

 **FIRST THINGS FIRST**

Navajo/Apache Region



2022

NEEDS AND ASSETS
REPORT

INTRODUCTORY SUMMARY AND ACKNOWLEDGMENTS

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

This Needs and Assets Report for the FTF 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 report is organized by topic areas pertinent to young children in the region, such as population characteristics or educational indicators. Within each topic area are sections that set the context for why the data found in the topic areas are important (Why it Matters), followed by a section that includes available data on the topic (What the Data Tell Us).

The 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 and education of young children in their care. 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. To that end, this information may be useful to local stakeholders 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 communities throughout the region.

Acknowledgements

The FTF Navajo/Apache Regional Council wishes to thank all of the federal, state and local partners whose contributions of data, ongoing support and partnership with First Things First made this report possible. These partners included the Arizona Departments of Administration (Employment and Population Statistics), Child Safety, Economic Security, Education, and Health Services; the Arizona Health Care Cost Containment System; Child Care Resource and Referral; and the U.S. Census Bureau. Local partners included Summit Healthcare Regional Medical Center and various local experts. We are especially grateful for the spirit of collaboration exhibited by all our partners during an unprecedented

time of crisis for our state and our nation.

We also want to thank parents and caregivers, local service providers and members of the public who attended regional council meetings and voiced their opinions, as well as all the organizations working to transform the vision of the regional council into concrete programs and services for children and families in the FTF Navajo/Apache Region.

Lastly, we want to acknowledge the current and past members of the FTF Navajo/Apache Regional Partnership Council whose vision, dedication, and passion have been instrumental in improving outcomes for young children and families within the region. As we build upon those successes, we move ever closer to our ultimate goal of creating a comprehensive early childhood system that ensures children throughout Arizona are ready for school and set for life.

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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 to 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 encompasses the southern areas of Navajo and Apache counties, which are located in the northeast 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 over 11,000 people. Other cities in the region include 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 58 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 region. The Council's priorities include:

- Improving the quality of child care and preschool programs;
- Scholarships for children to access high-quality early learning;
- Oral health screenings and fluoride varnishes;
- Supporting access to healthcare for children; and
- Supporting the needs of infants and toddlers in the child welfare system.

The following section provides a summary of the key findings for each of the six domains of the 2022 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. The considerations provided in this report 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.

Key Findings

Population Characteristics

The demographic profile of residents in a particular community helps policy and decision makers make effective decisions that will positively impact the community's well-being. The FTF Navajo/Apache Region has a total population of 73,083 residents and close to 6,000 children under the age of six. The total number of births has decreased slightly in recent years, and the population of zero to five year olds is projected to decrease over the next several decades. The race and ethnicity breakdown of the adult population in the region is less diverse than the rest of the state with 80% identifying as white, compared to 63% in the state, and 86% identifying 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 shift in coming years and more linguistically and culturally responsive services may be needed as the population grows more diverse.

The majority of households with children ages zero to five are married-couple households, with about 20% of households led by single females and ten percent led by single males, slightly less than the state. Additionally, about 1,400 children under the age of 18 live in the same household as a grandparent.¹ Of children under 18 that live in the same household as a grandparent, forty two percent are primarily cared for by a grandparent, compared to 50% for the state. The high percentage of children growing up in dual-parent households (65%) is an asset for the region, as is the experience of children living in a multigenerational household, since this means the children likely have more permanent connections with adult role models. Though living with grandparents can be an asset, it can also indicate that the child's parents are emotionally or financially unable to care for their child on their own and there may be need for resources and parenting education for grandparents who are taking on the task of raising a second generation. Additionally, about a third of children are living in single-family households which may indicate a sizable population of children in need for child care.

Economic Circumstances

As children are growing and developing, outcomes such as school achievement, physical health, and emotional well-being are all impacted by a child's economic situation.² The average unemployment rates for both the state and the two counties have decreased and the labor force has generally stayed consistent since 2010, indicating the county as a whole is healthy and growing. Almost all households

¹ U.S. Census Bureau; American Community Survey. 2019 American Community Survey 5-Year Estimates, Tables B05009 & B17006; generated by AZ FTF; using American FactFinder; <<http://factfinder2.census.gov>>

² Brooks-Gunn, J., Duncan, G. (1997). *The effects of poverty on children. The future of children*, 55-71.

with children ages zero to five in the region (89%) have at least one parent who is employed. The median annual income for families with children under 18 in both Navajo and Apache County is consistently lower than the statewide median for all household types. Married-couple families have a median income of about \$65,000 in Navajo County and about \$51,000 in Apache County, while single females have a median income of about \$17,000 and \$20,000 in the respective counties. With the self-sufficiency standard for an adult with a young child being around \$42,000 in Navajo County and about \$41,000 in Apache County, single females are likely struggling and have need for support to help their child's growth and development.

Thirty percent of children in the FTF Navajo/Apache Region live under the poverty level, more than the state (23%). However, subregionally the percent of children living in poverty ranges from 18% in Snowflake to 34% in the Show Low-Heber area. These data may help identify geographic areas and populations to target for further intervention or support around increasing financial resources. Additionally, 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.

Twenty-five percent of residents in the Navajo/Apache Region spend 30% or more of their income on housing. A majority of households in the region (65%) have both a smartphone and computer, a larger proportion than Navajo (53%) or Apache County (35%), but a smaller proportion than compared to the state (73%). Similarly, the majority of residents in the FTF Navajo/Apache Region (83%) live in households with a computer and internet, which is also higher than in either county (62% in Navajo and 40% in Apache County) and comparable to the state (87%). Of people living in households with a computer and internet in the region, 63% have fixed broadband with a cellular data plan.

Educational Indicators

Children's participation in early learning experiences is likely to result in higher academic performance in future years.³ About one in three children between ages three and four (34%) are enrolled in nursery school, preschool, or kindergarten in the Navajo/Apache Region. About half of the third-grade students in the region, scored proficient or highly proficient on the AZ Merit English Language Arts and Math assessments. St. John's and Show Low Unified school districts have the highest percentage of children scoring proficiently. Though slightly higher than the state and county, the finding that only half of the region's third graders are proficient in math and English is concerning and supports the need for greater participation in early education.

The percentage of first, second, and third graders missing ten or more days of school slightly increased between 2018 to 2019 in both the Navajo/Apache Region and the state, though it was higher in the region and decreased as grade level increased. The region's high school graduation rate has remained fairly steady since 2018 at around 83% and the high school dropout rate has remained under three

³ Bakken, L., Brown, N., Downing, B. (2017) *Early Childhood Education: The Long-Term Benefits*. *Journal of Research in Childhood Education*. Volume 31. Issue 2. Retrieved from: <https://doi.org/10.1080/02568543.2016.1273285>

percent since 2018.

The majority of the adults in the region have completed high school/received a GED or pursued further education past high school (79%), slightly less than the state or county. A higher percentage of mothers in the region (85%) have at least completed high school or their GED, seven percent more than at the state level. In general, residents in the 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. The Holbrook-Joseph City-Sanders subregion had the highest percentage (23%) of adults that did not complete high school or receive a GED.

Early Learning

Participation in early care and education programs plays an important role in preparing children for kindergarten and beyond.⁴ About 46% of households are assumed to need child care based on the employment status of the adults in the household, yet only 34% of preschool-aged children in the region are enrolled in early care and education programs. One factor that may influence this finding is the high cost of child care in the region. Child care subsidies in the region appear to be helping as the number of children receiving subsidies increased, though the number on the waitlist also increased between 2018 to 2020.

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. As of 2016, about 2,073 children in the four northern Arizona counties are enrolled in Head Start or Early Head Start.

According to the most recent data, there are currently 55 early childhood centers and homes with a capacity 2,373 children in the region. Additionally, approximately 100 children in the region are enrolled in Quality First centers rated between three to five stars. Increasing access to quality early care and education programs is essential for the regions' children, especially since early care and education teachers throughout the state are not well compensated, most earning minimum wage.

Children receiving AzEIP referrals and services have increased in the region, indicating both increased need and capacity to meet the need. The most common types of disabilities for preschool children were developmental delays and speech and language impairments.

⁴ *University of Massachusetts Global (2021) What is the purpose of early childhood education? Why it's so important. Retrieved from: <https://www.umassglobal.edu/news-and-events/blog/what-is-purpose-of-early-childhood-education>*

Child Health

Ensuring healthy development through early identification and treatment of children's health issues helps families understand healthy developmental pathways and how health issues affect children and their school readiness.⁵ According to American Community Survey data averaged over the five years from 2015 to 2019, eight percent of young children aged 0 to 5 in the Navajo/Apache Region are estimated to be without health insurance, along with ten percent of the entire population in the region.

In the calendar year 2019, Navajo/Apache Region residents gave birth to 861 babies, which makes up one percent of all births in the state. Of the mothers who gave birth in the region in 2019, 63% were white non-Hispanic, 21% were Hispanic or Latina, 15% were American Indian, and one percent were Asian or Pacific Islander. New mothers in the region had a comparable education attainment levels to the state, with about 60% of mothers having at least completed high school or their GED (compared to 57% statewide).

Fifty five percent of new mothers who participated in WIC were overweight or obese before becoming pregnant, which is the lower than the state (64%), and the rate of pre-pregnancy obesity in the region and the state has gradually decreased each year since 2017. Nearly all mothers received at least some form of prenatal care, and five percent of babies in the region were born to mothers who had had fewer than five prenatal care visits (which is less than the statewide rate of 8%).

In 2019, seven percent of babies in the Navajo/Apache region were low birth weight, the same proportion as the state average. The percent of premature births was the same within the region (9%) as the state. The percentage of infants participating in WIC in the region being breastfed (80%) has gradually decreased from 2017 to 2020.

Although immunization rates vary by vaccine, over 90% of children in child care and kindergarten in the Navajo/Apache Region had completed each of the three major (DTAP, polio, and MMR) vaccine series. Rates of personal exemptions for vaccinations among children in child care (7% for religion exemption and 0.3% for medical exemption) was generally consistent with the exemption rates at the state level (5% for religion exemption and 0.4% for medical exemption).

Among children participating in WIC in the Navajo/Apache Region in 2020, 12% had obesity and an additional 14% had overweight. However, the region's proportion of children that are obese or overweight has increased in recent years, from 24% in 2017 to 27% in 2020.

Family Support

Support for young families is an essential piece of the holistic efforts around kindergarten readiness and

⁵ *Schools & Health (2016). Impact of Health on Education. Retrieved from <http://www.schoolsandhealth.org/pages/Anthropometricstatusgrowth.aspx>*

long-term success for children.⁶ The number of families and children receiving assistance from SNAP, TANF, and WIC has decreased over the years. While the number of young children participating in SNAP and TANF has declined since 2017, SNAP still supports nearly 2,440 children while TANF supports nearly 100 children annually in the Navajo/Apache Region. Approximately half of all public- and charter-school students in the region have been eligible for free or reduced-price lunch since 2018.

The total number of fatal opioid deaths in the Navajo/Apache Region was 20 from 2017 to 2020. In Navajo County, the number of the number of non-fatal overdoses from opiates or opioids increased from 20 in 2017 to 35 in 2020.

Opportunities for Further Exploration

Most of the findings provided in this report are based on secondary data sources. As the FTF Navajo/Apache Regional Partnership 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 following opportunities were identified based on the priorities identified by the Council that data were not available to fully explore. Methods could include gathering existing data from existing local sources or conducting local focused surveys. Listed in order of the domains in this report, the Council may want to consider collecting additional information regarding:

- Recruitment and retention of early care and education professionals, including barriers to attracting and retaining professionals that impact continuity and quality of care, such as pay and work conditions;
- More information on cost burden to access quality childcare for families with young children, especially for groups such as single-income families, to be able to target outreach and support;
- Parent understanding of childcare resources and subsidies available in the region, to be able to target outreach to parents and families in need;
- Reasons that may encourage and discourage parents from taking their children to safe outdoor areas where babies and toddlers can play to understand motivations and barriers to accessing these resources; and
- Impact of the COVID-19 pandemic on young children's mental health and socioemotional well-being.

⁶ 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

BACKGROUND AND APPROACH

Family well-being is an important indicator of child success.^{7, 8} 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.⁹ Early childhood interventions promote well-being and impact outcomes for children and adults later in life, including school readiness, parent involvement, K-12 achievement, educational attainment, crime prevention and remedial education.¹⁰

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

- Improving the quality of child care and preschool programs;
- Scholarships for children to access high-quality early learning;
- Oral health screenings and fluoride varnishes;
- Supporting access to healthcare for children; and
- Supporting the needs of infants and toddlers in the child welfare system.

Methodology

This is the eighth Needs and Assets report conducted on behalf of the FTF Navajo Apache Regional 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 from birth to age five and their families in the region. This report is designed to provide updated information to the FTF Navajo Apache Council about the needs

⁷ Bøe, T., Serlachius, A., Sivertsen, B., Petrie, K., Hysing, M. (2017) Cumulative effects of negative life events and family stress in children's mental health: the Bergen child study. *Social Psychiatry and Psychiatric Epidemiology*. Retrieved from <https://link.springer.com/article/10.1007/s00127-017-1451-4>

⁸ Sosu, E., Schmidt, P. (2017) Economic deprivation and its effects on childhood conduct problems: the mediating role of family stress and investment factors. Retrieved from <https://doi.org/10.3389/fpsyg.2017.01580>

⁹ Knitzer, J. (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.

¹⁰ Reynolds, A., Ou, S., Mondt, C., Hayakawa, M. (2017) Processes of early childhood interventions to adult well-being. *Child Development*. Volume 88 Issue 2. Retrieved from <https://doi.org/10.1111/cdev.12733>

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 region.

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

- Population characteristics;
- Economic circumstances;
- Educational indicators;
- Early learning;
- Child health; and
- Family support.

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. Quantitative data components included a review and analysis of current and relevant secondary data describing the FTF Region, Navajo County, Apache County, 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 the County and the State of Arizona for comparative purposes. Subregional data from the American Community Survey and 2010 Census were calculated by aggregating the ZIP Code Tabulation Areas (ZCTA) in each subregion. ZCTAs were assigned to a subregion by FTF, and Harder+Company then used those assignments to determine which ZCTAs belonged to each subregion. For ZCTAs that are in more than one subregion, a percentage of the tabulation area was assigned to each subregion based upon the population living in ZCTA within the subregions' portion of the ZCTA.

Secondary data was gathered to better understand demographic trends for the Navajo Apache Region. The assessment was conducted using data from state and local agencies and organizations who provided 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 First Things First on behalf of Harder+Company Community Research: Arizona Department of Education (ADE), Arizona Department of Economic Security (DES), Arizona Department of Health Services (ADHS), Department of Child Safety (DCS) and First Things First 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. 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, for small towns, or certain zip codes, whereas for other indicators, data were available at all levels. Whenever possible this

report presents all data available. In some cases, not enough data is 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 under age six and their families were not available for the FTF Navajo Apache Region, such as more detailed data on housing or homelessness, home visiting, oral health, hearing loss screenings, and child welfare. The analysis presented in this report aims to integrate relevant data indicators from a variety of credible sources, including regional and subregional, 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 FTF Regional Council and community members, 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 these stakeholders 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, education data from the Arizona Department of Education (ADE), with counts of or percentages related to fewer than eleven, excluding counts of zero (i.e., all counts of one through ten) are suppressed. Percentages greater than 98% or less than 2% were presented as >98% and <2% respectively. For data related to health or developmental delay, all counts and rates/ratios/percentages are based on non-zero counts less than six, excluding counts of zero (i.e., all counts of one through six, depending on the indicator) are suppressed.

Limitations

In the United States, the COVID-19 pandemic began in March 2020 and continues through the writing of this report. Thus, it is important to contextualize how the pandemic impacted data availability and the process to develop this report. First, public agencies had limited capacity to support data requests while they focused on their pandemic response, therefore some data sets could not be provided. For this reason, the timeline for the 2022 RNA report was modified to adapt to the barriers in collecting data and moving forward with the report process. For this reason, the timeline for the 2022 RNA report was modified to adapt to the barriers in collecting data and moving forward with the report process.

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, except for the data of the Arizona Department of Education (ADE) which the evaluation team accessed through the ADE data system.

Some of the most recent data was not available for this report. 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 as 2020 Census data were delayed due to COVID-19. For some of the indicators reported, the most recent data for the region was released in 2018, thus trends may have changed within the past four years, especially due to the pandemic. For example, the most recent data for the Child Care Market Rate Survey is from 2018. This survey provides the median cost for licensed centers, approved family homes and certified group homes.

Another limitation impacting the findings and interpretation of findings is the targeted population included in each of the different data sources. For many domains reported, data were often available only at the county level rather than the region, and data for children often includes children under 18 rather than children under six. Additionally, 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, WIC data only includes a sample of the young children and families' served. In regards to education data, ADE provided AZMerit only for 2018-2019 school year (prior to COVID-19) since this assessment was not administered during the 2019-2020 school year. The report uses public data for the 2020-2021 school year at the state and county level.

Another major limitation is the discrepancy in the definitions and criteria used by each agency that is collecting the data. Because various different 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.



POPULATION CHARACTERISTICS

POPULATION CHARACTERISTICS

Why It Matters

The demographic profile of residents in a particular community helps inform the types of services needed in that community. Policy and decision makers need 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 and composition of households, racial and ethnic composition, languages spoken, and living arrangements help policy makers identify the needs of the region they serve and the services and resources that would benefit the community. For example, knowing where non-English speakers live and what their primary languages are can inform translation and interpretation services to help these families access health care and other social services. Knowing where children and families are located will help identify the needs for early childhood services to support their development and well-being.

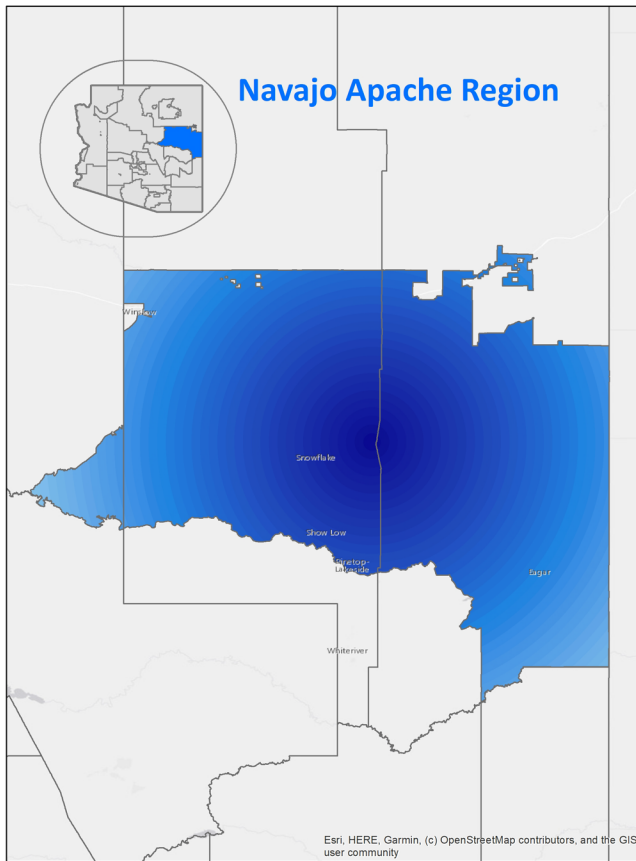
This first domain of the report provides an overview of the geographic region's population dynamics, projected growth, ethnic and racial composition, languages spoken, immigration trends, and household characteristics (e.g., living arrangements for children). Indicators about children living with grandparents are included as well. Although only limited research has been conducted on the influence of grandparents on child development and health, this data provides an overview of their participation in the region's households and shows trends in grandparental care over time.¹¹ Understanding how the population is changing and where it is growing allows decision makers to strategically and proactively allocate resources.

What the Data Tell Us

The FTF Navajo/Apache Region is in the southern areas of Navajo and Apache counties, as shown in Exhibit 1.1. Notable population centers in the region include Show Low, Snowflake, and Pinetop-Lakeside.

¹¹ Sadruddin, A., Ponguta, L., Zonderman, A., Wiley, K., Grimshaw, A., Panter-Brick, C. (2019) *How do grandparents influence child health and development? A systematic review. Social Science & Medicine. Volume 239.* Retrieved from <https://doi.org/10.1016/j.socscimed.2019.112476>

Exhibit 1.1. Map of Navajo and Apache counties and FTF Navajo/Apache Region boundaries



Population Counts and Projections

According to the 2010 Census, the FTF Navajo/Apache Region has a total population of 73,083 residents. There are nearly 6,200 children under six years old in the region, accounting for 8.4% of the total population in the region (Exhibit 1.2).

