拱 FIRST THINGS FIRST

Pima North



2020 NEEDS AND ASSETS REPORT

Pima North Regional Partnership Council 2020 Needs and Assets Report

Prepared by

Community Research, Evaluation & Development (CRED)

John & Doris Norton School of Family and Consumer Sciences

College of Agricultural and Life Sciences

The University of Arizona

Funded by First Things First Pima North Regional Partnership Council

John & Doris Norton School of Family and Consumer Sciences

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

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

Introduction

Ninety percent of a child's brain 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 arrive at kindergarten prepared to be successful. Understanding the critical role the early years play in a child's future success is crucial to our ability to foster each child's optimal development and, in turn, impact all aspects of wellbeing of our communities and our state.

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

The FTF Pima North Regional Partnership Council recognizes the importance of investing in young children and ensuring that families and caregivers have options when it comes to supporting the healthy development of young children in their care. It is our sincere hope that this information also will help guide community conversations about how we can best support school readiness for all children in the Pima North Region. To that end, this information may be useful to stakeholders in the area as they work to enhance the resources available to young children and their families and as they make decisions about how best to support children birth to 5 years old in communities throughout the region.

Acknowledgements

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

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

LETTER FROM THE CHAIR

May 8, 2020

Message from the Chair:

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

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

The Pima North Regional Council would like to thank our Needs and Assets vendor, University of Arizona, for their knowledge, expertise and analysis of the Pima North region. Their partnership has been crucial to our development of this report and to our understanding of the extensive information contained within these pages.

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

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

Thank you for your continued support.

Sincerely,

Ausan Shin

Dr. Susan Shinn, Chair



PIMA NORTH REGIONAL PARTNERSHIP COUNCIL

3610 North Prince Village Place, Suite 100 Tucson, Arizona 85719 Phone: 520.628.6650 Fax: 520.747.1029

Susan Shinn, Chair
Kirk Grugel Short, Vice Chair
Katayoun Anderson
Mandy Carlsen
Nicholas Clement
Jil Feldhausen
Daniel Huff
Dorothy Johnson
Amber Jones
Wade McLean

Report Prepared by:

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

詽

Table of Contents

Introduction	2
Acknowledgements	3
Letter from the Chair	4
Table of Contents	6
List of Tables	8
List of Figures	. 10
Executive Summary	. 11
Regional Description	
Population Characteristics	. 11
Economic Circumstances	. 12
Educational Indicators	. 13
Early Learning	. 14
Child Health	. 15
Family Support and Literacy	
Systems Coordination among Early Childhood Programs and Services	
Communication, Public Information and Awareness	
The Pima North Region	. 21
Regional Boundaries	. 21
Data Sources	. 22
Population Characteristics	. 24
Why it Matters	. 24
What the Data Tell Us	. 26
Population, Race, and Ethnicity	. 28
Immigrant Families and Language Use	. 31
Family and Household Composition	. 33
Economic Circumstances	
Why it Matters	. 35
What the Data Tell Us	
Poverty	. 40
Food Insecurity	. 43
Employment	. 44
Housing Instability	. 46
Educational Indicators	. 49
Why it Matters	
What the Data Tell Us	
School Attendance and Absenteeism	. 53
Achievement on Standardized Testing	. 55
Graduation Rates and Adult Educational Attainment	. 58
Early Learning	. 61
Why it Matters	. 61
What the Data Tell Us	
Access to Early Care and Education	. 67
High Quality Early Care and Education	. 71

Young Children with Special Needs73
Child Health
Why it Matters
What the Data Tell Us
Access to Health Services
Maternal, Infant, and Child Health
Substance Use Disorders
Nutrition and Weight Status
Oral Health
Child Immunizations
Illness and Injury
Family Support and Literacy
Why it Matters
What the Data Tell Us 4
Home Visitation
Child Removals and Foster Care 6
Systems Coordination among Early Childhood Programs and Services
Why it Matters
What the Data Tell Us
Communication, Public Information and Awareness11
Why it Matters11
What the Data Tell Us12
Appendix 1: Map of zip codes of the Pima North Region 16
Appendix 2: Zip Codes of the Pima North Region17
Appendix 3: School Districts in the Pima North Region 19
Appendix 4: Data Sources 22
References 25

List of Tables

Table 1. Population and households, 2010	28
Table 2. Population of children by single year of age, 2010	28
Table 3. Race and ethnicity of the adult population (ages 18 and older), 2010	29
Table 4. Race and ethnicity of the population of young children (ages 0-4), 2010	30
Table 5. Race and ethnicity of mothers giving birth in calendar year 2017	30
Table 6. Children (ages 0-5) living with parents who are foreign-born	31
Table 7. Language spoken at home by persons ages 5 and older	31
Table 8. English-language proficiency for persons ages 5 and older	32
Table 9. Limited-English-speaking households	32
Table 10. Living arrangements for children (ages 0-5)	33
Table 11. Heads of households in which children (ages 0-5) live, 2010	33
Table 12. Children (ages 0-5) living in the household of a grandparent, 2010	33
Table 13. Grandparents responsible for grandchildren (ages 0-17) living with them	34
Table 14. Median annual family income	40
Table 15. Families with young children (ages 0-5) living at various poverty thresholds	41
Table 16. Families participating in the TANF program, Fiscal Years 2015 to 2018	42
Table 17. Children participating in the TANF program, Fiscal Years 2015 to 2018	42
Table 18. Families participating in the SNAP program, Fiscal Years 2015 to 2018	43
Table 19. Children participating in the SNAP program, Fiscal Years 2015 to 2018	43
Table 20. Percent of students (all grades) eligible for free or reduced-price lunch, 2015-16 to	
2018-19	43
Table 21. Adult population (ages 16 and older) who are employed, unemployed, or not in the	
labor force	44
Table 22. Parents of young children (ages 0-5) who are or are not in the labor force	45
Table 23. Households who are paying thirty percent or more of their income for housing	46
Table 24. Households with and without computers and smartphones	46
Table 25. Persons (all ages) in households with and without computers and internet	
connectivity	47
Table 26. Children (ages 0-17) in households with and without computers and internet	
connectivity	
Table 28. Students enrolled in preschool through 3rd grade, 2018-19	
Table 29. Chronic absence rates, Kindergarten through 3rd grade, 2015-16 to 2018-19	53
Table 30. Chronic absence rates, Kindergarten through 3rd grade, 2018-19	
Table 31. Chronic absence rates for students by grade (Grade K-3), 2018-19	
Table 32. AzMERIT Assessment Results: 3rd Grade English Language Arts, 2017-18	55
Table 33. AzMERIT Assessment Results: 3rd Grade Math, 2017-18	56
Table 34. Graduation and dropout rates, 2017	
Table 35. Trends in four-year graduation rates, 2015 to 2017	
Table 36. Trends in five-year graduation rates, 2015 to 2017	
Table 37. Trends in 7th-12th grade dropout rates, 2015-16 to 2017-2018	
Table 38. Level of education for mothers giving birth during calendar year 2017	60

Table 39. School enrollment for children (ages 3 and 4)	. 67
Table 40. Number and licensed capacity of licensed or registered child care providers by type	!,
2018	. 67
Table 41. Number and licensed capacity of nationally accredited child care providers, 2018	. 68
Table 42. Median monthly charge for full-time child care, 2018	. 68
Table 43. Cost of center-based child care as a percentage of income, 2018	. 69
Table 44. Children receiving DES child care subsidies, 2015 to 2018	
Table 45. DCS-involved children receiving DES child care subsidies, 2015 to 2018	. 69
Table 46. Eligible families not using DES child care subsidies, 2015 to 2018	
Table 47. Children in quality educational environments, 2017 and 2018	
Table 48. First Things First Quality First child data, State Fiscal Year 2019	. 71
Table 49. First Things First Quality First child care provider data, State Fiscal Year 2019	
Table 50. Number of children birth to five years old receiving subsidy expelled from an early	
learning program or expulsion was prevented, 2017 and 2018	. 72
Table 51. Children (ages 3-5) enrolled in special education, 2015-16 to 2018-19	. 73
Table 52. Children (ages 3-5) enrolled in special education by type of disability, 2018-19	. 73
Table 53. Students (grades 1-3) enrolled in special education, 2018-19	. 73
Table 54. Percent of students (grades 1-3) enrolled in special education, 2015-16 to 2018-19.	. 74
Table 55. Children referred to and found eligible for AzEIP, Federal Fiscal Years 2016 and 201	7
	. 74
Table 56. AzEIP caseloads, calendar years 2017 and 2018	. 74
Table 57. Children (ages 0-2) receiving services from DDD, State Fiscal Years 2015 to 2018	. 75
Table 58. Children (ages 3-5) receiving services from DDD, State Fiscal Years 2015 to 2018	. 75
Table 59. Health insurance coverage	
Table 60. Payors for births during calendar year 2017	. 83
Table 61. Prenatal care for mothers giving birth during calendar year 2017	
Table 62. Various risk factors for births during calendar year 2017	. 84
Table 63. Infant mortality, calendar year 2017	. 84
Table 64. Neonatal abstinence syndrome, calendar years 2016 and 2017	. 85
Table 65. Opioid overdoses and deaths, June 2017 to June 2018	
Table 66. Breastfeeding rates for infants in the WIC program, calendar year 2018	. 87
Table 67. First Things First oral health strategy data, 2019	
Table 68. Cases of infectious diseases among young children (ages 0-5), 2015-2018 cumulativ	/e
	. 89
Table 69. Children in child care with required immunizations, 2018-19	
Table 70. Kindergarteners with required immunizations, 2018-19	
Table 71. Child care immunization exemption rates, 2016-17 to 2018-19	. 90
Table 72. Kindergarten immunization exemption rates, 2016-17 to 2018-19	. 90
Table 73. Non-fatal hospitalizations of young children (ages 0-5) for unintentional injuries,	
2015-2018 cumulative	. 91
Table 74. Non-fatal emergency-room visits by young children (ages 0-5) for unintentional	
injuries, 2015-2018 cumulative	
Table 75. Asthma hospitalizations and emergency-room visits, 2015-2017 cumulative	
Table 76. Child mortality, 2015-2017 cumulative	
Table 77. First Things First-funded home visiting program data, State Fiscal Year 2019	5

Table 78. Substantiated maltreatment reports by type, January to June, 2018	6
Table 79. Children removed by the Department of Child Safety (DCS), 2014 to 2017	6
Table 80. Children removed by the Department of Child Safety (DCS), January to June, 2018	7
Table 81. Number of foster placements, 2015 to 2018	7
Table 82. Number of licensed foster homes, 2015 to 2018	7
Table 83. First Things First media awareness campaign impressions, SFY17-SFY19	. 13
Table 84. FTF Engagement of Early Childhood Supporters and Champions, SFY19	. 15
Table 85. Zip Code Tabulation Areas in the Pima North Region	. 17
Table 86. School Districts/Local Education Authorities in the Pima North Region	. 19

List of Figures

22
29
40
41
44
55
56
57
57
59
es
82
6
16
19

Executive Summary

Regional Description

The First Things First Pima North Region is defined as the northern portion of Pima County, not including the lands belonging to the Pascua Yaqui Tribe and the Tohono O'odham Nation. The border between the Pima North and Pima South Regions is irregular, but it primarily follows Kinney Road, Ajo Way, and Irvington Road. The region includes the city of South Tucson, the towns of Oro Valley and Marana, and the unincorporated communities of Catalina Foothills, Tanque Verde, Picture Rocks, Catalina, Avra Valley, and Nelson. The Pima North Region does not include the Redington area in the northeastern corner of Pima County, which is assigned to the Cochise Region.

Population Characteristics

According to the U.S. Census, the Pima North Region had a population of 697,919 in 2010, of whom 48,064 (7%) were children ages birth to 5. Twelve percent of households in the region included a young child. This is a lower proportion of households than both the county (14%) and the state (16%). Population projections for Pima County show that the population of young children (ages 0-5) is projected to be about 68,522 by 2020, a decrease from 2010 (74,796). Projections show an increase in the count of young children over time in the county until 2040 (73,870), followed by a slight decline until 2050.

A quarter (25%) of adults and about half (47%) of young children (ages 0-4) in the Pima North Region are Hispanic. These proportions are lower than Pima County as a whole, where twothirds (66%) of adults and a majority of young children are Hispanic (53%). The region also has a lower percentage of American Indian young children (3%) than the county (5%) and state (6%). The proportions of adults (3%) and young children (5%) who are Black or African American in the region are similar to rates in the county and state, though notably lower than the United States overall (12% and 14%, respectively). The percentages of Asian or Pacific Islander adults (3%) and young children (3%) in the Pima North Region similarly mirror the county and state but are lower than national proportions (5% and 5%, respectively). The race and ethnicity of mothers giving birth in the Pima North Region mirror the county overall. The proportion of births to mothers who are Hispanic or Latina is slightly higher in the region (46%) and county (48%) than in the state overall (41%).

About a quarter (24%) of young children in Pima North live with one or two foreign-born parents; this is comparable to the county as a whole (24%) and only slightly lower than the state overall (26%). Household language use also reflects these demographic patterns; a smaller proportion of individuals speak a language other than English at home in the Pima North Region (25%) than the county (29%) and state overall (27%). However, there are comparable percentages of limited-English-speaking households in the region, county, and state (4% in each).

A majority of children living in the Pima North Region live in two-parent households; 58 percent of young children in the region live with two parents or stepparents, compared to 56 percent in the county and 59 percent in Arizona. More than one-quarter (28%) of households with young children in the region are single-female households, a higher proportion than the state overall (24%). The percentage of young children living in a grandparent's household is slightly lower for the region (12%) compared to the county (14%) and state (14%), though the percentage of children living with a grandparent who is responsible for them is comparable between region, county, and state.

Economic Circumstances

Nearly one of every five (18%) individuals in the Pima North Region and Pima County lives in poverty, a similar proportion to the state (17%). When it comes to young children, over one in four (27%) lives in poverty in the Pima North Region. While this percentage is higher than that of the total (all-age) population in the region living in poverty (18%), it is similar to that of children age 0-5 living in poverty across the county (28%) and state (26%).

Across household types, median annual family income is lower in Pima County than in Arizona and the United States. Median income for married couple families with children in Pima County (\$77,109) is more than three times the median income for single female headed families (\$24,894).

Eligibility for some public assistance programs is determined by different poverty thresholds. For example, family income at or below 141 percent of the federal poverty threshold is one criterion for eligibility for the Arizona Health Care Cost Containment System (AHCCCS)ⁱ for children ages 1 to 5, and at or below 147 percent of the federal poverty threshold for children under 1 year old.¹ In the Pima North Region, the percentage of families with young children who may qualify for AHCCCS (those under 130% of FPL and between 130% and 149% of FPL) (41%) is slightly higher than the state overall (38%).

Between 2015 and 2018, the number of families and young children receiving Temporary Assistance for Needy Families (TANF) declined. In 2018, participation of young children in TANF was low for the region (5%), county (5%), and state (3%). While participation in the Supplemental Nutrition Assistance Program (SNAP) by families and young children also declined between 2015 and 2018, participation in SNAP was still relatively high in the region for families (41%) and young children (44%), with comparable participation in the county and state. Since the 2015-2016 school year, the percentage of students eligible for free or reduced-price lunch in the Pima North Region has steadily declined, from 58 percent in 2015-2016 to 52 percent in 2018-2019.

Rates of adult employment in Pima North (55%) mirror rates of the county (54%) and state (55%) but are lower than the US as a whole (59%). Between 2015 and 2018, rates of

ⁱ Arizona Health Care Cost Containment System (AHCCCS) is the name of Arizona's Medicaid program, which offers health care programs to Arizona residents.

unemployment in Pima County steadily declined, from six percent in 2015 to five percent in 2018. Two-thirds (66%) of households with young children have all present parents in the labor force in the Pima North Region. The percentage of young children living with one parent who is not in the labor force is slightly lower in the region (8%) compared to the state (10%).

About one-third (34%) of households in the region are spending 30 percent or more of their income on housing, a proportion comparable at the county, state, and national levels.

About two-thirds (67%) of households in the region have both a smartphone and computer, mirroring state (67%) and national (66%) numbers. The majority (85%) of Pima North Region residents live in households with a computer and internet. This is slightly higher than state (82%) and national (83%) proportions. For children specifically, household access to a computer and internet in the region is even higher (88%). Of people living in households with a computer and internet in the region, ten percent rely solely on a cellular data plan.

Educational Indicators

In the 2018-2019 school year, 1,706 children were enrolled in preschool in the Pima North Region. Kindergarten through 3rd grade enrollments for the region were all relatively similar, ranging from 6,666 in kindergarten to 6,859 in 3rd grade. Kindergarten through 3rd grade chronic absence ratesⁱⁱ steadily increased from 2015-2016 to 2018-2019 at the regional, county, and state level. During the 2018-2019 school year, the Pima North Region had a 13 percent chronic absence rate, with 4,404 kindergarten through 3rd grade students in the region chronically absent. By grade level, chronic absences ranged from 8 percent to 16 percent in the Pima North Region. In the region and county, chronic absences were highest among 1st grade students (16% and 17%, respectively), while state-level chronic absences were highest among kindergarteners (13%).

Fewer than half of 3rd grade students are meeting proficiency expectations for 3rd grade literacy. Slightly more than half are meeting proficiency expectations for math. Arizona's Measurement of Educational Readiness to Inform Teaching (AzMERIT) 3rd Grade English Language Arts passing rates for the Pima North Region (44%) mirrored statewide passing rates in 2017-2018 and have remained relatively constant over time at the region, county, and state levels.

AzMERIT 3rd Grade Math passing rates for the Pima North Region (53%) also mirrored statewide passing rates in 2017-2018. AzMERIT 3rd Grade Math passing rates have improved over time at the region, county, and state level, with regional passing rates increasing from 48 percent in 2015-2016 to 53 percent in 2017-2018.

In 2017, the the Pima North Region had a four-year high school graduation rate of 74 percent and a five-year graduation rate of 80 percent. Since 2015, both the four-year and five-year

ⁱⁱ Chronic absenteeism is defined as missing more than 10 percent of the school days within a school year.

graduation rates have declined in the Pima North Region. The 7th-12th grade dropout rate for Pima North increased from 4 percent in 2015-2016 to 6 percent in 2017-2018.

A larger proportion of adults have more than a high-school education in the Pima North Region (69%) than in Pima County (66%), Arizona (62%), and the United States overall (60%). This difference is also seen specifically in mothers giving birth, with a larger proportion of births to mothers with more than a high-school education in the Pima North Region (61%) than the county (57%) and state (56%).

Early Learning

In the Pima North Region, 43 percent of children (ages 3 and 4) are enrolled in nursery school, preschool, or kindergarten. While this is a larger proportion than the county (40%) and state (38%), it is lower than the national proportion (48%). In the Pima North Region, nearly all (97%) of licensed child care capacity is provided by child care centers, with a small proportion provided by family child care providers (3%) and nannies/individual providers (<1%). The Pima North Region has a higher percentage of providers who are accredited (16%) than the state (10%), as well as a higher percentage of potential child care slots (provider capacity) with accredited providers (19%) than the state (12%).

Median monthly child care costs for certified group homes and licensed centers are similar across the region, county, and state. However, median costs for approved family homes are as much as \$100 more per child per month in the Pima North Region compared to the state. Overall, licensed centers are the most expensive and approved family homes the least expensive for all ages in the region. Child care costs are relatively more expensive in Pima County than in the state overall. At median levels, sending an infant to a licensed center requires over one-sixth (17%) of a family's income. Given that one in five Pima North Region residents lives in poverty and one-third of Pima North Region households are spending 30 percent or more of their income on housing, this is a notable proportion of income needed to cover child care for families that may already have difficulty meeting their basic needs.

Nearly all (95%) children who are not involved with the Department of Child Safety (DCS) and are eligible for Department of Economic Security (DES) child care subsidies in the Pima North Region have received them in recent years. This proportion is slightly higher than the state overall, with 92 percent of eligible children receiving child care subsidies in 2018 statewide. For DCS-involved children specifically, the proportion of eligible children receiving subsidies in the region is lower than for all eligible children and has declined over time, from 92 percent in 2015 to 86 percent in 2018. This decline in DCS-involved children receiving subsidies was also seen at a state level, with 82 percent of DCS-involved children receiving subsidies in Arizona in 2018 compared to 91 percent in 2015. The proportion of eligible families not using DES child care subsidies has increased slightly over time at the region, county, and state level. In 2018, five percent of eligible families in the Pima North Region did not use their child care subsidies.

Quality educational environments are defined by the Department of Economic Security (DES) as providers that are accredited by a national organization or providers that have received a stateapproved quality indicator that is recognized by the department.^{III} From 2017 to 2018, the number of children receiving subsidies in quality environments, and particularly the number of DCS children in quality environments, increased at the regional, county, and state levels. In 2019, a total of 135 child care providers in the Pima North Region participated in Quality First, 74 percent of which were quality-level settings (public 3-5 stars). Of the 7,395 children enrolled at a Quality First provider site in the region, 75 percent were enrolled at a quality-level setting (public 3-5 stars). In 2019, 950 children received Quality First scholarships.

As an alternative to expulsion, early education providers in Arizona have an opportunity to identify young children as being at risk for expulsion and to receive consultation from experts to help intervene in problem behaviors. Consultation is provided through on-site mental health consultation, available for Quality First and some non-Quality First providers, as well as through a Department of Economic Security (DES)-managed hotline. If that child is then able to remain in the center, this is documented as a prevented expulsion and their case is closed out. In 2018, eleven early childhood expulsions of young children receiving child care subsidies were reported as prevented to DES in Pima County.

The number of young children (ages 3-5) enrolled in special education increased slightly from 2015-2016 (1,354) to 2018-2019 (1,387) in the Pima North Region. The largest proportion of young children (ages 3-5) enrolled in special education in the region were diagnosed with a speech or language impairment (44%) or developmental delay (39%). Special education enrollment for 1st through 3rd grade students has continued to increase in the region since 2015-2016 (13%), with 15 percent of children in 1st through 3rd grades enrolled in special education in 2018-2019.

From 2016 to 2017, the percentage of children (ages 0-2) who were referred to the Arizona Early Intervention Program (AzEIP) and found eligible increased from 55 percent to 60 percent in the Pima North Region. From 2017 to 2018, the number of active AzEIP cases in the Pima North Region increased by four percent. The number of children receiving services from the Division of Developmental Disabilities (DDD) has increased over time at the region, county, and state levels since 2015. From 2015 to 2018, children ages 0-2 receiving DDD services in the Pima North Region increased by 25 percent and children ages 3-5 receiving DDD services increased by 70 percent.

Child Health

In the Pima North Region, about one in ten (10%) people do not have health insurance coverage, a number that aligns with the nation (10%) but is slightly lower than the state of

^{III} Providers are considered quality educational environments by the Arizona Department of Economic Security if they receive a Quality First three-star rating or higher or are accredited by a national organization, such as the Association for Early Learning Leaders or the National Association for the Education of Young Children (NAEYC).

Arizona overall (12%). For young children specifically, health insurance coverage is slightly better than the overall population in the region but worse than coverage nationally, with seven percent of young children uninsured in the Pima North Region compared to four percent of young children uninsured nationally. Almost half of births (48%) in the Pima North Region were covered by AHCCCS^{iv} in 2017, a percentage lower than the state average (53%). The proportion of births covered by the Indian Health Service (IHS) and self-paid births were comparable across the region, county, and state in 2017.

The Pima North Region had lower rates of prenatal care than Arizona as a whole, with a larger proportion of births to mothers who had no prenatal care at all (6%), no prenatal care in the first trimester (31.4%), and fewer than five visits if they did have prenatal care (12.2%) compared to state averages (2.9%, 26.4%, and 7.5% respectively). Neither the region nor the state met the Healthy People 2020 target of at least 77.9 percent of births to mothers who received prenatal care in the first trimester.

The proportion of babies born at low birth weight was slightly higher in Pima North (7.6%) than the county (7.2%) and state (7.5%) in 2017, though it still met the Healthy People 2020 target of no more than 7.8 percent. For rates of preterm birth, the Pima North Region, along with the county and state, met the Healthy People 2020 target of no more than 9.4 percent of births before 37 weeks gestation. The Pima North Region did not meet the Healthy People 2020 target for maternal use of tobacco during pregnancy (1.4%), with 6.4 percent of births to mothers using tobacco while pregnant. In 2017, Pima County had an infant mortality rate (3.9 per 1,000 live births) that met the Healthy People 2020 target (6.0 per 1,000 live births) and was lower than the state average (5.6 per 1,000 live births).

In 2016 and 2017, the rate of neonatal abstinence syndrome (i.e., opioid-addicted babies) in Pima County (14.3 per 1,000 live births) was almost twice the state average (7.4 per 1,000 live births). Between June 2017 and June 2018, there were 1,431 suspected opioid overdoses among people of all ages in Pima County. In 2017, there were 176 deaths directly attributed to opioids in Pima County; this accounted for nearly one-in-five (19%) opioid-related deaths across the state.

In Pima County, rates of breastfeeding for infants in the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) were slightly higher than the state rates. While 80 percent of WIC infants were breastfed at some point in infancy, rates of breastfeeding decline with the baby's age. Although the American Academy of Pediatrics recommends exclusive breastfeeding until six months of age, at six months of age, only 28 percent of infants were breastfed and only 4 percent were ever exclusively breastfed in Pima County. Even at three months old, exclusive breastfeeding for WIC infants in Pima County was low (16%).

Across all required immunizations, with the exception of hepatitis A, children in child care in the Pima North Region had higher vaccination rates than the state as a whole and met the Healthy

^{iv} AHCCCS is Arizona's Medicaid agency

People 2020 targets during the 2018-2019 school year. The region also exceeded statewide immunization rates and met all Healthy People 2020 targets for kindergarten immunizations during this time.

In terms of immunization exemptions among children in child care, between 2016 and 2019 the region had lower rates of children in child care receiving religious exemptions and exemptions from all required vaccines than the state. During the 2018-2019 school year, 2.3 percent of children in child care received a religious exemption in Pima North compared to 4.5 percent of children statewide, and 1.6 percent of children in child care received exemptions from all required vaccines in Pima North compared to three percent of children statewide. The Pima North Region also had lower rates of children in kindergarten receiving personal belief exemptions and exemptions from all required vaccinations than statewide averages between 2016 and 2019. During the 2018-2019 school year, 4.1 percent of children in kindergarten received a personal belief exemption in Pima North compared to 5.9 percent of children statewide, and 2.5 percent of children in kindergarten received exemptions from all required vaccines in Pima North compared to 3.8 percent statewide.

Reasons for non-fatal hospitalizations of young children for unintentional injuries in the Pima North Region aligned with the county and state, with falls (31%) and poisoning (19%) the most common. Reasons for non-fatal emergency room visits were also similar between region, county, and state, with falls (45%) and being 'struck by or against' an object or person (15%) the most common. Between 2015 and 2017, there were 827 emergency room visits and 306 inpatient hospitalizations for asthma for young children in the Pima North Region. The average length of stay for asthma hospitalization (2.4 days) was longer for the Pima North Region than the state (1.9 days). Between 2015 and 2017, there were 174 deaths of children in the Pima North Region, 77 percent of which were in young children (134 deaths). The proportion of child deaths that involved young children was higher in the Pima North Region than in the county (73%) or state (71%).

Family Support and Literacy

In 2019, 445 families in the Pima North Region received First Things First-funded home visitation services, including 28 families who successfully completed and graduated from home visitation programs.

Between January 2018 and June 2018, there were 714 substantiated maltreatment reports in Pima County. Of those substantiated reports, the majority were related to neglect (86%), with a smaller proportion related to physical abuse (12%) and sexual abuse (2%). These proportions mirror the statewide average for Arizona during the same time period. The statewide number of child removals by the Department of Child Safety (DCS) declined from 2014 to 2017. Between January and June 2018, 15 percent of DCS reports resulted in a child removal in Pima County, with 832 children removed. While the percentage of children removed overall was similar between the county and state, there was a higher percentage of children with a prior removal in the last 24 months in Pima County (13%) than the state (9%). While the number of foster placements declined from 2015 to 2018, the statewide number of licensed foster homes steadily increased during this time.

