n=453
College or University	106	35	32
High School	131	54	37
Middle School Jr. High	15	3	5
Not Student	678	486	354
Trade School/Other	18	9	7
Unknown	161	47	18

Living Hope Centers (2016). Case intake Form. Provided by AZ FTF

Appendix 5.10. 2014-2016 Living Hope Education Level of Clients Served

Student Status	2014 n=1,109	2015 n=634	2016 (Jan. – Jun.)
Graduate School	42	21	5
Graduated College	52	29	20
High School or GED	442	221	156
Less than High School	185	178	160
Some College	177	122	78
Some Graduate School	14	9	2
Trade School	19	12	6
Unknown	178	42	26

Living Hope Centers (2016). Case intake Form. Provided by AZ FTF

Appendix 5.11. 2014-2016 Living Hope Reported Victims of Abuse for Clients Served

Victims of Abuse	2014 n=1,109	2015 n=634	2016 n=453
No	939	486	333
Yes	120	148	120

Living Hope Centers (2016). Case intake Form. Provided by AZ FTF

Appendix 5.12. 2015 Maternal Delivery Data of Clients Served by Summit Healthcare Regional Medical Care

Delivery Types	2015
Vaginal Deliveries	717
Inductions (not augmentations)	229
Instrument Deliveries (forceps, vacuum)	46
C-Section Deliveries	211
Primary	84
Repeat	127
Maternal Deliveries (Live Births Only)	928
VBAC Deliveries	-
Successful	<25
Failed	<25
Mothers with no Prenatal Care	<25
Anesthesia Data	
Regional Analgesia for vaginal Deliveries (epidural and/or spinal)	548
Regional Anesthesia for C-Sec Deliveries (epidural and/or spinal)	203
General Anesthesia for C-Sec Deliveries	<25

Summit Healthcare regional Medical Center (2015). Provided by AZ FTF

Appendix 5.13. 2009-2014 Number of Births that Were Covered by ACHCCCS or Indian Health

Year	Statewide	FTF Navajo/Apache Region
2009	51,046	751
2010	48,014	720
2011	46,507	628
2012	46,923	582
2013	46,872	563
2014	47,234	627

Vital Statistics Birth (2014). Provided by AZ FTF.

Appendix 5.14. Enrollment Health Insurance Information from Northern Arizona Council of Governments Head Start Programs*

	# of children at enrollment	# of children at end of enrollment year
Number of Children with Health Insurance	3,107	3,111
Number of Enrollment Medicaid and/or CHIP	2,771	2,766
Number of enrollment in State-Only Funded Insurance (for example, medically indigent insurance)	41	40
Number with private health insurance (for example, parent's insurance)	214	216
Number with Health Insurance other than listed above, for example, Military Health (Tri-Care or CHAMPUS)	81	89
Number of Children with no health insurance	142	138
Number of Children with an ongoing source of continuous accessible health care	3,124	3,146
Number of children receiving medical services through the Health service	28	27

Office of Head Start (2016). Head Start Data. Retrieved from: <https://hses.ohs.acf.hhs.gov/pir/>

*Northern Arizona Council of Governments is a Head Start grantee for four northern Arizona counties: Apache, Coconino, Navajo and Yavapai counties. Data presented are aggregated for all five counties

Appendix 5.15. 2012-2015 Reportable Illnesses for all Ages

Year	Arizona	Navajo County	Apache County
2012	20,690	197	160
2013	13,913	227	158
2014	13,211	217	119
2015	15,966	260	173

Arizona Department of Health Services (2015). Communicable Disease Summary.
Retrieved from <http://www.azdhs.gov/preparedness/epidemiology-disease-control/index.php#data-stats-archive>

Appendix 5.16. 2012-2014 Total Number of Asthma Related Visits to ER

Year	Arizona	FTF Navajo/Apache Region
2012	5,450	<25
2013	4,890	27
2014	4,560	<25

Asthma ER Visits (2014). Provided by AZ FTF.