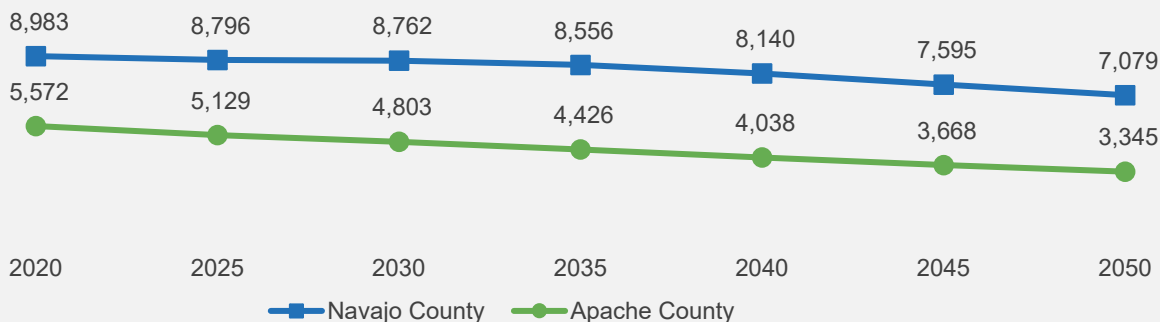
Exhibit 1.2. Population (all ages) in the 2010 Census

| | All ages | Ages 0-5 | Children (0-5) as a percentage of the total population |
|---------------------------------|---------------|--------------|--|
| FTF Navajo/Apache Region | 73,083 | 6,166 | 8.4% |
| Navajo County | 107,449 | 10,550 | 9.8% |
| Apache County | 71,518 | 7,171 | 10.0% |
| ARIZONA | 6,392,017 | 546,609 | 8.6% |

U.S. Census Bureau; 2010 Census Summary File 1; Tables P11 & P14

The number of children ages zero to five in Navajo and Apache Counties is expected to decrease over the next ten years, to about 10,000 across both counties by 2050 (Exhibit 1.3).¹² Over the same time period the number of children under six is expected to increase for the state as a whole. These trends are consistent with the majority of counties in the country and a general trend observed in many economically developed areas in the world.¹³

Exhibit 1.3. Projected population of children 0-5 in Navajo and Apache County



Arizona Department of Administration, Office of Employment & Population Statistics (2017). Arizona Population Projections: 2020 to 2050, Medium Series

Demographics and Language

In the FTF Navajo/Apache Region, 80% of adults 18 and over identify as white and 12% identify as Hispanic or Latino. This compares to 63% and 25%, respectively, for Arizona (Exhibit 1.4). Compared to the state, the FTF Navajo/Apache Region has a higher percentage of white residents and lower percentage of Hispanic/Latino residents. In addition, the region there is a higher proportion of children who identify as Hispanic or Latino compared to the overall population (Exhibit 1.5 and Exhibit 1.6).

¹² Population projection data come from the Arizona Office of Economic Opportunity which makes these projections based on the data from the Census. Data inputs for population projections include detailed data on current population count, fertility rates, mortality rates, migration rates to project the population by age, race, and other key demographic groups. Generally, population projections track as an accurate predictor of future population.

¹³ United States Census. Over Two-Thirds of the Nation's Counties Had Natural Decrease in 2021. Retrieved from: <https://www.census.gov/newsroom/press-releases/2022/population-estimates-counties-decrease.html>

Exhibit 1.4. Race and ethnicity of the adult population (ages 18 and older) in the 2010 Census

| | Hispanic or Latino | White alone (not Hispanic or Latino) | American Indian alone (not Hispanic or Latino) | African-American alone (not Hispanic or Latino) | Asian or Pacific Islander (not Hispanic or Latino) |
|---------------------------------|--------------------|--------------------------------------|--|---|--|
| FTF Navajo/Apache Region | 12% | 80% | 5% | 1% | 1% |
| Arizona | 25% | 63% | 4% | 4% | 3% |

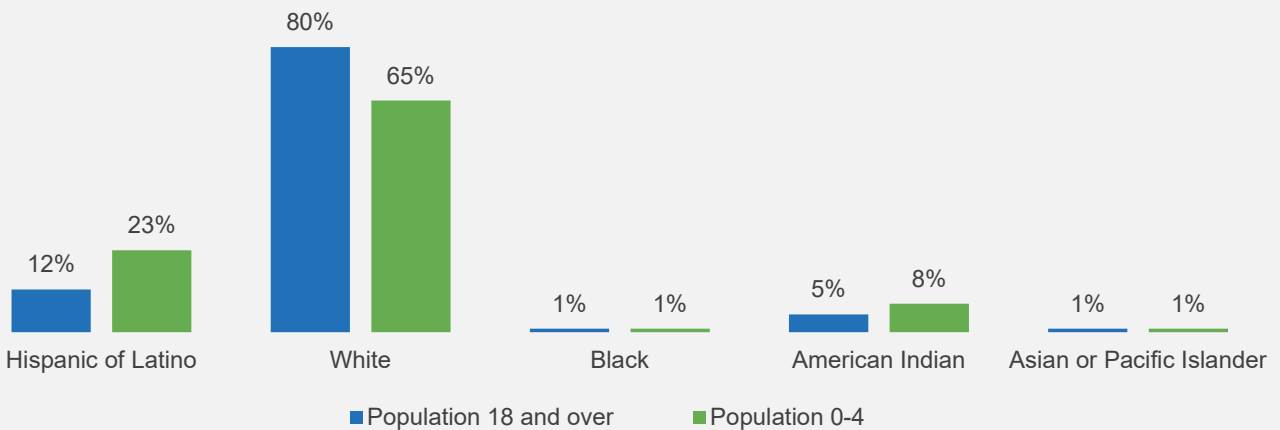
U.S. Census Bureau; 2010 Census Summary File 1; Table P11; generated by Harder+Company using American FactFinder; <http://factfinder2.census.gov>

Exhibit 1.5. Race and ethnicity of children (ages 0-4) in the 2010 Census

| | Hispanic or Latino | White alone (not Hispanic or Latino) | American Indian alone (not Hispanic or Latino) | African-American alone (not Hispanic or Latino) | Asian or Pacific Islander (not Hispanic or Latino) |
|---------------------------------|--------------------|--------------------------------------|--|---|--|
| FTF Navajo/Apache Region | 23% | 65% | 8% | 1% | 1% |
| ARIZONA | 45% | 40% | 6% | 5% | 3% |

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

Exhibit 1.6. Distribution of race/ethnicity in the FTF Navajo/Apache Region

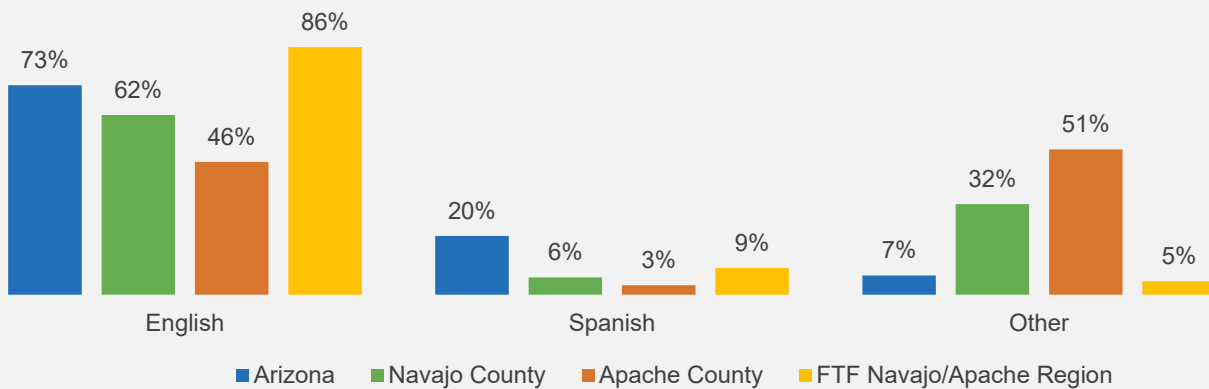


U.S. Census Bureau; 2010 Census Summary File 1; Table P11; generated by AZ FTF using American FactFinder; <http://factfinder2.census.gov>

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>

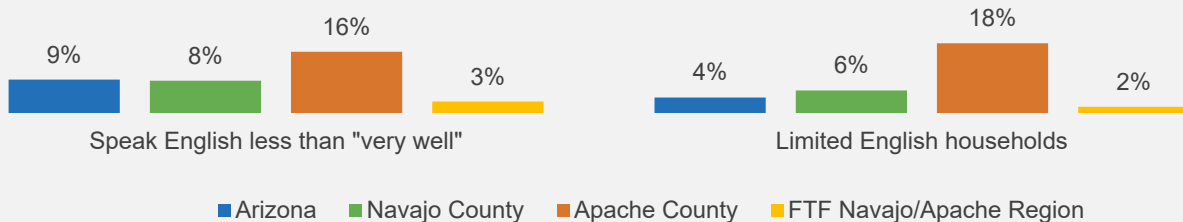
Most people in the region (86%) speak English as their primary language, while nine percent primarily speak Spanish and an additional five percent speak a language other than English or Spanish (Exhibit 1.7). The United States Census Bureau defines a household as “limited-English-speaking” if there is no adult (14 or older) who speaks English well. Two percent of households in Navajo/Apache Region are considered to be limited English-speaking, which is lower than the proportion of households in Navajo County (6%) and Arizona (4%), and significantly lower than Apache County (18%) (Exhibit 1.8).

Exhibit 1.7. Primary language spoken at home for population ages 5 and over



U.S. Census Bureau; 2019 American Community Survey 5-Year Estimates, Tables B16001; generated by AZ FTF using American FactFinder; <<http://factfinder2.census.gov>>

Exhibit 1.8. Percentage of population that speaks English less than "very well" and percentage of limited English households



U.S. Census Bureau; 2019 American Community Survey 5-Year Estimates, Tables B16001 & B16002; generated by AZ FTF using American FactFinder; <<http://factfinder2.census.gov>>

There are slightly more children living with parents born outside the U.S. in the region (7%) compared to Navajo and Apache counties (3%), but much less in comparison with the state (25%; Exhibit 1.9). In the Navajo/Apache Region, 5,128 children ages 0-5 live with one or two parents, and among those, 7% of children live with foreign-born parents. Among the subregions, Vernon-Alpine-Round Valley (15%)

and Holbrook-Joseph City-Sanders (11%) have the highest proportion of children living with parents born outside the U.S.

Exhibit 1.9. Children (ages 0 to 5) living with parents born outside the U.S.

| | Children (ages 0-5) living with one or two parents | Children (ages 0-5) living with one or two foreign-born parents |
|---------------------------------|--|---|
| FTF Navajo/Apache Region | 5,128 | 7% |
| Blue Ridge | 830 | 3% |
| Concho-St Johns | 295 | 0% |
| Holbrook-Joseph City-Sanders | 666 | 11% |
| Show Low-Heber | 1,617 | 8% |
| Snowflake | 900 | 0% |
| Vernon-Alpine-Round Valley | 820 | 15% |
| Navajo County | 299 | 3% |
| Apache County | 141 | 3% |
| ARIZONA | 126,082 | 25% |

Source: U.S. Census Bureau (2019). American Community Survey, 5-year estimates (2015–2019), Table B05009.

The number of kindergarten through third students in the region that are migrants is low, as reflected in the suppressed numbers provided by ADE (Exhibit 1.10).¹⁴ While this is similar in Navajo and Apache counties, data show an increase in the number of students who are migrants at the state level between 2018 and 2020.

The percent of kindergarten through third grade students in the region who are English Language Learners (ELL) is three percent for 2020, which is slight lower than in Navajo and Apache counties and also lower than the state (Exhibit 1.11). These percentages remained generally consistent from 2018 to 2020 across the region, counties, and the state.

¹⁴ Per FTF guidelines, education data from the Arizona Department of Education (ADE), with counts of or percentages related to fewer than eleven, excluding counts of zero (i.e., all counts of one through ten) are suppressed.

Exhibit 1.10. Children in grades K to 3 that are migrants from 2018 to 2020

| | Arizona | Navajo County | Apache County | FTF Navajo/Apache Region |
|------|---------|---------------|---------------|--------------------------|
| 2018 | 662 | <11 | <11 | <11 |
| 2019 | 570 | <11 | <11 | <11 |
| 2020 | 809 | <11 | <11 | <11 |

Source: Arizona Department of Education (2021). Migrant Children. Provided by AZ FTF.

Exhibit 1.11. Percentage of children in grades K to 3 that are English Language Learners from 2018 to 2020

| | Arizona | Navajo County | Apache County | FTF Navajo/Apache Region |
|------|---------|---------------|---------------|--------------------------|
| 2018 | 10% | 5% | 8% | 4% |
| 2019 | 9% | 4% | 6% | 4% |
| 2020 | 10% | 4% | 6% | 3% |

Source: Arizona Department of Education (2021). English Language Learners. Provided by AZ FTF.

Household Characteristics

In the FTF Navajo/Apache Region there are over 18,000 households and nearly 2,800 (15%) include children under six years old (Exhibit 1.12). Although the majority of children under six live in married-couple households, about one-third live in single-parent households (Exhibit 1.13). Just two percent of children under six in the FTF Navajo/Apache Region live with relatives or non-relatives. Additionally, approximately 1,400 children live in the same household as a grandparent.¹⁵ There can be several advantages to living in a multigenerational household, including an increase in emotional well-being and parents 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. There may also be cultural factors that result in grandparents living in the same household as their grandchildren. Of children under 18 who live in the same household as a grandparent, 42% are primarily cared for by a grandparent, which is slightly less than 50% for Arizona (Exhibit 1.14).¹⁶ Grandparents raising their grandchildren may also require additional support due to the nontraditional family structure, changes in parenting practices since grandparents were first raising children, and the fact that many older adults live on fixed incomes and may struggle with caring for dependents.

¹⁵ 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>>

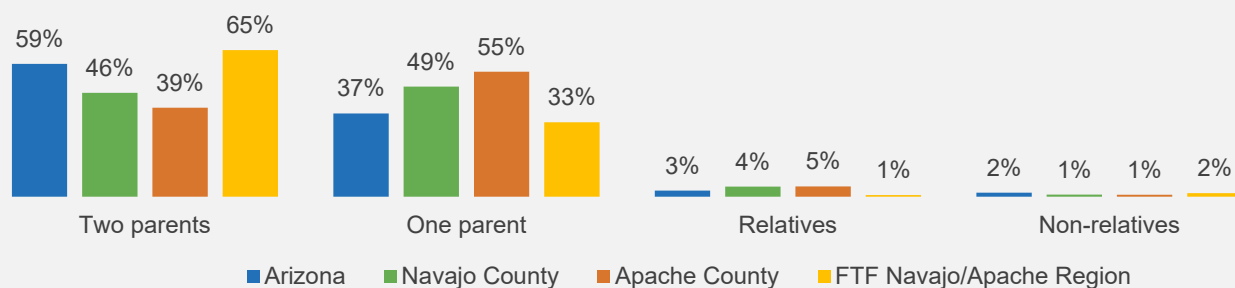
¹⁶ U.S. Census Bureau; American Community Survey. 2014 American Community Survey 5-Year Estimates, Tables B10002; generated by AZ FTF; using American FactFinder; <<http://factfinder2.census.gov>>

Exhibit 1.12. Number of households and household characteristics

| | Arizona | Navajo County | Apache County | FTF Navajo/Apache Region |
|---|-----------------|---------------|---------------|--------------------------|
| Total number of households | 1,679,198 | 24,355 | 13,816 | 18,446 |
| Households with children 0-5 | 17.3% (291,242) | 16.4% (4,005) | 14.8% (2,042) | 15.0% (2,763) |
| Married-couple households with children 0-5 | 68.2% (198,602) | 60.8% (2,435) | 52.2% (1,066) | 70.7% (1,955) |
| Single-male households with children 0-5 | 9.6% (27,887) | 9.4% (375) | 13.3% (271) | 10.0% (275) |
| Single-female households with children 0-5 | 22.2% (64,753) | 29.8% (1,195) | 34.5% (705) | 19.3% (533) |

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

Exhibit 1.13. Living arrangements of children 0-5



U.S. Census Bureau; 2019 American Community Survey 5-Year Estimates, Tables B05009, B09001, & B17006; generated by AZ FTF using American FactFinder; <<http://factfinder2.census.gov>>

Exhibit 1.14. Children (ages 0-17) living in a grandparent's household

| | Arizona | Navajo County | Apache County | FTF Navajo/Apache Region |
|--|---------|---------------|---------------|--------------------------|
| Number of children (ages 0-17) living in a grandparent's household | 155,821 | 5,811 | 4,621 | 1,426 |
| Percent of children (ages 0-17) living in a grandparent's household, and the grandparent is responsible for the child | 50% | 57% | 41% | 42% |
| Percent of children (ages 0-17) living in a grandparent's household, and the grandparent is responsible for the child (with no parent present) | 16% | 15% | 17% | 18% |

U.S. Census Bureau; 2019 American Community Survey 5-Year Estimates, Table B10002; generated by AZ FTF using American FactFinder; <<http://factfinder2.census.gov>>

POPULATION CHARACTERISTICS HIGHLIGHTS

The FTF Navajo/Apache Region is located in the southern portions of Navajo and Apache counties, with an estimated population of approximately 6,200 children ages zero to five. The ethnic profile of the region is slightly different from the profile of the State of Arizona with a higher percentage of the adult population identifying as white (80%) as well as a lower percentage of the children under five who identify as Hispanic or Latino (23%). The majority of households speak English as their primary language and less than ten percent primarily speak Spanish. The majority of households with children under six are led by married couples. Only under three percent of children under six in the region live with relatives or non-relatives. Among those children ages 0-17 who live in the same household as their grandparents, 42% of those are primarily cared for by a grandparent.

Assets

The population of children under the age of six is projected to decline at modest and steady rate, allowing the region to foresee and prepare for the growing demands of their youngest residents.

Needs

According to the American Community Survey, just over one-third of children under six are living in single-parent households, as well as a sizable child population in grandparent-led households, which face additional barriers and difficulties when compared to two parent households.



ECONOMIC CIRCUMSTANCES

ECONOMIC CIRCUMSTANCES

Why It Matters

The economic situation of children and their families has a large impact on their ability to access opportunities and services that can contribute to their well-being and healthy development. As children are growing and developing, outcomes such as school achievement, physical health, and emotional well-being are all impacted by a child's economic situation.¹⁷ Additionally, being unemployed or living below the federal poverty level indicates that parents and caregivers have fewer resources to be able to meet their families' basic needs, such as adequate, nutritious food and good quality, stable housing.

Economic stability is critical to supporting young children and families to maintain a household where children can thrive. Recent research has shown that physical housing quality, neighborhood environment and housing stability play an important role in children's development and well-being.^{18, 19, 20} Housing instability, which includes frequent moves, difficulty paying rent, being evicted or being homeless, is associated with worse health, academic, and social outcomes.²¹ Children without housing stability often experience negative outcomes such as higher grade retention, higher high school dropout rates, and lower educational attainment as adults.^{22,23} Unemployment of parents can also affect the psychological well-being of children in the long-term due to negative experiences and stressful events.²⁴ 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.^{25, 26} Thus, housing, families' employment and food security are important components to consider when evaluating the conditions that affect a child's development and well-being during their first five years of life.

¹⁷ Brooks-Gunn, J., & Duncan, G. J. (1997). *The effects of poverty on children. The future of children*, 55-71.

¹⁸ Blau, D. M., Haskell, N. L., & Haurin, D. R. (2019). *Are housing characteristics experienced by children associated with their outcomes as young adults? Journal of Housing Economics*, 46, 101631.

¹⁹ Roy, J., Maynard, M., Weiss, E. (2008) *Partnership for America's Economic Success. The Hidden Costs of the Housing Crisis*. Retrieved from http://www.pewtrusts.org/~media/legacy/uploadedfiles/wwwpewtrustsorg/reports/partnership_for_americas_economic_success/paeshousingreportfinal1pdf.pdf

²⁰ Clair, A. (2019). *Housing: An under-explored influence on children's well-being and becoming. Child Indicators Research*, 12(2), 609-626.

²¹ 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

²² *Ibid.*

²³ Kushel, M., Gupta, R., Gee, L., Haas, J. (2006) *Housing Instability and Food Insecurity as Barriers to Health Care Among Low-Income Americans*. Retrieved from <http://onlinelibrary.wiley.com/doi/10.1111/j.1525-1497.2005.00278.x/full>

²⁴ Nikolova, M., Nikolaev, B. (2018) *How having unemployed parents affects children's future well-being*. Brookings. Retrieved from <https://www.brookings.edu/blog/up-front/2018/07/13/how-having-unemployed-parents-affects-childrens-future-well-being/>

²⁵ *Feeding America*. Retrieved from <http://www.feedingamerica.org/hunger-in-america/impact-of-hunger/child-hunger/child-development.html>

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

What the Data Tell Us

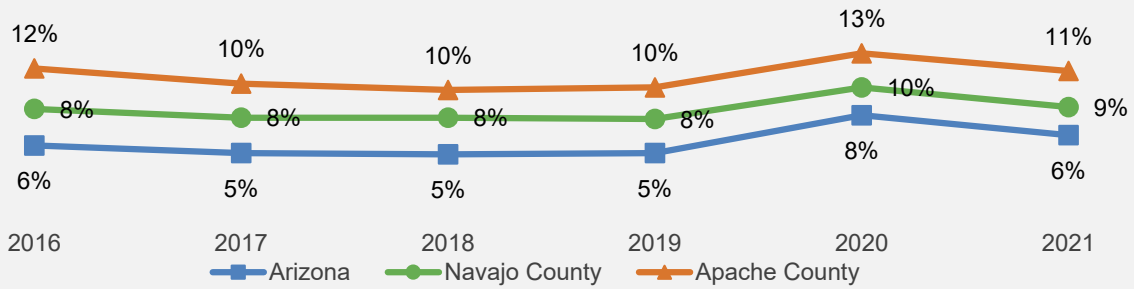
Employment Indicators

In Navajo and Apache counties, the unemployment rate stayed relatively constant between 2016 and 2021, although the rate has been consistently higher in Apache County than Navajo County, in addition to the unemployment rate for Arizona as a whole (Exhibit 2.1). Starting in 2020, due to the COVID-19 pandemic, unemployment rates for both counties and Arizona increased. During the COVID-19 pandemic, those who tended to be most affected by unemployment included those in jobs in services, restaurants, transportation, and other industries that commonly do not offer job security infrastructure, long-term employment contracts, and offer inadequate wages and benefits.²⁷ The unemployment rate peaked in April 2020 (17% in Apache County and 16% in Navajo County) and started to decline to seven percent in August of the same year. The overall unemployment rate in both counties decreased from 2020 to 2021, suggesting that more people started to go back to the labor force as stay-at-home orders were lifted (Exhibit 2.1). Additionally, the number of people in the labor force in both Navajo and Apache Counties has gradually decreased yearly from 2016 to 2021 (Exhibit 2.2). These data are likely attributable in part to the change in the overall population (not shown).²⁸

²⁷ Blustein, D., Paige, G. (2020) "Work and unemployment in the time of COVID-19: the existential experience of loss and fear." *Journal of Humanistic Psychology* 60.