Systems Coordination among Early Childhood Programs and Services

The Family Engagement Network is creating multi-generational impact in Pima County. The Family Engagement Network is a collaboration between First Things First Pima North and Pima South Regional Partnership Councils, The United Way of Tucson and Southern Arizona, Pima Community College, and Pima County One-Stop. The goal of the Family Engagement Network is to build a collaborative system that mitigates barriers for families in Pima County accessing a workforce development program. The ultimate outcome of this system building is that parents are acquiring higher education and a career in a high-demand field, which will raise them out of poverty while their young children simultaneously have access to high-quality early learning and supports in their most formative years. First Things First Pima North and Pima South Regional Partnership Councils, specifically, build upon this system through their allocation of Quality First Scholarships to support the children birth to age 5 of the parents enrolled in the workforce development program.

The Family Support Alliance was developed in 2009 and is a collaborative effort aimed at creating a coordinated family support system to decrease barriers families may face when accessing supportive services. Through this collaborative, the home visitation programs and oral health program within the regions are collaborating to provide family-centered events that provide engaging activities, oral health screenings, and opportunities for building connections with other families.

Cradle 2 Career is a countywide effort engaging in collective impact to improve educational outcomes for every child in every school to ensure economic vitality for our community. The goals of Cradle to Career are being realized through the work of individual Change Networks focused on conducting research, utilizing data, and tracking the progress to identify effective practices that address the challenges and barriers identified.

Throughout the last two years, community members have been working to develop an initiative to ensure that more 3-4 year olds within the community have access to high quality preschool. This work began within the City of Tucson and provided an opportunity to build increased awareness of the importance of high-quality early care and education as well as the lack of access for families within Pima County. Additionally, this initiative galvanized community leaders to work together to expand those opportunities. The resulting recommendation was The Preschool Promise, an effort to use both private and public dollars to fund preschool for all low-income 3-4-year-olds in the Pima area. The recommendation included the requirement that children supported through the program attend quality early learning settings (as defined by earning 3-5 stars in Quality First) and that the amount of assistance result in no co-pays for families.

Communication, Public Information and Awareness

First Things First regularly measures their progress toward building support for children birth to age 5 through statewide surveys targeting both the general population and parents of young children. Their most recent statewide survey conducted in September 2018 found that, compared to previous surveys in 2012 and 2016, there was increased agreement in the general public and parents of young children with statements about the importance of early childhood health and development. These include: the state should ensure all children have access to early childhood services, a child who received early education and healthcare services before age 5 is more likely to succeed in school and beyond, and the state should put the same priority on early education as it does on K-12 education. While the survey also showed that awareness of First Things First has increased over time, there are still large portions of the general public (87%) and parents of young children (66%) who have never heard of First Things First.

In SFY 2019, First Things First secured 11 million advertising impressions through traditional media strategies, including television, radio, cinema, and billboard ads, and 76 million digital advertising impressions through digital media strategies, including online ads on desktop and smartphone devices. Particular success has been seen in the growth of Facebook Page Likes for FTF, which grew from just 3,000 in 2012 to 142,600 in 2019. Additional digital marketing content in 2019 included 40 original, high-quality digital marketing pieces and the creation of an online searchable database of early childhood programs, which logged over 24,187 visits in its first six months. Specifically in Pima North and Pima South Regions, digital advertising led to a total of 56,334 click-throughs to the FTF website where families could access more information and resources.

Because Arizona is so vast – with more than 500,000 children under age 6 and nearly 400,000 households with kids under age 6 – engaging others in spreading the word about early childhood is critical to reaching across diverse geographic areas and expanding our reach. Supporters and Champions are trained in early childhood messaging and effective ways to share early childhood information, and Pima North Region had 340 Supporters and 57 Champions in SFY19. These Supporters and Champions reported a total of 40 positive actions taken on behalf of young children throughout the Pima North Region in SFY19. These actions range from leading presentations in support of early childhood to sharing FTF's early childhood resources with parents at community events.

First Things First has also led a concerted effort to build awareness among policymakers at all levels (federal, tribal, state, and municipal) of the importance of early childhood. In SFY19, FTF also launched ACT4KIDS, a text-based system that alerts participants to timely developments in early childhood policy and opportunities to engage with policymakers. In its first nine months of implementation, more than 700 Arizonans had signed up to participate in ACT4KIDS. In addition, FTF actively participates in the Arizona Early Childhood Alliance, comprised of more than 50 early childhood system leaders, which represents a united voice of the early childhood community in advocating for early childhood programs and services. For the past three years,

the Alliance has also led an annual Early Childhood Day at the legislature, which draws hundreds of Arizonans to the state Capitol to engage with policymakers and show their support for early childhood development and health.

The Pima North Region

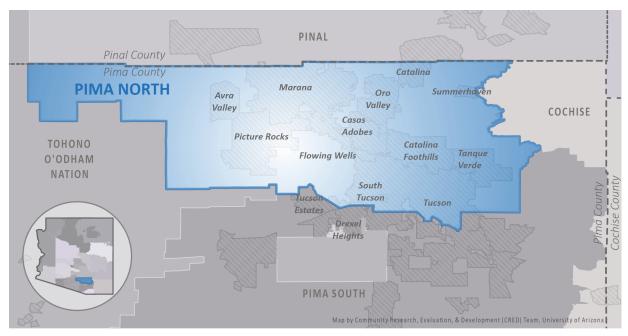
Regional Boundaries

The First Things First regional boundaries were established to create regions that (a) reflect the view of families in terms of where they access services, (b) coincide with existing boundaries or service areas of organizations providing early childhood services, (c) maximize the ability to collaborate with service systems and local governments, (d) facilitate the ability to convene a Regional Partnership Council, and (e) allow for the collection of demographic and indicator data.

The First Things First Pima North Region is defined as the northern portion of Pima County, not including the lands belonging to the Pascua Yaqui Tribe and the Tohono O'odham Nation. The border between the Pima North and Pima South Regions is irregular, but it primarily follows Kinney Road, Ajo Way, and Irvington Road. The region includes the city of South Tucson, the towns of Oro Valley and Marana, and the unincorporated communities of Catalina Foothills, Tanque Verde, Picture Rocks, Catalina, Avra Valley, and Nelson. The Pima North Region does not include the Redington area in the northeastern corner of Pima County, which is assigned to the Cochise Region.

Figure 1 below shows the geographical area covered by the Pima North Region. Additional information available at the end of this report includes a map of the region by zip code in Appendix 1, a table listing zip codes for the region in Appendix 2, and a map of school districts in the region in Appendix 3.

Figure 1. The Pima North First Things First Region



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

Data Sources

The data contained in this report come from a variety of sources. Some data were provided to First Things First by state agencies, such as the Arizona Department of Economic Security (DES), the Arizona Department of Education (ADE), and the Arizona Department of Health Services (ADHS). Other data were obtained from publicly available sources, including the 2010 U.S. Census, the American Community Survey (ACS), the Arizona Department of Administration (ADOA), and the Department of Child Safety (DCS).

The U.S. Census² is an enumeration of the population of the United States. It is conducted every ten years, and includes information about housing, race, and ethnicity. The 2010 U.S. Census data are available by census block. There are about 115,000 inhabited blocks in Arizona, with an average population of 56 people each. The Census data for the Pima North Region presented in this report were calculated by identifying each block in the region and aggregating the data over all of those blocks.

The American Community Survey³ is a survey conducted by the U.S. Census Bureau each month by mail, telephone, and face-to-face interviews. It covers many different topics, including income, language, education, employment, and housing. The ACS data are available by census tract. Arizona is divided into about 1,500 census tracts, with an average of about 4,200 people in each. The ACS data for the Pima North Region were calculated by aggregating over the census tracts which are wholly or partially contained in the region. The data from partial census tracts were apportioned according to the percentage of the 2010 Census population in that tract living inside the Pima North Region. The most recent and most reliable ACS data are averaged over the past five years; those are the data included in this report. They are based on surveys conducted from 2013 to 2017. In general, the reliability of ACS estimates is greater for more populated areas. Statewide estimates, for example, are more reliable than county-level estimates.

To protect the confidentiality of program participants, the First Things First Data Dissemination and Suppression Guidelines preclude our reporting social service and early education programming data if the count is less than ten and preclude our reporting data related to health or developmental delay if the count is less than six. In addition, some data received from state agencies may be suppressed according to their own guidelines. The Arizona Department of Health Services does not report counts less than six; the Arizona Department of Economic Security does not report counts between one and nine; and the Arizona Department of Education does not report counts less than eleven. Throughout this report, information which is not available because of suppression guidelines will be indicated by entries of "<6" or "<10" or "<11" for counts, or "DS" (data suppressed) for percentages. Data are sometimes not available for particular regions, either because a particular program did not operate in the region or because data are only available at the county level. Cases where data are not available will be indicated by an entry of "N/A."

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

Population Characteristics

Why it Matters

To support the healthy development and learning of young children across Arizona, advocates and decision makers need to understand who those children and their families are.⁴ Although parents are a child's first and most important teachers, families of young children often use community resources to help them promote positive outcomes for their children.⁵ The number and characteristics of young children and families in a region can inform the range of services needed in a community, helping to guide where to locate child care, health care, and social services so that they are accessible to those who need them.^{6,7}

Immigrant families. Families in the US are becoming more diverse. Knowing how local communities are changing can help ensure families have access to the services and supports they need to thrive.⁸ Children of foreign-born parents represent one of the fastest growing groups of young children in the country.⁹ Recent changes in national immigration policy have led some immigrant families to avoid using social services for which they legally qualify due to fear of deportation or jeopardizing their legal status in the country.^{10,11,12} Policy changes at a national level, such as the "public charge rule"^v set to be enacted in October 2019, may deter families – particularly those with a recent history of immigration – from using available supports for which they legally qualify.^{13,14} Children in these families may be at particular risk of reduced access to medical care and increased food insecurity.^{15,16,17}

Language use. Households with multiple languages spoken pose a unique balance of benefits for child learning and barriers to parental engagement, which counties with high rates of other languages spoken should specifically consider. Acknowledging and valuing linguistic heritage (such as through language preservation efforts) and recognizing needs for resources and services in languages other than English should remain important considerations for organizations and agencies across Arizona.^{18,19,20,21} Awareness of the levels of English proficiency and of other home languages spoken within a region provides information about a community's assets and allows for identifying relevant supports. Young children can benefit from exposure to multiple languages; mastery of more than one language is an asset in school readiness and academic achievement and offers cognitive and social-emotional benefits in early school and throughout their lifetime. ^{22,23,24,25} Although dual language learning is an asset, limited English speaking households (that is, households where none of the adult members speak English well) can face challenges. These families may experience barriers to accessing health care and social service information, as well as barriers to engaging in important parentteacher interactions, all of which can impede their child's health and development.^{26,27} Providing information about resources and services in languages accessible to families in the

^v U.S. Citizenship and Immigration Services defines "public charge" as an individual who is likely to become "primarily dependent on the government for subsistence, as demonstrated by either the receipt of public cash assistance for income maintenance, or institutionalization for long-term care at government expense."

region can help remove those barriers. Although Spanish is the most common second language spoken, Arizona is also home to a large number of Native communities, with Native languages spoken by families in those communities. Language preservation and revitalization are critical to strengthening culture in Native communities, addressing issues of educational equity, and to the promotion of social unity, community well-being, and Indigenous self-determination.^{28, 29} Special consideration should be given to respecting and supporting the numerous Native American languages spoken, particularly in tribal communities around the state.

Family and household composition. In addition to growing racial, ethnic and social diversity, US and Arizona families are becoming more diverse in terms of family structure.^{30,31,32,33} Understanding the makeup of families in a region can help better prepare child care, school and agency staff to engage with families in ways that support positive interactions both within families and with staff to enhance each child's early learning and development.³⁴

Multi-generational households, particularly those where grandparents live in the home with the child and parents, are traditional in some communities and cultures and can provide financial and social benefits.³⁵ However, parents are not always in the picture in these homes. Care of children by someone other than their parents, such as relatives or close friends, is known as kinship care and is increasingly common.³⁶ Children living in kinship care can arrive in those situations for a variety of reasons, including a parent's absence for work or military service, chronic illness, drug abuse, or incarceration, or due to abuse, neglect, or homelessness. Understanding who is caring for children can help in identifying and creating specific supports for these families. Children in kinship care often face special needs as a result of trauma, and therefore these families often require additional support and assistance to help children adjust and provide the best possible home environment.³⁷ A child's risk of living in poverty is also higher for those living with grandparents, adding to the family stress. ³⁸ These families are likely to require access to information on resources, support services, benefits, and policies available to aid in their caregiving role.³⁹

What the Data Tell Us

Population, Race, and Ethnicity

- According to the U.S. Census, the Pima North Region had a population of 697,919 in 2010, of whom 48,064 (7%) were children ages birth to 5. Twelve percent of households in the region included a young child. This is a lower proportion of households than both the county (14%) and the state (16%) (Table 1).
- Population projections for Pima County show that the population of young children (ages 0-5) is projected to be about 68,522 by 2020, a decrease from 2010 (74,796).
 Projections show an increase in the count of young children over time in the county until 2040 (73,870), followed by a slight decline until 2050 (Figure 2).
- A quarter (25%) of adults and about half (47%) of young children (ages 0-4) in the Pima North Region are Hispanic. These proportions are lower than Pima County as a whole, where two-thirds (66%) of adults and a majority of young children are Hispanic (53%). The region also has a lower percentage of American Indian young children (3%) than the county (5%) and state (6%). The proportions of adults (3%) and young children (5%) who are Black or African American in the region are similar to rates in the county and state, though notably lower than the United States overall (12% and 14%, respectively). The percentages of Asian or Pacific Islander adults (3%) and young children (3%) in the Pima North Region similarly mirror the county and state but are lower than national proportions (5% and 5%, respectively) (Table 3 & Table 4).
- The race and ethnicity of mothers giving birth in the Pima North Region mirror the county overall. The proportion of births to mothers who are Hispanic or Latina is higher in the region (46%) and county (48%) than in the state overall (41%) (Table 5).

Immigrant Families and Language Use

- About a quarter (24%) of young children in Pima North live with one or two foreign-born parents; this is comparable to the county as a whole (24%) and only slightly lower than the state overall (26%) (Table 6).
- Household language use also reflects these demographic patterns; a smaller proportion
 of individuals speak a language other than English at home in the Pima North Region
 (25%) than in the county (29%) and state overall (27%). However, there are comparable
 percentages of limited-English-speaking households in the region, county, and state (4%
 in each) (Table 7 & Table 9).

Family and Household Composition

- A majority of children living in the Pima North Region live in two-parent households; 58 percent of young children in the region live with two parents or stepparents, compared to 56 percent in the county and 59 percent in Arizona (Table 10).
- More than one-quarter (28%) of households with young children in the region are single-female households, a higher proportion than the state overall (24%) (Table 11).
- The percentage of young children living in a grandparent's household is slightly lower for the region (12%) compared to the county (14%) and state (14%), though the percentage of children living with a grandparent who is responsible for them is comparable between region, county, and state (Table 12 & Table 13).

Population, Race, and Ethnicity

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

					PERCENT OF
				HOUSEHOLDS	HOUSEHOLDS
			TOTAL	WITH ONE OR	WITH ONE OR
	TOTAL	POPULATION	NUMBER OF	MORE CHILDREN	MORE CHILDREN
GEOGRAPHY	POPULATION	(AGES 0-5)	HOUSEHOLDS	(AGES 0-5)	(AGES 0-5)
Pima North Region	697,919	48,064	292,121	35,013	12%
Pima County	980,263	74,796	388,660	53,862	14%
Pima County Arizona	980,263 6,392,017	74,796 546,609	388,660 2,380,990	53,862 384,441	14% 16%

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

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

	POPULATION						
GEOGRAPHY	(AGES 0-5)	AGE 0	AGE 1	AGE 2	AGE 3	AGE 4	AGE 5
Pima North Region	48,064	7,891	8,015	8,268	8,304	7,761	7,825
Pima County	74,796	12,125	12,380	12,889	12,814	12,313	12,275
Arizona	546,609	87,557	89,746	93,216	93,880	91,316	90,894
United States	24,258,220	3,944,153	3,978,070	4,096,929	4,119,040	4,063,170	4,056,858

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

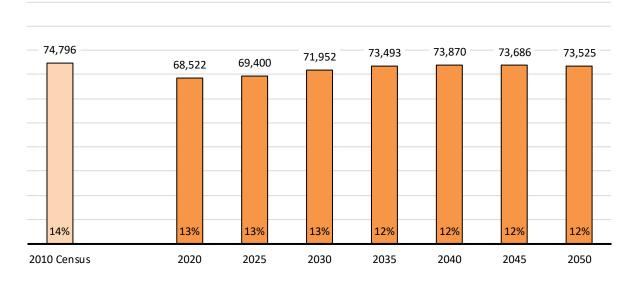


Figure 2. Population projections for young children (ages 0-5) in Pima County, 2020 to 2050

Source: Arizona Office of Economic Opportunity, Arizona Population Projections: 2018 to 2055, Medium Series

Note: The numbers in the base of each bar indicate the county's population as a percentage of the state's population of young children

	POPULATION 18 YEARS		WHITE, NOT	BLACK OR AFRICAN- AMERICAN, NOT	AMERICAN INDIAN, NOT	ASIAN OR PACIFIC ISLANDER, NOT	OTHER, NOT
GEOGRAPHY Pima North Region	AND OVER 552,202	HISPANIC 25%	HISPANIC 66%	HISPANIC 3%	HISPANIC 1%	HISPANIC 3%	HISPANIC 2%
Pima County	754,947	29%	61%	3%	2%	3%	1%
Arizona	4,763,003	25%	63%	4%	4%	3%	1%
United States	234,564,071	14%	67%	12%	1%	5%	1%

Table 3. Race and ethnicity of the adult population (ages 18 and older), 2010

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

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

GEOGRAPHY	POPULATION (AGES 0-4)	HISPANIC	WHITE, NOT HISPANIC	BLACK OR AFRICAN- AMERICAN	AMERICAN INDIAN	ASIAN OR PACIFIC ISLANDER
Pima North Region	40,239	47%	40%	5%	3%	3%
Pima County	62,521	53%	35%	4%	5%	2%
Arizona	455,715	45%	40%	5%	6%	3%
United States	20,201,362	25%	51%	14%	1%	5%

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

0047
ar 2017
A

	TOTAL	MOTHER	MOTHER	MOTHER	MOTHER WAS	MOTHER
	NUMBER OF	WAS	WAS WHITE,	WAS BLACK	AMERICAN	WAS ASIAN
	BIRTHS IN	HISPANIC OR	NOT	OR AFRICAN-	INDIAN OR	OR PACIFIC
GEOGRAPHY	2017	LATINA	HISPANIC	AMERICAN	ALASKAN	ISLANDER
Pima North Region	7,239	46%	41%	6%	2%	5%
Pima County	10,970	48%	40%	5%	4%	4%
Arizona	81,664	41%	44%	6%	6%	4%

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

Immigrant Families and Language Use

	YOUNG CHILDREN	YOUNG CHILDREN (AGES 0-5)	PERCENT OF YOUNG CHILDREN
	(AGES 0-5) LIVING	LIVING IN FAMILIES OR	(AGES 0-5) LIVING IN FAMILIES OR
	IN FAMILIES OR	SUBFAMILIES WITH ONE OR	SUBFAMILIES WITH ONE OR TWO
GEOGRAPHY	SUBFAMILIES	TWO FOREIGN-BORN PARENTS	FOREIGN-BORN PARENTS
Pima North Region	43,303	10,480	24%
Pima County	67,537	16,082	24%
Arizona	498,102	130,705	26%
United States	22,939,897	5,730,869	25%

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

Source: U.S. Census Bureau (2018). American Community Survey five-year estimates 2013-2017, Table B05009

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

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

		POPULATION (AGES	POPULATION	POPULATION (AGES
		5+) WHO SPEAK	(AGES 5+) WHO	5+) WHO SPEAK
	POPULATION	ONLY ENGLISH AT	SPEAK SPANISH AT	OTHER LANGUAGES
GEOGRAPHY	(AGES 5 AND OLDER)	HOME	HOME	AT HOME
Pima North Region	668,335	76%	19%	6%
Pima County	948,093	72%	24%	5%
Arizona	6,375,189	73%	21%	6%
United States	301,150,892	79%	13%	8%

Source: U.S. Census Bureau (2018). American Community Survey five-year estimates 2013-2017, Table B16001

Note: The most recent estimates from the American Community Survey (ACS) no longer specify the proportion of the population who speak a Native North American language for geographies smaller than the state.

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

		POPULATION	POPULATION (AGES 5+)	POPULATION (AGES 5+)
		(AGES 5+) WHO	WHO SPEAK ANOTHER	WHO SPEAK ANOTHER
	POPULATION	SPEAK ONLY	LANGUAGE AT HOME,	LANGUAGE AT HOME, BUT
	(AGES 5 AND	ENGLISH AT	AND SPEAK ENGLISH	DO NOT SPEAK ENGLISH
GEOGRAPHY	OLDER)	HOME	"VERY WELL"	"VERY WELL"
Pima North Region	668,335	76%	17%	7%
Pima County	948,093	72%	20%	8%
Arizona	6,375,189	73%	18%	9%
United States	301,150,892	79%	13%	9%

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

Table 9. Limited-English-speaking households

		NUMBER OF "LIMITED	PERCENT OF HOUSEHOLDS
	TOTAL NUMBER OF	ENGLISH SPEAKING"	WHICH ARE "LIMITED
GEOGRAPHY	HOUSEHOLDS	HOUSEHOLDS	ENGLISH SPEAKING"
Pima North Region	295,577	10,765	4%
Pima County	398,530	16,400	4%
Arizona	2,482,311	108,133	4%
United States	118,825,921	5,305,440	4%

Source: U.S. Census Bureau (2018). American Community Survey five-year estimates 2013-2017, Table B16002

Family and Household Composition

		CHILDREN (0-5)	CHILDREN (0-5)	CHILDREN (0-5)	CHILDREN (0-5)
	CHILDREN (0-5)	LIVING WITH	LIVING WITH	LIVING WITH	LIVING WITH
	LIVING IN	TWO PARENTS	ONE PARENT OR	RELATIVES	NON-
GEOGRAPHY	HOUSEHOLDS	OR STEPPARENTS	STEPPARENT	(NOT PARENTS)	RELATIVES
Pima North Region	45,062	58%	38%	2%	2%
Pima County	70,508	56%	39%	3%	2%
Arizona	520,556	59%	37%	2%	2%
United States	23,817,787	62%	34%	2%	2%

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

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

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

	HOUSEHOLDS WITH ONE OR			
GEOGRAPHY	MORE CHILDREN	MARRIED FAMILY HOUSEHOLDS	SINGLE-MALE HOUSEHOLDS	SINGLE-FEMALE HOUSEHOLDS
Pima North Region	(AGES 0-5) 35,013	61%	11%	28%
	55,015	01/0	11/0	20/0
Pima County	53,862	62%	11%	27%
Arizona	384,441	65%	11%	24%
United States	17,613,638	67%	9%	24%

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

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

			PERCENT OF CHILDREN (0-5)
	POPULATION	CHILDREN (0-5) LIVING IN A	WHO LIVE IN A
GEOGRAPHY	(AGES 0-5)	GRANDPARENT'S HOUSEHOLD	GRANDPARENT'S HOUSEHOLD
Pima North Region	48,064	5,838	12%
Pima County	74,796	10,346	14%
Arizona	546,609	74,153	14%
United States	24,258,220	2,867,165	12%

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

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

	GRANDCHILDREN UNDER 18 LIVING	PERCENT OF GRANDCHILDREN UNDER 18 LIVING WITH A GRANDPARENT HOUSEHOLDER
GEOGRAPHY	WITH GRANDPARENT HOUSEHOLDER	WHO IS RESPONSIBLE FOR THEM
Pima North Region	11,196	51%
Pima County	19,407	52%
Arizona	147,707	51%
United States	5,781,786	49%

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

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

Economic Circumstances

Why it Matters

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

Poverty. Childhood poverty can negatively affect the way children's bodies grow and develop, including fundamental changes to the architecture of the brain.⁴² Children raised in poverty are at a greater risk of a host of negative outcomes including low birth weight, lower school achievement, and poor health.^{43,44,45,46,47} They are also more likely to remain poor later in life.^{48,49} As a benchmark, the 2019 Federal Poverty Guideline – the criterion used for establishing eligibility for some safety net programs – for a family of four was \$25,750.⁵⁰ However, the federal poverty guideline definition of poverty was developed in the 1950s, and estimates only what a family would need to earn to afford basic nutrition, without taking into account other costs of living; it is widely considered to be well below what a family actually needs to earn to make ends meet. The "self-sufficiency standard" attempts to estimate how much families need to earn to fully support themselves, accounting for local costs of housing, transportation, and child care, and other budget items.⁵¹ The 2018 self-sufficiency standard for an Arizona family with two adults, one preschooler, and one school-age child was \$56,143 – over twice the poverty threshold.⁵²

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

Food insecurity. A limited or uncertain availability of food is negatively associated with many markers of health and well-being for children, including heightened risks for developmental delays⁵³ and being overweight or obese .⁵⁴ To help reduce food insecurity, there are a variety of federally-funded programs including the Supplemental Nutrition Assistance Program (SNAP),⁵⁵ the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC),⁵⁶ the National School Lunch Program,⁵⁷ the School Breakfast Program,⁵⁸ the Summer Food Service Program,⁵⁹ and the Child and Adult Care Food Program (CACFP).⁶⁰ However, only about 58 percent of food insecure households nationwide report participating in federally-funded nutrition assistance programs.⁶¹

SNAP. Administered by the Arizona Department of Economic Security and also referred to as "Nutrition Assistance" and "food stamps," SNAP has been shown to help reduce hunger and improve access to healthier food.⁶² SNAP benefits support working families whose incomes simply do not provide for all their needs. For low-income working families, the additional funds available to access food from SNAP can help make a meaningful difference. For example, for a

three-person family with one person who earns a minimum wage, SNAP benefits can boost take-home income by 10-20 percent.⁶³

WIC. Administered by the Arizona Department of Health Services, this federally-funded program serves pregnant, postpartum, and breastfeeding women, as well as infants and young children (under the age of five) who are economically disadvantaged (i.e., family incomes at or below 185 percent of the federal poverty level). The program offers funds for nutritious food, breastfeeding and nutrition education, and referrals to health and social services.⁶⁴ Participation in WIC has been shown to be associated with healthier births, lower infant mortality, improved nutrition, decreased food insecurity, improved access to health care, and improved cognitive development and academic achievement for children.⁶⁵

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

Employment. Unemployment and underemployment can affect a family's ability to meet the expenses of daily living, as well as their access to resources needed to support their children's well-being and healthy development. A parent's job loss can affect children's school performance, leading to poorer attendance, lower test scores, and higher risk of grade repetition, suspension, or expulsion.⁶⁶ Unemployment can also put families at greater risk for stress, family conflict, and homelessness.⁶⁷ Note that this does not include persons who have dropped out of the labor force entirely, including those who wanted to but could not find suitable work and so have stopped looking for employment.⁶⁸

Housing instability. Examining indicators related to housing quality, costs, and availability can reveal additional factors affecting the health and well-being of young children and their families in a region. Housing challenges such as issues paying rent or mortgage, overcrowded living conditions, unstable housing arrangements, and homelessness can have harmful effects on the physical, social-emotional, and cognitive development of young children.⁶⁹ Traditionally, housing has been deemed affordable for a family if it costs less than 30 percent of their annual income.⁷⁰ High housing costs, relative to family income, are associated with increased risk for overcrowding, frequent moving, poor nutrition, declines in mental health, and homelessness.^{71,72}

One increasingly critical need for modern homes is a reliable means of internet access. Families often rely on communication and information technologies to access information, connect socially, pursue an education, and apply for employment opportunities. Parents are also more likely to turn to online resources, rather than in-person resources, for information about obtaining health care and sensitive parenting topics including bonding, separation anxiety, and managing parenting challenges.⁷³ The term "digital divide" refers to disparities in communication and information technologies,⁷⁴ and the lack of sustained access to information and communication technologies in low-income communities is associated with economic and

social inequality.⁷⁵ Low-income households may experience regular disruptions to this increasingly important service when they can't pay bills, repair or update equipment, or access public locations that may offer connectivity (e.g., computers at local libraries).⁷⁶ Nationally, Americans are increasingly reliant on smartphones as their sole source of internet access. Particularly for individuals who are younger, lower-income, and non-white, broadband service at home is less common and smartphone-only internet use is more common.⁷⁷ Households in rural areas typically experience more limited coverage from mobile networks and slower-speed internet services, as well as limited internet provider options which can result in higher monthly costs.^{78,79,80}

What the Data Tell Us

Poverty

- Nearly one of every five (18%) individuals in the Pima North Region and Pima County lives in poverty, a similar proportion to the state (17%). When it comes to young children, over one in four (27%) lives in poverty in the Pima North Region. While this percentage is higher than that of the total (all-age) population in the region living in poverty (18%), it is similar to that of children age 0-5 living in poverty across the county (28%) and state (26%) (Figure 3).
- Across household types, median annual family income is lower in Pima County than in Arizona and the United States. Median income for married couple families with children in Pima County (\$77,109) is more than three times the median income for single female headed families (\$24,894) (Table 14).
- Eligibility for some public assistance programs is determined by different poverty thresholds. For example, family income at or below 141 percent of the federal poverty threshold is one criterion for eligibility for the Arizona Health Care Cost Containment System (AHCCCS)^{vi} for children ages 1 to 5, and at or below 147 percent of the federal poverty threshold for children under 1 year old.⁸¹ In the Pima North Region, the percentage of families with young children who may qualify for AHCCCS (those under 130% of FPL and between 130% and 149% of FPL) (41%) is slightly higher than the state overall (38%) (Table 15 & Figure 4).
- Between 2015 and 2018, the number of families and young children receiving Temporary Assistance for Needy Families (TANF) declined. In 2018, participation of young children in TANF was low for the region (5%), county (5%), and state (3%) (Table 16 & Table 17).