Appendix 5.17. 2009-2014 Child Fatality Rates for Children under 18

Year	Arizona	Navajo County	Apache County
2009	947	2%	3%
2010	862	3%	1%
2011	837	3%	2%
2012	854	3%	1%
2013	810	3%	2%
2014	834	2%	2%

Arizona Department of Health Services (2015). Arizona Child Fatality Review. Retrieved from <http://www.azdhs.gov/documents/prevention/women-children-health/reports-fact-sheets/child-fatality-review-annual-reports/cfr-annual-report-2015.pdf>

Appendix 5.18. 2009-2014 Manner of Death for Children Under 18

Manner of Death	Arizona
2009	
Natural	68%
Accident	17%
Undetermined	7%
Homicide	5%
Suicide	3%
2010	
Natural	66%
Accident	19%
Undetermined	9%
Homicide	4%
Suicide	3%
2011	
Natural	64%
Accident	20%
Undetermined	6%
Homicide	5%
Suicide	5%
2012	
Natural	63%
Accident	22%
Undetermined	5%
Homicide	5%
Suicide	4%
2013	

Appendix 5.18. 2009-2014 Manner of Death for Children Under 18

Manner of Death	Arizona
Natural	63%
Accident	23%
Undetermined	5%
Homicide	6%
Suicide	3%
2014	
Natural	66%
Accident	22%
Undetermined	4%
Homicide	4%
Suicide	5%

Arizona Department of Health Services (2015). Arizona Child Fatality Review. Retrieved from <http://www.azdhs.gov/documents/preventiwon/women-children-health/reports-fact-sheets/child-fatality-review-annual-reports/cfr-annual-report-2015.pdf>

*Does not include deaths of pending manner

Appendix 5.19. 2014 Manner of Death for Children 1-4 Years of Age

Manner of Death	Arizona
2014	
Natural Accident	44.2%
Accident	40.0%
Undetermined	5.3%
Homicide	15.8%
Suicide	0.0%

Arizona Department of Health Services (2015). Arizona Child Fatality Review. Retrieved from <http://www.azdhs.gov/documents/prevention/women-children-health/reports-fact-sheets/child-fatality-review-annual-reports/cfr-annual-report-2015.pdf>

Does not include deaths of pending manner

Appendix 5.20. Statewide 2014 Injury-Related Outcomes for Children Ages 0-5

	Infants less than 1 year		Children Ages 1-5	
	Hospital Discharges	ED visits	Hospital Discharges	Ed Visits
Unintentional Injuries	212	5082	695	40,961
Assault/Abuse	69	<25	39	119
Undetermined/Other Intent	<25	61	<25	123
Total Injury-Related Cases	290	5,165	747	41,350

Arizona Special Emphasis Report (2014). Infant and Early Childhood Injury.

Appendix 5.21. 2009-2014 Women Who Received Prenatal Care

Number of Prenatal Care Visits	Year	Arizona	FTF Navajo/Apache Region
Receive no Prenatal Care			
	2009	1.8%	0.8%
	2010	1.6%	0.9%
	2011	1.6%	0.8%
	2012	1.2%	1.0%
	2013	1.4%	1.0%
	2014	2.3%	1.5%
Received fewer than five prenatal care visits			
	2009	3.4%	6.5%
	2010	3.3%	5.6%
	2011	3.4%	3.2%
	2012	3.6%	4.9%
	2013	3.8%	4.0%
	2014	4.4%	4.6%
5-8 prenatal visits			
	2009	15.6%	26.7%
	2010	14.4%	28.5%
	2011	14.0%	21.4%
	2012	13.7%	18.2%
	2013	13.5%	20.0%
	2014	14.7%	21.8%
9-12 prenatal visits			
	2009	49.1%	50.6%
	2010	49.0%	47.7%
	2011	47.0%	48.3%

Appendix 5.21. 2009-2014 Women Who Received Prenatal Care

Number of Prenatal Care Visits	Year	Arizona	FTF Navajo/Apache Region
	2012	46.8%	51.6%
	2013	46.4%	50.6%
	2014	47.6%	50.4%
13 or more prenatal visits			
	2009	30.0%	15.0%
	2010	31.7%	16.4%
	2011	34.0%	25.7%
	2012	34.7%	23.7%
	2013	34.9%	24.3%
	2014	31.1%	21.9%

Vital Statistics Birth (2014). Provided by AZ FTF.