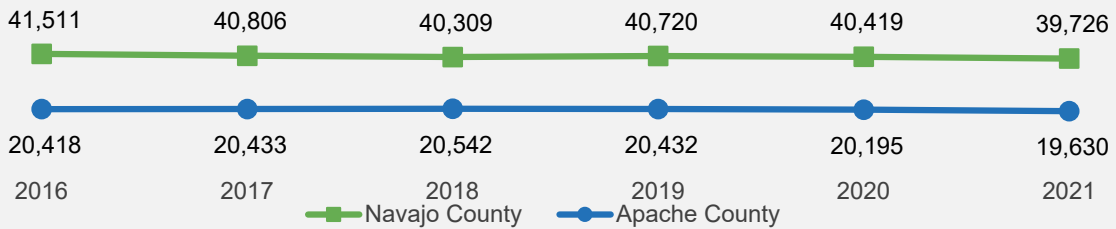
²⁸ Arizona Department of Administration, Office of Employment & Population Statistics (2017). *Arizona Population Projections: 2020 to 2050, Medium Series*

Exhibit 2.1. Average unemployment rates



U.S. Department of Labor, Bureau of Labor Statistics (2021). Local Area Unemployment Statistics (LAUS), Arizona Office of Employment. Note: The data for 2021 goes up to September 2021.

Exhibit 2.2. Number of people in the labor force

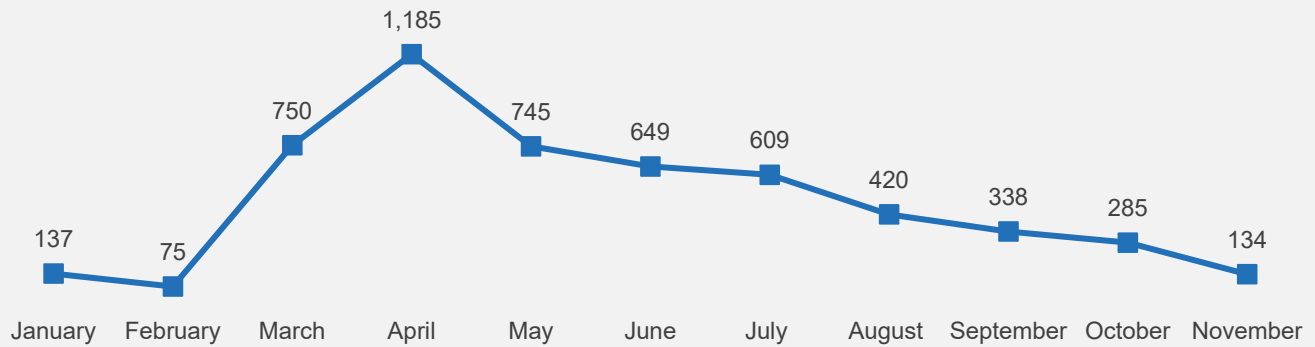


U.S. Department of Labor, Bureau of Labor Statistics (2021). Local Area Unemployment Statistics (LAUS), Arizona Office of Employment. Note: The data for 2021 goes up to September 2021.

Unemployment claims provide temporary payments to individuals who are unemployed through no fault of their own and meet the other eligibility requirements. In order to receive these benefits, an individual that has lost their job completes an application. If they are eligible, they then receive unemployment benefits. In 2020 for the Navajo/Apache Region, the total number of unemployment claims started to increase in March 2020 as the economic impacts of COVID-19 unfolded (Exhibit 2.3). In April 2020, the number of total claims peaked at 1,185 and gradually started to decrease to 134 claims by the end of the year.

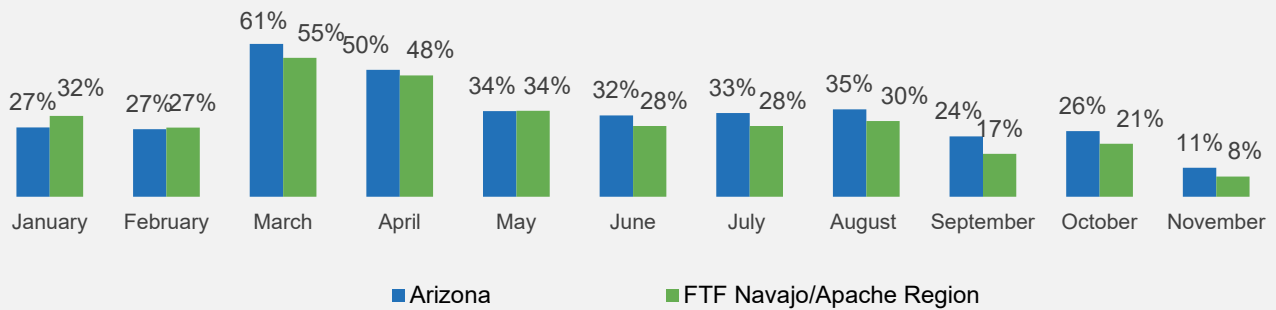
In addition to the increase in the number of claims, the percentage of eligible and paid claims also rose sharply in March in the Navajo/Apache Region and in Arizona (Exhibit 2.4). Rates for claims that were eligible were similar in the Navajo/Apache Region and statewide. The percent of eligible and paid claims peaked in March (55%) and gradually decreased to eight percent by the end of 2020.

Exhibit 2.3. Number of total claims in 2020 for Navajo/Apache Region



Arizona Department of Economic Security (2020). Unemployment claims. Provided by AZ FTF.

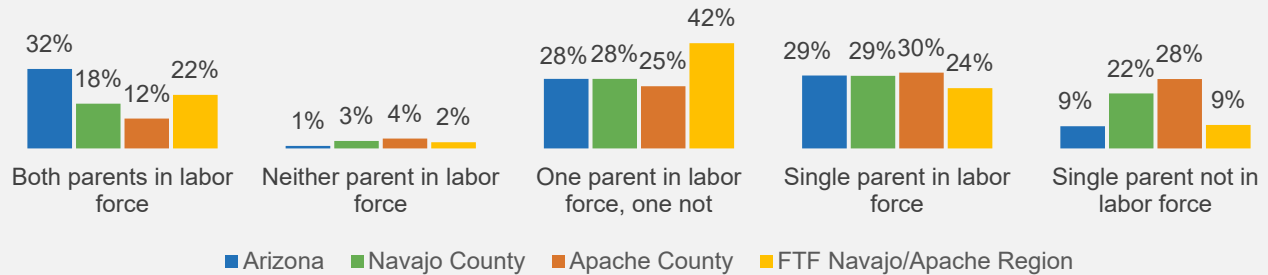
Exhibit 2.4. Percent of eligible and paid claims in 2020



Arizona Department of Economic Security (2020). Unemployment claims. Provided by AZ FTF

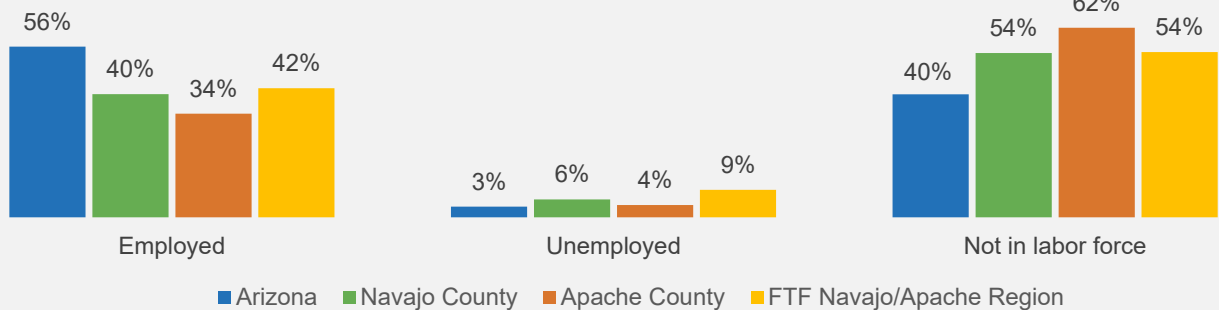
In the FTF Navajo/Apache Region about 90% of children under age six live in a household where at least one adult is in the labor force (Exhibit 2.5), which is similar to the percentage for Arizona. Forty-six percent of children under age six have either both parents in the labor force or a single parent in the labor force, indicating they have some need for child care. The overall percentage of adults who are in the labor force in the Navajo/Apache Region is 42%, which is lower than the proportion in Arizona (56%) (Exhibit 2.6).

Exhibit 2.5. Employment status of parents with children 0-5



U.S. Census Bureau; American Community Survey, 2019 American Community Survey Table B23008.

Exhibit 2.6. Employment status of adult population (ages 16 and older) who are employed, unemployed, or not in the labor force



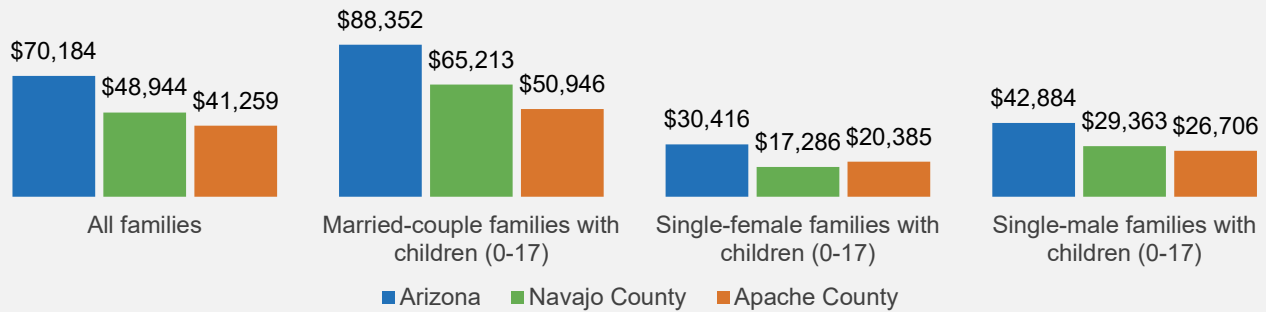
U.S. Census Bureau; American Community Survey, 2019 American Community Survey Table B23025.

Note: The labor force includes all persons who are currently employed, including those on leave, furlough, or temporarily laid off.

Median Income and Poverty

The median income of families with children under age eighteen is about \$49,000 in Navajo County and about \$41,000 in Apache County, which are both less than the median income statewide. The median income for single-parent families is significantly less than for married-couple families. Exhibit 2.7 shows the difference in median income for married-couple families, single-female families, and single-male families.

Exhibit 2.7. Median income for families



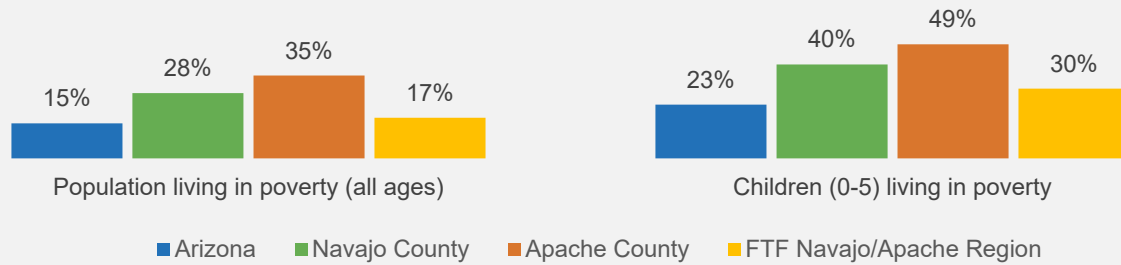
U.S. Census Bureau; American Community Survey, 2019 American Community Survey 5-Year Estimates, Table B19126.

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.²⁹ In the FTF Navajo/Apache Region, 17% of the population and 30% of children under age six are living in poverty (Exhibit 2.8). Children under five years have the higher proportions of living below the federal level, compared to the general population (Exhibit 2.8).

Federal poverty levels (FPL) are used to determine eligibility for certain programs and benefits, including SNAP and Arizona Health Care Cost Containment System (AHCCCS). The federal poverty level changes every year and is based on family size. For example, in 2021, the FPL was \$26,500 for a family of four. A family of four that makes less than or equal to \$26,500 is considered to be in poverty but different poverty thresholds are used to determine eligibility for different programs. In the FTF Navajo/Apache Region, 14% of families are living between 50% and 100% of the FPL and an additional 16% living under 50% of the FPL. In other words, a total of about 30% of families are estimated to live in poverty (Exhibit 2.9).

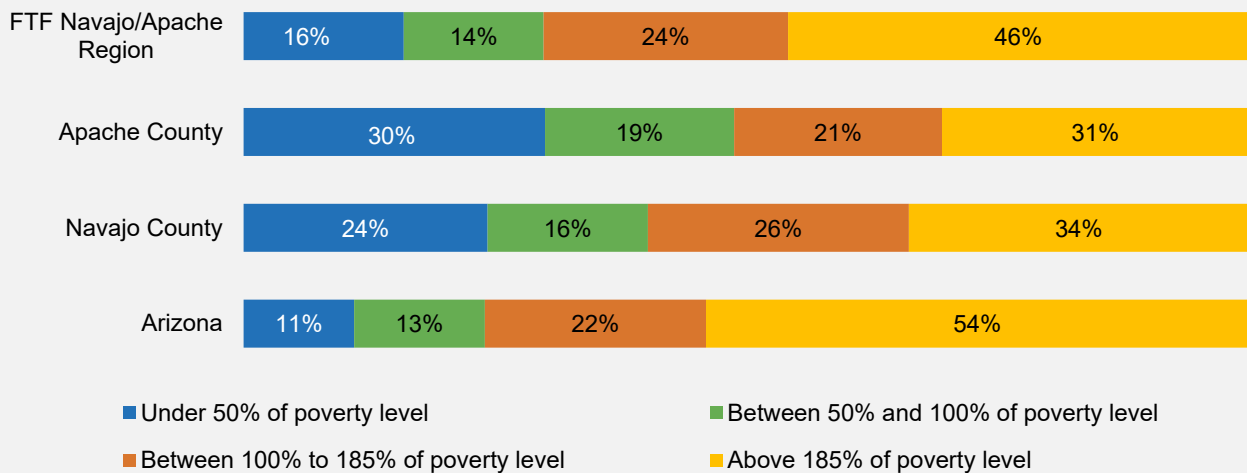
²⁹ To define poverty, the Census Bureau uses a set of money income thresholds that vary by family size and composition to determine who is in poverty. If a family's total income is less than the family's threshold, then that family and every individual in it is considered in poverty. The official poverty thresholds do not vary geographically, but they are updated for inflation using the Consumer Price Index (CPI-U).

Exhibit 2.8. Percentage of population living in poverty



U.S. Census Bureau; American Community Survey, 2019 American Community Survey 5-Year Estimates, Table B17001.

Exhibit 2.9. Families with young children (ages 0-5) living at various poverty levels



U.S. Census Bureau; American Community Survey, 2019 American Community Survey 5-Year Estimates, Tables B17001 & B17022.

In Navajo and Apache counties, the percent of the population living in poverty varied significantly by race/ethnicity. For instance, individuals who identify as Hispanic or Latino, American Indian or Alaskan Native, or some other race have poverty rates at or above 30% (Exhibit 2.10).

Exhibit 2.10. Percentage of population below the federal poverty level by race/ethnicity*

| | Arizona | Navajo County | Apache County |
|--|---------|---------------|---------------|
| Black or African-American | 20% | 30% | 27% |
| American Indian or Alaskan Native | 33% | 40% | 42% |
| Asian | 12% | 30% | 3% |
| Native Hawaiian and other Pacific Islander | 16% | 27% | 0% |
| Other Race | 23% | 42% | 23% |
| Two or More Races | 17% | 25% | 29% |
| White, not Hispanic | 10% | 14% | 12% |
| Hispanic or Latino | 22% | 30% | 31% |

U.S. Census Bureau; American Community Survey, 2019 American Community Survey 5-Year Estimates, Tables B17001B, Table B17001C, Table B17001D, Table B17001E, Table B17001F, Table B17001H, Table B17001I.

Housing

Residents of the Navajo/Apache Region have a similar housing cost burden to residents of the state as a whole: 25% of the region’s housing units require their residents to contribute more than 30% of their household income toward housing (Exhibit 2.11). Housing costs are somewhat more burdensome in the Show Low-Heber subregion (28%) and Blue Ridge subregion (27%).

Exhibit 2.11. The cost of housing, relative to household income

| | Number of occupied housing units | Occupied housing units which cost 30% of household income, or more |
|---------------------------------|----------------------------------|--|
| FTF Navajo/Apache Region | 26,938 | 25% |
| Blue Ridge | 5,035 | 27% |
| Concho-St Johns | 2,276 | 19% |
| Holbrook-Joseph City-Sanders | 2,679 | 22% |
| Show Low-Heber | 9,299 | 28% |
| Snowflake | 4,134 | 25% |
| Vernon-Alpine-Round Valley | 3,515 | 20% |
| Navajo County | 34,990 | 23% |
| Apache County | 20,867 | 14% |
| ARIZONA | 2,571,268 | 30% |

U.S. Census Bureau; American Community Survey, 2019 American Community Survey 5-Year Estimates, Table B25106.

Children that are homeless qualify for rights and services under the McKinney-Vento Act. The McKinney-Vento Act defines homeless children as “individuals who lack a fixed, regular, and adequate

nighttime residence.”³⁰ The number of homeless children in kindergarten through third grade from 2018 to 2020 is displayed in Exhibit 2.12. From 2018 to 2020, across all schools in the Navajo/Apache region, the number of homeless students decreased marginally from 2018 to 2020, which is a similar trend in Arizona.

Exhibit 2.12. Number of homeless students in kindergarten through third grade, 2018 to 2020

| | 2018 | 2019 | 2020 |
|-------------------------------------|-----------|-----------|-----------|
| Navajo/Apache Region Schools | 55 | 64 | 47 |
| Navajo County | 62 | 76 | 69 |
| Apache County | 21 | 15 | 13 |
| All Arizona Schools | 4,565 | 3,676 | 3,191 |

Arizona Department of Education (2020). [homeless students]. Unpublished data.

About 65% of households have both a smartphone and computer, which is higher than the proportion in Navajo County (53%), Apache County (35%), and Arizona (73%; Exhibit 2.13). The Concho-St Johns and Holbrook-Joseph City-Sanders subregions have the highest proportion of households with neither a smartphone or computer. Eighty-three percent of residents in the Navajo/Apache Region live in households with a computer and internet (Exhibit 2.14). During the nationwide closures of elementary and secondary schools due to the COVID-19 pandemic, more families had to rely on having multiple computers and reliable internet in their homes which caused the digital divide to become more apparent.³¹ Households that were the most impacted by the digital divide included those in rural communities, living in poverty and people of color.^{32,33} Given that both Navajo and Apache counties had relatively low percentages of households with children under 18 years old that have a computer and internet (65% and 42% respectively) (Exhibit 2.15), it is likely that the pandemic’s impact was experienced by many families. Of the people living in households with a computer and internet, 63% of households in the Navajo/Apache Region have fixed broadband with cellular data plan as their internet (Exhibit 2.16). Additionally, local expert knowledge suggests a higher need for computers and internet service among families with young children than is illustrated in these data indicators.

³⁰ Arizona Department of Education. *Welcome to Homeless Education Program*. Retrieved from <https://www.azed.gov/homeless>

³¹ Masonbrink, A., Hurley, E. (2020) "Advocating for children during the COVID-19 school closures." *Pediatrics* 146.3.

³² Goldschmidt, K. (2020) "The COVID-19 pandemic: Technology use to support the wellbeing of children." *Journal of pediatric nursing* 53

³³ Dorn, E., Hancock, B., Sarakatsannis, J, Viruleg, E. (2020) "COVID-19 and learning loss—disparities grow and students need help." *McKinsey & Company*.

Exhibit 2.13. Households with and without computers and smartphones

| | Total number of households | Percent with computer but no smartphone | Percent with smartphone but no computer | Percent with both smartphone and computer | Percent with neither smartphone nor computer |
|---------------------------------|----------------------------|---|---|---|--|
| FTF Navajo/Apache Region | 26,938 | 10% | 15% | 65% | 10% |
| Blue Ridge | 5,035 | 10% | 11% | 68% | 11% |
| Concho-St Johns | 2,276 | 18% | 16% | 52% | 15% |
| Holbrook-Joseph City-Sanders | 2,679 | 5% | 20% | 60% | 14% |
| Show Low-Heber | 9,299 | 9% | 15% | 68% | 8% |
| Snowflake | 4,134 | 10% | 14% | 64% | 12% |
| Vernon-Alpine-Round Valley | 3,515 | 13% | 15% | 62% | 10% |
| Navajo County | 34,990 | 7% | 18% | 53% | 23% |
| Apache County | 20,867 | 9% | 13% | 35% | 43% |
| ARIZONA | 2,571,268 | 7% | 12% | 73% | 8% |

U.S. Census Bureau; American Community Survey, 2019 American Community Survey 5-Year Estimates, Table B25106.

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

Exhibit 2.14. Persons (all ages) in households with and without computers and internet connectivity

| | Number of person (all ages) living in households | Percent in households with computer and internet | Percent in households with computer but no internet | Percent in households without computer |
|---------------------------------|--|--|---|--|
| FTF Navajo/Apache Region | 71,959 | 83% | 10% | 7% |
| Blue Ridge | 11,821 | 84% | 8% | 8% |
| Concho-St Johns | 6,468 | 77% | 11% | 12% |
| Holbrook-Joseph City-Sanders | 8,227 | 76% | 14% | 10% |
| Show Low-Heber | 23,029 | 84% | 11% | 5% |
| Snowflake | 12,811 | 86% | 7% | 7% |
| Vernon-Alpine-Round Valley | 9,602 | 84% | 9% | 8% |
| Navajo County | 106,396 | 62% | 16% | 21% |
| Apache County | 70,266 | 40% | 21% | 39% |
| ARIZONA | 6,892,175 | 87% | 7% | 6% |

U.S. Census Bureau; American Community Survey, 2019 American Community Survey 5-Year Estimates, Table B28005.