Food Insecurity

- While participation in the Supplemental Nutrition Assistance Program (SNAP) by families and young children also declined between 2015 and 2018, participation in SNAP was still relatively high in the region for families (41%) and young children (44%), with comparable participation in the county and state (Table 18 & Table 19).
- Since the 2015-2016 school year, the percentage of students eligible for free or reduced-price lunch in the Pima North Region has steadily declined, from 58 percent in 2015-2016 to 52 percent in 2018-2019 (Table 20).

Employment

- Rates of adult employment in Pima North (55%) mirror rates of the county (54%) and state (55%) but are lower than the US as a whole (59%) (Table 21).
- Between 2015 and 2018, rates of unemployment in Pima County steadily declined, from six percent in 2015 to five percent in 2018 (Figure 5).

^{vi} AHCCCS is Arizona's Medicaid agency

• Two-thirds (66%) of households with young children have all present parents in the labor force in the Pima North Region. The percentage of young children living with one parent who is not in the labor force is slightly lower in the region (8%) compared to the state (10%) (Table 22).

Housing Instability

- About one-third (34%) of households in the Pima North Region are spending 30 percent or more of their income on housing, a proportion comparable at the county, state, and national levels (Table 23).
- About two-thirds (67%) of households in the region have both a smartphone and computer, mirroring state (67%) and national (66%) numbers (Table 24).
- The majority (85%) of Pima North Region residents live in households with a computer and internet. This is slightly higher than state (82%) and national (83%) proportions (Table 25).
- For children specifically, household access to a computer and internet in the region is even higher (88%) (Table 26).
- Of people living in households with a computer and internet in the region, ten percent rely solely on a cellular data plan (Table 27).

Poverty

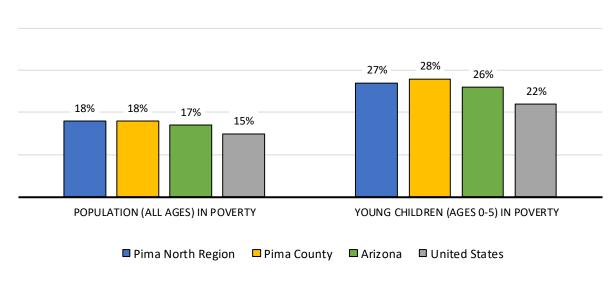


Figure 3. Percent of population (all ages) and young children (ages 0-5) living in poverty

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

Table 14. M	Median	annual	family	income
-------------	--------	--------	--------	--------

		MEDIAN INCOME FOR	MEDIAN INCOME FOR	MEDIAN INCOME FOR
		MARRIED COUPLE	FAMILIES WITH	FAMILIES WITH
	MEDIAN INCOME FOR	FAMILIES WITH	CHILDREN (0-17),	CHILDREN (0-17),
GEOGRAPHY	ALL FAMILIES	CHILDREN (0-17)	SINGLE MALE HEAD	SINGLE FEMALE HEAD
Pima County	\$60,790	\$77,109	\$37,397	\$24,894
Arizona	\$63,812	\$80,533	\$38,650	\$26,907
United States	\$70,850	\$91,621	\$41,054	\$26,141

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

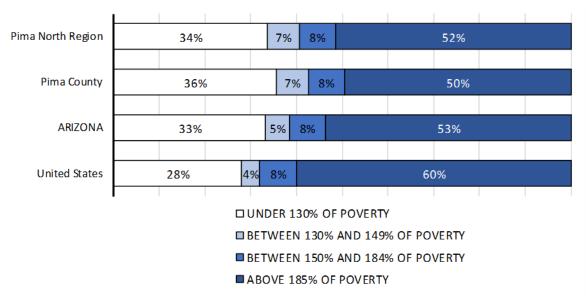
Table 15. Families with young children (ages 0-5) living at various poverty thresholds

GEOGRAPHY	TOTAL NUMBER OF FAMILIES WITH YOUNG CHILDREN (AGES 0-5)	PERCENT UNDER 130% OF POVERTY	PERCENT BETWEEN 130% AND 149% OF POVERTY	PERCENT BETWEEN 150% AND 184% OF POVERTY	PERCENT ABOVE 185% OF POVERTY
Pima North Region	27,220	34%	7%	8%	52%
Pima County	42,302	36%	7%	8%	50%
Arizona	295,926	33%	5%	8%	53%
United States	13,951,604	28%	4%	8%	60%

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

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

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



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

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

						PERCENT OF
	HOUSEHOLDS	NUMBER OF	FAMILIES PA	ARTICIPATING	IN TANF	HOUSEHOLDS WITH
	WITH ONE OR				YOUNG CHILDREN	
	MORE CHILDREN					(0-5) PARTICIPATING
GEOGRAPHY	(AGES 0-5)	FY 2015	FY 2016	FY 2017	FY 2018	IN TANF IN 2018
Pima North Region	35,013	1,965	2,024	1,926	1,623	5%
Pima County	53,862	3,237	3,137	3,108	2,724	5%
Arizona	384,441	18,165	16,399	14,188	12,042	3%

Table 16. Families participating in the TANF program, Fiscal Years 2015 to 2018

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

Table 17. Children participating in the TANF program, Fiscal Years 2015 to 2018

	NUMBER OF YOUNG CHILDREN (AGES 0-5) IN THE	NUMBER OF	CHILDREN P	ARTICIPATIN	G IN TANF	PERCENT OF YOUNG CHILDREN (0-5) PARTICIPATING
GEOGRAPHY	POPULATION	FY 2015	FY 2016	FY 2017	FY 2018	IN TANF IN 2018
Pima North Region	48,064	2,491	2,601	2,579	2,229	5%
Pima North Region Pima County	48,064 74,796	2,491 4,111	2,601 4,080	2,579 4,177	2,229 3,763	5%

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

Food Insecurity

	HOUSEHOLDS					PERCENT OF
	WITH ONE OR	NUMBER OF	NUMBER OF FAMILIES PARTICIPATING IN SNAP			HOUSEHOLDS WITH
	MORE					YOUNG CHILDREN (0-5)
	CHILDREN					PARTICIPATING IN SNAP
GEOGRAPHY	(AGES 0-5)	FY 2015	FY 2016	FY 2017	FY 2018	IN 2018
Pima North Region	35,013	16,640	16,058	15,706	14,455	41%
Pima County	53,862	26,111	24,966	24,382	22,604	42%
Arizona	384,441	179,988	172,014	164,092	151,819	39%

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

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

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

	NUMBER OF YOUNG CHILDREN (AGES 0-5) IN THE	NUMBER OF	CHILDREN P	ARTICIPATIN	G IN SNAP	PERCENT OF YOUNG CHILDREN (0-5) PARTICIPATING IN
GEOGRAPHY	POPULATION	FY 2015	FY 2016	FY 2017	FY 2018	SNAP IN 2018
Pima North Region	48,064	22,192	23,314	22,801	21,033	44%
Pima County	74,796	35,113	36,500	35,650	33,142	44%
Arizona	546,609	249,707	258,556	247,418	229,291	42%

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

Table 20. Percent of students (all grades) eligible for free or reduced-price lunch, 2015-16 to	
2018-19	

	STUDENTS ELIGIBLE	STUDENTS ELIGIBLE	STUDENTS ELIGIBLE	STUDENTS ELIGIBLE
	FOR FREE OR	FOR FREE OR	FOR FREE OR	FOR FREE OR
	REDUCED-PRICE	REDUCED-PRICE	REDUCED-PRICE	REDUCED-PRICE
GEOGRAPHY	LUNCH (2015-16)	LUNCH (2016-17)	LUNCH (2017-18)	LUNCH (2018-19)
Pima North Region	58%	56%	54%	52%
	50%	56/6	34/0	JZ/0
Pima County	59%	58%	56%	55%

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

Employment

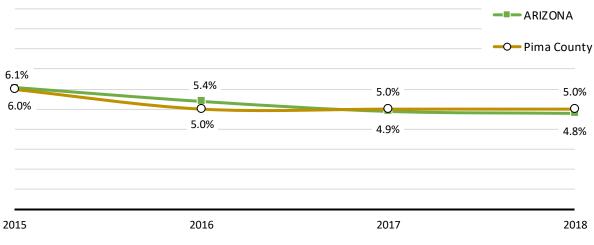
Table 21. Adult population (ages 16 and older) who are employed, unemployed, or not in the labor force

GEOGRAPHY	TOTAL POPULATION (AGES 16 AND OLDER)	PERCENT WHICH IS EMPLOYED	PERCENT WHICH IS UNEMPLOYED	PERCENT WHICH IS NOT IN THE LABOR FORCE
Pima North Region	584,808	55%	5%	40%
Pima County	814,161	54%	5%	41%
Arizona	5,371,341	55%	4%	40%
United States	255,797,692	59%	4%	37%

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

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

Figure 5. Annual unemployment rates, not seasonally adjusted, 2015 to 2018



Source: Arizona Labor Statistics (2019). Local Area Unemployment Statistics (LAUS). Retrieved from <u>https://laborstats.az.gov/local-area-unemployment-statistics</u>

	TOTAL NUMBER		WITH TWO		· · ·	
	OF CHILDREN	WITH TWO	PARENTS,	WITH TWO		WITH ONE
	(AGES 0-5)	PARENTS,	ONE IN	PARENTS,	WITH ONE	PARENT,
	LIVING IN	BOTH IN	LABOR	NEITHER IN	PARENT, IN	NOT IN
	FAMILIES OR	LABOR	FORCE AND	LABOR	LABOR	LABOR
GEOGRAPHY	SUBFAMILIES	FORCE	ONE NOT	FORCE	FORCE	FORCE
Pima North Region	43,303	34%	26%	1%	32%	8%
Pima North Region Pima County	43,303 67,537	34% 32%	26%	1%	32% 33%	8% 8%
	•					

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

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

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

Housing Instability

Table 23. Households who are paying thirty percent or more of their income for housing

GEOGRAPHY	TOTAL NUMBER OF OCCUPIED HOUSING UNITS	PERCENT OF HOUSING UNITS FOR WHICH HOUSING COSTS 30% OF INCOME OR MORE
Pima North Region	295,577	34%
Pima County	398,530	33%
Arizona	2,482,311	31%
United States	118,825,921	32%

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

Table 24. Households with and without computers and smartphones

				PERCENT WITH	PERCENT WITH
		PERCENT WITH	PERCENT WITH	BOTH	NEITHER
		COMPUTER	SMARTPHONE	SMARTPHONE	SMARTPHONE
	TOTAL NUMBER	(BUT NO	(BUT NO	AND	NOR
GEOGRAPHY	OF HOUSEHOLDS	SMARTPHONE)	COMPUTER)	COMPUTER	COMPUTER
Pima North Region	295,577	13%	10%	67%	10%
Direct Country					
Pima County	398,530	13%	10%	66%	11%
Arizona	398,530 2,482,311	13% 12%	10% 9%	66% 67%	11% 12%

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

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

Table 25. Persons (all ages) in households with and without computers and internet connectivity

	NUMBER OF PERSONS (ALL AGES)	PERCENT IN HOUSEHOLDS WITH	PERCENT IN HOUSEHOLDS WITH	PERCENT IN HOUSEHOLDS
GEOGRAPHY	LIVING IN HOUSEHOLDS	COMPUTER AND INTERNET	COMPUTER BUT NO INTERNET	WITHOUT COMPUTER
Pima North Region	686,533	85%	8%	7%
Pima County	978,363	85%	8%	7%
Arizona	6,656,124	82%	9%	9%
United States	312,916,765	83%	9%	9%

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

Table 26. Children (ages 0-17) in households with and without computers and internet connectivity

NUMBER OF	PERCENT IN	PERCENT IN	PERCENT IN
CHILDREN (AGES 0-	HOUSEHOLDS WITH	HOUSEHOLDS WITH	HOUSEHOLDS
17) LIVING IN	COMPUTER AND	COMPUTER BUT NO	WITHOUT
HOUSEHOLDS	INTERNET	INTERNET	COMPUTER
136,453	88%	9%	4%
217,245	87%	8%	4%
1,619,346	83%	10%	8%
73,392,369	85%	9%	5%
	CHILDREN (AGES 0- 17) LIVING IN HOUSEHOLDS 136,453 217,245 1,619,346	CHILDREN (AGES 0- 17) LIVING IN HOUSEHOLDSHOUSEHOLDS WITH COMPUTER AND INTERNET136,45388%217,24587%1,619,34683%	CHILDREN (AGES 0- 17) LIVING IN HOUSEHOLDSHOUSEHOLDS WITH COMPUTER AND

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

	PEOPLE LIVING		PERCENT WITH		
	IN HOUSEHOLDS	PERCENT WITH	FIXED	PERCENT WITH	
	WITH	FIXED	BROADBAND	CELLULAR DATA	
	COMPUTER	BROADBAND	WITHOUT	PLAN, WITHOUT	PERCENT WITH
	AND INTERNET	WITH CELLULAR	CELLULAR DATA	FIXED	DIAL-UP
GEOGRAPHY	(ALL AGES)	DATA PLAN	PLAN	BROADBAND	INTERNET ONLY
Pima North Region	584,476	57%	32%	10%	1%
Pima North Region Pima County	584,476 830,898	57% 56%	32% 31%	10% 12%	1%
	,				

Table 27. Households by type of internet access (broadband, cellular data, and dial-up)

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

Educational Indicators

Why it Matters

Measures of educational engagement and achievement in a community have important implications for the developmental and economic resources available to children and families in that region. Individuals with higher levels of education tend to live longer and healthier lives.⁸² Indicators such as school attendance and absenteeism, achievement on standardized testing, high school graduation rates, and adult educational attainment can provide valuable information about a region's educational engagement and success.

School attendance and absenteeism. School attendance and academic engagement early in life can significantly impact the direction of a child's schooling trajectory. Chronic absenteeism is defined as missing more than 10 percent of the school days within a school year, and it affects even the youngest children, with more than 10 percent of US kindergarteners and first graders considered chronically absent.⁸³ Poor school attendance can cause children to fall behind, leading to lower proficiency in reading and math and increased risk of not being promoted to the next grade.⁸⁴ Consistent school attendance is particularly important for children from economically disadvantaged backgrounds, the group of children most at risk for chronic absenteeism.^{85,86}

Achievement on standardized testing. A child's third-grade reading comprehension skills have been identified as a critical indicator of future academic success.⁸⁷ Students who are at or above grade level reading in 3rd grade are more likely to go on to graduate high school and attend college.⁸⁸ The link between poor reading skills and risk of dropping out of high school is even stronger for children living in poverty. More than a quarter (26%) of children who were living in poverty and not reading proficiently in 3rd grade did not finish high school. This is more than six times the high school dropout rate of proficient readers.⁸⁹

In 2010, the Arizona legislature, recognizing the importance of early identification and targeted intervention for struggling readers, enacted *Move on When Reading* legislation. As of 2015, the statewide assessment tool for English language arts (ELA), including reading and writing, is Arizona's Measurement of Education Readiness to Inform Teaching (AzMERIT).^{vii,90} AzMERIT scores are used to determine promotion from the 3rd grade in accordance with the *Move on When Reading* policy. *Move on When Reading* legislation states that a student shall not be promoted to fourth grade if their reading score falls far below the third-grade level, as established by the State Board of Education.⁹¹ Exceptions exist for students identified with or being evaluated for learning disabilities and/or reading impairments, English language learners, and those who have demonstrated reading proficiency on alternate forms of assessment approved by the State Board of Education.

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

Graduation rates and adult educational attainment. Ultimately, adult educational attainment speaks to the assets and challenges of a community's workforce, including those who are working with or on behalf of young children and their families. Adults who have graduated from high school have better health and financial stability, lower risk for incarceration, and better socio-emotional outcomes compared to adults who dropped out of high school.^{92,93} Children whose parents have higher levels of education are more likely to have positive outcomes related to school readiness and educational achievement, promoting academic success across generations.⁹⁴ Given the cascading effect of early education on later academic achievement and success in adulthood, it is critical to provide substantial support for early education and promote policies and programs that encourage the persistence and success of Arizona's children.

What the Data Tell Us

School Attendance and Absenteeism

- In the 2018-2019 school year, 1,706 children were enrolled in preschool in the Pima North Region. Kindergarten through 3rd grade enrollments for the region were all relatively similar, ranging from 6,666 in kindergarten to 6,859 in 3rd grade (Table 28).
- Kindergarten through 3rd grade chronic absence rates steadily increased from 2015-2016 to 2018-2019 at the regional, county, and state level. During the 2018-2019 school year, the Pima North Region had a 13 percent chronic absence rate, with 4,404 kindergarten through 3rd grade students in the region chronically absent (Table 29 & Table 30).
- By grade level, chronic absences ranged from 8 percent to 16 percent in the Pima North Region. In the region and county, chronic absences were highest among 1st grade students (16% and 17%, respectively), while state-level chronic absences were highest among kindergarteners (13%) (Table 31).

Achievement on Standardized Testing

- Fewer than half of 3rd grade students are meeting proficiency expectations for 3rd grade literacy. Slightly more than half are meeting proficiency expectations for math.
- Arizona's Measurement of Educational Readiness to Inform Teaching (AzMERIT) 3rd Grade English Language Arts passing rates for the Pima North Region (44%) mirrored statewide passing rates (44%) in 2017-2018 (Table 32 & Figure 6).
- AzMERIT 3rd Grade English Language Arts passing rates remained relatively constant over time at the region, county, and state levels between 2015-2016 and 2017-2018 (Figure 7).
- AzMERIT 3rd Grade Math passing rates for the Pima North Region (53%) also mirrored statewide passing rates (53%) in 2017-2018 (Table 33 & Figure 8).
- AzMERIT 3rd Grade Math passing rates improved over time at the region, county, and state level, with regional passing rates increasing from 48 percent in 2015-2016 to 53 percent in 2017-2018 (Figure 9).

Graduation Rates and Adult Educational Attainment

- In 2017, the Pima North Region had a four-year graduation rate of 74 percent and a five-year graduation rate of 80 percent. Since 2015, both the four-year and five-year graduation rates have declined in the Pima North Region (Table 34, Table 35, & Table 36).
- The 7th-12th grade dropout rate for Pima North increased from 4 percent in 2015-2016 to 6 percent in 2017-2018 (Table 37).
- A larger proportion of adults have more than a high-school education in the Pima North Region (69%) than in Pima County (66%), Arizona (62%), and the United States overall (60%) (Figure 10).

• This difference is also seen specifically in mothers giving birth, with a larger proportion of births to mothers with more than a high-school education in the Pima North Region (61%) than the county (57%) and state (56%) (Table 38).

School Attendance and Absenteeism

CEOCRAPIN	DECCUOOL				
GEOGRAPHY	PRESCHOOL	KINDERGARTEN	1ST GRADE	2ND GRADE	3RD GRADE
Pima North Region	1,706	6,666	6,765	6,826	6,859
Pima County	3,027	10,203	10,414	10,587	10,771
Arizona	21,238	79,990	81,913	81,951	83,037

Table 28. Students enrolled in preschool through 3rd grade, 2018-19

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

Note: Data on enrollments were calculated at the district-level. Where districts were split between regions, district enrollments were apportioned to regions based on the percentage of K-3 students in each region within the district. See appendix 3 for a full list of districts within the region, including split districts. Data on K-3 students enrolled at Dan Hinton Accommodation School in Pima, AZ were mistakenly included in calculations for Pima North, resulting in 14 additional K-3 students included in Pima North enrollment figures.

Table 29. Chronic absence rates, Kindergarten through 3rd grade, 2015-16 to 2018-19

	CHRONIC ABSENCE	CHRONIC ABSENCE	CHRONIC ABSENCE	CHRONIC ABSENCE
GEOGRAPHY	RATE (2015-16)	RATE (2016-17)	RATE (2017-18)	RATE (2018-19)
Pima North Region	11%	11%	12%	13%
Pima County	12%	12%	13%	14%
Arizona	9%	10%	11%	12%

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

Note: The definition of chronic absenteeism used in this table includes children who are absent due to chronic illness.

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

GEOGRAPHY	TOTAL NUMBER OF STUDENTS	NUMBER OF STUDENTS WITH CHRONIC ABSENCES	CHRONIC ABSENCE RATE
Pima North Region	33,182	4,404	13%
Pima County	51,272	7,273	14%
Arizona	402,206	46,482	12%

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

Note: The definition of chronic absenteeism used in this table includes children who are absent due to chronic illness.

Table 31. Chronic absence rates for students by grade (Grade K-3), 2018-19

GEOGRAPHY	CHRONIC ABSENCE RATE (KINDERGARTEN)	CHRONIC ABSENCE RATE (1 st GRADE)	CHRONIC ABSENCE RATE (2 ND GRADE)	CHRONIC ABSENCE RATE (3 RD GRADE)	CHRONIC ABSENCE RATE (K-3 RD GRADE)
Pima North Region	8%	16%	15%	14%	13%
Pima County	10%	17%	16%	14%	14%
Arizona	13%	12%	11%	10%	12%

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

Note: The definition of chronic absenteeism used in this table includes children who are absent due to chronic illness.

Achievement on Standardized Testing

	STUDENTS	FALLS FAR				
GEOGRAPHY	TESTED	BELOW	APPROACHES	MEETS	EXCEEDS	PASSING
Pima North Region	7,037	41%	14%	29%	15%	44%
Pima County	11,318	44%	13%	29%	14%	43%
Arizona	84,922	43%	13%	30%	14%	44%

Table 32. AzMERIT Assessment Results: 3rd Grade English Language Arts, 2017-18

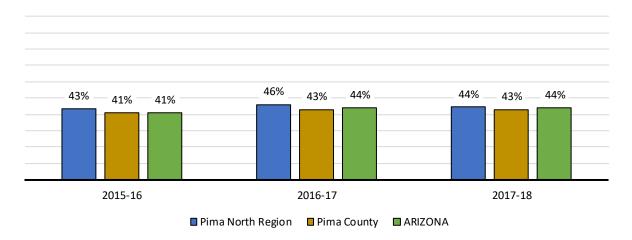
Source: Arizona Department of Education (2019). 2017-18 AzMERIT Assessment Results. Custom tabulation of assessment data.

Figure 6. AzMERIT Assessment Results: 3rd Grade English Language Arts, 2017-18



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

Figure 7. Trends in passing rates for 3rd-grade English Language Arts AzMERIT, 2015-16 to 2017-18



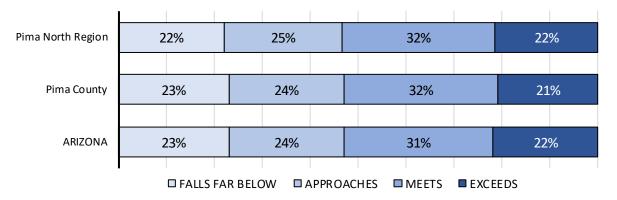
Source: Arizona Department of Education (2019). 2017-18 AzMERIT Assessment Results. Custom tabulation of assessment data.

Table 33. AzMERIT Assessment Results: 3rd Grade Math, 2017-18

	STUDENTS	FALLS FAR	APPROACHE			
GEOGRAPHY	TESTED	BELOW	S	MEETS	EXCEEDS	PASSING
Pima North Region	7,057	22%	25%	32%	22%	53%
Pima County	11,346	23%	24%	32%	21%	53%
Arizona	85,105	23%	24%	31%	22%	53%

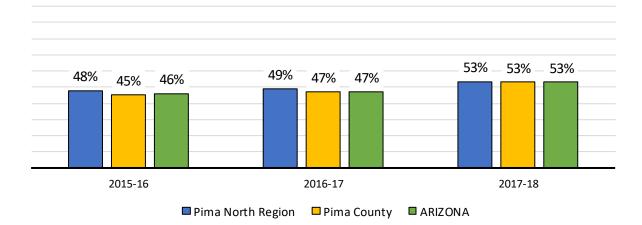
Source: Arizona Department of Education (2019). 2017-18 AzMERIT Assessment Results. Custom tabulation of assessment data.