Appendix 5.22. Tobacco and Alcohol Use During Pregnancy 2009- 2014

Year	Mother's Substance use	Arizona	FTF Navajo/Apache Region
2009			
	Drinker, Nonsmoker	0.3%	0.7%
	Smoker, Nondrinker	4.6%	9.8%
	Smoker and Drinker	0.2%	<6
	Nonsmoker and Nondrinker	94.9%	89.1%
2010			
	Drinker, Nonsmoker	0.3%	0.9%
	Smoker, Nondrinker	4.4%	9.6%
	Smoker and Drinker	0.2%	<6
	Nonsmoker and Nondrinker	95.1%	88.6%
2011			
	Drinker, Nonsmoker	0.4%	0.8%
	Smoker, Nondrinker	4.1%	11.4%
	Smoker and Drinker	0.2%	<6
	Nonsmoker and Nondrinker	95.4%	87.1%
2012			
	Drinker, Nonsmoker	0.3%	<6
	Smoker, Nondrinker	4.0%	9.7%
	Smoker and Drinker	0.2%	<6
	Nonsmoker and Nondrinker	95.5%	89.8%
2013			
	Drinker, Nonsmoker	0.2%	<6
	Smoker, Nondrinker	4.3%	9.4%
	Smoker and Drinker	0.2%	<6
	Nonsmoker and Nondrinker	95.3%	90.2%

Appendix 5.22. Tobacco and Alcohol Use During Pregnancy 2009- 2014

Year	Mother's Substance use	Arizona	FTF Navajo/Apache Region
2014			
	Nonsmoker	96.0%	91.0%
	Light Smoker	2.7%	7.4%
	Heavy Smoker	1.3%	1.8%

Arizona Department of Health Services (2014). Vital Statistics. Provided by AZ FTF.

* Sum rounded to nearest tens unit due to non-zero addend less than 6** Alcohol consumption was not reported for 2014; as such data on smoking had additional categories

Appendix 5.24. Drug Withdrawal Syndrome In Infants of Drug Dependent Mothers [†]

Year	Arizona	Navajo County	Apache County
2010	260	0	0
2011	360	0	0
2012	360	10	0
2013	390	0	0
2014	470	10	0

Arizona Department of Health Service (2014)/ Drug withdrawal syndrome in infants of dependent mothers by race/ethnicity and county of residence.

Retrieved from

<http://azdhs.gov/plan/hip/index.php?p=drugs>

[†]Sum rounded to nearest tens unit due to non-zero addend less than 6

Appendix 5.25. 2009- 2014 Infant Mortality and At-Risk Births

Year		Arizona	FTF Navajo/Apache Region
Baby had low birthweight (5.5 lbs or less)			
	2009	7.1%	7.3%
	2010	7.1%	7.8%
	2011	7.0%	7.6%
	2012	6.9%	8.4%
	2013	6.9%	6.9%
	2014	7.0%	8.1%
% of Premature births (under 37 weeks)			
	2009	10.0%	10.1%
	2010	9.6%	8.4%
	2011	9.3%	8.6%
	2012	9.2%	7.7%
	2013	9.0%	7.7%
	2014	9.0%	7.6%
Infant Mortality Rate			
	2009	0.6%	<6
	2010	0.6%	<6
	2011	0.6%	<6
	2012	0.6%	<6
	2013	0.5%	<6
	2014	0.6%	<6
Births with congenital anomalies			
	2009	0.7%	3.1%
	2010	0.6%	1.9%
	2011	0.6%	1.3%

Appendix 5.25. 2009- 2014 Infant Mortality and At-Risk Births

Year		Arizona	FTF Navajo/Apache Region
	2012	0.6%	1.5%
	2013	0.7%	<6
	2014	0.5%	0.8%

Arizona Department of Health Services (2014). Vital Statistics. Provided by AZ FTF.