Exhibit 2.15. Children (ages 0-17) in households with and without computers and internet connectivity

| | Number of children (ages 0-17) living in households | Percent in households with computer and internet | Percent in households with computer but no internet | Percent in households without computer |
|---------------|---|--|---|--|
| Navajo County | 29,385 | 65% | 17% | 18% |
| Apache County | 19,521 | 42% | 25% | 32% |
| ARIZONA | 1,632,019 | 88% | 8% | 4% |

U.S. Census Bureau; American Community Survey, 2019 American Community Survey 5-Year Estimates, Table B28005.

*Internet includes a dial-up internet subscription or a broadband internet subscription.

Exhibit 2.16. Households with computer & internet by type (dial-up, broadband, satellite, other)

| | People living in households with computer and internet (all ages) | Percent with fixed broadband and cellular data plan | Percent with fixed broadband without cellular data plan | Percent with cellular data plan without fixed broadband | Percent with dial-up internet only |
|---------------------------------|---|---|---|---|------------------------------------|
| FTF Navajo/Apache Region | 59,602 | 63% | 24% | 13% | 0% |
| Blue Ridge | 9,985 | 74% | 18% | 8% | 0% |
| Concho-St Johns | 5,008 | 58% | 33% | 9% | 0% |
| Holbrook-Joseph City-Sanders | 6,223 | 41% | 37% | 21% | 1% |
| Show Low-Heber | 19,399 | 65% | 22% | 12% | 0% |
| Snowflake | 10,967 | 61% | 20% | 18% | 0% |
| Vernon-Alpine-Round Valley | 8,020 | 68% | 24% | 7% | 1% |
| Navajo County | 66249 | 56% | 26% | 17% | 1% |
| Apache County | 28240 | 46% | 31% | 20% | 3% |
| ARIZONA | 5,968,639 | 69% | 18% | 12% | 0% |

U.S. Census Bureau; American Community Survey, 2019 American Community Survey 5-Year Estimates, Table B2808.

ECONOMIC CIRCUMSTANCES HIGHLIGHTS

The unemployment rate in Navajo and Apache counties both peaked in 2020 (10% and 13% respectively) due to the COVID-19 pandemic but started to decline in 2021. Single-parent families and single-female parent families in particular who are working earn significantly less, on average, than dual-parent households. Additionally, 30% of children under age six in the region live in poverty. One in four residents live without affordable housing in the region.

Assets

About 90% of children under age six live in households with at least one parent in the labor force. In addition, the unemployment rate is generally consistent with the state average.

Needs

According to the American Community Survey, about 30% of children in the region live in poverty and a quarter of residents in the region spend more than 30% of their income on housing.

About 33% of children under six live in single-parent households, which earn substantially less money than dual parent households.



EDUCATIONAL INDICATORS

EDUCATIONAL INDICATORS

Why It Matters

Early care and education helps children thrive in school. Research shows that children who participate in early care and education programs are more likely to perform better on educational indicators such as math and reading tests, attendance rates, and discipline referrals than children who do not.^{34, 35}

Educational indicators that affect student outcomes and are likely related to participation in early care and education include, but are not limited to, school attendance, proficiency exams, grades, graduation and dropout rates, and educational attainment. For example, poor attendance in school affects student outcomes because it limits children from gaining knowledge and thriving in an academic setting.

Research indicates an association between high school dropout rates and poor attendance as early as kindergarten; on average, dropouts have missed 124 days of school by the time they reach 8th grade.³⁶ In addition, irregular attendance influences school budgets and could potentially lead to fewer funds for essential classroom needs.³⁷

Notably, children's participation in quality early care and education can also yield lifelong benefits. Improved performance on standardized tests and lower dropout rates in turn increases children's likelihood of graduating from high school, earning higher monthly earnings, and owning a home. Research shows that high-quality early care and education programs can reduce disparities in college graduation, educational attainment, and wages.³⁸ 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 a higher chance of being incarcerated, therefore likely to confront more barriers while raising a family.³⁹ Essentially, a child's enrollment in early learning provides short-term and long-term benefits that will contribute to the child successfully transitioning into and prospering in adulthood.

³⁴ Bakken, L., Brown, N., Downing, B. (2017) *Early Childhood Education: The Long-Term Benefits*. *Journal of Research in Childhood Education*. Volume 31. Issue 2. Retrieved from: <https://doi.org/10.1080/02568543.2016.1273285>

³⁵ Campbell, F., Pungello, E., Kainz, K., Burchinal, M., Pan, Y., Wasik, B., Barbarin, O., Sparling, J., Ramey, C., (2012) *Adult outcomes as a function of an early childhood educational program: an abecedarian project follow-up*. Retrieved from <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3989926/>

³⁶ GreatSchools staff. *Why attendance matters*. (2011). Retrieved from <http://www.greatschools.org/gk/articles/school-attendance-issues//>

³⁷ National Center for Education Statistics (2009). *Every school day counts: The forum guide to collecting and using attendance data*. Retrieved from <https://nces.ed.gov/pubs2009/attendancedata/chapter1a.asp>

³⁸ Bustamante, A., Dearing, E., Zachrisson, H., Vandell, D. (2021) *Adult outcomes of sustained high-quality early child care and education: Do they vary by family income?* Retrieved from <https://doi.org/10.1111/cdev.13696>

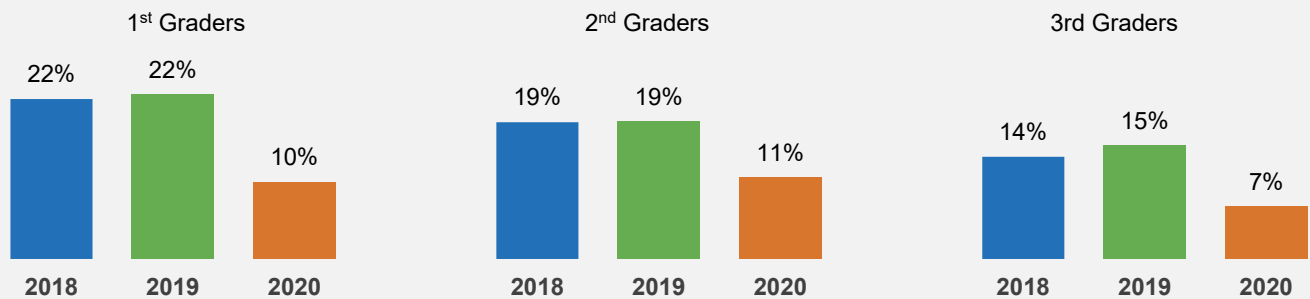
³⁹ Christle, C. A., Jolivette, K., Nelson, M. C. (2007). *School characteristics related to high school dropout rates*. *Journal of Remedial and Special Education*, 28, 15. Retrieved from www.eric.ed.gov/ERICWebPortal/recordDetail?accno=EJ785964

What the Data Tell Us

Student Attendance

Between 2018 and 2019, the FTF Navajo/Apache Region experienced similar percentages of students missing ten or more days of school while the number decreased subsequently in 2020 (Exhibit 3.1). The percentage of students in the region that missed ten or more days of school was comparable to the state as a whole (not shown). It can be observed that the higher the grade level, the lower the rate of absences. There are many potential explanations for such findings, including that younger children may get sick more frequently than older children, parents may be more willing to let their children miss school in earlier years, or that the perception of the value of education changes as children grow.

Exhibit 3.1. Percentage of students absent ten or more days from school in the Navajo/Apache Region



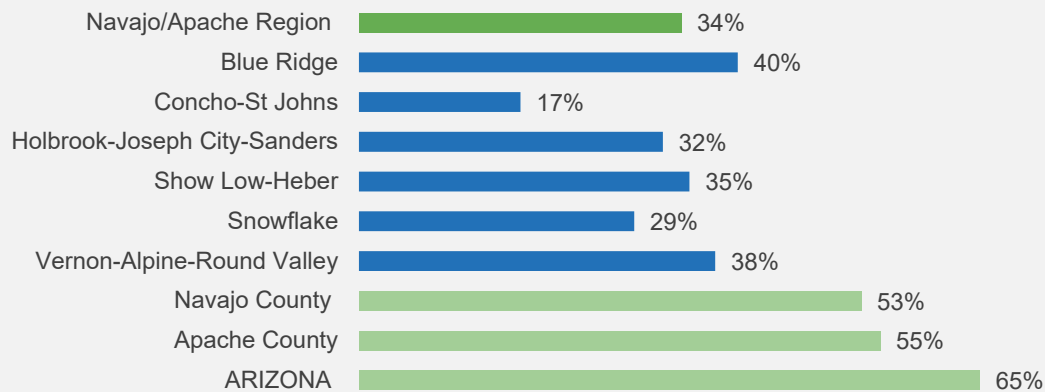
Arizona Department of Education (2015). *Chronic Absences*. Provided by AZ FTF.

*Data available by school district

Early Achievement

Just about one third of preschool-aged children in the FTF Navajo/Apache Region (34%) are enrolled in nursery school, preschool, or kindergarten, which is significantly lower than Arizona by about 30 percentage points and lower than Navajo or Apache counties by approximately 20% (Exhibit 3.2). The percent of preschool-aged children enrolled in nursery school, preschool, or kindergarten varies quite a bit by subregion, from 17% in Concho-St. Johns to 40% in Blue Ridge.

Exhibit 3.2. Children ages 3-4 enrolled in nursery school, preschool, or kindergarten*

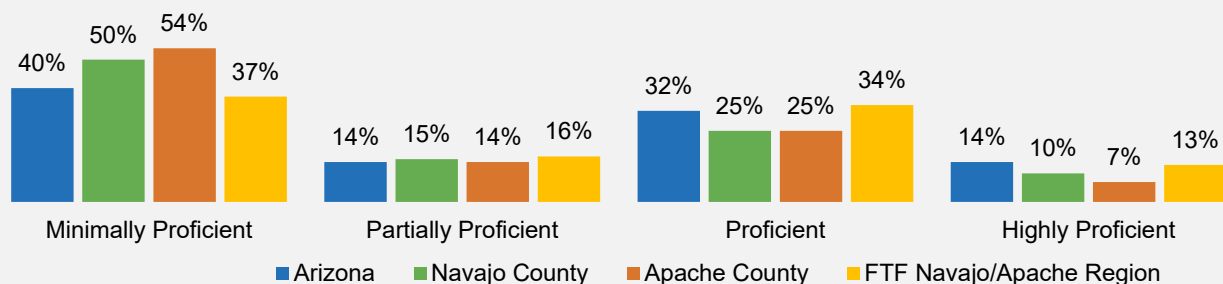


U.S. Census Bureau; American Community Survey, 2019 American Community Survey 5-Year Estimates, Table B2808.

**There is no data available on the status of children not enrolled in school.*

Research shows that preschool attendance has an effect on future academic performance, specifically English and math scores.⁴⁰ The English Language Arts (ELA) assessment results of the AzMERIT demonstrated that about 47% of all third graders in the FTF Navajo/Apache Region scored “proficient” or “highly proficient”, which is about equivalent to the statewide percentage (Exhibit 3.3). Slightly more, about 53%, of third graders scored “proficient” or highly proficient” on the math assessment test in the FTF Navajo/Apache Region, which is likewise similar to the percent for the state (Exhibit 3.4). Although math assessment results are slightly higher than the ELA assessment results, overall about half of all third graders are not meeting the proficiency standard for the two subjects.

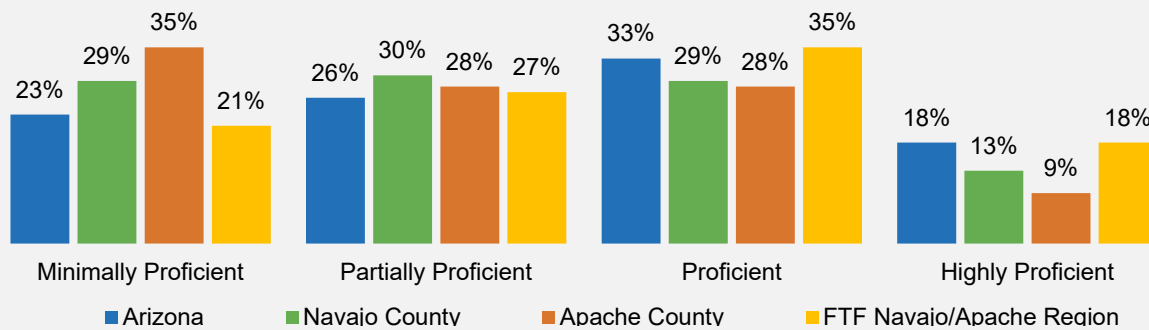
Exhibit 3.3. 2019 AzMERIT English Language Arts assessment results for third grade students



Arizona Department of Education (2019). AzMERIT Reports. Provided by AZ FTF.

⁴⁰ Andrews, R. J., Jargowsky, P., & Kuhne, K. (2012). *The effects of Texas's targeted pre-kindergarten program on academic performance (No. w18598)*. National Bureau of Economic Research.

Exhibit 3.4. 2019 AzMERIT math assessment results for 3rd grade students

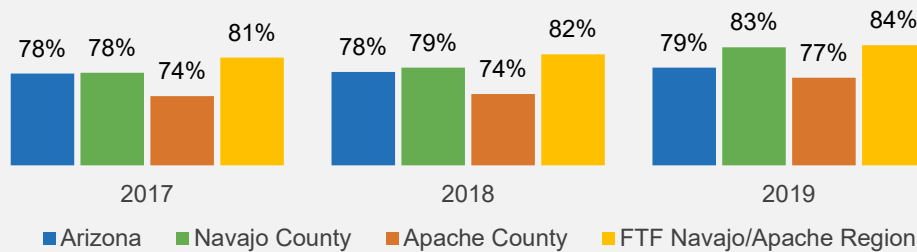


Arizona Department of Education (2019). AzMERIT Reports. Provided by AZ FTF.

High School Graduation & Dropout Rates

Between 2017 and 2019, high school graduation rates increased for the FTF Navajo/Apache Region, Navajo and Apache counties, and Arizona (Exhibits 3.5 and 3.6). In 2019, 84% of students graduated within four-years in the region, higher than Navajo and Apache counties, and Arizona (Exhibit 3.5). From 2018-2020, the percent of students dropping out of high school in the FTF Navajo/Apache Region, the two counties, and Arizona decreased slightly (Exhibit 3.7).

Exhibit 3.5. 2017-2019 high school graduation rates: 4-year cohort

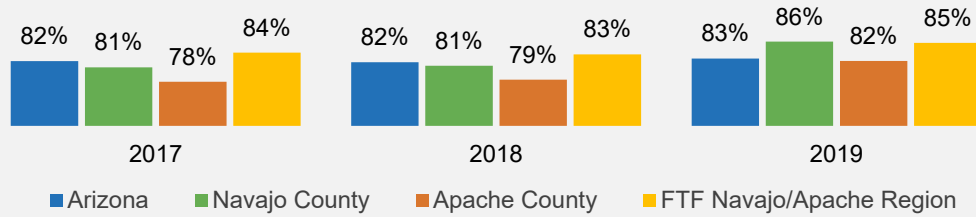


Arizona Department of Education (2021). Graduation Rate 2018 Cycle. Provided by AZ FTF.

*Data available by breakdown city, school district, school, and zip code

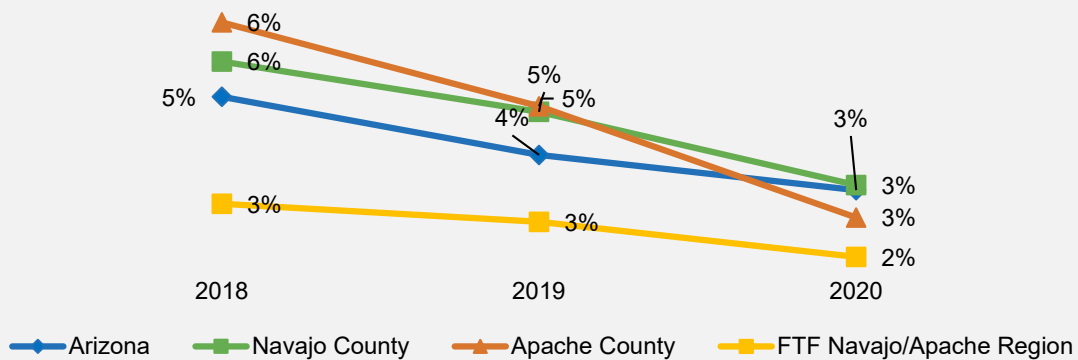
**The four-year graduation rate counts a student who graduates with a regular high school diploma in four years or less as a high school graduate in his or her original cohort

Exhibit 3.6. 2017-2019 high school graduation rates: 5-year cohort



Arizona Department of Education (2021). Graduation Rate 2018 Cycle. Provided by AZ FTF.

Exhibit 3.7. 2018-2020 high school dropout rates

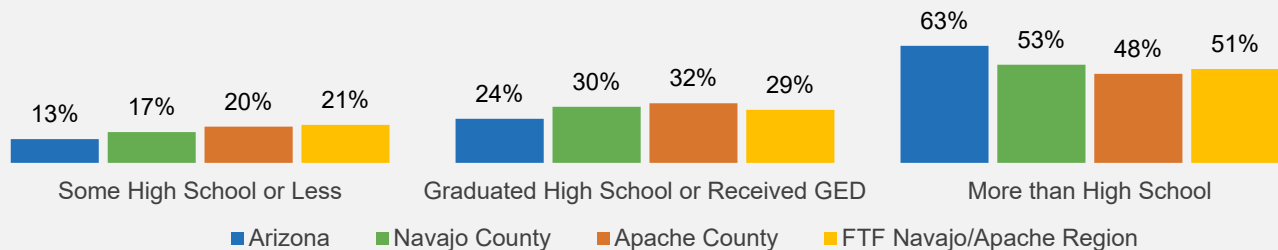


Arizona Department of Education (2014). Graduation Rate 2018 Cycle. Provided by AZ FTF.

Educational Attainment

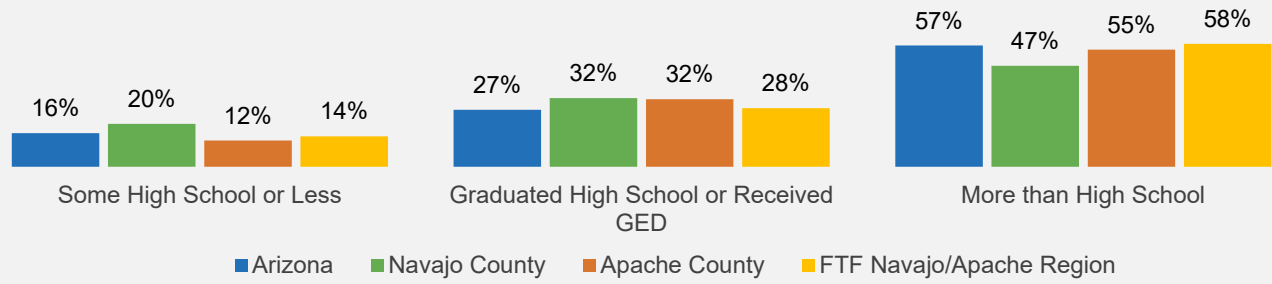
In the FTF Navajo/Apache Region, 80% of adults age 25 and older have completed at least a high school education, which is a lower percentage than Apache county and the state (Exhibit 3.8). Among mothers giving birth in 2019, 86% of infants were born to mothers who completed at least a high school education (Exhibit 3.9).

Exhibit 3.8. 2015-2019 educational attainment of adults 25 and older



American Community Survey five year estimates, 2015-2019; generated by AZ FTF; using American FactFinder; <<http://factfinder2.census.gov>>.

Exhibit 3.9. Percentage of live births by mother's educational attainment



Arizona Department of Health Services (2019). Vital Statistics. Provided by AZ FTF.

EDUCATIONAL INDICATORS HIGHLIGHTS

A child's development during their first five years of life makes an impact on their performance in future educational endeavors. Overall, the FTF Navajo/Apache Region is performing better than the state or county on many education indicators. High school graduation rates are higher in the region than in Arizona or in Navajo or Apache counties. Additionally, about 34% of preschool-age children are enrolled in early education and about 50% of third-grade students in the FTF Navajo/Apache Region are scoring proficiently on the math and English Language Arts (ELA) assessments, similar to the scores at the state level. Half of all adults 25 and older in the region (51%) have completed high school, received a GED, or pursued further education past high school, and among mothers only 14% of mothers do not have a high school education in the region.

Assets

According to the American Community Survey, the high school graduation rates and the average educational attainment level of adults and parents in the region are high.

Needs

AzMERIT reports from the Arizona Department of Education show that half of third graders are not meeting proficiency standards for English Language Arts (53%) and Math (48%)



EARLY LEARNING

EARLY LEARNING

Why It Matters

Early learning fosters children's development and well-being at a critical time in their lives. Early learning is supported by early care and education (ECE), a constellation of all formal and informal educational programs and strategies designed to contribute to the growth and development of children from birth through age five.⁴¹ 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.⁴² Research also shows that when children participate in high-quality learning environments, they learn and develop important skills and abilities such as motivation, self-control, focus and self-esteem. These skills prepare them for educational achievement later in life and reduce the need for special education programs.⁴³ In addition, research shows that investments in ECE have long-term health effects, helping to prevent disease and promote health.^{44, 45} For disadvantaged families, early childhood programs have benefits on health, future wages, crime reduction, and education.⁴⁶ Children who participate in early care and education 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.^{47, 48}

Key indicators of early learning that help identify the needs of children include, but are not limited to, the availability of ECE centers and homes; enrollment in ECE programs; compensation and retention of ECE professionals; costs of child care and availability of child care subsidies or scholarships; and capacity to serve children with special needs.