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

Figure 9. Trends in passing rates for 3rd-grade Math AzMERIT, 2015-16 to 2017-18



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

Graduation Rates and Adult Educational Attainment

						DROPOUT
	FOUR-YEAR		FOUR-YEAR		FIVE-YEAR	RATE (7TH
	SENIOR	FOUR-YEAR	GRADUATION	FIVE-YEAR	GRADUATION	TO 12TH
GEOGRAPHY	COHORT	GRADUATES	RATE	GRADUATES	RATE	GRADES)
Pima North Region	8,073	5,948	74%	6,512	80%	6%
Pima North Region Pima County	8,073 11,297	5,948 8,342	74% 74%	6,512 9,124	80% 80%	6% 5%

Table 34. Graduation and dropout rates, 2017

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

Table 35. Trends in four-year graduation rates, 2015 to 2017

GEOGRAPHY	FOUR-YEAR GRADUATION RATE (2015)	FOUR-YEAR GRADUATION RATE (2016)	FOUR-YEAR GRADUATION RATE (2017)
Pima North Region	78%	78%	74%
Pima County	74%	78%	74%
Arizona	79%	80%	78%

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

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

	FIVE-YEAR GRADUATION	FIVE-YEAR GRADUATION	FIVE-YEAR GRADUATION
GEOGRAPHY	RATE (2015)	RATE (2016)	RATE (2017)
Pima North Region	82%	82%	80%
Pima County	77%	82%	80%
Arizona	82%	83%	82%

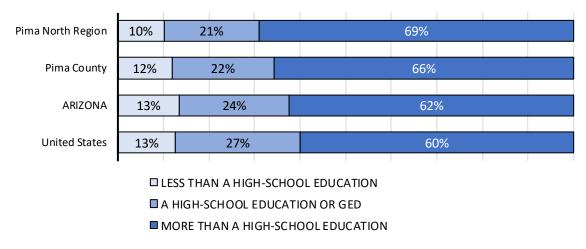
Source: Arizona Department of Education (2019). Cohort 2014-2017 Five Year Graduation Rate Data. Retrieved from <u>https://www.azed.gov/accountability-research/data/</u>

Table 37. Trends in 7th-12th grade dropout rates, 2015-16 to 2017-2018

GEOGRAPHY	DROPOUT RATE (2015-16)	DROPOUT RATE (2016-17)	DROPOUT RATE (2017-18)
Pima North Region	4%	5%	6%
Pima County	4%	5%	5%
Arizona	4%	5%	5%

Source: Arizona Department of Education (2019). 2015-16 to 2017-18 Dropout Rates. Retrieved from <u>https://www.azed.gov/accountability-research/data/</u>

Figure 10. Level of education for the adult population (ages 25 and older)



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

		MOTHER HAD LESS	MOTHER HAD HIGH-	
	TOTAL NUMBER OF	THAN A HIGH-	SCHOOL DIPLOMA	MOTHER HAD MORE
GEOGRAPHY	BIRTHS IN 2017	SCHOOL EDUCATION	OR GED	THAN HIGH-SCHOOL
Pima North Region	7,239	14%	25%	61%
_	•			
Pima County	10,970	16%	26%	57%

Table 38. Level of education for mothers giving birth during calendar year 2017

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

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

Early Learning

Why it Matters

Early childhood is an exciting time of rapid physical, cognitive, and social-emotional development. The experiences young children have during these early years are critical for healthy brain development and set the stage for lifelong learning and well-being. ^{95,96} Just as rich, stimulating environments can promote development, early negative experiences can have lasting effects. For example, gaps in language development between children from disadvantaged backgrounds and their more advantaged peers can be seen by 18 months of age;⁹⁷ those disparities that persist until kindergarten tend to predict later academic problems.⁹⁸

Access to early care and education. Though high-quality early care and education can promote development, families often face barriers in accessing these opportunities for their children. Families living in rural areas are more likely to face an inadequate child care supply, but Arizona families in both urban and rural areas face a gap between the number of young children and the availability of licensed child care.^{99,100,101} In fact, Arizona has a deficit of about 22,230 licensed early care and education slots to meet the needs of working families, without accounting for parents continuing their own education, or those not in the workforce but seeking out early learning programs to help assure their preschool age children are able to make a strong start in school.¹⁰² Even when early education, only 19 percent of four-year-olds in Arizona are enrolled in publicly-funded free or reduced cost preschool programs, compared to 41 percent nationally.¹⁰³ If not enrolled in publicly-funded programs, the annual cost of full-time center-based care for a young child in Arizona is nearly equal to the cost of a year at a public college.^{104,105}

Child care subsidies can be a support for families who have financial barriers to accessing early learning services.¹⁰⁶ In June 2019, for the first time since the Great Recession, the Arizona Department of Economic Security's (DES) child care subsidy waiting list was suspended, meaning all children who qualify for subsidies are able to receive them, assuming that they are able to find a provider.¹⁰⁷ This is due to \$56 million in additional federal funds from the Child Care and Development Fund (CCDF) that was authorized by the State Legislature, and the funding increase has also allowed DES to increase provider reimbursement rates, which may make it easier for families to use their child care subsidies.¹⁰⁸

High quality early care and education. In addition to the early experiences children have in their homes, high quality early care and education services can also promote physical, cognitive, and social-emotional development and health, particularly for children from disadvantaged backgrounds.^{109,110,111} Children whose education begins in high quality preschool programs repeat grades less frequently, obtain higher scores on standardized tests, experience fewer behavior problems, and are more likely to graduate from high school.¹¹² This translates

into a return on investment to society through increased educational achievement and employment, reductions in crime, and better overall health of children as they mature into adults.^{113,114} Not only does access to affordable, quality child care make a positive difference for children's health and development, it also allows parents to maintain stable employment and support their families.¹¹⁵

Establishing that available early care and education programs meet quality standards is important to ensure these early environments support positive outcomes for children's wellbeing, academic achievement, and success later in life.¹¹⁶ Providers are considered quality educational environments by the Arizona Department of Economic Security if they receive a Quality First three-star rating or higher (see below) or are accredited by a national organization, such as the Association for Early Learning Leaders or the National Association for the Education of Young Children (NAEYC)¹¹⁷.

High quality early education environments have teachers with more education, experience, and supports that increase their skills in developing positive teacher-child interactions, providing enriching age-appropriate experiences and guiding appropriate behaviors.¹¹⁸ These quality environments may be particularly important for children with challenging behaviors, because lower teacher-child ratios and access to professional development and early childhood mental health consultation can help avoid preschool expulsion.^{119,120,121}

Quality First is Arizona's Quality Improvement and Rating System (QIRS) for early child care and preschool providers.¹²² A Quality First Star Rating represents where along the continuum of quality (1 to 5 stars) a program was rated and how they are implementing early childhood best practices. One star indicates a program is participating in Quality First, is regulated, in good standing, and is making the commitment to work on quality improvement. Three stars indicate that a program is of good quality care, and families can be confident that children are well cared for in such an environment. Five stars indicate the highest level of quality attainable, where families will find low staff-child ratios and group sizes, highly educated personnel, and strong curriculum which optimizes children's comprehensive development. The number of providers across the state that meet quality standards (three-star rating or higher) has increased across the last 5 years such that 25 percent of the 857 participating providers in 2013 met or exceeded quality standards, and 76 percent of 1,032 participating providers in 2019 met or exceeded quality standards.¹²³

High quality early care and education practices, including lower teacher-child ratios, access to professional development, and early childhood mental health consultation, can help avoid preschool expulsion.^{124, 125} Nationally, preschool expulsions and suspensions occur at high rates and disproportionately impact children of color, specifically young Black boys.^{126,127} In 2016, an estimated 50,000 preschoolers were suspended and 17,000 preschoolers expelled nationwide, with Black children 2.2 times more likely to be suspended or expelled than other children.¹²⁸ The U.S. Department of Education Office of Civil Rights began collecting data on preschool suspension and expulsion in 2011 and, as a result of federal changes to the Child Care

Development Block Grant in 2014, Arizona began collecting provider-reported data on early learning environment expulsion in 2017.^{129,130} Given the positive impact of early educational experiences on children's cognitive and emotional development and the negative impact of suspension and expulsion on educational outcomes, it is essential to identify areas with higher rates of expulsion to provide targeted supports.¹³¹

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

Young children with special needs. The availability of early learning opportunities and services for young children with special needs is an ongoing concern across the state, particularly in the more geographically remote communities and some tribal communities. Children with special health care needs are defined as "those who have or are at increased risk for a chronic physical, developmental, behavioral, or emotional condition and who also require health and related services of a type or amount beyond that required by children generally."¹³² Adverse Childhood Experiences (ACEs) ^{viii} include childhood experiences of abuse, neglect, and other forms of potential trauma. According to the National Survey of Children's Health, children with special health care needs are more likely to experience more adverse childhood experiences than typically developing children,¹³³ and are at an increased risk for maltreatment and neglect, ^{134,135} suggesting they may particularly benefit from high quality teacher-child interactions in classrooms.^{136,137} Almost half (46%) of families with a child with special needs in Arizona have incomes below 200 percent of the federal poverty level, suggesting that even if they can identify an appropriate provider, affording quality care is likely to be a burden.¹³⁸

Ensuring all families have access to timely and appropriate screenings for children who may benefit from early identification of special needs can help improve outcomes for these children and their families. Timely intervention can help young children with, or at risk for, developmental delays improve language, cognitive, and socio-emotional development.^{139,140,} It also reduces educational costs by decreasing the need for special education. ¹⁴¹ In Arizona, services available to families with children with special needs include those provided through the Arizona Early Intervention Program (AzEIP),¹⁴² the Arizona Department of Education Early

viii ACEs include 8 categories of traumatic or stressful life events experienced before the age of 18 years. The 8 ACE categories are sexual abuse, physical abuse, emotional abuse, household adult mental illness, household substance abuse, domestic violence in the household, incarceration of a household member, and parental divorce or separation.

Childhood Special Education program,¹⁴³ and the Division of Developmental Disabilities (DDD).¹⁴⁴

What the Data Tell Us

Access to Early Care and Education

- In the Pima North Region, 43 percent of children (ages 3 and 4) are enrolled in nursery school, preschool, or kindergarten. While this is a larger proportion than the county (40%) and state (38%), it is lower than the national proportion (48%) (Table 39).
- In the Pima North Region, nearly all (97%) of licensed child care capacity is provided by child care centers, with a small proportion provided by family child care providers (3%) and nannies/individual providers (<1%) (Table 40).
- The Pima North Region has a higher percentage of providers who are accredited (16%) than the state (10%), as well as a higher percentage of potential child care slots (provider capacity) with accredited providers (19%) than the state (12%) (Table 41).
- Median monthly child care costs for certified group homes and licensed centers are similar across the region, county, and state. Median costs for approved family homes are as much as \$100 more per child per month in the Pima North Region compared to the state. Overall, licensed centers are the most expensive and approved family homes the least expensive for all ages in the region (Table 42).
- Child care costs are relatively more expensive in Pima County than in the state overall. At median levels, sending an infant to a licensed center requires over one-sixth (17%) of a family's income (Table 43). Given that one in five Pima North Region residents lives in poverty and one-third of Pima North Region households are spending 30 percent or more of their income on housing, this is a notable proportion of income needed to cover child care for families that may already have difficulty meeting their basic needs.
- Nearly all (95%) children who are not involved with the Department of Child Safety (DCS) and are eligible for Department of Economic Security (DES) child care subsidies in the Pima North Region have received them in recent years. This proportion is slightly higher than the state overall, with 92 percent of eligible children receiving child care subsidies in 2018 statewide (Table 44).
- For DCS-involved children specifically, the proportion of eligible children receiving subsidies in the region is lower than for all eligible children and has declined over time, from 92 percent in 2015 to 86 percent in 2018. This decline in DCS-involved children receiving subsidies was also seen at a state level, with 82 percent of DCS-involved children receiving subsidies in Arizona in 2018 compared to 91 percent in 2015 (Table 45).
- The proportion of eligible families not using DES child care subsidies has increased slightly over time at the region, county, and state level. In 2018, five percent of eligible families in the Pima North Region did not use their child care subsidies (Table 46).

High Quality Early Care and Education

• Quality educational environments are defined by the Department of Economic Security (DES) as providers that are accredited by a national organization or providers that have

received a state-approved quality indicator that is recognized by the department. From 2017 to 2018, the number of children receiving subsidies in quality environments, and particularly the number of DCS children in quality environments, increased at the regional, county, and state levels (Table 47).

- In 2019, a total of 135 child care providers in the Pima North Region participated in Quality First, 74 percent of which were quality-level settings (public 3-5 stars). Of the 7,395 children enrolled at a Quality First provider site in the region, 75 percent were enrolled at a quality-level setting (public 3-5 stars). In 2019, 950 children received Quality First scholarships (Table 48 & Table 49).
- In 2018, eleven early childhood expulsions of young children receiving child care subsidies were reported as prevented to the Department of Economic Security (DES) in Pima County (Table 50).

Young Children with Special Needs

- The number of young children (ages 3-5) enrolled in special education increased slightly from 2015-2016 (1,354) to 2018-2019 (1,387) in the Pima North Region (Table 51).
- The largest proportion of young children (ages 3-5) enrolled in special education in the region were diagnosed with a speech or language impairment (44%) or developmental delay (39%) (Table 52).
- Special education enrollment for 1st through 3rd grade students has continued to increase in the region since 2015-2016 (13%), with 15 percent of children in 1st through 3rd grades enrolled in special education in 2018-2019 (Table 53 & Table 54).
- From 2016 to 2017, the percentage of children (ages 0-2) who were referred to the Arizona Early Intervention Program (AzEIP) and found eligible increased from 55 percent to 60 percent in the Pima North Region (Table 55).
- From 2017 to 2018, the number of active AzEIP cases in the Pima North Region increased by four percent, with 813 active cases in 2018 (Table 56).
- The number of children receiving services from the Division of Developmental Disabilities (DDD) has increased over time at the region, county, and state levels since 2015. In the Pima North Region, the number of children ages 0-2 receiving DDD services has increased by 25 percent and the number of children ages 3-5 receiving DDD services has increased by 70 percent (Table 57 & Table 58).

Access to Early Care and Education

	POPULATION OF	NUMBER ENROLLED IN	PERCENT ENROLLED IN
GEOGRAPHY	CHILDREN (AGES 3-4)	SCHOOL	SCHOOL
Pima North Region	15,669	6,804	43%
Pima County	24,503	9,893	40%
Arizona	182,970	69,712	38%
United States	8,190,503	3,892,317	48%

Table 39. School enrollment for children (ages 3 and 4)

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

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

Table 40. Number and licensed capacity of licensed or registered child care providers by type, 2018

	INDIV	NANNIES OR INDIVIDUAL PROVIDERS		CHILD CARE CENTERS		FAMILY CHILD CARE PROVIDERS		TOTAL PROVIDERS	
GEOGRAPHY	NUMBER	CAPACITY	NUMBER	CAPACITY	NUMBER	CAPACITY	NUMBER	CAPACITY	
Pima North Region	6	23	205	23,341	118	672	329	24,036	
Pima County	7	27	250	28,568	237	1,377	494	29,972	
Arizona	26	90	1,527	182,561	656	3,871	2,209	186,522	

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

Table 41. Number and licensed capacity of nationally accredited child care providers, 2018

				PERCENT OF PROVIDER
	NUMBER OF	PERCENT OF	CAPACITY IN	CAPACITY WHICH IS
	ACCREDITED	PROVIDERS WHO	ACCREDITED	WITH ACCREDITED
GEOGRAPHY	PROVIDERS	ARE ACCREDITED	PROVIDERS	PROVIDERS
Pima North Region	52	16%	4,639	19%
Pima County	76	15%	5,609	19%
Arizona	213	10%	22,931	12%

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

Note: This table shows the number of DES licensed or registered centers, homes, or individual providers listed in the CCR&R who have a national accreditation, such as NECPA – National Early Childhood Program Accreditation, CDA – Child Development Association, AMI – American Montessori International, or NAEYC – National Association for the Education of Young Children.

Table 42. Median monthly	/ charge for full-tin	ne child care, 2018

	APPROVED FAMILY HOMES			CERTIFIED GROUP HOMES			LICENSED CENTERS		
		1 TO 2	3 TO 5		1 TO 2	3 TO 5		1 TO 2	3 TO 5
		YEAR	YEAR		YEAR	YEAR		YEAR	YEAR
GEOGRAPHY	INFANTS	OLDS	OLDS	INFANTS	OLDS	OLDS	INFANTS	OLDS	OLDS
Pima North Region	\$457	\$500	\$500	\$610	\$600	\$600	\$861	\$765	\$669
	\$457 \$500	\$500 \$500	\$500 \$500	\$610 \$600	\$600 \$560	\$600 \$560	\$861 \$861	\$765 \$765	\$669 \$669

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

Note: Approved family homes are family home child care providers who care for up to 4 children in their home and have completed the necessary steps to apply and be certified by DES or a tribal authority. Certified group homes are family home child care providers who care for 5-10 children in their home and are licensed ("certified") by ADHS or a tribal authority. Child care centers are child care providers who care for 10 or more children at a location separate from their residence and are licensed by ADHS or regulated by a military or tribal authority.

Table 43. Cost of center-based child care as a percentage of income, 2018

	MEDIAN FAMILY INCOME	COST FOR AN	COST FOR A 1 TO 2	COST FOR A 3 TO 5
GEOGRAPHY	(ACS 2013-2017)	INFANT	YEAR OLD CHILD	YEAR OLD CHILD
Pima County	\$60,790	17%	15%	13%
Arizona	\$63,812	16%	14%	12%

Source: Arizona Department of Economic Security (2019). 2018 Child Care Market Rate Survey. Unpublished data received by request. Arizona Department of Economic Security (2019). 2018 Child Care Market Rate Survey Report. Retrieved from https://des.az.gov/file/14277/download

Table 44. Children receiving DES child care subsidies, 2015 to 2018

	NUMBER OF CHILDREN RECEIVING SUBSIDIES				PERCENT OF	ELIGIBLE CH SUBSID		CEIVING
GEOGRAPHY	2015	2016	2017	2018	2015	2016	2017	2018
Pima North Region	2,761	2,662	2,540	2,997	95%	96%	95%	95%
Pima County	4,021	3,766	3,603	4,285	96%	95%	95%	95%
Arizona	19,040	17,784	16,922	19,813	94%	93%	93%	92%

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

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

Table 45. DCS-involved children receiving DES child care subsidies, 2015 to 2018

	NUMBER OF DCS CHILDREN RECEIVING SUBSIDIES					OF DCS ELI ECEIVING S		DREN
GEOGRAPHY	2015	2016	2017	2018	2015	2016	2017	2018
Pima North Region	2,099	2,028	1,822	1,838	92%	91%	90%	86%
Pima County	2,994	2,942	2,584	2,629	92%	91%	89%	86%
Arizona	13,098	13,352	12,201	12,219	91%	89%	88%	82%

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

Table 46. Eligible families not using DES child care subsidies, 2015 to 2018

	FAMILIES NOT	FAMILIES NOT	FAMILIES NOT	FAMILIES NOT
	USING SUBSIDIES,	USING SUBSIDIES,	USING SUBSIDIES,	USING SUBSIDIES,
GEOGRAPHY	2015	2016	2017	2018
Pima North Region	4%	4%	5%	5%
Pima County	4%	4%	5%	5%
Arizona	6%	6%	7%	8%

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

High Quality Early Care and Education

	TOTAL NUMBER OF	TOTAL NUMBER OF	NUMBER OF DCS	NUMBER OF DCS
	CHILDREN IN	CHILDREN IN	CHILDREN IN	CHILDREN IN
	QUALITY	QUALITY	QUALITY	QUALITY
	ENVIRONMENTS,	ENVIRONMENTS,	ENVIRONMENTS,	ENVIRONMENTS,
GEOGRAPHY	2017	2018	2017	2018
Pima North Region	2,491	2,863	1,141	1,183
Pima County	3,407	3,848	1,576	1,596
Arizona	13,706	17,295	6,063	6,938

Table 47. Children in quality educational environments, 2017 and 2018

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

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

			NUMBER OF	
			CHILDREN	
		NUMBER OF	ENROLLED AT A	PERCENT OF
	QUALITY FIRST	CHILDREN	QUALITY FIRST	CHILDREN IN A
	SCHOLARSHIPS:	ENROLLED AT A	PROVIDER SITE WITH	QUALITY-LEVEL
	NUMBER OF	QUALITY FIRST	A PUBLIC 3-5 STAR	SETTING
GEOGRAPHY	CHILDREN SERVED	PROVIDER SITE	RATING	(PUBLIC 3-5 STARS)
Pima North Region	950	7,395	5,545	75%
Arizona	9,179	62,215	45,278	73%

Table 48. First Things First Quality First child data, State Fiscal Year 2019

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

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

Table 49. First Things	First Quality First chil	d care provider data.	State Fiscal Year 2019
	i not Quanty i not cim	a cure provider data,	

		NUMBER OF CHILD CARE PROVIDERS SERVED WITH	PERCENT OF CHILD CARE
GEOGRAPHY		A PUBLIC 3-5 STAR RATING	
Pima North Region	135	100	74%
Arizona	1,119	821	73%

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

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

Table 50. Number of children birth to five years old receiving subsidy expelled from an early learning program or expulsion was prevented, 2017 and 2018

	NUMBER OF	NUMBER OF	NUMBER OF	NUMBER OF
	CHILDREN	CHILDREN	EXPULSIONS	EXPULSIONS
GEOGRAPHY	EXPELLED IN 2017	EXPELLED IN 2018	PREVENTED IN 2017	PREVENTED IN 2018
Pima County	<10	<10	<10	11
Arizona	27	57	<10	45

Source: Arizona Department of Economic Security (2019). 2017-2018 Child Care Assistance Data. Unpublished data received by request.

Young Children with Special Needs

	CHILDREN (AGES 3-	CHILDREN (AGES 3-	CHILDREN (AGES 3-	CHILDREN (AGES 3-
	5) IN SPECIAL	5) IN SPECIAL	5) IN SPECIAL	5) IN SPECIAL
	EDUCATION	EDUCATION	EDUCATION	EDUCATION
GEOGRAPHY	(2015-16)	(2016-17)	(2017-18)	(2018-19)
Pima North Region	1,354	1,209	1,396	1,387
Pima North Region Pima County	1,354 1,710	1,209 1,933	1,396 2,208	1,387 2,268

Table 51. Children	lages 3-5) enrolled in s	pecial education	, 2015-16 to 2018-19
			peerar caacacion	, 2010 10 10 2010 10

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

Table 52. Children (ages 3-5) enrolled in special education by type of disability, 2018-19

	NUMBER OF		SPEECH OR	PRE-			
	CHILDREN	DEVELOP-	LANGUAGE	SCHOOL			
	(AGES 3-5)	MENTAL	IMPAIR-	SEVERE		HEARING	OTHER
GEOGRAPHY	ENROLLED	DELAY	MENT	DELAY	AUTISM	IMPAIRMENT	DISABILITIES
Pima North Region	1 207						
- manyor the Region	1,387	39%	44%	8%	3%	3%	3%
Pima County	2,268	39% 35%	44%	8% 11%	3%	3% 2%	3% 4%

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

Table 53. Students (grades 1-3) enrolled in special education, 2018-19

		STUDENTS IN SPECIAL	PERCENT OF STUDENTS IN
GEOGRAPHY	TOTAL STUDENTS	EDUCATION	SPECIAL EDUCATION
Pima North Region	20,466	3,004	15%
Pima County	31,772	4,299	14%
Arizona	246,897	30,503	12%

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

Table 54. Percent of students (grades 1-3) enrolled in special education, 2015-16 to 2018-19

	STUDENTS IN	STUDENTS IN	STUDENTS IN	STUDENTS IN
	SPECIAL EDUCATION	SPECIAL EDUCATION	SPECIAL EDUCATION	SPECIAL EDUCATION
GEOGRAPHY	(2015-16)	(2016-17)	(2017-18)	(2018-19)
Pima North Region	13%	14%	14%	15%
Pima County	12%	13%	13%	14%
Arizona	11%	11%	12%	12%

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

	NUMBER OF	NUMBER OF		NUMBER OF	NUMBER OF	
	CHILDREN	CHILDREN	PERCENT OF	CHILDREN	CHILDREN	PERCENT OF
	(AGES 0-2)	(AGES 0-2)	REFERRALS	(AGES 0-2)	(AGES 0-2)	REFERRALS
	REFERRED TO	ELIGIBLE FOR	FOUND	REFERRED TO	ELIGIBLE FOR	FOUND
	AzEIP,	AzEIP,	ELIGIBLE,	AzEIP,	AzEIP,	ELIGIBLE,
GEOGRAPHY	FFY2016	FFY2016	FFY2016	FFY2017	FFY2017	FFY2017
Pima North Region	1,270	703	55%	1,236	736	60%
Pima County	2,100	1,102	52%	1,203	733	58%
Arizona	16,063	9,383	58%	9,770	5,782	60%

Table 55. Children referred to and found eligible for AzEIP, Federal Fiscal Years 2016 and 2017

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

Table 56. AzEIP caseloads, calendar years 2017 and 2018

			PERCENT CHANGE IN
	CUMULATIVE ACTIVE	CUMULATIVE ACTIVE	AZEIP CASELOADS FROM
GEOGRAPHY	AzEIP CASES, 2017	AzEIP CASES, 2018	2017 TO 2018
Pima North Region	782	813	+4%
Pima County	1,295	1,306	+1%
Arizona	10,934	11,600	+6%

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

	CHILDREN	CHILDREN	CHILDREN	CHILDREN	
	(AGES 0-2)	(AGES 0-2)	(AGES 0-2)	(AGES 0-2)	
	RECEIVING DDD	RECEIVING DDD	RECEIVING DDD	RECEIVING DDD	PERCENT
	SERVICES,	SERVICES,	SERVICES,	SERVICES,	CHANGE FROM
GEOGRAPHY	SFY2015	SFY2016	SFY2017	SFY2018	2015 TO 2018
Pima North Region	284	278	290	354	+25%
Pima North Region Pima County	284 480	278 459	290 482	354 577	+ 25% +20%

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

	CHILDREN	CHILDREN	CHILDREN	CHILDREN	
	(AGES 3-5)	(AGES 3-5)	(AGES 3-5)	(AGES 3-5)	
	RECEIVING DDD	RECEIVING DDD	RECEIVING DDD	RECEIVING DDD	PERCENT
	SERVICES,	SERVICES,	SERVICES,	SERVICES,	CHANGE FROM
GEOGRAPHY	SFY2015	SFY2016	SFY2017	SFY2018	2015 TO 2018
Pima North Region	53	62	86	90	+70%
				50	
Pima County	85	90	119	133	+56%

Table 58. Children (ages 3-5) receiving services from DDD, State Fiscal Years 2015 to 2018

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

Child Health

Why it Matters

The physical and mental health of both children and their parents are important for optimal child development and well-being. Starting with the mother's health before pregnancy, many factors influence a child's health.¹⁴⁵ Exposures and experiences in utero, at birth, and during the early years set the stage for health and well-being throughout a child's life.^{146,147} Access to health insurance and preventive care influence not only a child's current health, but long-term development and future health.^{148,149,150}

Access to health services. The ability to obtain health care is critical for supporting the health of pregnant mothers and young children. Health care during pregnancy, or prenatal care, can reduce maternal and infant mortality and complications during pregnancy.^{151,152} In the early years of a child's life, well-baby and well-child visits allow clinicians to assess and monitor the child's development and offer developmentally appropriate information and guidance to parents.¹⁵³ Families without health insurance are more likely to skip these visits, and are less likely to receive preventive care for their children, or care for health conditions and chronic diseases.^{154,155} Thus, access to health insurance is an indicator of children's access to health services. Children who lack health insurance are also more likely to be hospitalized and to miss school.¹⁵⁶

Maternal, infant, and child health. A number of factors occurring before conception and in utero influence child health, making characteristics of pregnant women important determinants of the birth and developmental outcomes of their children. Pregnancy during the teen years is associated with a number of health concerns for infants, including neonatal death, sudden infant death syndrome, and child abuse and neglect.¹⁵⁷ Teenaged mothers (and fathers) themselves are less likely to complete high school or college, and more likely to require public assistance and to live in poverty than their peers who are not parents.^{158,159,160}

In addition to age, a mother's health status before, during, and after pregnancy influences her child's health. Women who are obese before they become pregnant are at a higher risk of birth complications and neonatal and infant mortality than women who are normal weight before pregnancy.^{161,162} Babies born to obese women are at risk for chronic conditions later in life such as diabetes and heart disease.¹⁶³ Preterm birth, in addition to being associated with higher infant and child mortality, often results in longer hospitalization, increased health care costs, and longer-term impacts such as physical and developmental impairments. Babies born at a low-birth weight (less than 5 pounds, 8 ounces) are also at increased risk of infant mortality and longer-term health problems such as diabetes, hypertension and cardiac disease.¹⁶⁴

Maternal mental health is a factor for children's well-being as well. Maternal depression during and after pregnancy negatively influences the mother's ability to maintain a healthy pregnancy as well as meet the demands of motherhood and form a secure attachment with her baby.^{165,} ¹⁶⁶ Quality preconception counseling and early-onset prenatal care can help reduce some of

these risks for poor prenatal and postnatal outcomes by providing information, conducting screenings, and supporting an expectant mother's health and nutrition.¹⁶⁷

Substance use disorders. A mother's use of substances such as drugs and alcohol also has implications for her baby. Babies born to mothers who smoke are more likely to be born early (pre-term), have low birth weight, die from sudden infant death syndrome (SIDS) and have weaker lungs than babies born to mothers who do not smoke.^{168,169} Opiate use during pregnancy, either illegal or prescribed, has been associated with neonatal abstinence syndrome (NAS), a group of conditions that causes infants exposed to these substances in the womb to be born exhibiting withdrawal symptoms.¹⁷⁰ This can create longer hospital stays, increase health care costs and increase complications for infants born with NAS. Infants exposed to cannabis (marijuana) in utero often have lower birth weights and are more likely to be placed in neonatal intensive care compared to infants whose mothers had not used the drug during pregnancy.¹⁷¹

Parental substance abuse also has other impacts on family wellbeing. According to the National Survey of Children's Health, young children in Arizona are more than twice as likely to live with someone with a problem with alcohol or drugs than children in the US as a whole (9.8 percent compared to 4.5 percent).¹⁷² Children of parents with substance use disorders are more likely to be neglected or abused and face a higher risk of later mental health and behavioral health issues, including developing substance use disorders themselves.^{173,174} Substance abuse treatment and supports for parents and families grappling with these issues can help to ameliorate the short and long-term impacts on young children.¹⁷⁵

Nutrition and weight status. After birth, a number of factors have been associated with improved health outcomes for infants and young children. One factor is breastfeeding, which has been shown to reduce the risk of ear, respiratory and gastrointestinal infections, SIDS, overweight, and type 2 diabetes.¹⁷⁶ The American Academy of Pediatrics recommends exclusive breastfeeding for about 6 months, and continuing to breastfeed as new foods are introduced for 1 year or longer.¹⁷⁷

A child's weight status can have long-term impacts on health and well-being. Nationwide, an estimated 3 percent of children ages 2-19 are underweight, 16.6 percent are overweight, and 18.5 percent are obese.^{178,179} Obesity can have negative consequences on physical, social, and psychological well-being that begin in childhood and continue into and throughout adulthood.¹⁸⁰ Higher birth weight and higher infancy weight, as well as lower-socioeconomic status and low-quality mother-child relationships, have all been shown to be related to higher childhood weight and increased risk for obesity and metabolic syndrome (which is linked to an increase risk of heart disease, stroke, and diabetes).^{181, 182}

Oral health. Oral health and good oral hygiene practices are important to children's overall health. Tooth decay and early childhood cavities can have short- and long -term consequences including pain, poor appetite, disturbed sleep, lost school days, and reduced ability to learn and concentrate.¹⁸³ A national study showed that low-income children were more likely than higher-income children to have untreated cavities.¹⁸⁴ Despite high percentages of young

Arizona children who have preventative dental care visits (68.4%) compared to the national average (57.8%), there is a relatively high percentage who have had decayed teeth or cavities (11.1%) compared to those across the nation overall (7.7%).¹⁸⁵ Low-income children in Arizona, specifically, are more likely to have untreated cavities and less likely to have had an annual dental visit than their higher-income peers.¹⁸⁶

First Things First's Oral Health strategy was able to provide 24,664 children birth to age 5 with a dental screening, and 16,837 children with a fluoride varnish in the Arizona State Fiscal Year 2019.¹⁸⁷ Many children had untreated tooth decay and other oral health needs identified through the screenings. Further, attempts were made to connect children to dental homes who either did not already have a dental home or who needed dental care.