Appendix 5.26. Neonates Served by Summit Healthcare Regional Medical center: Birthweight Distribution

Birthweight Distribution	2015 Total
Birth Weight Distribution in Grams (Inborn Only)	
499 or less	0
500-999	0
1000-1499	<25
Very Low Birth Weight	<25
1500-1999	<25
2000-2499	52
Low Birth Weight	58
2500-2999	198
3000-3499	400
3500-3999	233
4000 or greater	47
≥ 2500	878
Unknown	0

Summit Healthcare Regional Medical Center (2015). Provided by AZ FTF

Appendix 5.27. 2015 Neonates Served by Summit Healthcare Regional Medical Center: Perinatal Transport

Maternal Transports	
Mat Transports Sent	37
Mat Transports Received	71
Neonatal Transport Sent	
Nao Emergent/Forward Sent	<25
Neo Back Transports Sent	0
Neonatal Transports Received	
Neo Emergent/ Forward Received	<25
Neo Back Transports Received	<25

Summit Healthcare Regional Medical Center (2015). Provided by AZ FTF

Appendix 5.28. 2015 Neonates Served by Summit Healthcare Regional Medical Center: Born Low APHARS

Infant Born with Low APGARS	2015 (N=928)
5 minute APGAR 6 or less	<25

Summit Healthcare Regional Medical Center (2015). Provided by AZ FTF

Appendix 5.29. 2015 Neonates Served by Summit Healthcare Regional Medical Center: Gestational Age

Gestational Age	2015
27 weeks and less	0
28-31 weeks	0
32-35 weeks	<25
36-38 weeks	273
39 weeks and older	645
Unknown	<25

Summit Healthcare Regional Medical Center (2015). Provided by AZ FTF

Appendix 5.30. 2015 Neonates Served by Summit Healthcare Regional Medical Center: Admissions to CCN and/or NICU

	2015 (N=928)
Level II Centers Only – Admissions to CCN	
Inborn Admissions to CCN	93
Transports Received Admissions to CCN	<25
Total Admissions to CCN	113
Level IIE Centers Only – Admissions to CCN/NICU	0
Level III Centers Only – Admissions to NICU	0

Summit Healthcare Regional Medical Center (2015). Provided by AZ FTF

Appendix 5.31. 2015 Perinatal Mortality Data

	2015
Total Maternal Deaths	0
Inborn Neonatal Deaths	<25
Transports Received Neonatal Deaths	0

Summit Healthcare Regional Medical Center (2015). Provided by AZ FTF

Appendix 5.32. 2009-2014 Mothers who were not married

Year	Arizona	FTF Navajo/Apache Region
Mother was not married		
2009	44.9%	39.2%
2010	44.4%	41.1%
2011	44.4%	42.1%
2012	45.5%	39.1%
2013	45.7%	37.9%
2014	45.5%	43.0%

Arizona Department of Health Services (2014). Vital Statistics. Provided by AZ FTF

Appendix 5.33. 2012-2015 Pre-Pregnancy Overweight and Obesity Rates

Indicators	Arizona	FTF Navajo/Apache Region
2012		
Total	52,600	640
% Pre-Pregnancy under weight	4.8%	3.8%
% Pre-Pregnancy normal weight	41.2%	46.1%
% Pre-Pregnancy overweight	26.7%	25%
% Pre-Pregnancy obese	27.4%	25.2%
2013		
Total	51,894	616
% Pre-Pregnancy under weight	4.7%	4.9%
% Pre-Pregnancy normal weight	40.1%	42.4%
% Pre-Pregnancy overweight	26.8%	25.7%
% Pre-Pregnancy obese	28.4%	27.1%
2014		
Total	53,717	619
% Pre-Pregnancy under weight	4.6%	5.5%
% Pre-Pregnancy normal weight	40.0%	42%
% Pre-Pregnancy overweight	26.4%	25.7%
% Pre-Pregnancy obese	29.0%	26.8%
2015		
Total	58,495	724
% Pre-Pregnancy under weight	4.1%	4.1%
% Pre-Pregnancy normal weight	38.6%	41.0%
% Pre-Pregnancy overweight	26.8%	25.1%
% Pre-Pregnancy obese	30.5%	29.7%

Arizona Department of Health Services (2015). Women, Infants & Children (WIC). Provided by AZ FTF.