⁴¹ University of Massachusetts Global (2021). *What is the purpose of early childhood education? Why it's so important*. Retrieved from: <https://www.umassglobal.edu/news-and-events/blog/what-is-purpose-of-early-childhood-education>

⁴² Teach.com powered by 2U (n.d.). *Early Childhood Education*. Retrieved from <https://teach.com/where/levels-of-schooling/early-childhood-education/>

⁴³ McCoy, C., Yoshikawa, H., Ziol-Guest, K. (2017) *Impacts of early childhood education on medium- and long-term educational outcomes*. Retrieved from <https://journals.sagepub.com/doi/abs/10.3102/0013189X17737739>

⁴⁴ Garcia, J., Heckman, J., Ziff, A. (2019) *Early Childhood education and crime*. Retrieved from <https://doi.org/10.1002/imhj.21759>

⁴⁵ 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.

⁴⁶ Garcia, J., Heckman, J., Leaf, D., Prados, M. (2016) *The life-cycle benefits of an influential early childhood program*. National Bureau of Economic Research. Retrieved from <https://www.nber.org/papers/w22993>

⁴⁷ 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.

⁴⁸ 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.

What the Data Tell Us

Early Care and Education

There are 55 ECE centers and homes with a capacity of 2,373 children in the FTF Navajo/Apache Region (Exhibit 4.1).⁴⁹ Given an estimated population of 6,166 children in the region, there may be an unmet need for ECE centers and homes in the region (Exhibit 1.2). In addition, licensed capacity may not be entirely accurate as the actual facility may not choose to enroll 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 and must comply with licensing requirements. However, correspondence with a local healthcare expert with up-to-date knowledge also reveals a likely more accurate estimate of 12 established childcare providers within the Navajo/Apache Region, and an unknown quantity of unlicensed caregivers.⁵⁰

Exhibit 4.1. Number and licensed capacity of early care and education centers and homes

| | Number of ECE Facilities | Total Licensed Capacity |
|---------------------------------|--------------------------|-------------------------|
| FTF Navajo/Apache Region | 31 | 1,373 |
| Navajo County | 50 | 2,221 |
| Apache County | 26 | 1,284 |
| ARIZONA | 4,307 | 395,787 |

Arizona Department of Economic Security. (2021). 2021 Child Care Assistance Data. Unpublished data received by request

As previously mentioned, 34% of children between the ages of three and four are enrolled in ECE programs in the FTF Navajo/Apache Region (Exhibit 3.2). This is lower than the 46% assumed to need child care since all adults in the household are employed (Exhibit 2.5). 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.⁵¹

ECE teachers/professionals are tasked with the early care and education of young children. The responsibilities of ECE teachers 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.⁵²

⁴⁹ Arizona Department of Economic Security (2019). *Childcare Providers and Capacity*. Provided by AZ FTF.

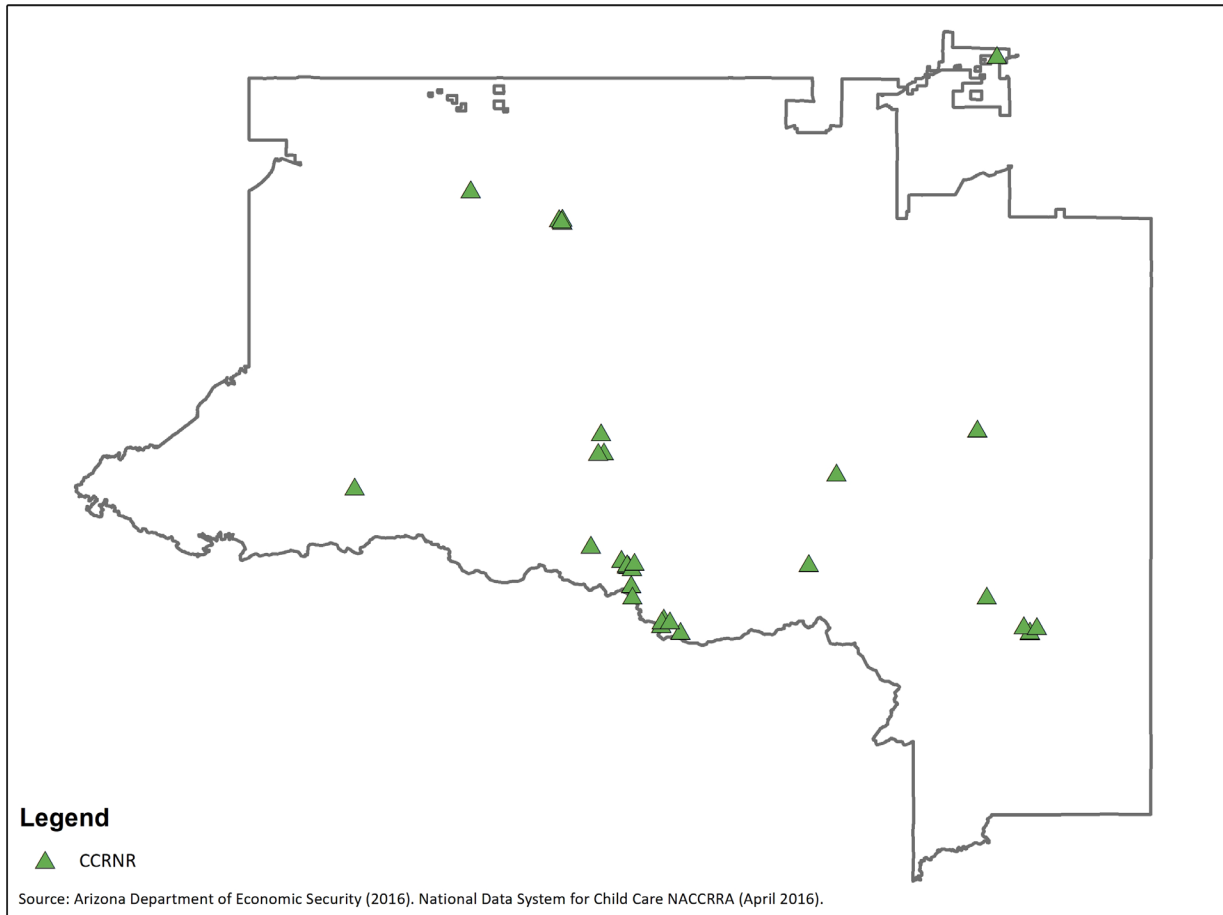
⁵⁰ Summit Healthcare Regional Medical Center (2021). [Daycare Resources]. Data received by correspondence.

⁵¹ Greenberg, M. (2007). Next steps for federal child care policy. *The Next Generation of Antipoverty Policies*, 17, 2. Retrieved from <http://www.futureofchildren.org/publications/journals/article/index.Xml?journalid=33&articleid=67§ionid=353>

⁵² Bano, N., Ansari, M., Ganai, M. (2016). *A study of personality characteristics and values of secondary school teachers in relation to their classroom performance and students' likings*. Anchor Academic Publishing.

The licensed ECE locations are mapped by zip code in Exhibit 4.2 below. The majority are clustered in the southern portion of the region, in and areas around Show Low, Snowflake, and Pinetop-Lakeside.

Exhibit 4.2. Map of ECE locations in FTF Navajo/Apache Region



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.⁵³ Research shows that Head Start children tend to score higher on all domains of cognitive and social-emotional development in comparison to children not enrolled in Head

⁵³ *Head Start Programs*. (2020 November 3). Retrieved from <http://www.acf.hhs.gov/ohs/about/head-start>

Start.⁵⁴ 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 and becoming less aggressive and hyperactive over the course of a year.⁵⁵

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.⁵⁶ 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.

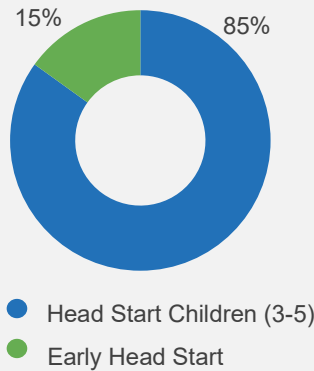
Across the four northern Arizona counties, there are a total of 2,073 children enrolled in Head Start and Early Head Start in the northern Arizona counties. Of those enrolled, 85% are enrolled in Head Start and approximately 15% are enrolled in Early Head Start (Exhibit 4.3). In addition, close to 46% of children enrolled in Head Start were 4 years old (Exhibit 4.4). 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.

⁵⁴ *Head Start impact study: Final report. (2010, January). Retrieved from http://www.acf.hhs.gov/sites/default/files/opre/executive_summary_final.pdf*

⁵⁵ *Aikens, N., Kopack Klein, A., Tarullo, L., West, J. (2013). Getting ready for kindergarten: Children's progress during Head Start. FACES 2009 report. Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.*

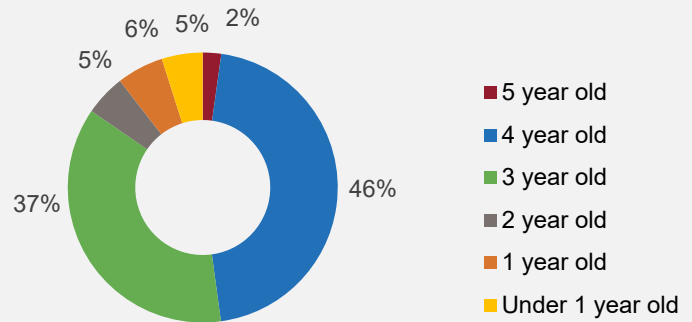
⁵⁶ *More recent Head Start data were not available for this RNA report due to barriers in collecting data in part due to the impact of the COVID-19 pandemic.*

Exhibit 4.3. 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 4.4. 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/>

Quality of Early Care and Education

Quality First is a signature program of FTF that is designed to improve the quality of early learning for children birth to age five. Quality First partners with ECE providers across Arizona to provide coaching and funding that is meant to improve the quality of their services. Quality First implemented a statewide standard of quality for ECE programs along with associated star ratings. The star ratings allow parents to easily take quality into consideration when deciding on care providers. The star ratings range from one to five indicating the level of quality and attainment of quality standards.⁵⁷



| | |
|------------------|--|
| Highest Quality | Far exceeds quality standards |
| Quality Plus | Exceeds quality standards |
| Quality | Meets quality standards |
| 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, one of which is rated 5-stars, one of which is rated 4-stars, and two of which are rated 3-stars. In total, 103 children are enrolled in these four centers and homes. Looking at the population of children zero to five (Exhibit 1.2), children enrolled in Quality First 3-5 star centers comprise less than two percent of the population.

⁵⁷ Arizona First Things First (October 2021). Quality First. Retrieved from: <https://www.firstthingsfirst.org/resources/quality-first/>

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 ECE programs. 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.⁵¹ 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.

Across the state, Navajo and Apache counties, and the FTF Navajo/Apache Region, 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 (Exhibit 4.5). The median cost per day of approved family homes in the FTF Navajo/Apache Region are equal to the state while licensed centers in the Navajo/Apache Region and Navajo and Apache County have a lower 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.

Based on the median cost per day, the median cost of child care per year for one infant in the Navajo/Apache Region totals to approximately \$7,250 a year for licensed centers, \$5,000 a year for approved family homes, and approximately \$6,500 certified group homes. Compared against the median income of husband-wife families in the Navajo and Apache counties with children under 18 (Exhibit 4.6), licensed centers comprise approximately 15% to 20% of the regional median family income.

The median cost per year of child care comprises an even higher amount of the median income for single parent led families with children under 18 in Navajo and Apache counties and is considerably more substantial for single-female families compared to single-male families. Based on the median income of single-female families (Exhibit 2.7), licensed centers can make up 30% to 35% of their median income. High costs can be a barrier in affording quality child care especially for single-female families.

Exhibit 4.5. Median cost per day of early childhood care

| | Approved Family Homes | | | Certified Group Homes | | | Licensed Centers | | |
|---------------------------------|-----------------------|----------------|----------------|-----------------------|----------------|----------------|------------------|----------------|----------------|
| | Infants | 1-2 Year Olds | 3-5 Year Olds | Infants | 1-2 Year Olds | 3-5 Year Olds | Infants | 1-2 Year Olds | 3-5 Year Olds |
| FTF Navajo/Apache Region | \$20.00 | \$20.00 | \$20.00 | \$27.50 | \$26.00 | \$25.50 | \$32.50 | \$29.00 | \$25.00 |
| Navajo County | \$20.00 | | | \$20.00 | | | \$35.00 | \$27.50 | \$25.00 |
| Apache County | N/A | | | N/A | | | \$35.00 | \$28.00 | \$28.00 |
| ARIZONA | \$20.00 | | | \$20.00 | | | \$43.03 | \$38.00 | \$33.00 |

Arizona Department of Economic Security (2018). Child Care Market Rate Survey. Provided by AZ FTF.

Exhibit 4.6. Cost of center-based child care as a percentage of income

| | Median Family Income (2019) | Cost for an infant | Cost for a 1-2 year old child | Cost for a 3-5 year old child |
|---------------|-----------------------------|--------------------|-------------------------------|-------------------------------|
| Navajo County | \$48,944 | 18% | 14% | 13% |
| Apache County | \$41,259 | 21% | 17% | 17% |
| ARIZONA | \$70,184 | 15% | 14% | 12% |

Arizona Department of Economic Security (2018). Child Care Market Rate Survey. Provided by AZ FTF.

From 2017-2020, the FTF Navajo/Apache Region experienced a slight decrease in the number of children receiving DES child care subsidies while the State experienced an overall increase (Exhibit 4.7). During the same time period, the state, Navajo and Apache counties, and the FTF Navajo/Apache Region all experienced a decrease in the percent of eligible children receiving child care subsidies. The decrease in families receiving child care subsidies may have been due to the closure of child care sites in Spring 2020 due to the COVID-19 pandemic. For Department of Child (DCS)-involved children, there was a similar decrease in the number of children receiving child care subsidies and percent of eligible children receiving subsidies in the FTF Navajo/Apache Region, both counties, and even statewide. (Exhibit 4.8).

Exhibit 4.7. 2019-2020 Number of children eligible and receiving child care subsidies

| | Number of Children Receiving Subsidies | | | | Percent of Eligible Children Receiving Subsidies | | | |
|---------------------------------|--|-----------|-----------|-----------|--|------------|------------|------------------|
| | 2017 | 2018 | 2019 | 2020 | 2017 | 2018 | 2019 | 2020 |
| FTF Navajo/Apache Region | 88 | 87 | 90 | 64 | 93% | 89% | 87% | 72% |
| Navajo County | 155 | 138 | 147 | 100 | 95% | 84% | 89% | 71% |
| Apache County | DS | 12 | 25 | DS | Cannot Calculate | 80% | 93% | Cannot Calculate |
| ARIZONA | 16,922 | 19,813 | 23,155 | 19,909 | 93% | 92% | 92% | 80% |

Arizona Department of Economic Security (2020). Child Care (CCA) Subsidies. Provided by AZ FTF.

Exhibit 4.8. 2019-2020 Number of DCS-involved children eligible and receiving child care subsidies

| | Number of Children Receiving Subsidies | | | | Percent of Eligible Children Receiving Subsidies | | | |
|---------------------------------|--|-----------|-----------|-----------|--|------------|------------|------------------|
| | 2017 | 2018 | 2019 | 2020 | 2017 | 2018 | 2019 | 2020 |
| FTF Navajo/Apache Region | 90 | 78 | 97 | 61 | 78% | 80% | 78% | 58% |
| Navajo County | 111 | 100 | 117 | 76 | 83% | 79% | 81% | 59% |
| Apache County | 32 | 28 | 22 | DS | 91% | 78% | 76% | Cannot Calculate |
| ARIZONA | 12,201 | 12,219 | 11,808 | 7,137 | 88% | 82% | 82% | 59% |

Arizona Department of Economic Security (2020). Child Care (CCA) Subsidies. Provided by AZ FTF.

Developmental Delays and Special Needs

Advances in teaching young children with special needs reflect significant changes in public policy and professional philosophy across the nation. There are diverse perspectives on how to effectively teach young children with developmental delays and special needs.^{58,59} 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 (ages zero to two) and their families receive early intervention services under IDEA Part C. Children and youth (ages three to 21) receive special education and related services under IDEA Part B.⁶⁰

AzeIP is a statewide system that offers services and assistance to families and their children with disabilities or developmental delays under the age of three. The purpose of the program is to intervene at an early stage to help children develop to their highest potential.⁶¹ Research shows that children and youth with mild intellectual disabilities are behind in academic skills compared to their peers.⁶² 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 that has a high probability of resulting in a developmental delay, as defined by the State.⁶³

⁵⁸ Dyson, A. (2001). *Special needs education as the way to equity: an alternative approach?* *Support for Learning*, 16, 3.

⁵⁹ *Examples of developmental delays for preschoolers include, but not limited to, cognitive, motor, social/emotional/behavioral or speech.*

⁶⁰ US Department of Education: Office of Special Education and Rehabilitative Services. Retrieved from <https://www2.ed.gov/about/offices/list/osers/osep/osep-idea.html>

⁶¹ Arizona Department of Economic Security (n.d.). *Arizona Early Intervention Program*. Retrieved from: <https://des.az.gov/services/disabilities/developmental-infant>

⁶² Rosenberg, L., Bart, O., Ratzon, N., Jarus, T. (2013) *Personal and Environmental Factors predict participation of children with and without mild developmental disabilities*. Retrieved from: <https://link.springer.com/article/10.1007/s10826-012-9619-8/>

⁶³ Arizona Department of Economic Security (n.d.) *Eligibility for the Arizona Early Intervention Program*. Retrieved from: <https://des.az.gov/services/disabilities/early-intervention/arizona-early-intervention-program-azeip-eligibility>

From 2018-2020, the FTF Navajo/Apache Region, Navajo and Apache counties, and Arizona experienced a decrease in the number of children receiving AzEIP referrals and services (Exhibit 4.9). Compared to 2018, the number of children receiving referrals in the FTF Navajo/Apache Region in 2020 decreased by around 20%. During the same time frame, the number of children receiving services in the FTF Navajo/Apache Region also decreased from 29 to 10. One reason why all referred children do not receive services may be because of the high eligibility threshold of having a 50% or greater delay in development.

Exhibit 4.9. Children receiving AzEIP referrals and services in the FTF Navajo/Apache Region, Navajo County, Apache County, and Arizona, 2018-2020

| | Number of Children Receiving AzEIP Referrals | | | Number of Children Receiving AzEIP Services | | |
|---------------------------------|--|------------|-----------|---|-----------|-----------|
| | 2018 | 2019 | 2020 | 2018 | 2019 | 2020 |
| FTF Navajo/Apache Region | 100 | 122 | 78 | 29 | 32 | 10 |
| Navajo County | 256 | 261 | 145 | 76 | 62 | 23 |
| Apache County | 132 | 171 | 89 | 28 | 26 | - |
| ARIZONA | 10,535 | 11,190 | 9,794 | 2,421 | 2,641 | 2,172 |

Arizona Department of Economic Security (2021). 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 2017 to 2020, the rates of children receiving referrals and services through the DDD were similar for Arizona, the two counties, and the FTF Navajo/Apache Region (Exhibit 4.10). Overall, across Arizona, Navajo and Apache counties, and the FTF Navajo/Apache Region, the number of referrals stayed relatively constant. However, the number of children receiving services decreased across the board. This decrease may be due to the COVID-19 pandemic when less services were available along with changes in agencies' service capacity over time.

Exhibit 4.10. Children receiving referrals and services from the Division of Developmental Disabilities in the FTF Navajo/Apache Region, Navajo County, Apache County, and Arizona, 2017-2020

| | Number of Children Receiving DDD Referrals | | | | Number of Children Receiving DDD Services | | | |
|---------------------------------|--|-----------|-----------|-----------|---|-----------|-----------|-----------|
| | 2017 | 2018 | 2019 | 2020 | 2017 | 2018 | 2019 | 2020 |
| FTF Navajo/Apache Region | 36 | 43 | 41 | 32 | 36 | 40 | 18 | 14 |
| Navajo County | 62 | 81 | 79 | 64 | 56 | 69 | 25 | 21 |
| Apache County | 30 | 37 | 34 | 26 | 19 | 17 | DS | DS |
| ARIZONA | 5,478 | 6,163 | 6,261 | 5,700 | 5,520 | 6,123 | 4,005 | 4,078 |

Arizona Department of Economic Security (2020). Child Care (CCA) Subsidies. Provided by AZ FTF.

Special Education

The Arizona Department of Education collects information on special education pre-k children who entered kindergarten without the need for an Individualized Education Program (IEP). In 2020, the most common types of disabilities for preschool children were developmental delay and speech/language impairment (Exhibit 4.11). For students in kindergarten to 3rd grade within Navajo and Apache counties in 2018-2020, the number of students enrolled in special education stayed relatively consistent (Exhibit 4.12). Further, the percentage of students who transition from preschool special education to mainstream kindergarten classrooms has decreased in recent years.⁶⁴ Similar to the disabilities of preschool children, the most common disabilities for students in kindergarten to 3rd grade were developmental delay and speech/language impairment.

Exhibit 4.11. Preschool children enrolled in special education by type of disability, 2020

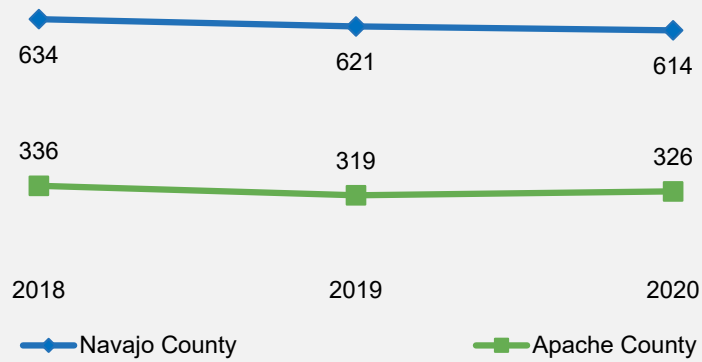
| | Percent in Special Education | Autism | Developmental Delays | Hearing Impairment | Other | Speech/Language Impairment |
|---------------------------------|------------------------------|-----------|----------------------|--------------------|---------------|----------------------------|
| FTF Navajo/Apache Region | 18% | 4% | 48% | <2% | <2% | 46% |
| Navajo County | 15% | 3% | 53% | <2% | 3% | 41% |
| Apache County | 14% | 4% | 58% | <2% | 3% | 34% |

Arizona Department of Education (2020). [Special education]. Unpublished data.