Childhood immunizations. Immunization against preventable diseases protects children and the surrounding community from illness and potentially death. In order to ensure community immunity of preventable diseases, which helps to protect unvaccinated children and adults, rates of vaccination in a community need to remain high.¹⁸⁸

Illness and injury. Asthma is the most common chronic illness affecting children¹⁸⁹, and it is more prevalent among boys, Black children, American Indian or Alaska Native children, and children in low-income households.^{190,191} The total healthcare costs of childhood asthma in the United States are estimated to be between \$1.4 billion and \$6.4 billion, but these costs could be reduced through better management of asthma to prevent hospitalizations.¹⁹² Unintentional injuries are the leading cause of death for children in Arizona¹⁹³ and nationwide.¹⁹⁴ It is estimated that as many as ninety percent of unintentional injury- related deaths could be preventable through better safety practices, such as use of proper child restraints in vehicles and supervision of children around water.¹⁹⁵ Children in rural areas are at higher risk of unintentional injuries than those who live in more urban areas, as are children in Native communities, suggesting that injury prevention is an especially salient need in these areas.^{196,197}

One useful metric for evaluating child health in Arizona are the Healthy People objectives. These science-based objectives define priorities for improving the nation's health and are updated every 10 years. Understanding where Arizona mothers and children fall in relation to these current national benchmarks (Healthy People 2020) can help highlight areas of strength in relation to young children's health and those in need of improvement in the state. The Arizona Department of Health Services monitors state level progress towards a number of maternal, infant and child health objectives for which data are available at the county level, including increasing the proportion of pregnant women who receive prenatal care in the first trimester; reducing low birth weight; reducing preterm births; and increasing abstinence from cigarette smoking among pregnant women.¹⁹⁸

What the Data Tell Us

Access to Health Services

- In the Pima North Region, about one in ten (10%) people do not have health insurance coverage, a number that aligns with the nation (10%) but is slightly lower than the state of Arizona overall (12%) (Table 59).
- For young children specifically, health insurance coverage is slightly better than the overall population in the region but worse than coverage nationally, with seven percent of young children uninsured in the Pima North Region compared to four percent of young children uninsured nationally (Table 59 & Figure 11).
- Almost half of births (48%) in the Pima North Region were covered by AHCCCS^{ix} in 2017, a percentage slightly lower than the state average (53%). The proportion of births covered by the Indian Health Service (IHS) and self-paid births were comparable across the region, county, and state in 2017 (Table 60).

Maternal, Infant, and Child Health

- The Pima North Region had lower rates of prenatal care than Arizona as a whole, with a larger proportion of births to mothers who had no prenatal care at all (6%), no prenatal care in the first trimester (31.4%), and fewer than five visits if they did have prenatal care (12.2%) compared to state averages (2.9%, 26.4%, and 7.5% respectively). Neither the region nor the state met the Healthy People 2020 target of at least 77.9 percent of births to mothers who received prenatal care in the first trimester (Table 61).
- The proportion of babies born at low birth weight was slightly higher in Pima North (7.6%) than the county (7.2%) and state (7.5%) in 2017, though it still met the Healthy People 2020 target of no more than 7.8 percent (Table 62).
- For rates of preterm birth, the Pima North Region, along with the county and state, met the Healthy People 2020 target of no more than 9.4 percent of births before 37 weeks gestation (Table 62).
- The Pima North Region did not meet the Healthy People 2020 target for maternal use of tobacco during pregnancy (1.4%), with 6.4 percent of births to mothers using tobacco while pregnant (Table 62).
- In 2017, Pima County had an infant mortality rate (3.9 per 1,000 live births) that met the Healthy People 2020 target (6.0 per 1,000 live births) and was lower than the state average (5.6 per 1,000 live births) (Table 63).
- In 2016 and 2017, the rate of neonatal abstinence syndrome (i.e., opioid-addicted babies) in Pima County (14.3 per 1,000 live births) was almost twice the state rate (7.4 per 1,000 live births) (Table 64).

^{ix} AHCCCS is Arizona's Medicaid agency

Substance Use Disorders

- Between June 2017 and June 2018, there were 1,431 suspected opioid overdoses among people of all ages in Pima County (Table 65).
- In 2017, there were 176 deaths directly attributed to opioids in Pima County; this accounted for nearly one-in-five (19%) opioid-related deaths across the state (Table 65).

Nutrition & Weight Status

 In Pima County, rates of breastfeeding for infants in the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) were slightly higher than the state rates in 2018. While 80 percent of WIC infants were breastfed at some point in infancy, rates of breastfeeding declined with the baby's age. Although the American Academy of Pediatrics recommends exclusive breastfeeding until six months of age, at six months of age, only 28 percent of infants were ever breastfed and only 4 percent were exclusively breastfed in Pima County. Even at three months old, exclusive breastfeeding for WIC infants in Pima County was low (16%) (Table 66).

Oral Health

 In 2019, 555 children received at least one fluoride varnish and 721 children received at least one oral health screening in the Pima North Region as a result of the work of First Things First. Also in 2019, the Pima South Region had 687 children who received at least one fluoride varnish and 778 children who received at least one oral health screening as a result of First Things First (Table 67).

Child Immunizations

- Between 2015 and 2018, Pima County had 595 cases of influenza, 498 cases of respiratory syncytial virus (RSV), and 16 cases of varicella ("chickenpox") in young children (Table 68).
- Across all required immunizations, with the exception of hepatitis A, children in child care in the Pima North Region had higher vaccination rates than the state as a whole and met the Healthy People 2020 targets during the 2018-2019 school year. The region also exceeded statewide immunization rates and met all Healthy People 2020 targets for kindergarten immunizations during this time (Table 69 & Table 70).
- In terms of immunization exemptions among children in child care, between 2016 and 2019 the region had lower rates of children receiving religious exemptions and exemptions from all required vaccines than the state. During the 2018-2019 school year, 2.3 percent of children in child care received a religious exemption in Pima North compared to 4.5 percent of children statewide, and 1.6 percent of children in child care received exemptions from all required vaccines in Pima North compared to three percent of children statewide (Table 71).
- The Pima North Region also had lower rates of children in kindergarten receiving personal belief exemptions and exemptions from all required vaccinations than

statewide averages between 2016 and 2019. During the 2018-2019 school year, 4.1 percent of children in kindergarten received a personal belief exemption in Pima North compared to 5.9 percent of children statewide, and 2.5 percent of children in kindergarten received exemptions from all required vaccines in Pima North compared to 3.8 percent statewide (Table 72).

Illness and Injury

- Reasons for non-fatal hospitalizations of young children for unintentional injuries in the Pima North Region aligned with the county and state, with falls (31%) and poisoning (19%) the most common (Table 73).
- Reasons for non-fatal emergency room visits were also similar between region, county, and state, with falls (45%) and being 'struck by or against' an object or person (15%) the most common (Table 74).
- Between 2015 and 2017, there were 827 emergency room visits and 306 inpatient hospitalizations for asthma for young children in the Pima North Region. The average length of stay for asthma hospitalization (2.4 days) was longer for the Pima North Region than the state (1.9 days) (Table 75).
- Between 2015 and 2017, there were 174 deaths of children in the Pima North Region, 77 percent of which were in young children (134 deaths). The proportion of child deaths that involved young children was higher in the Pima North Region than in the county (73%) or state (71%) (Table 76).

Access to Health Services

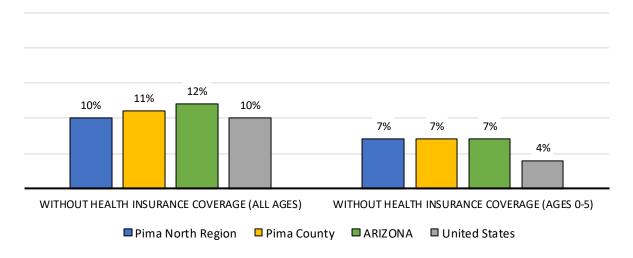
		PERCENT WITHOUT	POPULATION OF	PERCENT WITHOUT
	POPULATION	HEALTH INSURANCE	YOUNG CHILDREN	HEALTH INSURANCE
GEOGRAPHY	(ALL AGES)	COVERAGE (ALL AGES)	(AGES 0-5)	COVERAGE (AGES 0-5)
Pima North Region	696,472	10%	45,164	7%
Pima County	987,178	11%	70,616	7%
Arizona	6,701,990	12%	520,741	7%
United States	316,027,641	10%	23,832,080	4%

Table 59. Health insurance coverage

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

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

Figure 11. Health insurance coverage for the population (all ages) and for young children (ages 0 to 5)



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

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

Table 60. Payors for births during calendar year 2017

	TOTAL NUMBER OF	BIRTHS PAID BY		
GEOGRAPHY	BIRTHS IN 2017	AHCCCS	BIRTHS PAID BY IHS	BIRTHS SELF-PAY
Pima North Region	7,239	48%	1%	4%
Pima County	10,970	49%	2%	4%
Arizona	81,664	53%	1%	5%

Maternal, Infant, and Child Health

			MOTHERS WHO	MOTHERS WHO
		MOTHERS WHO	HAD NO PRENATAL	HAD FEWER THAN
	TOTAL NUMBER OF	HAD NO PRENATAL	CARE IN FIRST	FIVE PRENATAL
GEOGRAPHY	BIRTHS IN 2017	CARE	TRIMESTER	VISITS
Pima North Region	7,239	6.0%	31.4%	12.2%
Pima County	10,970	6.5%	32.4%	13.3%
Arizona	81,664	2.9%	26.4%	7.5%
Healthy People 2020 ta	argets	NA	22.1%	NA

Table 61. Prenatal care for mothers giving birth during calendar year 2017

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

Table 62. Various risk factors for births during calendar year 2017

	TOTAL						
	NUMBER OF	LOW	PRETERM		MOTHER	MOTHER	MOTHER
	BIRTHS IN	BIRTH	(LESS THAN	NICU	USED	YOUNGER	YOUNGER
GEOGRAPHY	2017	WEIGHT	37 WEEKS)	ADMISSIONS	TOBACCO	THAN 18	THAN 20
Pima North Region	7,239	7.6%	8.3%	8.8%	6.4%	1.5%	5.5%
Pima County	10,970	7.2%	8.4%	8.4%	5.4%	1.8%	6.0%
Arizona	81,664	7.5%	9.3%	7.1%	4.7%	1.6%	6.2%
Healthy People 2020	targets	7.8%	9.4%	NA	1.4%	NA	NA

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

Table 63. Infant mortality, calendar year 2017

		INFANT MORTALITY RATE (WITHIN
	INFANT DEATHS WITHIN SEVEN	ONE YEAR; PER THOUSAND LIVE
GEOGRAPHY	DAYS OF BIRTH, 2017	BIRTHS), 2017
Pima County	25	3.9
Arizona	234	5.6
Healthy People 2020 targets	NA	6.0

Table 64. Neonatal abstinence syndrome, calendar years 2016 and 2017

	NUMBER OF BABIES BORN WITH	
GEOGRAPHY	NEONATAL ABSTINENCE SYNDROME (NAS)	NAS RATE PER 1,000 LIVE BIRTHS
Pima County	319	14.3
Arizona	1,228	7.4

Substance Use Disorders

Table 65. Opioid overdoses and deaths, June 2017 to June 2018

	SUSPECTED OPIOID OVERDOSES,	DEATHS DIRECTLY ATTRIBUTED TO
GEOGRAPHY	JUNE 2017 TO JUNE 2018	OPIOIDS, CALENDAR YEAR 2017
Pima County	1,431	176
Arizona	8,591	949

Source: Arizona Department of Health Services. (2018). Arizona Opioid Emergency Response Report, June 2017-June 2018. Retrieved from <u>https://www.azdhs.gov/documents/prevention/womens-childrens-health/injury-prevention/opioid-prevention/2017-opioid-emergency-response-report.pdf</u>

Nutrition and Weight Status

				WIC INFANTS	WIC INFANTS
		WIC INFANTS	WIC INFANTS	EXCLUSIVELY	EXCLUSIVELY
	WIC INFANTS	BREASTFED AT 6	BREASTFED AT	BREASTFED AT 3	BREASTFED AT 6
GEOGRAPHY	EVER BREASTFED	MONTHS	12 MONTHS	MONTHS	MONTHS
Pima County	80%	28%	14%	16%	4%
Arizona	77%	26%	14%	13%	3%

Table 66. Breastfeeding rates for infants in the WIC program, calendar year 2018

Oral Health

Table 67. First Things First oral health strategy data, 2019

	NUMBER OF CHILDREN WHO	NUMBER OF CHILDREN WHO
	RECEIVED AT LEAST ONE FLUORIDE	RECEIVED AT LEAST ONE ORAL
GEOGRAPHY	VARNISH	HEALTH SCREENING
Pima North Region	555	721
Pima South Region	687	778
Arizona	16,837	24,664

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

Child Immunizations

		RESPIRATORY				
		SYNCYTIAL			HAEMOPHILUS	
GEOGRAPHY	INFLUENZA	VIRUS (RSV)	VARICELLA	PERTUSSIS	INFLUENZAE	MUMPS
Pima County	595	498	16	<6	<6	<6
Arizona	5,449	4,201	70	51	31	2

Table 68. Cases of infectious diseases among young children (ages 0-5), 2015-2018 cumulative

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

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

Table 69. Children in child care with required immunizations, 2018-19

	NUMBER OF CHILDREN ENROLLED IN					HEPATITIS	HEPATITIS	
GEOGRAPHY	CHILD CARE	DTAP	POLIO	MMR	HIB	A	В	VARICELLA
Pima North Region	10,439	94.6%	96.0%	96.8%	96.4%	77.0%	95.9%	96.1%
Pima County	13,425	94.7%	96.1%	97.1%	96.7%	78.7%	96.4%	96.7%
Arizona	86,829	92.4%	94.2%	94.9%	94.2%	85.5%	93.3%	94.7%
Healthy People 2020	targets	90%	90%	90%	90%	85%	90%	90%

Source: Arizona Department of Health Services (2019). 2018-19 Child Care Immunization Data. Custom data tabulation from requested data; Arizona Department of Health Services (2019). Childcare Immunization Coverage by County, 2018-2019 School Years. Retrieved from <u>https://www.azdhs.gov/preparedness/epidemiology-disease-</u>

control/immunization/index.php#reports-immunization-coverage

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

Table 70. Kindergarteners with required immunizations, 2018-19

GEOGRAPHY	NUMBER OF CHILDREN ENROLLED IN KINDERGARTEN	DTAP	POLIO	MMR	HEPATITIS B	VARICELLA
Pima North Region	7,216	95.1%	95.3%	95.3%	96.0%	97.0%
Pima County	10,727	95.5%	96.0%	95.9%	96.5%	97.3%
Arizona	79,981	92.7%	93.3%	93.0%	94.4%	95.6%
Healthy People 2020 targets		95%	95%	95%	95%	95%

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

Table 71. Child care immunization exemption rates, 2016-17 to 2018-19

	RELIGIOUS	RELIGIOUS	RELIGIOUS	EXEMPT FROM	EXEMPT FROM
	EXEMPTION	EXEMPTION	EXEMPTION	EVERY REQUIRED	EVERY REQUIRED
GEOGRAPHY	(2016-17)	(2017-18)	(2018-19)	VACCINE (2017-18)	VACCINE (2018-19)
Pima North Region	2.4%	2.4%	2.3%	1.5%	1.6%
Pima County	2.1%	2.8%	2.1%	1.4%	1.5%
Arizona	3.9%	4.3%	4.5%	2.9%	3.0%

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

	PERSONAL	PERSONAL	PERSONAL		
	BELIEF	BELIEF	BELIEF	EXEMPT FROM	EXEMPT FROM
	EXEMPTION	EXEMPTION	EXEMPTION	EVERY REQUIRED	EVERY REQUIRED
GEOGRAPHY	(2016-17)	(2017-18)	(2018-19)	VACCINE (2017-18)	VACCINE (2018-19)
Pima North Region	3.0%	3.5%	4.1%	2.2%	2.5%
Pima County	2.6%	2.7%	3.2%	1.8%	2.1%

Table 72. Kindergarten immunization exemption rates, 2016-17 to 2018-19

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

Illness and Injury

	NUMBER OF NON-FATAL		
	INPATIENT HOSPITALIZATIONS FOR	MOST COMMON	SECOND MOST COMMON
	CHILDREN (AGES 0-5),	REASON FOR	REASON FOR
GEOGRAPHY	2015-2018 TOTALS	HOSPITALIZATION	HOSPITALIZATION
Pima North Region	281	Falls (31%)	Poisoning (19%)
Pima North Region Pima County	281 427	Falls (31%) Falls (30%)	Poisoning (19%) Poisoning (18%)

Table 73. Non-fatal hospitalizations of young children (ages 0-5) for unintentional injuries, 2015-2018 cumulative

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

Table 74. Non-fatal emergency-room visits by young children (ages 0-5) for unintentional injuries, 2015-2018 cumulative

	NUMBER OF NON-FATAL EMERGENCY ROOM VISITS FOR CHILDREN (AGES 0-5),	MOST COMMON REASON FOR EMERGENCY ROOM	SECOND MOST COMMON REASON FOR EMERGENCY
GEOGRAPHY	2015-2018 TOTALS	VISIT	ROOM VISIT
Pima North Region	15,649	Falls (45%)	Struck by or against (15%)
Pima County	24,212	Falls (45%)	Struck by or against (15%)

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

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

Table 75. Asthma hospitalizations and emergency-room visits, 2015-2017 cumulative

	NUMBER OF INPATIENT	AVERAGE LENGTH OF STAY	NUMBER OF EMERGENCY
	HOSPITALIZATIONS FOR	(DAYS) FOR ASTHMA	ROOM VISITS FOR ASTHMA
	ASTHMA (AGES 0 TO 5,	HOSPITALIZATION (AGES 0-5	(AGES 0 TO 5, EXCEPT
	EXCEPT NEWBORNS),	EXCEPT NEWBORNS),	NEWBORNS),
GEOGRAPHY	2015-2017 TOTALS	2015-2017	2015-2017 TOTALS
Pima North Region	306	2.4	827
Pima North Region Pima County	306 463	2.4 2.3	

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

Table 76. Child mortality, 2015-2017 cumulative

	TOTAL NUMBER OF DEATHS OF	TOTAL NUMBER OF DEATHS OF
	YOUNG CHILDREN	CHILDREN
GEOGRAPHY	(AGES 0-4), 2015 TO 2017	(AGES 0-17), 2015 TO 2017
Pima North Region	134	174
Pima County	193	264
Arizona	1,682	2,357

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

Family Support and Literacy

Why it Matters

Families and caregivers play a critical role as their child's first and most important teacher. Positive and responsive early relationships and interactions support optimal brain development during a child's earliest years and lead to better social, physical, academic, and economic outcomes later in life.^{199,200,201,202} Parental and family involvement is positively linked to academic skills and literacy in preschool, kindergarten, and elementary school.²⁰³ Children benefit when their families have the knowledge, resources, and support to use positive parenting practices, and support their child's healthy development, nutrition, early learning, and language acquisition. Specifically, knowledge of positive parenting practices and child development has been identified as one of five key protective factors that improve child outcomes and reduce the incidence of child abuse and neglect.^{x,204}

Early literacy. Parental and family involvement is positively linked to academic skills and literacy in preschool, kindergarten and elementary school.²⁰⁵ Early literacy promotion, through singing, telling stories, and reading together, is so central to a child's development that the American Academy of Pediatrics has emphasized it as a key issue in primary pediatric care, aiming to make parents more aware of their important role in literacy.²⁰⁶

A child's reading skills when entering elementary school have been shown to strongly predict academic performance in later grades, emphasizing the importance of early literacy for future academic success.^{207,208} Home-based literacy practices between parents and caregivers and young children, specifically, have been shown to improve children's reading and comprehension, as well as children's motivation to learn.^{209,210} However, low-income families may face additional barriers to home-based literacy practices, including limited free time with children, limited access to books at home, and a lack of knowledge of kindergarten readiness.²¹¹

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

Communities may employ many resources to support families in engaging with their children, including through targeted programs like home visitation programs and "stay and play" programs, or participating in larger initiatives like Read On Arizona or the national "Reach Out & Read" program.²¹²

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) have been linked to future risky health behaviors (such as smoking, drug use, and alcoholism), chronic health conditions (including diabetes, depression, and obesity), poorer life outcomes (such as lower educational achievement and increased lost work time), and early death.²¹³ Alternatively, Positive Childhood Experiences (PCEs), including positive parent-child relationships and feelings of safety and support, have been shown to have similarly cumulative, though positive, longterm impacts on mental and relational health.²¹⁴ Nationally and in Arizona, very young children are most at risk for child abuse, neglect, and fatalities from abuse and neglect. In 2017, children five years old and younger made up more than half (55%) of child maltreatment victims in Arizona.²¹⁵ Future poor health outcomes are also more likely as an individual's ACE score increases.²¹⁶ Children in Arizona are considerably more likely to have experienced two or more ACEs (27.3%), compared to children across the country (8.3%).²¹⁷ These children and their families may require specific, targeted resources and interventions in order to reduce harm and prevent future risk.²¹⁸

Mental and behavioral health. Behavioral health supports, both for children and caregivers, are often needed to address exposure to adverse childhood events. Infant and toddler mental health development involves the young child's developing capacity to "experience, regulate and express emotions; form close interpersonal relationships; and explore the environment and learn."²¹⁹ When young children experience stress and trauma they often suffer physical, psychological, and behavioral consequences and have limited responses available to react to those experiences. Understanding the behavioral health of mothers is also important for the well-being of Arizona's young children. Mothers dealing with behavioral health issues such as depression may not be able to perform daily caregiving activities, form positive bonds with their children, or maintain relationships that serve as family supports.²²⁰

Child removals and foster care. There are situations where the harm in remaining with their family is determined to be too great to a child and they are removed from their home, either temporarily or permanently. In accordance with the Indian Child Welfare Act of 1978, many tribal governments manage their own child welfare systems that must work cooperatively with state systems.²²¹ Children involved in foster care systems often have physical and behavioral health issues, in addition to the social-emotional needs brought on by being removed from a parent's care.²²² Foster parents often need education, support, and resources to ensure they are able to successfully care for foster children who may have these added health needs. According to a 2015 Arizona Department of Child Safety Independent Review, focusing on

evidence-based targeted interventions for families at risk of child removal – including home visitation, positive parenting programs, and family-based therapy – may help lower this risk, thus reducing placements in foster care systems.²²³

What the Data Tell Us

Home Visitation

In 2019, 445 families in the Pima North Region received First Things First-funded home visitation services, including 28 families who successfully completed and graduated^{xi} from home visitation programs (Table 77).

Child Removals and Foster Care

- Between January 2018 and June 2018, there were 714 substantiated maltreatment reports in Pima County. Of those substantiated reports, the majority were related to neglect (86%), with a smaller proportion related to physical abuse (12%) and sexual abuse (2%). These proportions mirror statewide proportions during the same time period (Table 78).
- The statewide number of child removals by the Department of Child Safety (DCS) declined from 2014 to 2017 (Table 79 & Figure 12).
- Between January 2018 and June 2018, 15 percent of DCS reports resulted in a child removal in Pima County, with 832 children removed. While the percentage of children removed overall was similar between the county and state, there was a higher percentage of children with a prior removal in the last 24 months in Pima County (13%) than the state (9%) (Table 80).
- While the number of foster placements declined from 2015 to 2018, the statewide number of licensed foster homes steadily increased during this time (Table 81 & Table 82).