Appendix 5.34. 2015 Reported Medical Issues in Northern Arizona Council of Governments Head Start Programs*

Chronic Conditions	# of children
Anemia	11
Asthma	232
Hearing Difficulties	6
Vision Problems	50
High Lead Levels	1
Diabetes	4

Office of Head Start (2016). Head Start Data. Retrieved from: <https://hses.ohs.acf.hhs.gov/pir/>

*Northern Arizona Council of Governments is a Head Start grantee for four northern Arizona counties: Apache, Coconino, Navajo and Yavapai counties. *Data presented are aggregated for all five counties*

Appendix 5.35. Number of all Children Body Mass Index from Northern Arizona Council of Governments Head Start Programs*

	# of children at enrollment
Underweight (BMI less than 5th percentile for child's age and sex)	97
Healthy weight (at or above 5th percentile and below 85th percentile for child's age and sex)	1,628
Overweight (BMI at or above 85th percentile and below 95th percentile for child's age and sex)	391
Obese (BMI at or above 95th percentile for child's age and sex)	483

Office of Head Start (2016). Head Start Data. Retrieved from: <https://hses.ohs.acf.hhs.gov/pir/>

*Northern Arizona Council of Governments is a Head Start grantee for four northern Arizona counties: Apache, Coconino, Navajo and Yavapai counties. *Data presented are aggregated for all five counties*

Appendix 5.36. 2011-2015 Navajo County Breastfeeding Rates Low-Income Infants in WIC

Year	Arizona	Navajo County
Breastfed at least 3 months		
2011	39%	42%
2010	38%	42%
2013	40%	46%
2014	39%	51%
2015	39%	49%
Breastfed at least 18 months		
2011	6%	8%
2012	6%	8%
2013	7%	8%
2014	7%	11%
2015	6%	12%
Exclusive Breastfeeding at least 3 months		
2011	11%	27%
2012	11%	29%
2013	11%	27%
2014	-	-
2015	18%	38%

Women, Infants & Children (2015). Breastfeeding Data. Provided by AZ FTF

Appendix 5.37. 2015 Immunization Received from Northern Arizona Council of Governments Head Start Programs*

	# of children at enrollment	# of children at the end of enrollment year
Number of children who have been determined by a health care professional to be up-to-date on all immunizations appropriate for their age	3,099	3,174
Number of children who have been determined by a health care professional to have received all immunizations possible at this time, but who have not received all immunizations appropriate for their age	37	22
Number of children who meet their state's guidelines for an exemption from immunizations	32	30
Number of all children who are up-to-date on a schedule of age-appropriate preventive and primary health care, according to the relevant state's EPSDT schedule for well child care	1,319	2,947

Office of Head Start (2016). Head Start Data. Retrieved from: <https://hses.ohs.acf.hhs.gov/pir/>

*Northern Arizona Council of Governments is a Head Start grantee for four northern Arizona counties: Apache, Coconino, Navajo and Yavapai counties. Data presented are aggregated for all five counties

Appendix 5.38. 2015 Oral Health Information from Northern Arizona Council of Governments Head Start Programs*

	# of children at enrollment
Number of Children with Continuous Accessible Dental Care provided by a dentist	3,059
Number of Children who received preventive care since last year's PIR was reported	2,525
Number of all children, including those enrolled in Medicaid or CHIP, who have completed a professional dental examination since last year's PIR was reported	2,424
Of these, the number of children diagnosed as needing treatment since last year's PIR was reported	722
Of these, the number of children who have received or are receiving treatment	630

Office of Head Start (2016). Head Start Data. Retrieved from: <https://hses.ohs.acf.hhs.gov/pir/>

*Northern Arizona Council of Governments is a Head Start grantee for four northern Arizona counties: Apache, Coconino, Navajo and Yavapai counties. Data presented are aggregated for all five counties