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

⁶⁴ Arizona Department of Education (2020). [Special education]. Unpublished data.

Exhibit 4.12. Percent of children enrolled in special education, 2018-2020



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

EARLY LEARNING HIGHLIGHTS

About 34% of preschool-aged children in the region are enrolled in ECE programs, which is less than the 46% assumed to need child care based on their parents' employment status. A contributing factor may be the high cost of child care. With respect to child care subsidies, fewer children are becoming eligible for, receiving, and remaining on the waitlist for the subsidies. Referrals and services for AzEIP and DDD are decreasing for the region while the percentage of students who transition from special education in preschool to mainstream kindergarten classrooms is decreasing. The number of preschoolers with disabilities is decreasing in the region and the most common disabilities are developmental delay and speech/language impairment.

Assets

Quality First has been increasing the quality and stability of child care programs in the region.

Needs

Given the estimated capacity of ECE centers and homes in the FTF Navajo/Apache Region and the estimated population of young children, there is likely a shortage of ECE centers and homes to serve all families and children in need of quality care and education.

Based on household median income data, the cost of child care can make up a significant portion of household income. High costs can be a particularly acute barrier to quality child care for single-income families led by females, whose median income is much lower than dual-income families.



CHILD HEALTH

CHILD HEALTH

Why It Matters

Ensuring healthy development through early identification and treatment of children's health issues helps families understand healthy developmental pathways and how health issues affect children and their school readiness.⁶⁵ There are many health factors that impact the well-being of young children and their families. Research has shown that high quality prenatal care improves maternal health and health behaviors during pregnancy and after childbirth.⁶⁶ For example, during prenatal care visits, expectant mothers are provided with information and resources to promote a healthy pregnancy and increase the healthy development of their child. At routine prenatal visits, physicians often remind expectant mothers of the importance of abstaining from substance use, maintaining a healthy diet, and the benefits of breastfeeding, all of which influence a baby's development. For example, maternal overweight and obesity have been associated with risks of gestational diabetes mellitus, caesarean delivery, large for gestational age, pre-eclampsia, preterm birth, and admission to special care nursery or intensive care unit.⁶⁷

Engaging in healthy preventative 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.⁶⁸ 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 in life. Children under the age of five are at the highest risk of contracting severe illnesses because their bodies have not built a strong immune system yet.⁶⁹ Another factor that may impact health outcomes and may be deemed less important by parents is early screening for hearing loss. According to the Center for Disease Control and Prevention (CDC), hearing loss can impact a child's ability to develop communication, language, and social skills.⁷⁰ Fortunately, early screening for hearing loss can connect children with services that can increase the likelihood of the child reaching their full potential.

⁶⁵ *Schools & Health* (2016). *Impact of Health on Education*. Retrieved from <http://www.schoolsandhealth.org/pages/Anthropometricstatusgrowth.aspx>

⁶⁶ Yan, J. (2016) *The effects of prenatal care utilization on maternal health and health behaviors*. *Health Economics*. Volume 26 Issue 8. Retrieved from <https://doi.org/10.1002/hec.3380>

⁶⁷ Yang, Z., Phung, H., Freebairn, L., Sexton, R., Raulli, A., Kelly, P. (2018) *Contribution of maternal overweight and obesity to the occurrence of adverse pregnancy outcomes*. *ANZJOG*. Volume 59 Issue 3. Retrieved from <https://doi.org/10.1111/ajo.12866>

⁶⁸ *Office on Women's Health* (2014). *Why breastfeeding is important*. Retrieved from <https://www.womenshealth.gov/breastfeeding/breastfeeding-benefits.html>

⁶⁹ *Centers for Disease Control and Prevention* (2016). *Infant Immunizations*. Retrieved from <http://www.cdc.gov/vaccines/parents/parent-questions.html>

⁷⁰ *Center for Disease Control and Prevention Division* (2020). *Hearing Loss*. Retrieved from <https://www.cdc.gov/ncbddd/hearingloss/index.html>

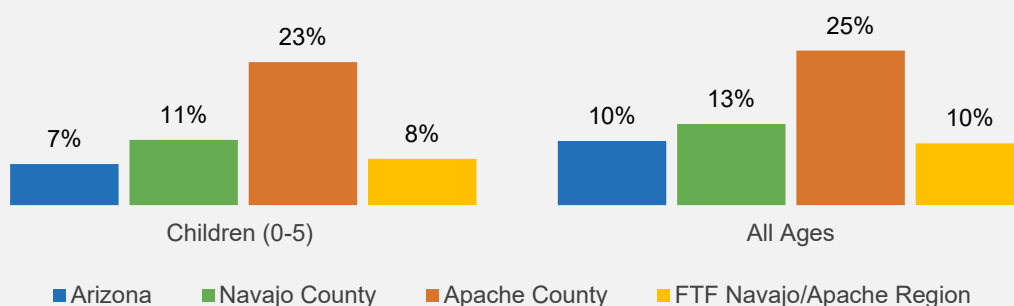
This chapter provides an overview of the health indicators for this region that highlight the well-being of children under age six and their families. Healthy People 2030 (HP 2030) set 10-year national objectives for improving the health of all Americans. Healthy People established these benchmarks to encourage collaborations across communities and sectors, empower individuals to make informed health decisions, and measure the impact of prevention activities.⁷¹ When appropriate, these benchmarks will be presented throughout this chapter as comparison points for local indicators.

What the Data Tell Us

Access to Health Services

One indication of people’s access to health services is whether they have health insurance coverage that helps make health care affordable. When children lack health insurance, they are at risk of poor health outcomes and long-term complications if their families avoid or delay medical care because of cost. Lack of access to affordable health care 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.⁷² Overall, Apache County has a significantly higher percentage of individuals without health insurance coverage compared to Navajo County, indicating more access to affordable health insurance options is needed. Additionally, in 2019, eight percent of children under age six in the FTF Navajo/Apache Region reported not having any health insurance (Exhibit 5.1). These data do not include tribal reservations, such as the White Mountain Apache Tribe, and their health insurance coverage since the FTF Navajo/Apache Region does not include any tribal lands.

Exhibit 5.1. Estimated percentage without health insurance

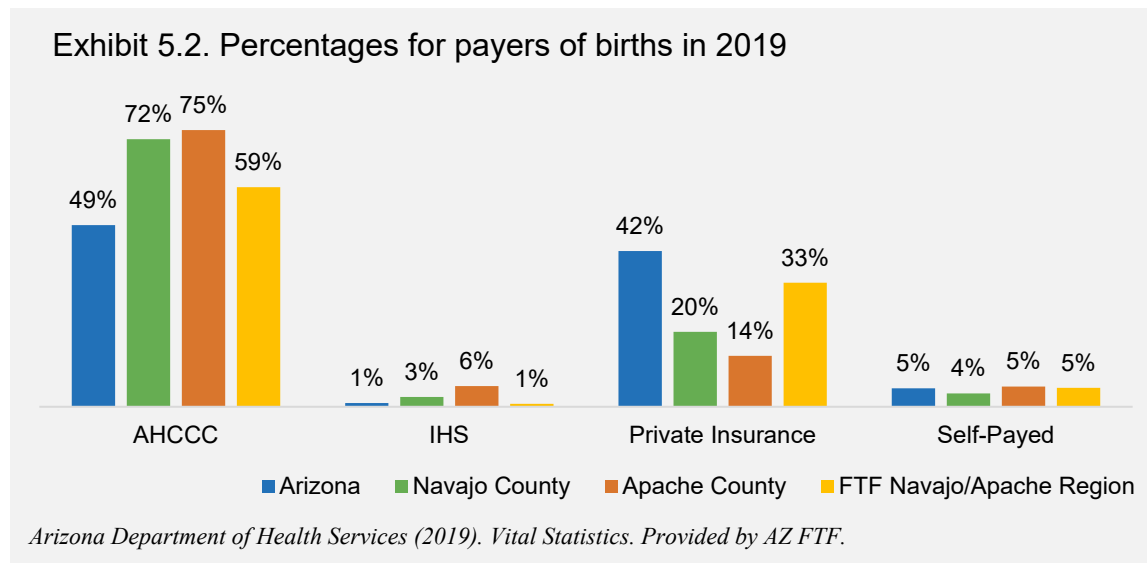


U.S. Census Bureau; American Community Survey, 2019 American Community Survey 5-Year Estimates, Table B27001

⁷¹ Healthy People 2030. U.S. Department of Health and Human Services. ODPHP Office of Disease Prevention and Health Promotion. Retrieved from <https://health.gov/healthypeople>

⁷² LaVeist, T., Gaskin, D., Richard, P. (2009). *The Economic Burden of Health Inequalities in the United States*. Joint Center for Political and Economic Studies. Retrieved from https://hsr.himmelfarb.gwu.edu/sphhs_policy_facpubs/225/

The HP 2030 target is for 92.1% of Americans to have medical insurance by 2030.⁷³ The combination of the limited number of providers in rural parts of the region and children lacking health insurance could potentially place children in the region at risk for long term health complications if they fall ill and providers are not available or their parents do not have the sufficient funds to obtain care. In terms of payers of births in FTF Navajo/Apache Region, five percent paid with their own funds outside of insurance, which is similar to the rate of self-payments in Arizona overall (Exhibit 5.2).



Hospitalizations

In the FTF Navajo/Apache Region, there have been a total of 29 non-fatal inpatient hospitalizations for children during the five year period from 2016 to 2020, for reasons such as falling or poisoning (Exhibit 5.3). As for non-fatal emergency department visits, the FTF Navajo/Apache Region had a total of 2,008 visits between 2016 to 2020. The most common reasons for visits include falls or being ‘struck by or against’ an object or person. The injury hospitalization classifications that ADHS provides do not specify intent of injury, therefore the ‘struck by/against’ category can include intentional and unintentional injury by objects or people. However, the proportion of injuries under this category that would constitute a form of abuse/neglect can be assumed as low given state level data regarding injury intent.⁷⁴ Accidents such as these further emphasize the importance of health care access for families and their children, as rapid medical response can prevent long term or more severe health complications.

⁷³ *Healthy People 2030. About Health People. Retrieved from <https://health.gov/healthypeople/objectives-and-data/browse-objectives/health-care-access-and-quality/increase-proportion-people-health-insurance-ahs-01>*

⁷⁴ *Arizona Department of Health Services. State Trauma Advisory Board 2021 Annual Report. Retrieved from: <https://www.azdhs.gov/documents/preparedness/emergency-medical-services-trauma-system/reports/2021-stab-annual-report.pdf>*

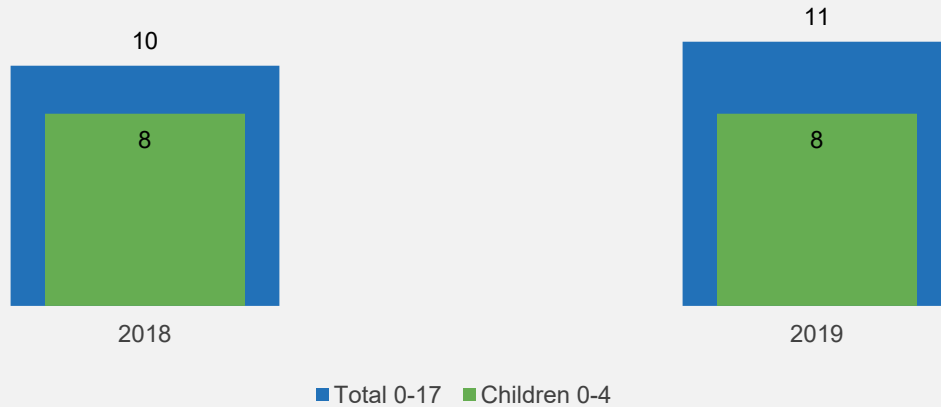
Exhibit 5.3. Injury hospitalizations and ED visits for children 0-4, ADHS (2016-2020)

| Indicator | Arizona | Navajo County | Apache County | FTF Navajo/Apache Region |
|--------------------------------------|---------|---------------|---------------|--------------------------|
| Number of Non-Fatal Hospitalizations | 2,890 | 62 | 40 | 29 |
| Number of ED Visits | 181,035 | 2,309 | 1,128 | 2,008 |

Arizona Department of Health Services (July 2020). Unintentional Injuries in Children 0-5, Arizona 2016-2020. Provided AZFTF

In 2018 and 2019, the total number of deaths to children ages 0 to 17 years old stayed consistent and relatively low (Exhibit 5.4). The majority of these childhood deaths across both years occurred in young children ages 0 to 4 years. Within Arizona, the most common deaths of children include accidents, congenital malformations, and short gestation and low birth weight.

Exhibit 5.4. 2018-2019 total number of deaths to children 0-17 in the Navajo/Apache Region



Arizona Department of Health Services (July 2020). Child mortality, Arizona 2018-2019. Provided AZFTF

Pregnancies and Birth

In 2019, Navajo/Apache Region residents gave birth to 861 babies, which was just over one percent of all births in the state (Exhibit 5.5).

Exhibit 5.5. Live births during calendar year 2019, by mother’s place of residence

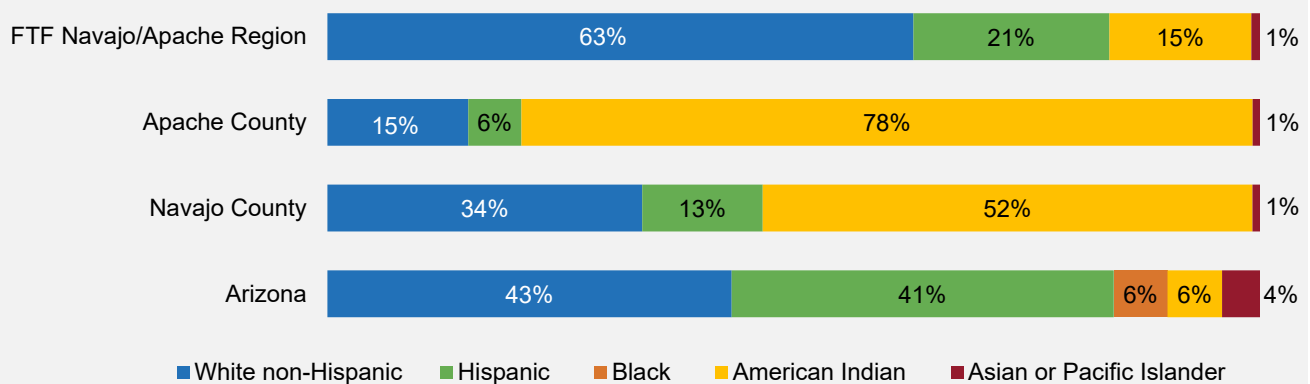
| | Total number of births in 2019 |
|--------------------------|--------------------------------|
| FTF Navajo/Apache Region | 861 |
| Navajo County | 1,355 |
| Apache County | 895 |
| ARIZONA | 79,183 |

Arizona Department of Health Services (2021). [Vital Statistics Births dataset]. Unpublished data

Characteristics of People Giving Birth

Of the 861 people who gave birth in the FTF Navajo/Apache Region in 2019, 63% were non-Hispanic white, 21% were Hispanic or Latino/a, 15% were American Indian, and one percent were Asian or Pacific Islander (Exhibit 5.6). Compared to people giving birth across Navajo and Apache counties and the state as a whole, a greater proportion of people in the Navajo/Apache Region were non-Hispanic white.

Exhibit 5.6. Race and ethnicity of people giving birth in 2019



Arizona Department of Health Services (2021). [Vital Statistics Births dataset]. Unpublished data

Prenatal Care

Research suggests that a lack of prenatal care is associated with many negative health issues for both the mother and the child.⁷⁵ 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 die in infancy than those born to mothers who did receive prenatal care.⁷⁶ 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 single mothers.^{77, 78} 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.⁷⁹ 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.⁸⁰

⁷⁵ Prenatal Care Effects Felt Long After Birth. (n.d.). Retrieved from <http://toosmall.org/blog/prenatal-care-effects-felt-long-after-birth>

⁷⁶ Womens Health (n.d.). Prenatal care fact sheet. Retrieved from <https://www.womenshealth.gov/publications/our-publications/fact-sheet/prenatal-care.html#b>

⁷⁷ Center for Disease Control and Prevention (n.d.). Vital Statistics Online. Retrieved from http://www.cdc.gov/nchs/data_access/vitalstatsonline.htm

⁷⁸ Institute of Medicine (US) Committee to Study Outreach for Prenatal Care; Brown SS, editor. Prenatal Care: Reaching Mothers, Reaching Infants. Washington (DC): National Academies Press (US); 1988. Chapter 1, Who Obtains Insufficient Prenatal Care? Retrieved from <https://www.ncbi.nlm.nih.gov/books/NBK217693/>

⁷⁹ National Center for Health Statistics (1994). Vital and Health Statistics: Data from the National Vital Statistics System. Retrieved from https://www.cdc.gov/nchs/data_access/vitalstatsonline.htm

⁸⁰ Womens Health (n.d.). Prenatal care fact sheet. Retrieved from <https://www.womenshealth.gov/publications/our-publications/fact-sheet/prenatal-care.html#b>

HP 2030 aims to bring the proportion of pregnant women who receive early and adequate prenatal care to 80.5%.⁸¹ In the FTF Navajo/Apache Region, the percentage of women who began prenatal care in the first trimester and the percentage of women who did not receive any prenatal care have remained steady from 2018-2019 (Exhibits 5.7). In 2014, a new version of the Birth Certificate introduced changes in the way prenatal care by trimester is assessed. The trimester when prenatal care began is no longer directly reported but rather calculated using the date of the mother’s last menstrual period and the date of the first prenatal care visit. Due to this procedural change, prenatal care is not comparable to previous reports. Based on the new methodology, 70% of mothers in the region started prenatal care in the first trimester in 2019, which is about ten percent lower than HP goal but higher than the Navajo and Apache counties overall (64% and 61% respectively) and state proportion (69%) (Exhibit 5.7).

Exhibit 5.7. Percentage of women who began prenatal care in first trimester and who did not receive any prenatal care

| | Women who began prenatal care in first trimester | | Women who did not receive any prenatal care | |
|---------------------------------|--|------------|---|-----------|
| | 2018 | 2019 | 2018 | 2019 |
| FTF Navajo/Apache Region | 71% | 70% | 1% | 2% |
| Navajo County | 65% | 64% | 2% | 3% |
| Apache County | 63% | 61% | 4% | 6% |
| Arizona | 69% | 69% | 3% | 3% |

Arizona Department of Health Services (2019). Vital Statistics. Provided by AZ FTF.

Birth Outcomes

The number of births in the FTF Navajo/Apache Region has increased slightly from 819 in 2018 to 861 in 2019.⁸² The percentage of underweight children in region has remained consistent between 2018 and 2019 (7%) and a comparable figure to Navajo and Apache counties and to Arizona. Similarly, the percentage of preterm births has remained steady in recent years (9%) and in line with the counties and the state overall. (Exhibit 5.8).

The percentage of newborns in the Navajo/Apache Region who were admitted to the Intensive Care Unit has fluctuated over time but has remained steady in recent years (Exhibit 5.9). In addition, the percent of mothers reported using tobacco during pregnancy in the FTF Navajo/Apache Region is markedly higher than the state average (Exhibit 5.10). From 2016-2019, approximately three percent of newborns in Arizona are hospitalized after birth because they were affected by maternal use of drugs during pregnancy.⁸³ This may be related to the decrease in early prenatal care as mothers using substances may

sheet/prenatal-care.html#b

⁸¹ Healthy People 2030. About Health People Retrieved from <https://health.gov/healthypeople/objectives-and-data/browse-objectives/pregnancy-and-childbirth/increase-proportion-pregnant-women-who-receive-early-and-adequate-prenatal-care-mich-08>

⁸² Arizona Department of Health Services (2019). Vital Statistics. Provided by AZ FTF.

⁸³ Ibid 17

be less likely to seek care. Follow-up care is therefore just as important to identify any emerging health conditions that could worsen over time, such as Type II Diabetes and Asthma. In Arizona overall, inpatient hospitalizations and ED visits for children 0-17 with Type II Diabetes and Asthma has remained steady from 2016-2020. Asthma and diabetes are chronic diseases that often affect children. An examination of children’s hospitalization data for these conditions helps show the disease burden among children in the FTF region compared to the county and state.

Exhibit 5.8. Percentage of births with low birth weights (<2,500g) and preterm births (<37 weeks)

| | Low birth weight (<2,500g) | | Preterm births (<37 weeks) | |
|---------------------------------|----------------------------|-----------|----------------------------|-----------|
| | 2018 | 2019 | 2018 | 2019 |
| FTF Navajo/Apache Region | 7% | 7% | 9% | 9% |
| Navajo County | 9% | 9% | 10% | 10% |
| Apache County | 9% | 7% | 11% | 9% |
| Arizona | 8% | 7% | 10% | 9% |

Arizona Department of Health Services (2019). Vital Statistics. Provided by AZ FTF.

Exhibit 5.9. Percentage of infants admitted to the Intensive Care Unit

| | 2018 | 2019 |
|---------------------------------|-----------|-----------|
| FTF Navajo/Apache Region | 9% | 9% |
| Navajo County | 9% | 9% |
| Apache County | 8% | 7% |
| Arizona | 8% | 8% |

Arizona Department of Health Services (2019). Vital Statistics. Provided by AZ FTF.