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

Home Visitation

Table 77 First Things	First-funded home	visiting program	data 9	State Fiscal Year 2019
Table / /. Thist Things	s i li st-i unueu nome	visiting program	uala, S	State i istai i eai 2019

		FAMILIES SUCCESSFULLY GRADUATED FROM HOME
GEOGRAPHY	NUMBER OF FAMILIES SERVED	VISITATION PROGRAMS
Pima North Region	445	28
Arizona	4,106	241

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

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

Child Removals and Foster Care

GEOGRAPHY	TOTAL SUBSTANTIATED MALTREATMENT REPORTS	NEGLECT	PHYSICAL ABUSE	SEXUAL ABUSE	EMOTIONAL ABUSE
Pima North Region	N/A	N/A	N/A	N/A	N/A
Pima County	714	86%	12%	2%	0%
Arizona	3,104	83%	13%	4%	<1%

Table 78. Substantiated maltreatment reports by type, January to June, 2018

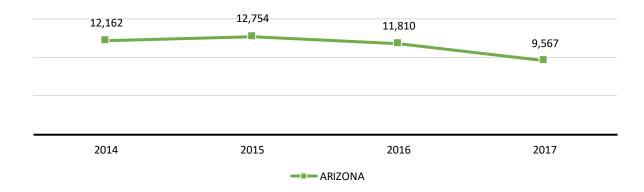
Source: Arizona Department of Child Safety (2019). Semi-Annual Child Welfare Report. Retrieved from <u>https://dcs.az.gov/DCS-</u> <u>Dashboard</u>

Table 79. Children removed by the Department of Child Safety (DCS), 2014 to 2017

2016	2017
11,810	9,567

Source: Arizona Department of Child Safety (2019). Semi-Annual Child Welfare Report. Retrieved from <u>https://dcs.az.gov/DCS-</u> <u>Dashboard</u>

Figure 12. Children removed by the Department of Child Safety (DCS), 2014 to 2017



Source: Arizona Department of Child Safety (2019). Semi-Annual Child Welfare Report. Retrieved from <u>https://dcs.az.gov/DCS-Dashboard</u>

				NUMBER OF	PERCENT OF
		NUMBER OF	PERCENT OF	CHILDREN WITH	CHILDREN WITH
	TOTAL	CHILDREN	CHILDREN	PRIOR REMOVAL IN	PRIOR REMOVAL IN
GEOGRAPHY	REPORTS	REMOVED	REMOVED	LAST 24 MONTHS	LAST 24 MONTHS
Pima North Region	N/A	N/A	N/A	N/A	N/A
Pima North Region Pima County	N/A 5,586	N/A 832	N/A 15%	N/A 111	N/A 13%

Table 80. Children removed by the Department of Child Safety (DCS), January to June, 2018

Source: Arizona Department of Child Safety (2019). Semi-Annual Child Welfare Report. Retrieved from <u>https://dcs.az.gov/DCS-</u> Dashboard

Table 81. Number of foster placements, 2015 to 2018

GEOGRAPHY	2015	2016	2017	2018
Arizona	17,592	18,906	16,899	14,929

Source: Arizona Department of Child Safety (2019). Semi-Annual Child Welfare Report. Retrieved from <u>https://dcs.az.gov/DCS-</u> <u>Dashboard</u>

Table 82. Number of licensed foster homes, 2015 to 2018

GEOGRAPHY	2015	2016	2017	2018
Arizona	4,497	4,681	5,000	5,213

Source: Arizona Department of Child Safety (2019). Semi-Annual Child Welfare Report. Retrieved from <u>https://dcs.az.gov/DCS-</u> <u>Dashboard</u>

Systems Coordination among Early Childhood Programs and Services

Why it Matters

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

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

What the Data Tell Us

Family Engagement Network

The Family Engagement Network is creating multi-generational impact in Pima County. The Family Engagement Network is a collaboration between First Things First Pima North and Pima South Regional Partnership Councils, The United Way of Tucson and Southern Arizona, Pima Community College, and Pima County One-Stop. The goal of the Family Engagement Network is to build a collaborative system that mitigates barriers for families in Pima County accessing a workforce development program. The ultimate outcome of this system building is that parents are acquiring higher education and a career in a high-demand field, which will raise them out of poverty while their young children simultaneously have access to high-quality early learning and supports in their most formative years. Each partner within the Network brings their own unique expertise in understanding and supporting families with young children. First Things First Pima North and Pima South Regional Partnership Councils, build upon this system through their allocation of Quality First Scholarships to support the children birth to age 5 of the parents enrolled in the workforce development program. Pima Community College provides careertraining programs to adults in Pima County with an emphasis on the Health Profession Opportunity Grant (HPOG) program. Pima County One-Stop, which is part of the Arizona@WORK statewide network of American Job Centers, provides workforce development and training programs and coordinates access to workforce resources for employers and job seekers. The United Way of Tucson and Southern Arizona provides administrative and fiscal oversight of the collaborative. The Family Engagement Network is truly working in support of educating dual generations and attempting to increase equitable, sustainable outcomes and break the cycle of poverty.

Family Support Alliance

The Family Support Alliance was developed in 2009 and is a collaborative effort aimed at creating a coordinated family support system to decrease barriers families may face when accessing supportive services. Through this collaborative, the home visitation programs and oral health program within the regions are collaborating to provide family-centered events. At these events, families have the opportunity to engage in parenting activities as well as receive an oral health screening and possible fluoride varnish for all children and expectant mothers that qualify. Through this collaborative effort, families have the opportunity to build relationships with other families in the program as well as gain knowledge on oral health and receive the necessary screenings.

Cradle 2 Career

Cradle 2 Career is a countywide effort engaging in collective impact to improve educational outcomes for every child in every school to ensure economic vitality for our community. The goals of this collective impact effort include:

- Every child is prepared for school
- Every student is successful in school and graduates prepared for college, career, and success in life
- All young people complete post-secondary education or training to prepare for a career
- Every young adult enters a career

These goals are being realized through the work of individual Change Networks focused on conducting research, utilizing data, and tracking the progress to identify effective practices that address the challenges and barriers identified. One of the Change Networks has prioritized Kindergarten Readiness and is working to address this immediately. Cradle2Career is a member of the StriveTogether Network meeting a rigorous set of benchmarks to earn its membership as a sustaining partnership in this national network. The StriveTogether framework provides Cradle 2 Career with strategic assistance that helps build on opportunities, solve issues, and overcome challenges.

Preschool Promise

Throughout the last two years, community members have been working to develop an initiative to ensure that more 3-4 year olds within the community have access to high quality preschool. This work began within the City of Tucson and provided an opportunity to build increased awareness of the importance of high-quality early care and education as well as the lack of access for families within Pima County. Additionally, this initiative galvanized community leaders to work together to expand those opportunities. The resulting recommendation was The Preschool Promise, an effort to use both private and public dollars to fund preschool for all low-income 3-4-year-olds in the Pima area. The recommendation included the requirement that children supported through the program attend quality early learning settings (as defined by earning 3-5 stars in Quality First) and that the amount of assistance result in no co-pays for families.

Communication, Public Information and Awareness

Why it Matters

Public awareness of the importance of early childhood development and health is critical in building a comprehensive, effective early childhood system in Arizona. Building public awareness and support for early childhood impacts individual behaviors as well as the broader objectives of system building. For the general public, information and awareness is the first step in taking positive action in support of children birth to age 5. This could include a range of actions—from influencing their personal networks by sharing early childhood information to actively encouraging community leaders to support programs and services for young children. For parents and other caregivers, awareness is the first step to engaging in programs or behaviors that will better support their child's health and development.

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

What the Data Tell Us

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

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

Progress toward building support for children birth to 5 can be measured by changes in awareness, attitudes and behaviors, as demonstrated through key results of a periodic statewide survey and through tactical impact measures. The most recent statewide survey was conducted in September 2018 and included a general phone survey as well as an online survey of parents of young children. Key results include the following:

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

While understanding and supporting early childhood in general is critical, it's also important that Arizonans have a trustworthy source of early childhood resources and know about the availability of early childhood resources, programs and tools. For this reason, building awareness of FTF as a credible source is critical. Results of the most recent statewide survey show that, while some progress has been made, there is still more to be done to increase awareness about FTF.

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

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

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

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

Table 83. First Things First media awareness campaign impressions, SFY17-SFY19

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

 In addition, targeted digital advertising allows geographically-based targeting of audiences within regions with the ability to measure the number of click-throughs that digital ads garnered. The click-throughs delivered viewers to the FTF website. In SFY19, in the Pima North and Pima South Regions, digital advertising led to a total of 56,334 click-throughs to the FTF website where families could access more information and resources.

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

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

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

Because Arizona is so vast – with more than 500,000 children under age 6 and nearly 400,000 households with kids under age 6 – engaging others in spreading the word about early childhood is critical to reaching across diverse geographic areas and expanding our reach. Supporters and Champions – who are trained in early childhood messaging and effective ways to share early childhood information - reported a total of 940 positive actions taken on behalf of young children throughout Arizona in SFY19. These actions range from leading presentations in support of early childhood to sharing FTF's early childhood resources with parents at community events. The table below shows total recruitment of Supporters and Champions through SFY19 and actions taken in SFY19.

			SUPPORTER AND
			CHAMPION ACTIONS IN
GEOGRAPHY	SUPPORTERS	CHAMPIONS	SFY19
Pima North Region	340	57	40
Arizona	6,258	1,170	940

Table 84. FTF Engagement of Early Childhood Supporters and Champions, SFY19

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

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

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

Appendix 1: Map of zip codes of the Pima North Region

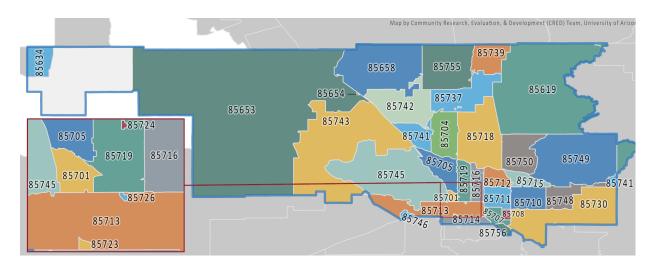


Figure 13. Map of the ZIP codes in the Pima North Region

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

Appendix 2: Zip Codes of the Pima North Region

Pima North Region 697,919 48,064 292,121 35,013 85619 48 3 26 2 96% 85634 11 1 3 1 0% 0 85653 15,075 1,409 5,133 982 100% 0 85654 97 11 37 6 100% 0 85658 6,572 374 2,929 260 84% 85701 4,983 325 2,636 231 100% 85704 30,929 1,570 14,432 1,187 100% 85705 57,521 4,904 24,346 3,493 100% 85707 658 0 0 0 100% 85708 2,980 720 897 492 100% 85710 54,439 3,632 24,849 2,707 100% 85711 41,251 3,428 17,470 2,492 100% 85713 <th>O WITH</th>	O WITH
85634 11 1 3 1 0% 0 85653 15,075 1,409 5,133 982 100% 85653 15,075 1,409 5,133 982 100% 85654 97 11 37 6 100% 85658 6,572 374 2,929 260 84% 85701 4,983 325 2,636 231 100% 85704 30,929 1,570 14,432 1,187 100% 85705 57,521 4,904 24,346 3,493 100% 85707 658 0 0 0 100% 85708 2,980 720 897 492 100% 85711 41,251 3,632 24,849 2,707 100% 85712 32,666 2,350 15,780 1,718 100% 85712 32,666 2,350 15,780 1,718 100% 85713 47,518 4,194 15,868 2,961 95% Pim 85714 13,732 1,389 4,298 940	
85634 11 1 3 1 0% 0 85653 15,075 1,409 5,133 982 100% 8 85654 97 11 37 6 100% 8 85658 6,572 374 2,929 260 84% 9 85701 4,983 325 2,636 231 100% 9 85704 30,929 1,570 14,432 1,187 100% 9 85705 57,521 4,904 24,346 3,493 100% 9 85708 2,980 720 897 492 100% 9 10 85710 54,439 3,632 24,849 2,707 100% 9 10 85711 41,251 3,428 17,470 2,492 100% 9 10 85713 47,518 4,194 15,868 2,961 95% 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	Cochise
85654 97 11 37 6 100% 85658 6,572 374 2,929 260 84% 85701 4,983 325 2,636 231 100% 85704 30,929 1,570 14,432 1,187 100% 85705 57,521 4,904 24,346 3,493 100% 85707 658 0 0 0 100% 85708 2,980 720 897 492 100% 85710 54,439 3,632 24,849 2,707 100% 85711 41,251 3,428 17,470 2,492 100% 85713 47,518 4,194 15,868 2,961 95% Pim 85714 13,732 1,389 4,298 940 91% Pim 85715 17,702 894 8,163 677 100% 4	⁻ ohono odham Nation
85658 6,572 374 2,929 260 84% 85701 4,983 325 2,636 231 100% 85704 30,929 1,570 14,432 1,187 100% 85705 57,521 4,904 24,346 3,493 100% 85707 658 0 0 0 100% 85708 2,980 720 897 492 100% 85710 54,439 3,632 24,849 2,707 100% 85711 41,251 3,428 17,470 2,492 100% 85713 47,518 4,194 15,868 2,961 95% Pim 85714 13,732 1,389 4,298 940 91% Pim 85715 17,702 894 8,163 677 100% 4	Pinal
85701 4,983 325 2,636 231 100% 85704 30,929 1,570 14,432 1,187 100% 85705 57,521 4,904 24,346 3,493 100% 85707 658 0 0 0 100% 85708 2,980 720 897 492 100% 85710 54,439 3,632 24,849 2,707 100% 85711 41,251 3,428 17,470 2,492 100% 85712 32,666 2,350 15,780 1,718 100% 85713 47,518 4,194 15,868 2,961 95% Pim 85714 13,732 1,389 4,298 940 91% Pim 85715 17,702 894 8,163 677 100% 10%	
85704 30,929 1,570 14,432 1,187 100% 85705 57,521 4,904 24,346 3,493 100% 85707 658 0 0 0 100% 85708 2,980 720 897 492 100% 85710 54,439 3,632 24,849 2,707 100% 85711 41,251 3,428 17,470 2,492 100% 85712 32,666 2,350 15,780 1,718 100% 85713 47,518 4,194 15,868 2,961 95% Pim 85714 13,732 1,389 4,298 940 91% Pim 85715 17,702 894 8,163 677 100% 100%	Pinal
85705 57,521 4,904 24,346 3,493 100% 85707 658 0 0 0 100% 85708 2,980 720 897 492 100% 85710 54,439 3,632 24,849 2,707 100% 85711 41,251 3,428 17,470 2,492 100% 85712 32,666 2,350 15,780 1,718 100% 85713 47,518 4,194 15,868 2,961 95% Pim 85714 13,732 1,389 4,298 940 91% Pim 85715 17,702 894 8,163 677 100% 100%	
85707 658 0 0 0 100% 85708 2,980 720 897 492 100% 85710 54,439 3,632 24,849 2,707 100% 85711 41,251 3,428 17,470 2,492 100% 85712 32,666 2,350 15,780 1,718 100% 85713 47,518 4,194 15,868 2,961 95% Pim 85714 13,732 1,389 4,298 940 91% Pim 85715 17,702 894 8,163 677 100% 100%	
85708 2,980 720 897 492 100% 85710 54,439 3,632 24,849 2,707 100% 85711 41,251 3,428 17,470 2,492 100% 85712 32,666 2,350 15,780 1,718 100% 85713 47,518 4,194 15,868 2,961 95% Pim 85714 13,732 1,389 4,298 940 91% Pim 85715 17,702 894 8,163 677 100% 100%	
85710 54,439 3,632 24,849 2,707 100% 85711 41,251 3,428 17,470 2,492 100% 85712 32,666 2,350 15,780 1,718 100% 85713 47,518 4,194 15,868 2,961 95% Pim 85714 13,732 1,389 4,298 940 91% Pim 85715 17,702 894 8,163 677 100%	
85711 41,251 3,428 17,470 2,492 100% 85712 32,666 2,350 15,780 1,718 100% 85713 47,518 4,194 15,868 2,961 95% Pim 85714 13,732 1,389 4,298 940 91% Pim 85715 17,702 894 8,163 677 100%	
85712 32,666 2,350 15,780 1,718 100% 85713 47,518 4,194 15,868 2,961 95% Pim 85714 13,732 1,389 4,298 940 91% Pim 85715 17,702 894 8,163 677 100% 100%	
85713 47,518 4,194 15,868 2,961 95% Pim 85714 13,732 1,389 4,298 940 91% Pim 85715 17,702 894 8,163 677 100%	
85714 13,732 1,389 4,298 940 91% Pim 85715 17,702 894 8,163 677 100%	
85715 17,702 894 8,163 677 100%	a South
	a South
85716 22.852 2.388 15.055 1.778 10.0%	
65/10 52,655 2,586 15,555 1,776 100%	
85718 27,367 1,079 13,018 818 100%	
85719 43,989 2,081 17,789 1,577 100%	
85730 38,311 2,995 15,190 2,198 100% Pim	
85737 20,727 950 8,639 699 100%	a South

Table 85. Zip Code Tabulation Areas in the Pima North Region

ZIP CODE TABULATION AREA (ZCTA)	TOTAL POPULATION	POPULATION (AGES 0-5)	TOTAL NUMBER OF HOUSEHOLDS	HOUSEHOLDS WITH ONE OR MORE CHILDREN (AGES 0-5)	PERCENT OF ZCTA'S TOTAL POPULATION LIVING IN THE PIMA NORTH REGION	THIS ZCTA IS SHARED WITH
Pima North Region	697,919	48,064	292,121	35,013		
85739	7,666	474	3,032	345	43%	Pinal
85741	32,998	2,485	13,139	1,835	100%	
85742	25,212	1,847	9,373	1,350	100%	
85743	29,144	2,342	11,092	1,686	100%	
85745	37,006	2,572	14,994	1,870	100%	
85746	74	3	27	2	0%	Pima South & Tohono O'odham Nation
85747	3	0	2	0	0%	Pima South
85748	18,087	1,107	7,474	837	100%	
85749	19,032	847	7,686	626	100%	
85750	24,161	975	11,259	742	100%	
85755	15,107	715	6,585	501	100%	

Source: United State Census Bureau (2010). 2010 Decennial Census, Summary File 1, Tables P1, P14, P20.

Note: Zip Code Tabulation Areas with no population living in the Pima North Region include 85723, 85724, 85726, 85641 (shared with the Pima South & Cochise Regions), and 85756 (shared with the Pima South & Tohono O'odham Nation Regions).

Appendix 3: School Districts in the Pima North Region

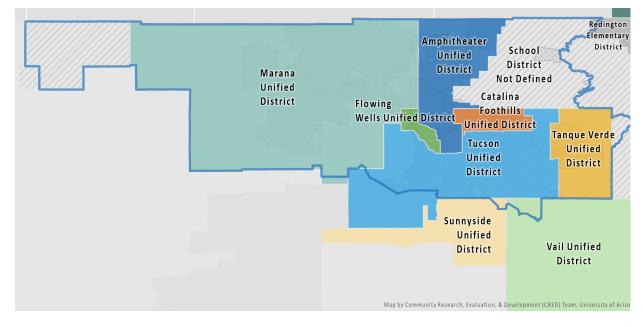


Figure 14. Map of school districts in the Pima North Region

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

Table 86. School Districts/Local Education Authorities in the Pima North Region

		K-3RD GRADE	PERCENT OF K-3RD GRADE	THIS DISTRICT
	SCHOOLS IN	STUDENTS IN	STUDENTS IN	IS SHARED
DISTRICT/LEA NAME	DISTRICT/LEA	DISTRICT/LEA	REGION	WITH
Pima North Region	234	31,262		
Tucson Unified District	86	13,174	78%	Pima South
Amphitheater Unified District	22	3,644	100%	
Marana Unified District	19	3,378	100%	
Leman Academy of Excellence, Inc.	5	1,608	80%	Cochise
Flowing Wells Unified District	10	1,496	100%	
Catalina Foothills Unified District	7	1,363	100%	
Arizona Community Development Corporation	3	970	80%	Pima South

DISTRICT/LEA NAME	SCHOOLS IN DISTRICT/LEA	K-3RD GRADE STUDENTS IN DISTRICT/LEA	PERCENT OF K-3RD GRADE STUDENTS IN REGION	THIS DISTRICT IS SHARED WITH
Pima North Region	234	31,262		
BASIS Schools, Inc.	1	645	100%	
Tanque Verde Unified District	4	592	100%	
Legacy Traditional School - Northwest Tucson	1	579	100%	
BASIS Schools, Inc.	1	508	100%	
Academy Del Sol, Inc.	2	390	18%	Pima South
The Charter Foundation, Inc.	4	382	21%	Yuma
Academy of Mathematics and Science, Inc.	1	304	100%	
Tucson Country Day School, Inc.	1	284	100%	
Academy of Tucson, Inc.	3	177	100%	
Khalsa Family Services	1	156	100%	
Tucson International Academy, Inc.	4	144	73%	Pima South
Presidio School	1	135	100%	
Mexicayotl Academy, Inc.	2	131	25%	Santa Cruz
Daisy Education Corporation dba Sonoran Science Academy	1	128	100%	
Hermosa Montessori Charter School	1	124	100%	
Aprender Tucson	1	104	100%	
Griffin Foundation, Inc. The	2	97	100%	
Daisy Education Corporation	1	94	100%	
Open Doors Community School, Inc.	1	89	100%	
Montessori Schoolhouse of Tucson, Inc.	2	84	100%	
Educational Impact, Inc.	1	79	100%	
Accelerated Elementary and Secondary Schools	1	65	100%	
Nosotros, Inc	1	63	100%	
Desert Springs Academy	1	53	100%	
Satori, Inc.	1	53	100%	

DISTRICT/LEA NAME	SCHOOLS IN DISTRICT/LEA	K-3RD GRADE STUDENTS IN DISTRICT/LEA	PERCENT OF K-3RD GRADE STUDENTS IN REGION	THIS DISTRICT IS SHARED WITH
Pima North Region	234	31,262		
Highland Free School	1	44	100%	
Ed Ahead	1	43	100%	
Carden of Tucson, Inc.	1	36	100%	
Desert Sky Community School, Inc.	1	32	100%	
Lifelong Learning Research Institute, Inc.	1	<11	100%	
Graham County Special Services*	1	14	100%	

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

Note: This table only contains Districts/LEAs with enrolled K-3rd grade students physically located within regional boundaries. It does not reflect the residence of students that attend these schools. It does not include high school districts. These are the districts and charter operators from which data on preschool to 3rd grade students were drawn for the tables and figures presented in this report. The percentage shown in the "Percent of K-3rd grade students in the region" column was used to apportion district-level enrollment counts to the region. All other data were aggregated at the school level. The "Schools in district/LEA" and "K-3rd grade students in district/LEA" columns reflect totals for the district, not only the portion within the region. *Data on K-3 students enrolled at Dan Hinton Accommodation School in Pima, AZ were mistakenly included in calculations for Pima North, resulting in 11 additional K-3 students in FY 2018 and 14 additional K-3 students in FY 2019 included in Pima North enrollment figures.

Appendix 4: Data Sources

- Arizona Department of Administration, Office of Employment and Population Statistics. (December 2012). "2012-2050 State and county population projections." Retrieved from <u>http://www.workforce.az.gov/population-projections.aspx</u>
- Arizona Department of Administration, Office of Employment and Population Statistics. (2019). Local area unemployment statistics (LAUS). Retrieved from <u>https://laborstats.az.gov/local-area-unemployment-statistics</u>
- Arizona Department of Child Safety (2019). Semi-Annual Child Welfare Report. Retrieved from https://dcs.az.gov/DCS-Dashboard
- Arizona Department of Economic Security (2019). 2018 Child Care Market Rate Survey. Unpublished data received by request.
- Arizona Department of Economic Security. (2019). 2018 Child Care Market Rate Survey Report. Retrieved from <u>https://des.az.gov/file/14277/download</u>
- Arizona Department of Economic Security. (2019). Child Care Market Rate Survey 2018. Data received from the First Things First State Agency Data Request
- Arizona Department of Economic Security. (2019). [AzEIP Data]. Unpublished raw data received through the First Things First State Agency Data Request
- Arizona Department of Economic Security. (2019). [Child Care Assistance Data]. Unpublished raw data received through the First Things First State Agency Data Request
- Arizona Department of Economic Security. (2019). [DDD Data]. Unpublished raw data received through the First Things First State Agency Data Request
- Arizona Department of Economic Security. (2015). [SNAP data set]. Unpublished raw data received from the First Things First State Agency Data Request
- Arizona Department of Economic Security. (2015). [TANF data set]. Unpublished raw data received from the First Things First State Agency Data Request
- Arizona Department of Education (2019). 2015-16 to 2018-19 Special Education Enrollments. Unpublished data received by request.
- Arizona Department of Education (2019). AzMERIT Results, 2015-2018. Retrieved from <u>https://www.azed.gov/accountability-research/data/</u>; Arizona Department of Education (2019). AzMERIT Results, 2015-2018. Custom tabulation of unpublished data.
- Arizona Department of Education. (2019). [Chronic Absence data set]. Custom tabulation of unpublished data.
- Arizona Department of Education. (2019). [Graduation & Dropout data set]. Custom tabulation of unpublished data.

- Arizona Department of Education. (2019). Percentage of children approved for free or reducedprice lunches, July 2015. Unpublished raw data received from the First Things First State Agency Data Request
- Arizona Department of Health Services (2019). 2015-2017 Child Asthma Data. Unpublished data received by request.
- Arizona Department of Health Services (2019). 2015-2017 Child Mortality Data. Unpublished data received by request.
- Arizona Department of Health Services. (2019). [Immunizations Dataset]. Unpublished raw data received from the First Things First State Agency Data Request
- Arizona Department of Health Services, Bureau of Public Health Statistics. (2019). [Vital Statistics Dataset]. Unpublished raw data received from the First Things First State Agency Data Request
- Arizona Department of Health Services, Office of Disease Prevention and Health Promotion. (2019). ADHS Arizona Health Status and Vital Statistics.
- ADHS Office of Disease Prevention and Health Promotion. (2019). Arizona Health Status and Vital Statistics. Preliminary 2018 report prepared by T. Lowry.
- ADHS Office of Disease Prevention and Health Promotion. (2019). Arizona Health Status and Vital Statistics. Report prepared by Kyle Gardner, Office of Injury Prevention.
- Arizona Department of Health Services, Office of Injury Prevention. (2019). [Injuries Dataset]. Data received from the First Things First State Agency Data Request
- Arizona Labor Statistics (2019). Local Area Unemployment Statistics (LAUS). Retrieved from https://laborstats.az.gov/local-area-unemployment-statistics
- Arizona Office of Economic Opportunity, Arizona Population Projections: 2018 to 2055, Medium Series
- Arizona Opioid Emergency Response Report, June 2017-June 2018.
- First Things First (2019). Communications Strategy Data. Unpublished data received by request
- First Things First. (2019). Home Visitation Program Data. Unpublished data received by request
- First Things First (2019). Oral Health Strategy Data. Unpublished data received by request
- First Things First (2019). Quality First, a Signature Program of First Thing First. Unpublished data received by request

Office of Infectious Disease Services, Division of Public Health Preparedness, AZ Department of Health Services

- U.S. Census Bureau. (2010). 2010 Decennial Census, Tables P1, P4, P11, P12A, P12B, P12C, P12D, P12E, P12F, P12G, P12H, P14, P20, P32, P41. Retrieved from http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml
- U.S. Census Bureau. (2018). American Community Survey 5-Year Estimates, 2013-2017, Table B05009, B09001, B10002, B14003, B15002, B16001, B16002, B16005, B17001, B17002, B17006, B17022, B19126, B23008, B23025, B25002, B25106, B27001, B28005, B28008, B28010. Retrieved from http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml
- U.S. Census Bureau. (2019). 2019, 2017, & 2010 Tiger/Line Shapefiles prepared by the U.S. Census. Retrieved from <u>http://www.census.gov/geo/maps-data/data/tiger-line.html</u>

References

¹ For more information about AHCCCS eligibility visit <u>https://www.azahcccs.gov/Members/Downloads/EligibilityRequirements.pdf</u>

² U.S. Census Bureau. (May, 2000). Factfinder for the Nation. Retrieved from <u>http://www.census.gov/history/pdf/cff4.pdf</u>

³ U.S. Census Bureau. (April, 2013). American Community Survey Information Guide. Retrieved from http://www.census.gov/content/dam/Census/programs-surveys/acs/about/ACS_Information_Guide.pdf

⁴ U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau. (2014). *Child Health USA 2014: Population characteristics*. Retrieved from https://mchb.hrsa.gov/chusa14/population-characteristics. Retrieved from https://mchb.hrsa.gov/chusa14/population-characteristics.

⁵ National Academies of Sciences, Engineering, and Medicine. (2016). *Parenting Matters: Supporting Parents of Children Ages 0-8*. Washington, DC: The National Academies Press. <u>https://doi.org/10.17226/21868</u>

⁶ National Academies of Sciences, Engineering, and Medicine. (2017). *Promoting the Educational Success of Children and Youth Learning English: Promising Futures.* Washington, DC: The National Academies Press. <u>https://doi.org/10.17226/24677</u>

⁷ Arizona Department of Health Sciences. (2015). *Arizona Maternal Child Health Needs Assessment*. Retrieved from <u>http://azdhs.gov/documents/prevention/womens-childrens-health/reports-fact-sheets/title-v/needs-assessment2015.pdf</u>

⁸ National Academies of Sciences, Engineering, and Medicine. (2016). *Parenting Matters: Supporting Parents of Children Ages 0-8*. Washington, DC: The National Academies Press. https://doi.org/10.17226/21868.