Appendix 5.39. 2014-2016 Children who received Vision Screening by Gender and Zip Code and Passed the Vision Screening

Zip Code	Gender	Number of children who passed vision screening
(June 2014 -May 2015)		
85541	Female	26
	Male	29
85901	Female	135
	Male	127
85902	Female	8
	Male	7
85929	Female	26
	Male	3
85933	Female	30
	Male	16
85935	Female	18
	Male	23
85937	Female	18
	Male	10
85938	Female	6
	Male	24
85939	Female	3
	Male	8
86025	Female	9
	Male	6
June 2015-May 2016		
85007	Female	4
	Male	3
85541	Female	10
	Male	6

Appendix 5.39. 2014-2016 Children who received Vision Screening by Gender and Zip Code and Passed the Vision Screening

Zip Code	Gender	Number of children who passed vision screening
85901	Female	59
	Male	58
85929	Female	1
	Male	2
85933	Female	17
	Male	23
85937	Female	18
	Male	12
85939	Female	1
	Male	0
86025	Female	9
	Male	20
June 2016-Oct 2016		
85901	Female	14
	Male	16
85929	Female	4
	Male	5
85933	Female	11
	Male	10
85937	Female	16
	Male	15
85938	Female	11
	Male	14
86047	Female	1
	Male	0

Overgaard Ponderosa Lions Foundation (2016). Provided by AZ FTF.

Appendix 5.40. 2014-2016 Children who received Vision Screening by Gender and Zip Code and were Referred

Zip Code	Gender	Number of children who referred exam
(June 2014-May 2015)		
85541	Female	3
	Male	3
85901	Female	16
	Male	13
85902	Female	2
	Male	1
85929	Female	5
	Male	2
85933	Female	8
	Male	4
85935	Female	1
	Male	1
85937	Female	3
	Male	8
85938	Female	5
	Male	3
86025	Female	2
	Male	1
June 2015 - May 2016		
85007	Female	1
	Male	1
85901	Female	7
	Male	6
85933	Female	3

Appendix 5.40. 2014-2016 Children who received Vision Screening by Gender and Zip Code and were Referred

Zip Code	Gender	Number of children who referred exam
	Male	4
85937	Female	8
	Male	8
86025	Female	6
	Male	8
June 2016 – Oct. 2016		
85901	Female	1
	Male	3
85933	Female	6
	Male	1
85937	Female	5
	male	2
85938	Female	1
	Male	0

Overgaard Ponderosa Lions Foundation (2016). Provided by AZ FTF.

Appendix 6.1 Juvenile arrests of children ages 8-17 for violent crimes

	Arizona	Navajo County	Apache County
2004	1,569	33	7
2005	1,576	31	7
2006	1,647	25	8
2007	1,604	23	2
2008	1,630	46	1
2009	1,355	32	1
2010	1,245	40	1
2011	1,082	34	5
2012	1,048	25	4
2013	961	15	9
2014	827	8	5

Kids Count Data Center (2014). Juvenile Arrests. Retrieved from <http://datacenter.kidscount.org/>

Appendix 6.2 Juvenile arrests of children ages 8-17 for drug crimes

	Arizona	Navajo County	Apache County
2004	5,587	97	14
2005	5,396	55	28
2006	5,225	61	45
2007	5,456	84	8
2008	5,440	85	17
2009	5,507	90	7
2010	5,417	78	6
2011	5,109	75	13
2012	4,550	128	16
2013	3,939	46	25

Kids Count Data Center (2014). Juvenile Arrests. Retrieved from <http://datacenter.kidscount.org/>

Appendix B

Subregional Fact Boxes

The following pages include the subregional fact boxes for eight subregions of the FTF Navajo/Apache Region. The subregions are grouped by school district into six subareas:

- Area 1: Vernon/Alpine/Round Valley
- Area 2: Concho/St. Johns
- Area 3: Holbrook/Joseph City/Sanders
- Area 4: Blue Ridge
- Area 5: Show Low/Heber
- Area 6: Snowflake