Exhibit 5.10. Percentage of reported tobacco use during pregnancy

| | 2018 | 2019 |
|---------------------------------|------------|------------|
| FTF Navajo/Apache Region | 11% | 11% |
| Navajo County | 7% | 8% |
| Apache County | 5% | 2% |
| Arizona | 5% | 4% |

Arizona Department of Health Services (2019). Vital Statistics. Provided by AZ FTF.

Additional factors that place mothers at-risk of not receiving prenatal care, such as teen pregnancy, single 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 2018-2019 but is currently slightly higher than the State (Exhibit 5.11). As previously reported in the Educational Indicator chapter, in 2019, 58% of mothers had a high school education or more (Exhibit 3.9).

Exhibit 5.11. Percentage of young mothers giving birth, by age

| | Mothers younger than 18 | | Mothers younger than 20 | |
|--------------------------|-------------------------|------|-------------------------|------|
| | 2018 | 2019 | 2018 | 2019 |
| FTF Navajo/Apache Region | 2% | 1% | 8% | 7% |
| Navajo County | 3% | 3% | 9% | 8% |
| Apache County | 2% | 2% | 8% | 8% |
| Arizona | 2% | 1% | 6% | 6% |

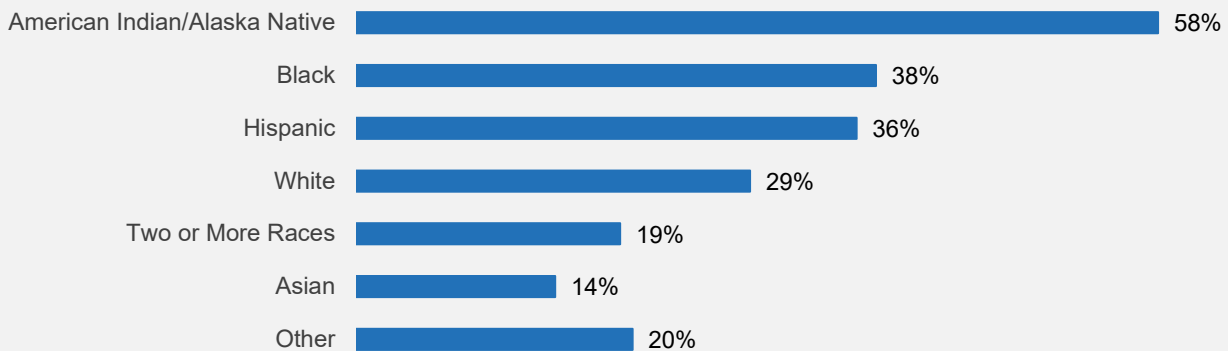
Arizona Department of Health Services (2019). *Vital Statistics*. Provided by AZ FTF.

Obesity

Obesity has been a concern in the US due to associated health outcomes, such as higher risks for diabetes, cancer, and heart disease.⁸⁴ Diabetes has also been associated with many negative health complications such as blindness, kidney failure, and amputation of limbs.⁸⁵

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.⁸⁶ According to the CDC, diabetes and obesity can be prevented by increasing physical activity and maintaining a healthy diet.⁸⁷ HP 2030 aims to reduce the proportion of adults who are obese to 36% and the proportion of children and adolescents who are obese to 15.5%.⁸⁸ In Arizona overall, the percentage of adults with obesity was 31.4% in 2019, and Exhibit 5.12 shows the differences across racial/ethnic groups.

Exhibit 5.12. Percentage of adults with obesity in Arizona by race/ethnicity, 2019



Centers for Disease Control and Prevention (2019). *Obesity*.

⁸⁴ Center for Disease Control and Prevention. (n.d.). *Adult Obesity Facts*. Retrieved from <https://www.cdc.gov/obesity/data/adult.html>

⁸⁵ 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>

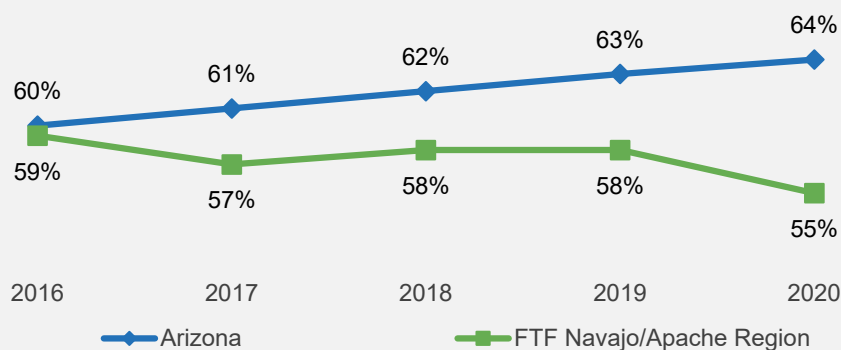
⁸⁶ ACOG (2016). *Obesity and Pregnancy*. Retrieved from <http://www.acog.org/Patients/FAQs/Obesity-and-Pregnancy>

⁸⁷ 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>

⁸⁸ *Healthy People 2030. About Health People*. Retrieved from <https://health.gov/healthypeople/objectives-and-data/browse-objectives/overweight-and-obesity/reduce-proportion-adults-obesity-nws-03>

In the FTF Navajo/Apache Region, and the state as a whole, over 50% of mothers participating in WIC reported being overweight or obese pre-pregnancy in 2020 (Exhibit 5.13). Families participating in WIC are likely opting for less expensive food options which often tend to be less healthy. Furthermore, the availability of recreation and fitness facilities where residents of the Navajo/Apache Region can stay active may also have an impact on physical wellbeing.⁸⁹ The lack of services and infrastructure where residents can engage in physical activity, in addition the limited availability of grocery stores, may contribute to the increasing rate of obesity and diabetes in the region.

Exhibit 5.13. Percentage of mothers overweight and obese pre-pregnancy



Arizona Department of Health Services (2020). Women, Infants & Children (WIC). Provided by AZ FTF.

Exhibit 5.14. Percentage of mothers overweight and obese pre-pregnancy

| | 2016 | 2017 | 2018 | 2019 | 2020 |
|--------------------------|------|------|------|------|------|
| FTF Navajo/Apache Region | 59% | 57% | 58% | 58% | 55% |
| Navajo County | 62% | 59% | 59% | 60% | 55% |
| Apache County | 52% | 59% | 61% | 62% | 61% |
| Arizona | 60% | 61% | 62% | 63% | 64% |

Arizona Department of Health Services (2019). Vital Statistics. Provided by AZ FTF.

Engaging in Healthy Preventive Practices

The American Academy of Pediatrics recommends that mothers breastfeed for the first six months after giving birth.⁹⁰ Breast milk has antibodies that prevent babies from getting ill and it has been shown to decrease the likelihood of babies becoming obese later in life.⁹¹ HP 2030 aims to increase the proportion of infants who are breastfed at six months to 42.4%.⁹² In the FTF Navajo/Apache Region, the percentage of mothers participating in WIC who breastfed their infant on average at least once per day

⁸⁹ United States Department of Agriculture and Economic Research Service (2012). Food Environment Atlas.

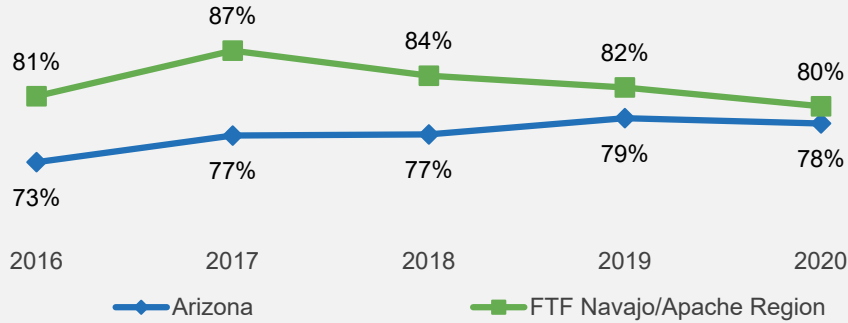
⁹⁰ American Academy of Pediatrics (2012). Breastfeeding and the Use of Human Milk. Retrieved from <http://pediatrics.aappublications.org/content/129/3/e827.full#content-block>

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

⁹² Healthy People 2030. About Health People Retrieved from <https://health.gov/healthypeople/objectives-and-data/browse-objectives/infants/increase-proportion-infants-who-are-breastfed-exclusively-through-age-6-months-mich-15>

stayed relatively steady from 2016-2020. Notably, in 2020, this percentage (80%) was two percentage points higher than the state (Exhibit 5.15).

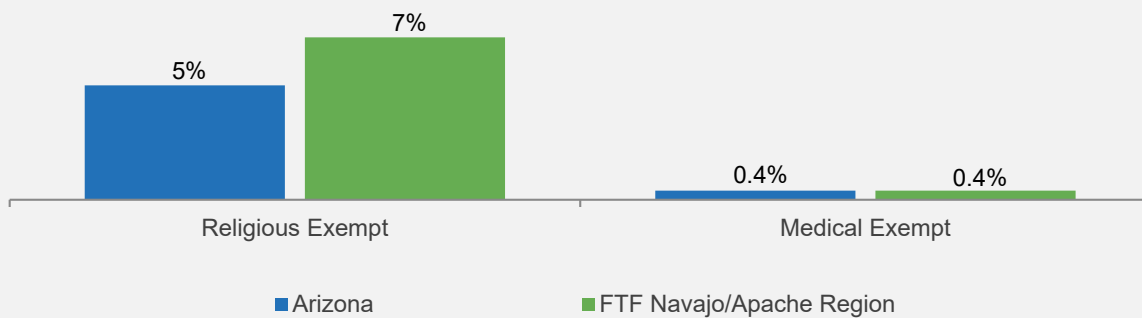
Exhibit 5.15. Percentage of mothers who breastfed their infant on average at least once a day



Arizona Department of Health Services (2020). Women, Infants & Children (WIC). Provided by AZ FTF

Routine childhood vaccinations protect children from many illnesses, including measles, mumps, polio, and whooping cough, which are all severe and potentially fatal to young children.⁹³ Receiving timely vaccinations not only protects the child who receives them, but protects the community by reducing the likelihood of disease spread.⁹⁴ In the FTF Navajo/Apache Region, the percentage of children who were exempt from immunizations for religious reasons was higher than the state (Exhibit 5.16). Compared to the state, the region has a slightly higher percentage of children who received Hib, DTaP, MMR, Hep B, Polio, and Varicella vaccines (Exhibit 5.17).

Exhibit 5.16. Percentage of children in childcare exempt from receiving immunizations

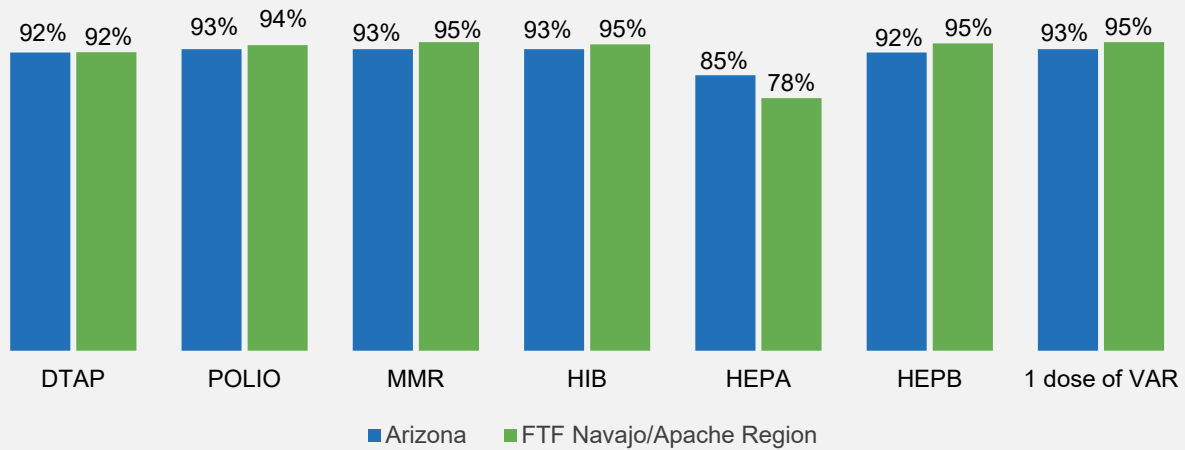


Immunization Data Reports (2020). Provided by AZ FTF.

⁹³ *Basic Vaccines (2016). Importance of Vaccines. Retrieved from <http://www.vaccineinformation.org/vaccines-save-lives/>*

⁹⁴ *U.S Department of Health and Human Services (2016). Community Immunity. Retrieved from http://www.health.ny.gov/prevention/immunization/vaccine_safety/*

Exhibit 5.17. Percentage of children in childcare receiving immunizations by type of immunization



Immunization Data Reports (2020). Provided by AZ FTF.

Hearing loss in newborns and young children can lead to developmental problems with the child’s speech, language, and social skills.⁹⁵ There are several potential causes of infant hearing loss, including genetics, maternal infections during pregnancy, complications after birth, and head trauma.⁹⁶ Fortunately, early interventions can prevent such developmental problems, highlighting the importance of incorporating screenings for hearing loss into the child’s overall preventative care.

⁹⁵ Center for Disease Control and Prevention Division (2020). *Hearing Loss*. Retrieved from <https://www.cdc.gov/ncbddd/hearingloss/index.html>.

⁹⁶ *Ibid.*

CHILD HEALTH HIGHLIGHTS

The diversity of the FTF Navajo/Apache Region presents both assets and challenges for supporting the health of pregnant women, young children, and their families. The percentage of children and adults without health insurance are similar to that of the state, indicating a relatively high access to healthcare in the region, though variable by area within the region. Additionally, most women are receiving prenatal care and a high percentage are breastfeeding. However, the region, just like the state and county has an increasing percentage of children that are overweight or obese.

Assets

The percentage of mothers participating in WIC who breastfeed their child at least once a day has been increasing and reached 80% in 2020.

According to the Arizona Department of Health Services, almost all pregnant women (98%) are receiving some prenatal care.

Needs

The percentage of kindergartners exempt from receiving immunizations for religious reasons is higher than the state percentage (7% vs. 5%).

The percentage of mothers enrolled in WIC who overweight or obese has steadily decreased from 2016 (59%) to 2020 (55%).



FAMILY SUPPORT

FAMILY SUPPORT

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.⁹⁷ Support for young families is an essential piece of the holistic efforts around kindergarten readiness and long-term success for children. First Things First supports families through home visitation and parent outreach and education programs. Evidence-based Parenting Education and supports 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 for parents to receive support and access to programs that provide tools and knowledge about their child's needs and effective parenting techniques. Providing more knowledge about parenting and child development supports parents in improving their parenting practices and providing their children with the experiences they need to succeed in kindergarten and beyond.⁹⁸ Public assistance programs in the United States can play an important role in providing adequate socioeconomic conditions for families to raise their children. The Supplemental Nutrition Assistance Program (SNAP) has been associated with helping families move out of poverty, guarantee food security, and improve child health and school performance.⁹⁹ Research has also shown that the Temporary Assistance to Needy Families (TANF) could prevent child maltreatment due to increased cash benefits and access that have been associated with decreased physical abuse.¹⁰⁰ The Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) has reduced the prevalence of child food insecurity. Further, the revisions made to the WIC food package in October 2009 have been associated with reduced maternal preeclampsia and gestational weight gain, as well as improvements in infant gestational age and birth weight.^{101, 102}

⁹⁷ 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

⁹⁸ *Ibid.*

⁹⁹ Carlson, S., Rosenbaum, D., Keith-Jennings, B., Nchako, C. (2016) *SNAP works for America's Children*. Center on Budget and Policy Priorities. Retrieved from <https://www.cbpp.org/sites/default/files/atoms/files/9-29-16fa.pdf>

¹⁰⁰ Spencer, R., Livingston, M., Komro, K., Sroczyński, N., Rentmeester, S., Woods-Jaeger, B. (2021) *Association between Temporary Assistance for Needy Families (TANF) and child maltreatment among a cohort of fragile families*. *Child Abuse & Neglect*. Volume 120. Retrieved from <https://doi.org/10.1016/j.chiabu.2021.105186>

¹⁰¹ Kreider, B., Pepper, J., Roy, M. (2016) *Identifying the effects of WIC on food insecurity among infants and children*. *Southern Economic Association*. Volume 82 Issue 4. Retrieved from <https://doi.org/10.1002/soej.12078>

¹⁰² Hamad, R., Collin, D., Baer, R., Jelliffe-Pawlowski, L. (2019) *Association of revised WIC food package with perinatal and birth outcomes*. Retrieved from <https://jamanetwork.com/journals/jamapediatrics/article-abstract/2737097>

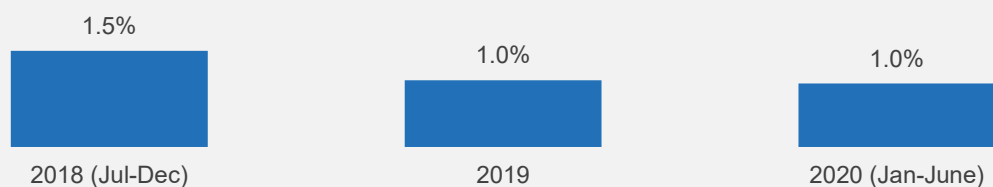
Promoting a safe home environment for children is another key aspect of family support. The adverse and long-term effects of childhood trauma have become well-documented. For example, children who are exposed to domestic violence or experience abuse or neglect are at increased risk of depression, anxiety, physical aggression, and behavior problems.¹⁰³ Children who are exposed to opioid misuse are more likely to experience mental health problems, drug use, accidental opioid poisoning, substance use disorder, family dissolution, foster care placement or the death of a parent due to an opioid overdose.¹⁰⁴ Children in foster care are particularly likely to have had trauma exposure and are more likely than other children to have poor mental and physical health.^{105, 106} Understanding the impact of trauma has led to identifying opportunities to both prevent and mitigate its adverse effects. Opportunities include family support services like home visitation and parent education, as well as prioritizing out-of-home placements with family members or foster families before turning to congregate care in a residential facility.

What the Data Tell Us

Child Safety and Domestic Violence

Understanding the scope of child removals in a region can help policy makers and organizations better support this vulnerable group. The percentage of child removals in the FTF Navajo/Apache Region by the Department of Child Safety (DCS) is relatively negligible among all cases of child removals in Arizona (Exhibit 6.1). Between 2018 and 2020, removals in the region represent between one and two percent of removed children in Arizona.

Exhibit 6.1. Percentage of children removed in Arizona by the Department of Child Safety that resided in the FTF Navajo/Apache Region



Source: Arizona Department of Child Safety. (2019). *Semi-Annual Child Welfare Report*.

¹⁰³ 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.

¹⁰⁴ Winstanley, E., Stover, A. (2019) *The impact of the opioid epidemic on children and adolescents. Clinical Therapeutics. Volume 41 Issue 9.* Retrieved from <https://doi.org/10.1016/j.clinthera.2019.06.003>

¹⁰⁵ Dorsey, S., Burns, B., Southerland, D., Cox, J., Wagner, H., Farmer, E. (2012) *Prior Trauma Exposure for Youth in Treatment Foster Care. J Child Fam Stud.* Retrieved from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3667554/>

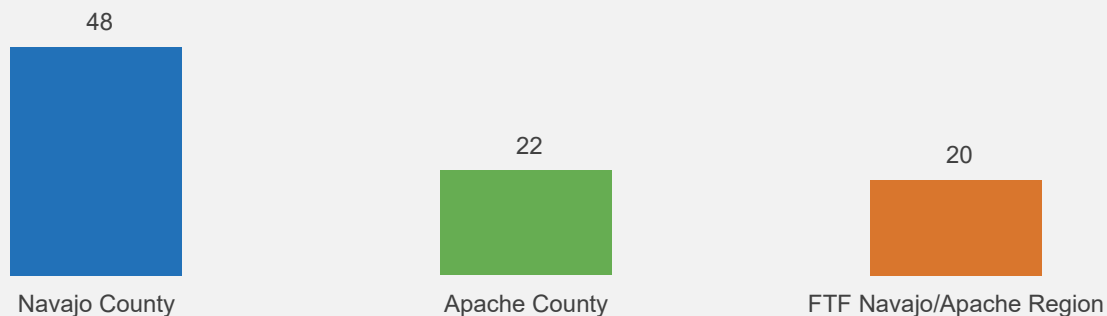
¹⁰⁶ Turney K, Wildeman C. (2016) *Mental and Physical Health of Children in Foster Care. Pediatrics.* Retrieved from: <https://pubmed.ncbi.nlm.nih.gov/27940775/>

Substance Use

As of 2017, the U.S. Department of Health and Human Services declared a public health emergency to address the national opioid crisis.¹⁰⁷ While substance abuse is risky for users themselves, parents who misuse substances also expose their children to risks. Specifically, when parents use opiates or opioids, they are more likely to expose their children to maltreatment and neglect.¹⁰⁸ Children in these situations are more likely to suffer later mental health disorders, their own substance abuse, and post-traumatic stress disorder.¹⁰⁹

From 2017 to 2020, 20 deaths from opioid overdose occurred in the FTF Navajo/Apache Region, whereas the numbers were slightly higher in the associated counties, 48 in Navajo County and 22 in Apache County (Exhibit 6.2). During the same time period, there were a total of 5,455 fatal opioid deaths in total in Arizona.

Exhibit 6.2. Number of fatal overdoses from opiates or opioids from 2017 to 2020 in Navajo County, Apache County, and the FTF Navajo/Apache Region



Arizona Department of Health Services (2021). *Opioids Overdoses*. Provided by AZ FTF.