⁹ Fortuny, K., Hernandez, D.J., Chaudry, A. (2010). Young children of immigrants: The leading edge of America's future. *Urban Institute,* Brief No. 3 (August 31, 2010). Retrieved from <u>https://www.urban.org/research/publication/young-children-immigrants-leading-edge-americas-future</u>

¹⁰ Androff, D.K., Ayon, C., Becerra, D., & Gurrola, M. (2011). US immigration policy and immigrant children's wellbeing: The impact of policy shifts. *Journal of Sociology & Social Welfare, 38*, 77.

¹¹ Pedraza, F.I., Nichols, V.C., & LeBrón, A.M. (2017). Cautious citizenship: the deterring effect of immigration issue salience on health care use and bureaucratic interactions among Latino US citizens. *Journal of Health Politics, Policy and Law, 42*(5), 925-960.

¹² Bernstein, H., Gonzalez, D., Karpman, M., & Zuckerman, S. (2019). *One in Seven Adults in Immigrant Families Reported Avoiding Public Benefit Programs in 2018.* Urban Institute, Brief (May 22, 2019), available at https://www.urban.org/research/publication/oneseven-adults-immigrant-families-reported-avoiding-public-benefitprograms-2018

¹³ For more information on the public charge rule visit <u>https://www.uscis.gov/news/fact-sheets/public-charge-fact-sheet</u>

¹⁴ Bernstein, H., Gonzalez, D., Karpman, M., & Zuckerman, S. (2019). *One in Seven Adults in Immigrant Families Reported Avoiding Public Benefit Programs in 2018*. Urban Institute, Brief (May 22, 2019), available at https://www.urban.org/research/publication/oneseven-adults-immigrant-families-reported-avoiding-public-benefitprograms-2018

¹⁵ Artiga, S., & Ubri, P. (2017). *Living in an immigrant family in America: How fear and toxic stress are affecting daily life, well-being, & health.* Menlo Park, CA: Kaiser Family Foundation. Retrieved from https://www.kff.org/report-section/living-in-an-immigrant-family-in-america-issue-brief/

¹⁶ Perreira, K.M., Crosnoe, R., Fortuny, K., Pedroza, J., Ulvestad, K., Weiland, C., ... Chaudry, A. (2012). *Barriers to immigrants' access to health and human services programs.* ASPE Issue Brief. Washington, DC: Office of the Assistant Secretary for Planning and Evaluation. Retrieved from

http://webarchive.urban.org/UploadedPDF/413260-Barriers-to-Immigrants-Access-to-Health-and-Human-Services-Programs.pdf

¹⁷ Bernstein, H., McTarnaghan, S., & Gonzalez, D. (2019). Safety Net Access in the Context of the Public Charge Rule. *Urban Institute*. Retrieved from

https://www.urban.org/sites/default/files/publication/100754/safety net access in the context of the public charge rule 1.pdf

¹⁸ U.S. Department of Health and Human Services, Administration for Children and Families, Office of Head Start. (n.d.). *The benefits of bilingualism*. Retrieved from <u>https://eclkc.ohs.acf.hhs.gov/hslc/tta-system/cultural-linguistic/docs/benefits-of-being-bilingual.pdf</u>

¹⁹ National Academies of Sciences, Engineering, and Medicine. (2017). *Promoting the Educational Success of Children and Youth Learning English: Promising Futures*. Washington, DC: The National Academies Press. <u>https://doi.org/10.17226/24677</u>.

²⁰ U.S. Department of Health and Human Services, Administration for Children and Families, Office of Head Start. (n.d.). *The benefits of bilingualism*. Retrieved from <u>https://eclkc.ohs.acf.hhs.gov/hslc/tta-system/cultural-linguistic/docs/benefits-of-being-bilingual.pdf</u>

²¹ National Academies of Sciences, Engineering, and Medicine. (2017). *Promoting the Educational Success of Children and Youth Learning English: Promising Futures*. Washington, DC: The National Academies Press. https://doi.org/10.17226/24677.

²² U.S. Department of Health and Human Services, Administration for Children and Families, Office of Head Start. (n.d.). *The benefits of bilingualism*. Retrieved from <u>https://eclkc.ohs.acf.hhs.gov/hslc/tta-system/cultural-linguistic/docs/benefits-of-being-bilingual.pdf</u>

²³ National Academies of Sciences, Engineering, and Medicine. (2017). *Promoting the Educational Success of Children and Youth Learning English: Promising Futures*. Washington, DC: The National Academies Press. https://doi.org/10.17226/24677.

²⁴ U.S. Department of Health and Human Services, Administration for Children and Families, Office of Head Start. (n.d.). *The benefits of bilingualism*. Retrieved from <u>https://eclkc.ohs.acf.hhs.gov/hslc/tta-system/cultural-linguistic/docs/benefits-of-being-bilingual.pdf</u>

²⁵ National Academies of Sciences, Engineering, and Medicine. (2017). *Promoting the Educational Success of Children and Youth Learning English: Promising Futures*. Washington, DC: The National Academies Press. https://doi.org/10.17226/24677.

²⁶ National Academies of Sciences, Engineering, and Medicine. (2017). *Promoting the Educational Success of Children and Youth Learning English: Promising Futures*. Washington, DC: The National Academies Press. <u>https://doi.org/10.17226/24677</u>.

²⁷ National Center for Children in Poverty. (2012, October). *Young children at risk*. Retrieved from http://www.nccp.org/publications/pub_1073.html

²⁸ McCarty, T.L., & Nicholas, S.E. (2014). Reclaiming Indigenous Languages: A Reconsideration of the Roles and Responsibilities of Schools. *Review of Research in Education, 38*(1), 106-136.

²⁹ U.S. Department of Health & Human Services, Administration for Native Americans. (n.d.). *Native Languages*. For more information, visit <u>http://www.acf.hhs.gov/programs/ana/programs/native-language-preservation-maintenance</u>

³⁰ National Academies of Sciences, Engineering, and Medicine. (2016). *Parenting Matters: Supporting Parents of Children Ages 0-8*. Washington, DC: The National Academies Press. <u>https://doi.org/10.17226/21868</u>.

³¹ Pew Research Center. (2018). *The changing profile of unmarried parents*. Retrieved from https://www.pewsocialtrends.org/2018/04/25/the-changing-profile-of-unmarried-parents/ ³² Vandivere, S., Yrausquin, A., Allen, T., Malm, K., & McKlindon, A. (2012). *Children in nonparental care: A review of the literature and analysis of data gaps.* Washington, DC: U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation. Retrieved from http://aspe.hhs.gov/basic-report/children-nonparental-care-review-literature-and-analysis-data-gaps

³³ Cohn, D., & Passel, J.S. (2018). *A record 64 Million Americans live in multigeneration households*. Fact Tank: News in the Numbers, 5 April 2018. Pew Research Center. Retrieved from: <u>https://www.pewresearch.org/fact-tank/2018/04/05/a-record-64-million-americans-live-in-multigenerational-households/</u>

³⁴ Halgunseth, L. (2009). Family engagement, diverse families and early childhood education programs: An integrated review of the literature. *Young Children, 64(5)*, pp. 56-68.

³⁵ Barnett, M.A., Yancura, L., Wilmoth, J., Sano, Y. (2016). Wellbeing Among Rural Grandfamilies in Two Multigenerational Household Structures. *GrandFamilies: The Contemporary Journal of Research, Practice and Policy, 3* (1). Retrieved from: <u>http://scholarworks.wmich.edu/grandfamilies/vol3/iss1/4</u>

³⁶ Vandivere, S., Yrausquin, A., Allen, T., Malm, K., & McKlindon, A. (2012). *Children in nonparental care: A review of the literature and analysis of data gaps*. Washington, DC: U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation. Retrieved from http://aspe.hhs.gov/basic-report/children-nonparental-care-review-literature-and-analysis-data-gaps

 ³⁷ Department of Health and Human Services, Administration for Children and Families, and Children's Bureau.
 (2016). Site visit report: Arizona Kinship Navigator Project. Retrieved from https://www.childwelfare.gov/pubPDFs/azkinship.pdf

³⁸ Ellis, R., & Simmons, T. (2014). Coresident *Grandparents and Their Grandchildren: 2012.* Current Population Reports, P20-576, U.S. Census Bureau: Washington, DC.

³⁹ American Association for Marriage and Family Therapy. (2015). *Grandparents raising grandchildren*. Retrieved from

http://www.aamft.org/imis15/AAMFT/Content/Consumer Updates/Grandparents Raising Grandchildren.aspx

⁴⁰ Healthy People 2020. (n.d.). *Social determinants of health*. Washington, DC: U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Retrieved from <u>https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health</u>

⁴¹ Healthy People 2020. (n.d.). *Social determinants of health*. Washington, DC: U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Retrieved from https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health

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

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

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

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

⁴⁶ Duncan, G., Ziol-Guest, K., & Kalil, A. (2010). Early-childhood poverty and adult attainment, behavior, and health. *Child Development*, *81*(1), 306-325. Retrieved from <u>http://onlinelibrary.wiley.com/doi/10.1111/j.1467-8624.2009.01396.x/full</u>

⁴⁷ Gupta, R., de Wit, M., & McKeown, D. (2007). The impact of poverty on the current and future health status of children. *Pediatrics & Child Health, 12(8)*, 667-672.

⁴⁸ Wagmiller, R., & Adelman, R. (2009). *Children and intergenerational poverty: The long-term consequences of growing up poor*. New York, NY: National Center for Children in Poverty. Retrieved from http://www.nccp.org/publications/pub_909.html

⁴⁹ Duncan, G., Ziol-Guest, K., & Kalil, A. (2010). Early-childhood poverty and adult attainment, behavior, and health. *Child Development, 81*(1), 306-325. Retrieved from <u>http://onlinelibrary.wiley.com/doi/10.1111/j.1467-8624.2009.01396.x/full</u>

⁵⁰ U.S. Department of Health & Human Services Office of the Assistant Secretary for Planning and Evaluation. (2019). *2019 Poverty Guidelines*. Retrieved from <u>https://aspe.hhs.gov/2019-poverty-guidelines</u>

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

⁵² Pearce, D.M. (2019). *The Self-Sufficiency Standard for Arizona 2018*. Available online at: <u>https://www.womengiving.org/wp-content/uploads/2019/08/AZ18_SSS_Update-1.pdf</u>

⁵³ Rose-Jacobs, R., Black, M., Casey, P., Cook, J., Cutts, D., Chilton, M., Heeren, T., Levenson, S., Meyers, A., & Frank, D. (2008). Household food insecurity: Associations with at-risk infant and toddler development. *Pediatrics*, *121*(*1*), 65-72. Retrieved from http://pediatrics.aappublications.org/content/121/1/65.full.pdf

⁵⁴ Ryan-Ibarra, S., Sanchez-Vaznaugh, E., Leung, C., & Induni, M. (2016). The relationship between food insecurity and overweight/obesity differs by birthplace and length of residence. *Public Health Nutrition*, 1-7. Retrieved from <u>https://www.cambridge.org/core/journals/public-health-nutrition/article/div-classtitlethe-relationship-between-</u> <u>food-insecurity-and-overweightobesity-differs-by-birthplace-and-length-of-us-</u> <u>residencediv/4BEE4D6C09F9FFCABEE404F9E313BE7C</u>

⁵⁵ Food and Nutrition Service, U.S. Department of Agriculture. (n.d.). *Supplemental Nutrition Assistance Program* (SNAP). Retrieved from <u>https://www.fns.usda.gov/snap/supplemental-nutrition-assistance-program</u>

⁵⁶ Food and Nutrition Service, U.S. Department of Agriculture. (n.d.). *Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)*. Retrieved from <u>https://www.fns.usda.gov/wic</u>

⁵⁷ Food and Nutrition Service, U.S. Department of Agriculture. (n.d.). *National School Lunch Program*. Retrieved from <u>https://www.fns.usda.gov/nslp</u>

⁵⁸ Food and Nutrition Service, U.S. Department of Agriculture. (n.d.). *School Breakfast Program*. Retrieved from <u>https://www.fns.usda.gov/sbp/school-breakfast-program</u>

⁵⁹ Food and Nutrition Service, U.S. Department of Agriculture. (n.d.). *Summer Food Service Program*. Retrieved from <u>https://www.fns.usda.gov/sfsp/summer-food-service-program</u>

⁶⁰ Food and Nutrition Service, U.S. Department of Agriculture. (n.d.). *Child and Adult Care Food Program.* Retrieved from <u>https://www.fns.usda.gov/cacfp/child-and-adult-care-food-program</u>

⁶¹ Coleman-Jensen, A., Rabbitt, M.P., Gregory, C.A., & Singh, A. (2018). *Household food security in the United States in 2017, ERR-256.* U.S. Department of Agriculture, Economic Research Service.

⁶² Food Research and Action Center. (2013). *SNAP and Public Health: The role of the Supplemental Nutrition Assistance Program in improving the health and well-being of Americans*. Retrieved from http://frac.org/pdf/snap and public health 2013.pdf

⁶³ Food Research and Action Center. (2013). *SNAP and Public Health: The role of the Supplemental Nutrition Assistance Program in improving the health and well-being of Americans.* Retrieved from http://frac.org/pdf/snap and public health 2013.pdf

⁶⁴ For more information on the Arizona WIC Program, visit <u>http://azdhs.gov/prevention/azwic/</u>

⁶⁵ Carlson, S., & Neuberger, Z. (2015). *WIC Works: Addressing the nutrition and health needs of low-income families for 40 years.* Washington, DC: Center on Budget and Policy Priorities. Retrieved from

http://www.cbpp.org/research/food-assistance/wic-works-addressing-the-nutrition-and-health-needs-of-low-income-families

⁶⁶ National Center for Children in Poverty. (2014). *Arizona demographics for low-income children*. Retrieved from <u>http://www.nccp.org/profiles/AZ_profile_6.html</u>

⁶⁷ Isaacs, J. (2013). *Unemployment from a child's perspective*. Retrieved from http://www.urban.org/UploadedPDF/1001671-Unemployment-from-a-Childs-Perspective.pdf

⁶⁸ For a discussion of current trends in labor force participation versus employment, see Uchitelle, L. (July 11, 2019). "Unemployment Is Low, but That's Only Part of the Story." Retrieved from https://www.nytimes.com/2019/07/11/business/low-unemployment-not-seeking-work.html

⁶⁹ McCoy-Roth, M., Mackintosh, B., & Murphey, D. (2012). When the bough breaks: The effects of homelessness on young children. *Child Health, 3*(1). Retrieved from <u>http://www.childtrends.org/wp-content/uploads/2012/02/2012-08EffectHomelessnessChildren.pdf</u>

⁷⁰ Herbert, C., Hermann, A., & McCue, D. (2018). *Measuring Housing Affordability: Assessing the 30 Percent of Income Standard*. Cambridge, MA: Joint Center for Housing Studies of Harvard University. Retrieved from: https://www.jchs.harvard.edu/sites/default/files/Harvard_JCHS_Herbert_Hermann_McCue_measuring_housing_a ffordability.pdf

⁷¹ Gabriel, S., & Painter, G. (2017). *"Why Affordability Matters,"* 4-23. Presentation at Housing Affordability: Why Does It Matter, How Should It Be Measured, and Why Is There an Affordability Problem? American Enterprise Institute, 5-6 April 2017. Retrieved from: <u>https://www.aei.org/wp-content/uploads/2017/04/CHA-Panel-1.pdf</u>

⁷² Federal Interagency Forum on Child and Family Statistics. (2015). *America's children: Key national indicators for well-being, 2015.* Washington, DC: U.S. Government Printing Office. Retrieved from https://www.childstats.gov/pdf/ac2015/ac_15.pdf

⁷³ Kinsner, K., Parlakian, R., Sanchez, G., Manzano, S., & Baretto, M. (2018). Millennial Connections: Findings from ZERO TO THREE's 2018 Parent Survey Executive Summary. *ZERO TO THREE*. Retrieved from https://www.zerotothree.org/resources/2475-millennial-connections-executive-summary

⁷⁴ OECD. (2001). *Understanding the digital divide*. Paris, France: OECD Publications.

⁷⁵ OECD. (2001). *Understanding the digital divide*. Paris, France: OECD Publications.

⁷⁶ Gonzales, A. (2016). The contemporary US digital divide: from initial access to technology maintenance. *Information, Communication & Society, 19*(2), pp. 234-248, DOI: 10.1080/1369118X.2015.1050438

⁷⁷ Pew Research Center. (2019, June 12). *Internet/Broadband Fact Sheet*. Retrieved from https://www.pewresearch.org/internet/fact-sheet/internet-broadband/

⁷⁸ Prieger, J.E. (2013). The broadband digital divide and the economic benefits of mobile broadband for rural areas. *Telecommunications Policy*, *37*(6-7), 483-502.

⁷⁹ Sallet, J. (2017). *Better together: Broadband deployment and broadband competition*. Retrieved from <u>https://www.brookings.edu/blog/techtank/2017/03/15/better-together-broadband-deployment-and-broadband-competition/</u>

⁸⁰ Federal Communications Commission. (2015). 2015 Broadband progress report and notice of inquiry on immediate action to accelerate deployment. *Federal Communications Commission*. Retrieved from https://apps.fcc.gov/edocs_public/attachmatch/DOC-342358A1.pdf

⁸¹ For more information about AHCCCS eligibility visit <u>https://www.azahcccs.gov/Members/Downloads/EligibilityRequirements.pdf</u> ⁸² Healthy People 2020. (n.d.). *Social determinants*. Washington, DC: U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Retrieved from https://www.healthypeople.gov/2020/leading-health-indicators/2020-lhi-topics/Social-Determinants

⁸³ Robert Wood Johnson Foundation. (2016, September). *The relationship between school attendance and health*. Retrieved from <u>https://www.rwjf.org/en/library/research/2016/09/the-relationship-between-school-attendance-and-health.html</u>

⁸⁴ Dahlin, M., & Squires, J. (2016). *Pre-K attendance: Why it's important and how to support it.* Center on Enhancing Early Learning Outcomes. Retrieved from <u>http://nieer.org/wp-</u>content/uploads/2016/09/ceelo fastfact state ece attendance 2016 02 01 final for web.pdf

⁸⁵ Ready, D.D. (2010). Socioeconomic disadvantage, school attendance, and early cognitive development: The differential effects of school exposure. *Sociology of Education*, *83*(4), 271-286.

⁸⁶ Robert Wood Johnson Foundation. (2016, September). *The relationship between school attendance and health*. Retrieved from <u>https://www.rwjf.org/en/library/research/2016/09/the-relationship-between-school-attendance-and-health.html</u>

⁸⁷ Lesnick, J., Goerge, R., Smithgall, C., & Gwynne, J. (2010). *Reading on grade level in third grade: How is it related to high school performance and college enrollment?* Chicago, IL: Chapin Hall at the University of Chicago. Retrieved from https://www.chapinhall.org/sites/default/files/Reading_on_Grade_Level_111710.pdf

⁸⁸ Lesnick, J., Goerge, R., Smithgall, C., & Gwynne, J. (2010). *Reading on grade level in third grade: How is it related to high school performance and college enrollment?* Chicago, IL: Chapin Hall at the University of Chicago. Retrieved from https://www.chapinhall.org/sites/default/files/Reading_on_Grade_Level_111710.pdf

⁸⁹ Hernandez, D. (2011). *Double jeopardy: How third-grade reading skills and poverty influence high school graduation*. New York, NY: The Annie E. Casey Foundation. Retrieved from http://files.eric.ed.gov/fulltext/ED518818.pdf

⁹⁰ Arizona Department of Education. (n.d.). *Assessment: AzMERIT.* Retrieved from <u>http://www.azed.gov/assessment/azmerit/</u>

⁹¹ For more information on Move on When Reading, visit <u>http://www.azed.gov/mowr/</u>

⁹² National Research Council. 2012. *Key National Education Indicators: Workshop Summary*. Washington, DC: The National Academies Press. <u>https://doi.org/10.17226/13453</u>.

⁹³ Healthy People 2020. (n.d.). *Adolescent health.* Washington, DC: U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Retrieved from <u>https://www.healthypeople.gov/2020/topics-objectives/topic/Adolescent-Health</u>

⁹⁴ Child Trends Data Bank. (2015). *Parental education: Indicators on children and youth.* Retrieved from http://www.childtrends.org/wp-content/uploads/2012/04/67-Parental Education.pdf

⁹⁵ Center on the Developing Child at Harvard University. (2010). *The foundations of lifelong health are built in early childhood*. Retrieved from <u>http://developingchild.harvard.edu/wp-content/uploads/2010/05/Foundations-of-</u> Lifelong-Health.pdf

⁹⁶ Kuhl, P.K. (2011). Early language learning and literacy: Neuroscience implications for education. *Mind, Brain, and Education*, *5*(3), 128-142.

⁹⁷ Fernald, A., Marchman, V., & Weisleder, A. (2013). SES differences in language processing skill and vocabulary are evident at 18 months. *Developmental Science*, *16*(2), 234-248. Retrieved from http://onlinelibrary.wiley.com/doi/10.1111/desc.12019/pdf

⁹⁸ Lee., V., & Burkam, D. (2002). *Inequality at the Starting Gate: Social background Differences in Achievement as Children Begin School*. Washington, DC: Economic Policy Institute.

⁹⁹ Malik, R., Hamm, K., Adamu, M., & Morrissey, T. (2016). Child care deserts: An analysis of child care centers by ZIP code in 8 states. *Center for American Progress.* Retrieved from

https://www.americanprogress.org/issues/early-childhood/reports/2016/10/27/225703/child-care-deserts/

¹⁰⁰ Tanoue, K.H., DeBlois, M., Daws, J., & Walsh, M. (2017). *Child Care and Early Education Accessibility in Tucson (White Paper No. 5).* Retrievable from Making Action Possible in Southern Arizona (MAP Dashboard) website: https://mapazdashboard.arizona.edu/article/child-care-and-early-education-accessibility-tucson

¹⁰¹ Child Care Aware[®] of America. (2018). *Mapping the gap: Exploring the child care supply & demand in Arizona*. Arlington, VA: Child Care Aware of America. Retrieved from <u>http://usa.childcareaware.org/wp-content/uploads/2017/10/Arizona-Infant-Toddler-Brief1.pdf</u>

102 Ibid

¹⁰³ U.S. Department of Education. (2015). *A matter of equity: Preschool in America*. Retrieved from <u>https://www2.ed.gov/documents/early-learning/matter-equity-preschool-america.pdf</u>

¹⁰⁴ Child Care Aware[®] of America. (2017). *The US and the High Cost of Child Care: Arizona.* Arlington, VA: Child Care Aware of America. Retrieved from <u>https://usa.childcareaware.org/advocacy-public-policy/resources/research/costofcare/</u>

¹⁰⁵ Child Care Aware[®] of America. (2018). *Arizona Cost of Child Care*. Retrieved from https://usa.childcareaware.org/wp-content/uploads/2018/10/Arizona2018.pdf

¹⁰⁶ For more information on child care subsidies see <u>https://www.azdes.gov/child care/</u>

¹⁰⁷ Arizona Department of Economic Security. (n.d.). *Child Care Waiting List*. Retrieved on 7/28/19 from <u>https://des.az.gov/services/child-and-family/child-care/child-care-waiting-list</u>

¹⁰⁸ Machelor, P. (2019, June 17). Arizona suspends child-care waiting list, increases provider reimbursements. *Arizona Daily Star*. Retrieved from <u>https://tucson.com/news/local/arizona-suspends-child-care-waiting-list-increases-provider-reimbursements/article_a91a641f-5817-5e0d-a8c5-caaf530551ce.html</u>

¹⁰⁹ NICHD Early Child Care Research Network. (2002). Early child care and children's development prior to school entry: Results from the NICHD study of early child care. *American Educational Research Journal, 39*(1), 133-164. Retrieved from <u>http://www.jstor.org/stable/3202474</u>

¹¹⁰ Yoshikawa, H., Weiland, C., Brooks-Gunn, J., Burchinal, M., Espinosa, L., Gormley, W., ... Zaslow, M. (2013). *Investing in our future: The evidence base on preschool education*. Ann Arbor, MI: Society for Research in Child Development. Retrieved from <u>https://www.fcd-</u>

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

¹¹¹ U.S. Department of Education. (2015). A matter of equity: Preschool in America. Retrieved from https://www2.ed.gov/documents/early-learning/matter-equity-preschool-america.pdf

¹¹² The Annie E. Casey Foundation. (2013). *The first eight years: Giving kids a foundation for lifetime success.* Retrieved from <u>http://www.aecf.org/m/resourcedoc/AECF-TheFirstEightYearsKCpolicyreport-2013.pdf</u>

¹¹³ White House Council of Economic Advisors. (2014). *The economics of early childhood investments*. Retrieved from <u>https://obamawhitehouse.archives.gov/sites/default/files/docs/early_childhood_report_update_final_non-embargo.pdf</u>

¹¹⁴ Campbell, F., Conti, G., Heckman, J., Moon, S., Pinto, R., Pungello, L., & Pan, Y. (2014). *Abecedarian & health: Improve adult health outcomes with quality early childhood programs that include health and nutrition.* University of Chicago: The Heckman Equation. Retrieved from <u>http://heckmanequation.org/content/resource/research-</u> <u>summary-abecedarian-health</u>

¹¹⁵ Montes, G., & Halterman, J.S. (2011). The impact of child care problems on employment: Findings from a national survey of US parents. *Academic Pediatrics*, *11*(1):80-87.

¹¹⁶ The Annie E. Casey Foundation. (2013). *The first eight years: Giving kids a foundation for lifetime success.* Retrieved from http://www.aecf.org/m/resourcedoc/AECF-TheFirstEightYearsKCpolicyreport-2013.pdf

¹¹⁷ More information about Arizona's quality educational environments can be found in the DES CCDF State Plan FY2019-FY2021, available at https://des.az.gov/documents-center

¹¹⁸ Wechsler, M., Melnick, H., Maier, A., & Bishop, J. (2016). *The Building Blocks of High-Quality Early Childhood Education Programs* (policy brief). Palo Alto, CA: Learning Policy Institute.

¹¹⁹ Gilliam, W.S., Maupin, A.N., & Reyes, C.R. (2016). Early childhood mental health consultation: Results of a statewide random-controlled evaluation. *Journal of the American Academy of Child & Adolescent Psychiatry*, *55*(9), 754-761.

¹²⁰ U.S. Department of Health and Human Services, Administration for Children and Families, Office of Head Start. (n.d.). *Understanding and eliminating expulsion in early childhood programs*. Retrieved from <u>https://eclkc.ohs.acf.hhs.gov/publication/understanding-eliminating-expulsion-early-childhood-programs</u>

¹²¹ Donoghue, E. (2017). Quality early education and child care from birth to kindergarten. *Pediatrics*, 140(2).

¹²² Epstein, D., Hegseth, D., Friese, S., Miranda, B., Gebhart, T., Partika, A., & Tout, K. (2018). *Quality First: Arizona's early learning quality improvement and rating system implementation and validation study*. Retrieved from https://www.firstthingsfirst.org/wp-content/uploads/2018/02/AZ_QF_Exec-Summary.pdf

¹²³ Arizona Early Childhood Development and Health Board, First Things First. (2018). 2018 Annual Report. Phoenix, AZ: First Things First. Retrieved from

http://www.azftf.gov/WhoWeAre/Board/Documents/FY2016 Annual Report.pdf

¹²⁴ Gilliam, W.S., Maupin, A.N., & Reyes, C.R. (2016). Early childhood mental health consultation: Results of a statewide random-controlled evaluation. *Journal of the American Academy of Child & Adolescent Psychiatry*, *55*(9), 754-761.

¹²⁵ U.S. Department of Health and Human Services, Administration for Children and Families, Office of Head Start. (n.d.). *Understanding and eliminating expulsion in early childhood programs*. Retrieved from <u>https://eclkc.ohs.acf.hhs.gov/publication/understanding-eliminating-expulsion-early-childhood-programs</u>

¹²⁶ U.S. Department of Health and Human Services and Education. (2015). *Policy statement on expulsion and suspension policies in early childhood settings.*

¹²⁷ U.S. Department of Education Office for Civil Rights. (2014). *Data Snapshot: Early Childhood Education*. Retrieved from <u>https://www2.ed.gov/about/offices/list/ocr/docs/crdc-early-learning-snapshot.pdf</u>

¹²⁸ Malik, R. (2017, November 6). New Data Reveal 250 Preschoolers Are Suspended or Expelled Every Day. *Center for American Progress*. Retrieved from <u>https://www.americanprogress.org/issues/early-</u> childhood/news/2017/11/06/442280/new-data-reveal-250-preschoolers-suspended-expelled-every-day/

¹²⁹ U.S. Department of Education Office for Civil Rights. (2014). *CIVIL RIGHTS DATA COLLECTION Data Snapshot: Early Childhood Education*. Retrieved from <u>https://www2.ed.gov/about/offices/list/ocr/docs/crdc-early-learning-snapshot.pdf</u>

¹³⁰ U.S. Department of Health and Human Services and Education (2015). *Policy statement on expulsion and suspension policies in early childhood settings.*

¹³¹ Lamont, J.H., Devore, C.D., Allison, M., Ancona, R., Barnett, S.E., Gunther, R., ... Young, T. (2013). Out-of-school suspension and expulsion. *Pediatrics*, *131*(3), e1000-e1007.

¹³² U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau. (2013). *The national survey of children with special health care needs: Chartbook 2009-2010.* Rockville, MD: U.S. Department of Health and Human Services. Retrieved from https://mchb.hrsa.gov/cshcn0910/more/pdf/nscshcn0910.pdf

¹³³ U.S. Department of Health and Human Services, Health Resources and Services Administration, Maternal and Child Health Bureau. (2013). The national survey of children with special health care needs: Chartbook 2009-2010. Rockville, MD: U.S. Department of Health and Human Services. Retrieved from https://mchb.hrsa.gov/cshcn0910/more/pdf/nscshcn0910.pdf

¹³⁴ Austin, A., Herrick, H., Proescholdbell, S., & Simmons, J. (2016). Disability and exposure to high levels of adverse childhood experiences: Effect on health and risk behavior. North Carolina Medical Journal, 77(1), 30-36. doi: 10.18043/ncm.77.1.30. Retrieved from http://www.ncmedicaljournal.com/content/77/1/30.full.pdf+html

¹³⁵ Kistin, C., Tompson, M., Cabral, H., Sege, R., Winter, M., & Silverstein, M. (2016). Subsequent maltreatment in children with disabilities after an unsubstantiated report for neglect. JAMA 2016, 315(1), 85-87. doi: 10.1001/jama.2015.12912.

¹³⁶ Mortenson, J.A., & Barnett, M.A. (2016). The role of child care in supporting the emotion regulatory needs of maltreated infants and toddlers. Children and Youth Services Review, 64, 73-81.

¹³⁷ Dinehart, L.H., Manfra, L., Katz, L.F., & Hartman, S.C. (2012). Associations between center-based care accreditation status and the early educational outcomes of children in the child welfare system. Children and Youth Services Review, 34, 1072-1080.

¹³⁸ Arizona Department of Health Sciences. (2015). Arizona Maternal Child Health Needs Assessment. Retrieved from http://azdhs.gov/documents/prevention/womens-childrens-health/reports-fact-sheets/title-v/needsassessment2015.pdf

¹³⁹ The National Early Childhood Technical Assistance Center. (2011). The importance of early intervention for infants and toddlers with disabilities and their families. Office of Special Education Programs and U.S. Department of Education. Retrieved from http://www.nectac.org/~pdfs/pubs/importanceofearlyintervention.pdf

¹⁴⁰ Hebbeler, K., Spiker, D., Bailey, D., Scarborough, A., Mallik, S., Simeonsson, ... Nelson, L. (2007). *Early* intervention for infants and toddlers with disabilities and their families: Participants, services, and outcomes. Menlo Park, CA: SRI International. Retrieved from

https://www.sri.com/sites/default/files/publications/neils_finalreport_200702.pdf

¹⁴¹ Diefendorf, M., & Goode, S. (2005). The long term economic benefits of high quality early childhood intervention programs. Chapel Hill, NC: National Early Childhood Technical Assistance Center (NECTAC), and Early Intervention & Early Childhood Special Education. Retrieved from http://ectacenter.org/~pdfs/pubs/econbene.pdf

¹⁴² For more information on AzEIP, visit https://www.azdes.gov/azeip/

¹⁴³ For more information on ADE's Early Childhood Special Education program, visit http://www.azed.gov/ece/early-childhood-special-education/ and http://www.azed.gov/special-education/azfind/

¹⁴⁴ For more information on DDD, visit <u>https://www.azdes.gov/developmental_disabilities/</u>

¹⁴⁵ Center on the Developing Child at Harvard University. (2010). The foundations of lifelong health are built in early childhood. Retrieved from http://developingchild.harvard.edu/wp-content/uploads/2010/05/Foundations-of-Lifelong-Health.pdf

¹⁴⁶ The Future of Children. (2015). Policies to promote child health. *Policies to Promote Child Health, 25(1), Spring* 2015. Woodrow Wilson School of Public and International Affairs at the Princeton University and the Brookings Institution. Retrieved from http://futureofchildren.org/publications/docs/FOC-spring-2015.pdf

¹⁴⁷ Center on the Developing Child at Harvard University. (2010). The foundations of lifelong health are built in early childhood. Retrieved from http://developingchild.harvard.edu/wp-content/uploads/2010/05/Foundations-of-Lifelong-Health.pdf

¹⁴⁸ Maternal and Child Health Bureau, Health Resources and Services Administration, U.S. Department of Health and Human Services. (n.d.). Prenatal services. Retrieved from http://mchb.hrsa.gov/programs/womeninfants/prenatal.html

¹⁴⁹ Patrick, D.L., Lee, R.S., Nucci, M., Grembowski, D., Jolles, C.Z., & Milgrom, P. (2006). Reducing oral health disparities: A focus on social and cultural determinants. *BMC Oral Health, 6*(Suppl 1), S4. Retrieved from http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2147600/

¹⁵⁰ Council on Children with Disabilities, Section on Developmental Behavioral Pediatrics, Bright Futures Steering Committee, and Medical Home Initiatives for Children with Special Needs Project Advisory Committee. (2006). Identifying infants and young children with developmental disorders in the medical home: An algorithm for developmental surveillance and screening. *Pediatrics, 118*(1), 405-420. Doi: 10.1542/peds.2006-1231. Retrieved from <u>http://pediatrics.aappublications.org/content/118/1/405.full</u>

¹⁵¹ Centers for Disease Control and Prevention. (2006). Recommendations to improve preconception health and health care—United States: A report of the CDC/ATSDR Preconception Care Work Group and the Select Panel on Preconception Care. *MMWR*, *55*(RR-06):1-23.

¹⁵² U.S. Department of Health and Human Service. (2017). *What is prenatal care and why is it important?* Retrieved from <u>https://www.nichd.nih.gov/health/topics/pregnancy/conditioninfo/prenatal-care</u>

¹⁵³ Yeung, L., Coates, R., Seeff, L., Monroe, J., Lu, M., & Boyle, C. (2014). Conclusions and future directions for periodic reporting on the use of selected clinical preventive services to improve the health of infants, children, and adolescents—United States. *Morbidity and Mortality Weekly Report 2014, 63*(Suppl-2), 99-107. Retrieved from http://www.cdc.gov/mmwr/pdf/other/su6302.pdf

¹⁵⁴ Yeung, L., Coates, R., Seeff, L., Monroe, J., Lu, M., & Boyle, C. (2014). Conclusions and future directions for periodic reporting on the use of selected clinical preventive services to improve the health of infants, children, and adolescents—United States. *Morbidity and Mortality Weekly Report 2014, 63*(Suppl-2), 99-107. Retrieved from http://www.cdc.gov/mmwr/pdf/other/su6302.pdf

¹⁵⁵ The Henry J. Kaiser Family Foundation. (2016). *Key facts about the uninsured population*. The Kaiser Commission on Medicaid and the Uninsured. Retrieved from <u>http://kff.org/uninsured/fact-sheet/key-facts-about-the-uninsured-population/</u>

¹⁵⁶ Child Trends Databank. (2016). Health care coverage: Indicators on children and youth. *Health Care Coverage, 2016.* Retrieved from http://www.childtrends.org/wp-content/uploads/2016/05/26 Health Care Coverage.pdf

¹⁵⁷ Hoffman, S.D., & Maynard, R.A. (Eds.). (2008). *Kids having kids: Economic costs and social consequences of teen pregnancy (2nd ed.).* Washington, DC: Urban Institute Press.

¹⁵⁸ Centers for Disease control and Prevention. (n.d.). *Teen Pregnancy. About Teen Pregnancy*. Retrieved from <u>http://www.cdc.gov/teenpregnancy/aboutteenpreg.htm</u>

¹⁵⁹ Diaz, C., & Fiel, J. (2016). The effect(s) of teen pregnancy: Reconciling theory, methods, and findings. *Demography*, *53*(1), 85-116. doi: 10.1007/s13524-015-0446-6. Retrieved from http://link.springer.com/article/10.1007/s13524-015-0446-6

¹⁶⁰ Youth.gov. (2016). *Pregnancy prevention: Adverse effects*. Retrieved from <u>http://youth.gov/youth-topics/teen-pregnancy-prevention/adverse-effects-teen-pregnancy</u>

¹⁶¹ Declercq, E., MacDorman, M., Cabral, H., & Stotland, N. (2016). Prepregnancy body mass index and infant mortality in 38 U.S. States, 2012-2013. Obstetrics and *Gynecology*, *127*(2), 279-287. doi: 10.1097/AOG.00000000001241. Retrieved from https://www.ncbi.nlm.nih.gov/pubmed/26942355

¹⁶² Tyrrell, J., Richmond, R., Palmer, T., Feenstra, B., Rangarajan, J., Metrustry, S., ... Freathy, R. (2016). Genetic evidence for causal relationships between maternal obesity-related traits and birth weight. *JAMA 2016, 315*(11), 1129-1140. doi:10.1001/jama.2016.1975. Retrieved from http://jamanetwork.com/journals/jama/fullarticle/2503173

¹⁶³ Mayo Clinic. (n.d.). In-depth: How could obesity affect my baby? *Healthy Lifestyle*, Pregnancy week by week. Retrieved from <u>http://www.mayoclinic.org/healthy-lifestyle/pregnancy-week-by-week/in-depth/pregnancy-and-obesity/art-20044409?pg=2</u> ¹⁶⁴ Arizona Department of Health Sciences. (2015). *Arizona Maternal Child Health Needs Assessment*. Retrieved from <u>http://azdhs.gov/documents/prevention/womens-childrens-health/reports-fact-sheets/title-v/needs-assessment2015.pdf</u>

¹⁶⁵ Healthy People 2020. (n.d.). *Maternal, infant, and child health: Life stages & determinants.* Washington, DC: U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Retrieved from <u>https://www.healthypeople.gov/2020/leading-health-indicators/2020-lhi-topics/Maternal-Infant-and-Child-Health/determinants</u>

¹⁶⁶ Center for Disease Control and Prevention. (2018). *Maternal and infant health: Pregnancy complications*. Retrieved from <u>https://www.cdc.gov/reproductivehealth/maternalinfanthealth/pregnancy-</u> <u>complications.html?CDC AA refVal=https%3A%2F%2Fwww.cdc.gov%2Freproductivehealth%2Fmaternalinfantheal</u> <u>th%2Fpregcomplications.htm</u>

¹⁶⁷ Centers for Disease Control and Prevention. (2006). Recommendations to improve preconception health and health care—United States: A report of the CDC/ATSDR Preconception Care Work Group and the Select Panel on Preconception Care. *MMWR*, *55*(RR-06):1-23.

¹⁶⁸ U.S. Department of Health and Human Service. (2010). *A Report of the Surgeon General: How Tobacco Smoke Causes Disease: What It Means to You*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. Retrieved from https://www.ncbi.nlm.nih.gov/books/NBK53017/

¹⁶⁹ Anderson, T.M., Lavista Ferres, J.M., You Ren, S., Moon, R.Y., Goldstein, R.D., Ramirez, J., Mitchell, E.A. (2019). Maternal smoking before and during pregnancy and the risk of sudden unexpected infant death. *Pediatrics*, *143*(4). PMID: 30848347

¹⁷⁰ Arizona Department of Health Services. (2015). *Arizona Maternal Child Health Needs Assessment*. Retrieved from <u>http://azdhs.gov/documents/prevention/womens-childrens-health/reports-fact-sheets/title-v/needs-assessment2015.pdf</u>

¹⁷¹ Gunn, J., Rosales, C., Center, K., Nunez, A., Gibson, S., Christ, C., & Ehiri, J. (2016). Prenatal exposure to cannabis and maternal and child health outcomes: A systematic review and meta-analysis. *BMJ Open,* 6(4). PMID: 27048634.

¹⁷² Child and Adolescent Health Measurement Initiative. (2018). *National Survey of Children's Health 2016-2017*. Data Resource Center for Child and Adolescent Health supported by the U.S. Department of Health and Human Services, Health Resources and Services Administration (HRSA), Maternal and Child Health Bureau (MCHB). Retrieved from <u>www.childhealthdata.org</u>

¹⁷³ Young, N.K., Boles, S.M., & Otero, C. (2007). Parental Substance Use Disorders and child maltreatment: overlap, gaps, and opportunities. *Child Maltreatment*, *12*(2): 137-149.

¹⁷⁴ Smith, V., & Wilson. R. (2016). Families affected by parental substance use. *Pediatrics, 138*(2). PMID: 27432847 ¹⁷⁵ Ibid

¹⁷⁶ Arizona Department of Health Sciences. (2015). *Arizona Maternal Child Health Needs Assessment*. Retrieved from <u>http://azdhs.gov/documents/prevention/womens-childrens-health/reports-fact-sheets/title-v/needs-assessment2015.pdf</u>

¹⁷⁷ Eidelman, A., Schanler, R., Johnston, M., Landers, S., Noble, L., Szucs, K., & Viehmann, L. (2012). Breastfeeding and the use of human milk. *Pediatrics*, *129(3)*, e827-e841.

¹⁷⁸ Fryar, C., Carroll, M., & Ogden, C. (2018). *Prevalence of Overweight, Obesity, and Severe Obesity Among Children and Adolescents Aged 2-19 Years: United States, 1963-1965 Through 2015-2016.* National Center for Health Statistics: Health E-Stats. Retrieved from

https://www.cdc.gov/nchs/data/hestat/obesity_child_15_16/obesity_child_15_16.pdf

¹⁷⁹ Fryar, C., Carroll, M., & Ogden, C. (2018). *Prevalence of Overweight, Obesity, and Severe Obesity Among Children and Adolescents Aged 2-19 Years: United States, 1963-1965 Through 2015-2016.* National Center for Health Statistics: Health E-Stats. Retrieved from

https://www.cdc.gov/nchs/data/hestat/obesity_child_15_16/obesity_child_15_16.pdf

¹⁸⁰ Chaput, J.P., & Tremblay, A. (2012). *Obesity at an early age and its impact on child development*. Child Obesity: Encyclopedia on Early Childhood Development. Retrieved from http://www.child-encyclopedia.com/sites/default/files/textes-experts/en/789/obesity-at-an-early-age-and-its-impact-on-child-development.pdf

¹⁸¹ Robert Wood Johnson Foundation. (2016). The impact of the first 1,000 days on childhood obesity. *Healthy Eating Research: Building evidence to prevent childhood obesity*. Retrieved from http://healthyeatingresearch.org/wp-content/uploads/2016/03/her 1000 days final-1.pdf

¹⁸² Center on the Developing Child at Harvard University. (2010). *The foundations of lifelong health are built in early childhood*. Retrieved from <u>http://developingchild.harvard.edu/wp-content/uploads/2010/05/Foundations-of-Lifelong-Health.pdf</u>

¹⁸³ Çolak, H., Dülgergil, Ç.T., Dalli, M., & Hamidi, M.M. (2013). Early childhood caries update: A review of causes, diagnoses, and treatments. *Journal of Natural Science, Biology, and Medicine, 4*(1), 29-38. <u>http://doi.org/10.4103/0976-9668.107257</u>

¹⁸⁴ Gupta, N., Vujicic, M., Yarbrough, C., & Harrison, B. (2018). Disparities in untreated caries among children and adults in the US, 2011-2014. *BMC Oral Health*, *18*(1), 30.

¹⁸⁵ First Things First. (2020). Arizona State Needs and Assets Report.

¹⁸⁶ First Things First. (2016). TAKING A BITE OUT OF SCHOOL ABSENCES Children's Oral Health Report 2016. *First Things First*. Retrieved from <u>http://azftf.gov/WhoWeAre/Board/Documents/FTF Oral Health Report 2016.pdf</u>

¹⁸⁷ First Things First. (2019). *Impacting Young Lives Throughout Arizona—2019 Annual Report*. First Things First. Retrieved from <u>https://www.firstthingsfirst.org//wp-content/uploads/2019/09/FY2019 Annual Report.pdf</u>

¹⁸⁸ Arizona Department of Health Sciences. (2015). *Arizona Maternal Child Health Needs Assessment*. Retrieved from <u>http://azdhs.gov/documents/prevention/womens-childrens-health/reports-fact-sheets/title-v/needs-assessment2015.pdf</u>

¹⁸⁹ Miller, G., Coffield, E., Leroy, Z., & Wallin, R. (2016). Prevalence and costs of five chronic conditions in children. *The Journal of School Nursing*, 32(5):357-364.

¹⁹⁰ Zahran, H.S., Bailey, C.M., Damon, S.A., Garbe, P.L., & Breysse, P.N. (2018). Vital Signs: Asthma in Children— United States, 2001-2016. *MMWR Morbidity and Mortality Weekly Report*, *67*(5): 149-155.

¹⁹¹ Brim, S.N., Rudd, R.A., Funk, R.H., & Callahan. (2008). Asthma prevalence among US children in underrepresented minority populations: American Indian/Alaska Native, Chinese, Filipino, and Asian Indian. *Pediatrics*, *122*(1):e217-222.

¹⁹² Perry, R., Braileanu, G., Pasmer, T., & Stevens, P. (2019). The economic burden of pediatric asthma in the United States: Literature review of current evidence. *PharmacoEconomics*, *37*(2): 155-167.

¹⁹³ Arizona Department of Health Services. (2018). *Arizona Injury Data Report 2016*. Retrieved from https://www.azdhs.gov/prevention/womens-childrens-health/reports-fact-sheets/index.php#injury-prevention

¹⁹⁴ Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. (2018). *10 Leading causes of death by age group, United States—2017.* Retrieved from <u>https://www.cdc.gov/injury/wisqars/LeadingCauses.html</u>

¹⁹⁵ Rimsza, M.E., Shackner, R.A., Bowen, K.A., & Marshall, W. (2002). Can child deaths be prevented? The Arizona Child Fatality Review Program experience. *Pediatrics, 110*(1 Pt 1): e11. PMID: 12093992

¹⁹⁶ Danseco, E.R., Miller, T.R., & Spicer, R.S. (2000). Incidence and Cost of 1987-1994 Childhood Injuries: Demographic breakdowns. *Pediatrics*, *105*(2): E27. PMID: 10654987.

¹⁹⁷ Möller, H., Falster, K., Ivers, R., & Jorm, L. (2015). Inequalities in unintentional injuries between indigenous and non-indigenous children: a systematic review. *Injury Prevention*, 21:e144-e152. PMID: 24871959.

¹⁹⁸ Arizona Department of Health Services. (2013). *Arizona Health Status and Vital Statistics 2013 Annual Report. Table 6A: Monitoring Progress Toward Arizona and Selected Healthy People 2020 Objectives: Statewide Trends.* Retrieved from <u>http://www.azdhs.gov/plan/report/ahs/ahs2013/pdf/6a1_10.pdf</u>

¹⁹⁹ Evans, G., & Kim, P. (2013). Childhood poverty, chronic stress, self-regulation, and coping. *Child Development Perspectives*, 7(1), 43-48. Retrieved from <u>http://onlinelibrary.wiley.com/doi/10.1111/cdep.12013/abstract</u>

²⁰⁰ Shonkoff, J.P., & Fisher, P.A. (2013). Rethinking evidence-based practice and two-generation programs to create the future of early childhood policy. *Development and Psychopathology, 25,* 1635-1653. Retrieved from http://journals.cambridge.org/download.php?file=%2FDPP%2FDPP25_4pt2%2FS0954579413000813a.pdf&code=a http://journals.cambridge.org/download.php?file=%2FDPP%2FDPP25_4pt2%2FS0954579413000813a.pdf&code=a http://journals.cambridge.org/download.php?file=%2FDPP%2FDPP25_4pt2%2FS0954579413000813a.pdf&code=a http://journals.cambridge.org/download.php?file=%2FDPP%2FDPP25_4pt2%2FS0954579413000813a.pdf&code=a http://journals.cambridge.org/download.php?file=%2FDPP%2FDPP25_mtml http://journals.cambridge.org/download.php?file=%2FDPP%2FDPP25_mtml http://journals.cambridge.org/download.php?file=%2FDPP%2FDPP25_mtml http://journals.cambridge.org/download.php?file=%2FDP%2FDP9%2FDP35_mtml <a href="http://journals.cambridge.org/download.php?file=%2FD%2fde360 <a href="http://journals.cambridge.org/download.php?file=%2FD%2fde360 <a href="http://journals.cambridge.org/download.php?file=%2FD%2fd360 <a href="http://journals.cambridge.org/download.php?file=%2FD%2fd360 <a href="http://journals.cambridge.org/download.php?file=%2fd360 <a

²⁰¹ Magnuson, K., & Duncan, G. (2013). *Parents in poverty.* In Bornstein, M., Handbook of parenting: Biology and ecology of parenting vol. 4: Social conditions and applied parenting. New Jersey: Lawrence Erlbaum.

²⁰² Center on the Developing Child at Harvard University. (2010). *The foundations of lifelong health are built in early childhood*. Retrieved from <u>http://developingchild.harvard.edu/wp-content/uploads/2010/05/Foundations-of-Lifelong-Health.pdf</u>

²⁰³ Van Voorhis, F., Maier, M., Epstein, J., & Lloyd, C. (2013). The impact of family involvement on the education of children ages 3 to 8: A focus on the literacy and math achievement outcomes and social-emotional skills. *MDRC: Building Knowledge to Improve Social Policy*. Retrieved from

http://www.p2presources.com/uploads/3/2/0/2/32023713/family_outcomes.pdf

²⁰⁴ Browne, C. (2014). The Strengthening Families Approach and Protective Factors Framework: Branching Out and Reaching Deeper. *Center for the Study of Social Policy*. Retrieved from <u>https://cssp.org/wp-content/uploads/2018/11/Branching-Out-and-Reaching-Deeper.pdf</u>

²⁰⁵ Van Voorhis, F., Maier, M., Epstein, J., & Lloyd, C. (2013). The impact of family involvement on the education of children ages 3 to 8: A focus on the literacy and math achievement outcomes and social-emotional skills. *MDRC: Building Knowledge to Improve Social Policy*. Retrieved from

http://www.p2presources.com/uploads/3/2/0/2/32023713/family_outcomes.pdf

²⁰⁶ American Academy of Pediatrics. (n.d.). *Pediatric Professional Resource: Evidence Supporting Early Literacy and Early Learning.* Retrieved from

https://www.aap.org/enus/Documents/booksbuildconnections_evidencesupportingearlyliteracyandearlylearning.pdf

²⁰⁷ Duncan, G.J., Dowsett, C.J., Claessens, A., Magnuson, K., Huston, A.C., Klebanov, P., ... Sexton, H. (2007). School readiness and later achievement. *Developmental Psychology*, *43*(6), 1428.

²⁰⁸ Bernstein, S., West, J., Newsham, R., & Reid, M. (2014). *Kindergartners' skills at school entry: An analysis of the ECLS-K.* Princeton, NJ: Mathematica Policy Research.

²⁰⁹ Hood, M., Conlon, E., & Andrews, G. (2008). Preschool home literacy practices and children's literacy development: A longitudinal analysis. *Journal of Educational Psychology, 100*, 252-271

²¹⁰ Fantuzzo, J., McWayne, C., Perry, M.A., & Childs, S. (2004). Multiple dimensions of family involvement and their relations to behavioral and learning competencies for urban, low-income children. *School Psychology Review, 33*, 467-480.

²¹¹ Peterson, J., Bruce, J., Patel, N., & Chamberlain, L. (2018). Parental attitudes, behaviors, and barriers to school readiness among parents of low-income Latino children. *International Journal of Environmental Research and Public Health*, *15*(2), 188.

²¹² Reach Out and Read. (n.d.). *Programs Near You*. Retrieved from <u>http://www.reachoutandread.org/resource-center/find-aprogram/</u>

²¹³ Centers for Disease Control and Prevention. (n.d.). *Division of Violence Prevention: About adverse childhood experiences*. Retrieved from <u>https://www.cdc.gov/violenceprevention/acestudy/about_ace.html</u>

²¹⁴ Bethell, C., Jones, J., Gombojav, N., Linkenbach, J., & Sege, R. (2019). Positive childhood experiences and adult mental and relational health in a statewide sample: Associations across adverse childhood experiences levels. *JAMA pediatrics*, *173*(11), e193007-e193007.

²¹⁵ U.S. Department of Health & Human Services, Administration for Children & Families, Children's Bureau. (2019). *Child Welfare Outcomes Report Data for Arizona*. Retrieved from <u>https://cwoutcomes.acf.hhs.gov/cwodatasite/childrenReports/index</u>

²¹⁶ Hughes, K., Bellis, M.A., Hardcastle, K.A., Sethi, D., Butchart, A., Mikton, C., ... Dunne, M.P. (2017). The effect of multiple adverse childhood experiences on health: a systematic review and meta-analysis. *The Lancet Public Health*, *2*(8), e356-e366.

²¹⁷ Keating, K., Daily, S., Cole, P., Murphey, D., Pina, G., Ryberg, R., Moron, L., & Laurore, J. (2019). *State of Babies Yearbook: 2019*. Washington, DC: ZERO TO THREE and Bethesda MD: Child Trends.

²¹⁸ Centers for Disease Control and Prevention. (n.d.). *Preventing child abuse & neglect*. Retrieved from <u>https://www.cdc.gov/violenceprevention/childabuseandneglect/fastfact.html</u>

²¹⁹ Zero to Three Infant Mental Health Taskforce Steering Committee, 2001.

²²⁰ Healthy People 2020. (n.d.). *Maternal, infant, and child health: Life stages and determinants*. Retrieved from <u>https://www.healthypeople.gov/2020/leading-health-indicators/2020-lhi-topics/Maternal-Infant-and-Child-Health/determinants</u>

²²¹ Starks, R.R., Smith, A.T., Jäger, M.B., Jorgensen, M., & Cornell, S. (2016). *Tribal Child Welfare Codes as Sovereignty in Action: A Guide for Tribal Leaders*. Prepared for 2016 NICWA Annual Conference. Tucson, AZ: Native Nations Institute, and Portland, OR: National Indian Child Welfare Association. Retrieved 28 Aug. 2019 from http://nni.arizona.edu/application/files/9214/7042/9035/2016 child welfare nicwa conference paper final.pdf

²²² Turney, K., & Wildeman, C. (2016). Mental and physical health of children in foster care. *Pediatrics, 138*(5), e20161118.

223 Ibid