Services to Help Families

Numerous federal and local programs and services aim to provide families with food security, including Supplemental Nutrition Assistance Program (SNAP); Temporary Assistance for Needy Families (TANF); Women, Infants & Children (WIC); the National School Lunch Program (NSLP); Child and Adult Care Food Program (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 has decreased. Federal programs such as SNAP and TANF

¹⁰⁷ U.S. Department of Health and Human Services (2017) *HHS Acting Secretary Declares Public Health Emergency to Address National Opioid Crisis*. Retrieved from <https://public3.pagefreeser.com/browse/HHS.gov/31-12-2020T08:51/https://www.hhs.gov/about/news/2017/10/26/hhs-acting-secretary-declares-public-health-emergency-address-national-opioid-crisis.html>

¹⁰⁸ *Child Welfare Information Gateway* (n.d.) *The Opioid Crisis*. Retrieved from <https://www.childwelfare.gov/topics/systemwide/bhw/impact-substance/opioid-crisis/>

¹⁰⁹ *American Society for the Positive Care of Children* (n.d.) *The Opioid Crisis and the Effect on Children*. Retrieved from <https://americanspcc.org/the-opioid-crisis-and-the-effect-on-children/>

have shrunk in recent years due to the expiration of benefit increases instituted during the recession.¹¹⁰ These decreases come even as the number of families living in poverty has increased nationally.¹¹¹ Exhibit 6.3 and Exhibit 6.5 show how the number of children and families receiving assistance has decreased in recent years.

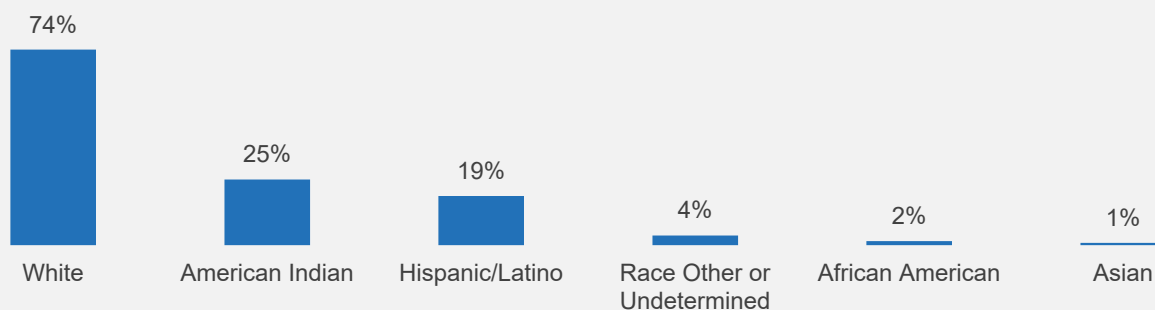
The percentage that families and children that received SNAP benefits decreased by 18% in the FTF Navajo/Apache Region from 2017 to 2020. As of 2020, the program supports approximately 2,440 children and 1,625 families annually in the Navajo/Apache Region (Exhibits 6.3 and 6.5). In 2020, most of the young children enrolled in SNAP were white (74%), one-quarter were American Indian (25%), and about one of five were Hispanic/Latino (19%) (Exhibit 6.4).

Exhibit 6.3. Numbers of young children (ages 0 to 5) receiving SNAP benefits, 2017 to 2020

| | FY 2017 | FY 2018 | FY 2019 | FY 2020 | Change from 2017 to 2020 |
|---------------------------------|--------------|--------------|--------------|--------------|--------------------------|
| FTF Navajo/Apache Region | 2,984 | 2,732 | 2,581 | 2,440 | -18% |
| Navajo County | 7,059 | 6,724 | 6,195 | 5,789 | -18% |
| Apache County | 5,368 | 5,061 | 4,778 | 4,309 | -20% |
| ARIZONA | 247,414 | 229,275 | 211,814 | 198,961 | -20% |

Arizona Department of Economic Security (2020). Supplemental Nutrition Assistance Program (SNAP).

Exhibit 6.4. Young children (0-5) enrolled in SNAP in 2020 by race/ethnicity in the FTF Navajo/Apache Region



Note: Participants could identify as multiple races/ethnicities. Percentages may add up to more than 100. Arizona Department of Economic Security (2020). Supplemental Nutrition Assistance Program (SNAP).

¹¹⁰ 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>

¹¹¹ 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 6.5. Numbers of families receiving SNAP benefits, 2017 to 2020

| | FY 2017 | FY 2018 | FY 2019 | FY 2020 | Change from 2017 to 2020 |
|---------------------------------|--------------|--------------|--------------|--------------|--------------------------|
| FTF Navajo/Apache Region | 1,956 | 1,793 | 1,692 | 1,625 | -17% |
| Navajo County | 4,618 | 4,400 | 4,089 | 3,855 | -17% |
| Apache County | 3,621 | 3,393 | 3,172 | 2,921 | -19% |
| ARIZONA | 164,092 | 151,816 | 140,056 | 132,466 | -19% |

Arizona Department of Economic Security (2020). *Supplemental Nutrition Assistance Program (SNAP)*.

Similar to SNAP benefits, the number of children and families receiving TANF benefits decreased from 2017 to 2020 in the FTF Navajo/Apache Region, Navajo and Apache counties, and Arizona (Exhibits 6.6 and 6.7). In 2020, approximately 100 young children and 67 families received TANF benefits. TANF benefits can be the primary cash assistance program for families with low incomes.¹¹² Some research has criticized that TANF does a poor job in providing enough assistance to Hispanic/Latino and African American families, especially those who have been the most impacted by the COVID-19 pandemic.¹¹³ While race/ethnicity data for TANF is limited, in the Navajo/Apache Region, the majority of the children that received TANF benefits identified as white (65%).

Exhibit 6.6. Numbers of young children (0-5) receiving TANF benefits, 2017 to 2020

| | FY 2017 | F7 2018 | FY 2019 | FY 2020 | Change from 2017 to 2020 |
|---------------------------------|------------|-----------|-----------|------------|--------------------------|
| FTF Navajo/Apache Region | 107 | 77 | 90 | 100 | -7% |
| Navajo County | 189 | 186 | 175 | 165 | -13% |
| Apache County | 18 | 0 | 0 | 15 | -17% |
| ARIZONA | 17,143 | 14,659 | 13,029 | 13,747 | -20% |

Arizona Department of Economic Security (2020). *Temporary Assistance for Needy Families (TANF)*.

Exhibit 6.7. Numbers of families receiving TANF benefits, 2017 to 2020

| | FY 2017 | F7 2018 | FY 2019 | FY 2020 | Change from 2017 to 2020 |
|---------------------------------|-----------|-----------|-----------|-----------|--------------------------|
| FTF Navajo/Apache Region | 76 | 56 | 64 | 67 | -12% |
| Navajo County | 153 | 140 | 132 | 124 | -19% |
| Apache County | 10 | 16 | 0 | 11 | 10% |
| ARIZONA | 12,315 | 10,538 | 9,360 | 9,947 | -19% |

Arizona Department of Economic Security (2020). *Temporary Assistance for Needy Families (TANF)*.

¹¹² U.S. Department of Health & Human Services (n.d.) Office of Family Assistance. *Temporary Assistance for Needy Families (TANF)*. Retrieved from: <https://www.acf.hhs.gov/ofa/programs/temporary-assistance-needy-families-tanf>

¹¹³ Safawi, A., Reyes, C., (2021) *States must continue recent momentum to further improve TANF benefit levels. Center on Budget and Policy Priorities*. Retrieved from <https://www.cbpp.org/research/family-income-support/tanf-benefits-still-too-low-to-help-families-especially-black>

Due to mandatory school closures during the COVID-19 pandemic in 2020, the Arizona Department of Economic Security, the US Department of Agriculture Food and Nutrition Service, and the Arizona Department of Education issued the Pandemic Electronic Benefit Transfer (P-EBT) to current SNAP households and non-SNAP households with children eligible for free and reduced-price school meals.¹¹⁴ Enrolled families were given a pre-loaded EBT card to purchase groceries. The number of families with children 0 to 5 years old that were enrolled in P-EBT from March 2021 to May 2021 decreased by about 20% across the FTF Navajo/Apache Region, Navajo and Apache counties, and Arizona. Although the number of families with young children have decreased, P-EBT provided financial relief to a total of 858 times from March to May 2021 in the Navajo/Apache Region (Exhibit 6.8).

Exhibit 6.8. Number of families with children 0-5 enrolled in P-EBT, March 2021 to May 2021

| | March 2021 | April 2021 | May 2021 | Change from March 2021 to May 2021 |
|---------------------------------|------------|------------|------------|------------------------------------|
| FTF Navajo/Apache Region | 319 | 285 | 254 | -20% |
| Navajo County | 829 | 735 | 666 | -20% |
| Apache County | 504 | 464 | 405 | -20% |
| ARIZONA | 36,971 | 33,431 | 30,066 | -19% |

Arizona Department of Economic Security (2021). EBT Enrollment.

Through federal grants, WIC provides nutrition, education and breastfeeding support services, supplemental nutritious foods and referrals to health and social services for women, infants, and children under five years old. In 2020, WIC served a total of 3,418 individuals in the Navajo/Apache Region, which comprises 801 women, 849 infants, and 1,768 children (Exhibit 6.9). The WIC enrollment for children under 5 years old slightly decreased steadily from 2016 (42% of children under five) to 2020 (35% of children five) in the Navajo/Apache Region (Exhibit 6.10).

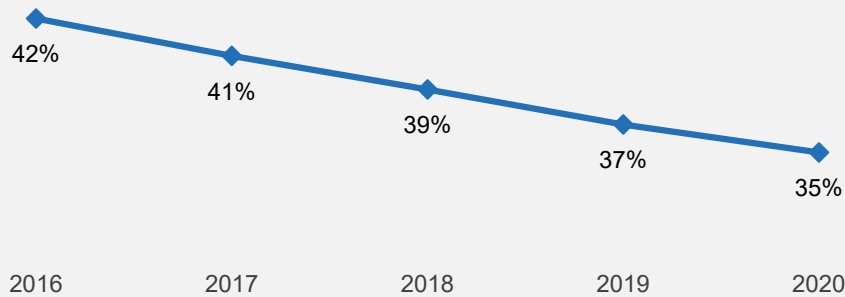
Exhibit 6.9. Number of women, infants and children enrolled in the WIC program during 2020

| | Total | Women | Infants | Children |
|---------------------------------|--------------|------------|------------|--------------|
| FTF Navajo/Apache Region | 3,418 | 801 | 849 | 1,768 |
| Navajo County | 3,117 | 741 | 777 | 1,599 |
| Apache County | 802 | 180 | 200 | 422 |
| ARIZONA | 256,733 | 63,111 | 70,242 | 123,380 |

Arizona Department of Health Services (2020). Women, Infants & Children (WIC). Provided by AZ FTF.

¹¹⁴ *Arizona Department of Economic Security (n.d.) Arizona P-EBT Benefits. Retrieved from <https://des.az.gov/services/basic-needs/food-assistance/other-food-programs/arizona-p-ebt-benefits>*

Exhibit 6.10. Infants and Children (Ages 0 to 4) Enrolled in the WIC Program as a Percentage of the Population, Arizona, 2017 to 2020



Arizona Department of Health Services (2020). Women, Infants & Children (WIC). Provided by AZ FTF.

Exhibit 6.11. WIC participation rates by enrollees, 2020

| | Total | Women | Infants | Children |
|---------------------------------|------------|------------|------------|------------|
| FTF Navajo/Apache Region | 96% | 95% | 98% | 95% |
| Navajo County | 97% | 95% | 98% | 96% |
| Apache County | 93% | 95% | 98% | 89% |
| ARIZONA | 94% | 94% | 96% | 92% |

Arizona Department of Health Services (2020). Women, Infants & Children (WIC). Provided by AZ FTF.

Note: The participation rate is the number of persons receiving WIC benefits during November 2020, divided by the total number of persons enrolled in the program.

Schools are an important part of the nutrition assistance system, especially for children that may be food insecure. Over 50% of all public- and charter-school students in the Navajo/Apache Region have been eligible for free or reduced-price lunch since 2018 (Exhibit 6.12.). This is comparable to the statewide percentage, which has hovered about 55% to 57%. Over the last three years, the proportion of students receiving free or reduced-price lunch has stayed fairly constant in most school districts in the region, although the percentage has decreased noticeably in Show Low Unified District (from 54% in 2018 to 42% in 2020). The school districts in the region with the lowest rates of eligibility for free or reduced-price lunch in 2020 include Round Valley Unified District (33%), while Sanders Academy Unified District (>98%) and Career Development Inc. (91%) had the highest rates of eligibility for free or reduced-price lunch. (Note that the data in Exhibit 6.12 refer only to schools located inside the Navajo/Apache Region boundaries).

Exhibit 6.12. Proportion of students (pre-kindergarten through twelfth grade) eligible for free or reduced-price lunch, 2018 to 2020

| | 2018 | 2019 | 2020 |
|---|------|------|------|
| FTF Navajo/Apache Region Schools | 56% | 53% | 51% |
| Blue Ridge Unified School District No. 32 | 53% | 54% | 60% |
| Blue Ridge Unified School District No. 33 | 41% | 40% | 49% |
| Blue Ridge Unified School District No. 34 | 55% | 50% | 56% |
| Career Development, Inc. | 91% | 91% | 91% |
| Concho Elementary District | 95% | 85% | 89% |
| Edkey, Inc. - Sequoia Village School | 61% | 59% | 65% |
| Heber-Overgaard Unified District | 49% | 49% | 47% |
| Holbrook Unified District | 74% | 74% | 67% |
| Joseph City Unified District | 48% | 42% | 38% |
| Navajo County Accommodation District #99 | N/A | 68% | 38% |
| Round Valley Unified District | 43% | 37% | 33% |
| Sanders Unified District | >98% | >98% | >98% |
| Show Low Unified District | 54% | 49% | 42% |
| Snowflake Unified District | 43% | 42% | 42% |
| St. Johns Unified District | 50% | 51% | 48% |
| Vernon Elementary District | >98% | 84% | 84% |
| Navajo County Schools | 74% | 74% | 73% |
| Apache County Schools | 85% | 88% | 83% |
| All Arizona Schools | 57% | 56% | 55% |

Arizona Department of Education (2020). [Free and reduced lunch dataset]. Unpublished data.

Note: The school-district data in this table include only the schools that are located within the Navajo/Apache Region.

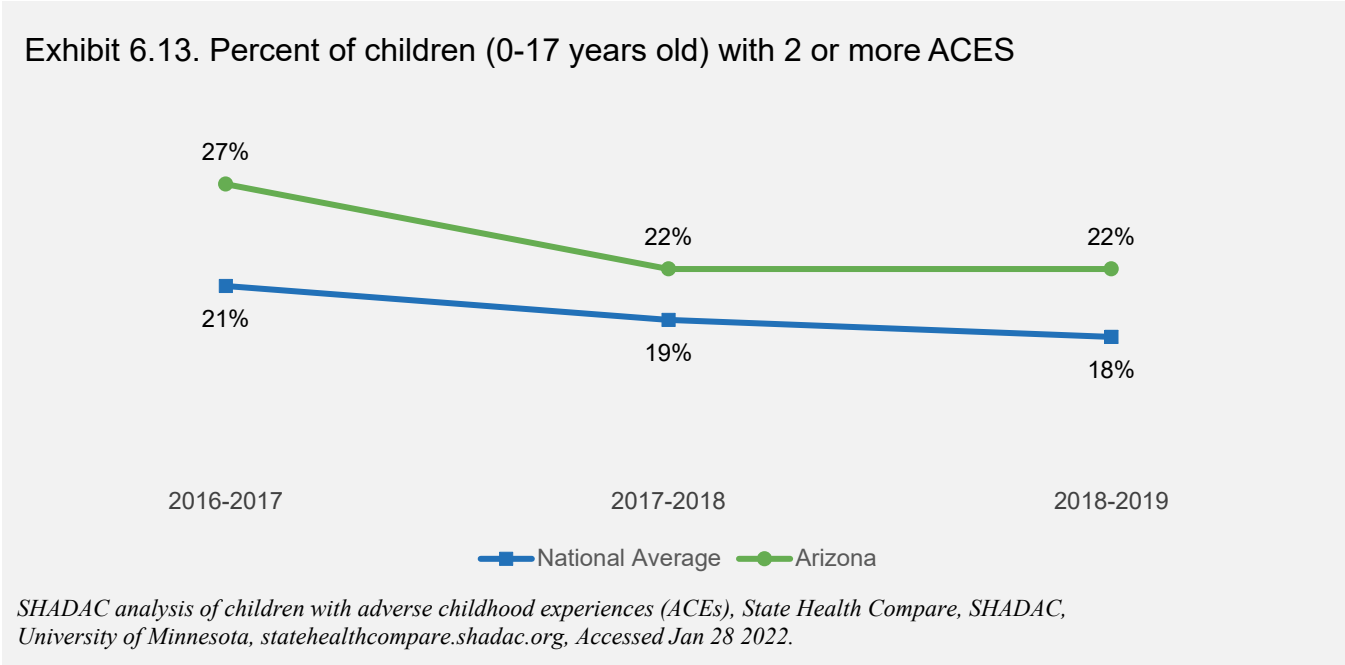
Adverse Childhood Experiences

Unfortunately, not all children are able to begin their lives in positive, stable, nurturing environments. Experiences early in life can have lasting impacts on an individual’s mental and physical health. Adverse Childhood Experiences (ACES) are potentially traumatic events (such as physical or emotional abuse, alcohol and/or drug abuse in the household or emotional or physical neglect) that occurs during childhood (0-17 years old).¹¹⁵ When one experiences more ACES during their childhood then they are more at-risk for future risky health behaviors (such as smoking, drug use, and alcoholism), chronic health conditions (including diabetes, depression, and obesity), poorer life outcomes (such as lower educational achievement and increased lost work time), and early death.¹¹⁶ In 2018 to 2019, children (0 to 17 years old) in Arizona were more likely to have experienced two or more ACES (22%) than

¹¹⁵Centers for Disease Control and Prevention (n.d.) Fast Facts: Preventing Adverse Childhood Experiences. Retrieved from https://www.cdc.gov/violenceprevention/aces/fastfact.html?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fviolenceprevention%2Facedstudy%2Ffastfact.html

¹¹⁶Arizona Adverse Childhood Experiences Consortium (n.d.) Overcoming Adverse Childhood Experiences: Creating Hope for a Healthier Arizona. Retrieved from <https://azaces.org/wp-content/uploads/2019/01/ACES.pdf>.

children nationwide (18%). As shown in Exhibit 6.13, this trend has been consistent since 2016. To help decrease ACES in Arizona, the Arizona ACE Consortium has been working with professionals and agencies to increase awareness around the causes, effects and opportunities around decreasing ACES in Arizona.



FAMILY SUPPORT HIGHLIGHTS

In the FTF Navajo/Apache Region, there is opportunity to strengthen parental knowledge about child development and engaging in positive parenting practices. The number of families and young children receiving federal program assistance in the region, including as SNAP, WIC and TANF, decreased from 2017 to 2020. These decreases come even as the number of families living in poverty has increased nationally and regionally. Due to the school mandatory school closures and other social and economic impacts of COVID-19 in 2020, it will become increasingly important to continue to provide family support services.

Assets

The FTF Navajo/Apache Region has several local programs aimed to support the availability of nutritious foods for children under six and their families.

Needs

The number of children and families enrolled in assistance programs, including SNAP, WIC, and TANF, have significantly decreased in recent years due to funding.

CONCLUSION

The FTF Navajo/Apache Region has both strengths and opportunities for improvement. The region has lower employment, median income and economic resources than other parts of the state and county. Parents in the region are educated but may benefit from more information and awareness of age-appropriate child development and the impact they have on their child’s readiness to learn and grow.

The region has many strong providers who are continuing to build a more efficient system of care dedicated to the well-being of the region’s youngest children and their families, yet could use support to overcome barriers like limited funding and competition for resources. First Things First 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 include the assets, needs and considerations from the six domains presented in this report. These key findings are intended to provide information to the FTF Navajo/Apache Regional Partnership Council and the community as a whole around the needs and assets of the region’s zero to five population and their families.

| Assets |
|--|
| Population Characteristics |
| The population of children under the age of six is projected to decline at modest and steady rate, allowing the region to foresee and prepare for the growing demands of their youngest residents. |
| Economic Circumstances |
| About 90% of children under age six live in households with at least one parent in the labor force. In addition, the unemployment rate is generally consistent with the state average. |
| Educational Indicators |
| According to the American Community Survey, the high school graduation rates and the average educational attainment level of adults and parents in the region are high. |
| Early Learning |
| Quality First has been increasing the quality and stability of child care programs in the region. |
| Child Health |
| The percentage of mothers participating in WIC who breastfeed their child at least once a day has been increasing and reached 80% in 2020. |
| According to the Arizona Department of Health Services, almost all pregnant women (98%) are receiving some prenatal care. |

Family Support

The FTF Navajo/Apache Region has several local programs aimed to support the availability of nutritious foods for children under six and their families.

Needs

Population Characteristics

According to the American Community Survey, just over one-third of children under six are living in single-parent households, as well as a sizable child population in grandparent-led households, which face additional barriers and difficulties when compared to two parent households.

Economic Circumstances

According to the American Community Survey, about 30% of children in the region live in poverty and a quarter of residents in the region spend more than 30% of their income on housing.

About 33% of children under six live in single-parent households, which earn substantially less money than dual parent households.

Educational Indicators

AzMERIT reports from the Arizona Department of Education show that half of third graders are not meeting proficiency standards for English Language Arts (53%) and Math (48%)

Early Learning

Given the estimated capacity of ECE centers and homes in the FTF Navajo/Apache Region and the estimated population of young children, there is likely a shortage of ECE centers and homes to serve all families and children in need of quality care and education.

Based on household median income data, the cost of child care can make up a significant portion of household income. High costs can be a particularly acute barrier to quality child care for single-income families led by females, whose median income is much lower than dual-income families.

Child Health

The percentage of kindergartners exempt from receiving immunizations for religious reasons is higher than the state percentage (7% vs. 5%).

The percentage of mothers enrolled in WIC who overweight or obese has steadily decreased from 2016 (59%) to 2020 (55%).

Family Support

The number of children and families enrolled in assistance programs, including SNAP, WIC, and TANF, have significantly decreased in recent years due to funding.