井 FIRST THINGS FIRST

Yuma Region

2022

NEEDS AND ASSETS

YUMA REGIONAL PARTNERSHIP COUNCIL 2022 NEEDS AND ASSETS REPORT

Funded by the

First Things First Yuma Regional Partnership Council

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

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

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

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

ACKNOWLEDGEMENTS

The First Things First Yuma Regional Partnership Council wishes to thank all of the federal, state and local partners whose contributions of data, ongoing support and partnership with First Things First made this report possible. These partners included the Arizona Departments of Administration (Employment and Population Statistics), Child Safety, Economic Security, Education, and Health Services; the Arizona Health Care Cost Containment System; Child Care Resource and Referral; and the U.S. Census Bureau. Local partners include: Arizona's Children Association, all school districts in Yuma County, Arizona PBS Educational Outreach, Arizona Western College, Campesinos Sin Fronteras, Chicanos Por la Causa Head Start, Child and Family Resources, Easter Seals Blake Foundation, Marine Corps Air Station Yuma, Reach Out and Read Arizona-Yuma, Read on Yuma, Regional Center for Border Health, Sunset Community Health Center, The University of Arizona Cooperative Extension, Western Arizona Council of Governments Head Start, Yuma County AzAEYC, Yuma County Superintendent's office, Yuma County Public Health Services District, Yuma Regional Medical Center, Yuma County Chamber of Commerce, Yuma County libraries, Yuma Sun, and members of the Yuma County Early Childhood

Collaborative. We are especially grateful for the spirit of collaboration exhibited by all our partners during an unprecedented time of crisis for our state and our nation.

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

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

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EXECUTIVE SUMMARY

The Yuma Region. The First Things First Yuma Region is defined as Yuma County, minus the land belonging to the Cocopah Tribe. The region does include the Arizona portion of the land belonging to the Fort Yuma Quechan Indian Tribe. There are three subregions: Central (the city of Yuma, Fortuna Foothills and nearby places), East (from Wellton to Dateland, along Interstate 8), and South (primarily San Luis, Somerton and Gadsden).

Population Characteristics. According to the 2010 Census, the Yuma Region was home to 17,983 children under the age of 6, and 20% of households in the region had at least one child in that age range. From 2014 to 2019, the number of babies born in the region each calendar year decreased slightly, from 3,048 to 2,939.

The Yuma Region has relatively more Hispanic persons (64%) than the state of Arizona as a whole (31%), and relatively more Hispanic children under 5 (79%) than across the state (45%). Many children in the region have foreign-born parents (39%), with a high of 65% in the South sub-region and a low of 27% in the Central sub-region. Although Spanish is the language spoken in the home for a majority of the region's population (52%), the proportion of households in which no one reports speaking English very well is low (10%). Across sub-regions, these rates vary; in the South sub-region 85% of the population speak Spanish in the home and 24% of households have no one who speaks English very well. In addition, 29% of students in kindergarten through third grade in the region are classified as English language learners.

An estimated 59% of the region's children under 6 live with two parents, while more than one-third (38%) live with a single parent. The proportion living with a single parent is lowest in the East sub-region (10%).

Economic Circumstances. Families in Yuma County have a lower median income (\$50,300 per year) than families statewide (\$70,200), and single-parent families fare worse with the median income of single-male-headed households at \$31,700 and single-female-headed households at \$20,200. An estimated 19% of the population—and 29% of children under 6 years old—live in povertyⁱ in the Yuma Region.

During the COVID-19 pandemic, many families faced additional economic hardships. In Arizona, the number of families receiving Temporary Assistance for Needy Families (TANF) benefits increased 35% from February to July of 2020. There was, however, no corresponding increase in Yuma County; the number of households participating decreased from 470 in 2016 to 334 in 2020 and the number of children participating decreased from 340 to 247 during the same period.

ⁱ In 2019, the poverty threshold for a family of two adults and two children was \$25,926; for a single parent with one child, it was \$17,622

The Supplemental Nutrition Assistance Program (SNAP) is a resource to help families facing food insecurity. Although the percentage of the region's children who participate in SNAP has declined each year since 2016, half (50%) of the children under 6 in the region participated in the 2020 state fiscal year (July 2019 through June 2020). Families with the youngest children in the Yuma Region did not take full advantage of Pandemic EBT (a resource for those enrolled in SNAP) however, with the majority of children receiving those benefits over the age of 5.

Unemployment rates are higher in Yuma County than in the state or the nation, however, the COVID-19 pandemic resulted in a large increase in Arizona's annual unemployment rate (from 4.9% in 2019 to 7.9% in 2020) but only a small increase in Yuma County's (from 16.8% to 17.1%). Monthly unemployment statistics show that unemployment in Yuma County was lower in late 2020 and early 2021 than it had been before the pandemic. Not surprisingly, unemployment claims jumped substantially, from 301 before March 2020, to 7,130 in April 2020, falling back to near pre-pandemic levels by November 2020.

Prior to the pandemic, based on American Community Survey (ACS) 2015-2019 estimates, 41% of renter-occupied housing units—and 23% of owner-occupied units—were paying 30% or more of their income on housing, more than recommended to be affordable. Also prior to the pandemic, 86% of households in the region had either a computer or a smartphone, resources which would become essential for distance learning and work after the pandemic began.

Educational Indicators. In the Yuma Region, during the 2019-20 school year, enrollment in public and charter kindergarten through third grade was approximately 2,800 students per grade, with an additional 526 children enrolled in preschool. When the region's third grade students took the AzMERIT achievement assessments in the 2018-19 school year, just over one-third (38%) received passing scores on English Language Arts (ELA) and 46% had passing scores on Math. Statewide, 46% and 51% of third-graders received passing scores on ELA and Math, respectively.

At the high-school level, students in public and charter schools in the Yuma Region have higher graduation rates (88% for the 2019 cohort) than the state as a whole (79%).

For the general population over the age of 25 in the region, the ACS estimates that 27% have less than a high-school education, 26% graduated high school or received a GED but did not go farther, and 48% have some education beyond high school. Statewide, 13% did not finish high school and 63% have more than a high-school education. Among mothers giving birth in the region during calendar year 2019, 22% had not finished high school and 47% had some education beyond high school. Statewide, relatively fewer mothers (16%) had not finished high school and relatively more (57%) had more than a high-school education.

Early Learning. The ACS estimates that 38% of the 3- and 4-year-olds in the region are enrolled in some sort of preschool, kindergarten, or nursery school, with a markedly lower proportion (20%) in the South sub-region. Of the 118 child care providers in the region, 24 have a Quality First rating of three or more stars or have been accredited by a national organization. The loss of Preschool Development Grant

funding in 2020 likely impacted the 581 full-time and 18 part-time slots that had been made available through that funding. Placing additional strains on early learning providers in the region, during the month of December 2020, more than one-third of the region's providers (41) were closed because of the COVID-19 pandemic. Providers who remained open faced higher operating expenses related to cleaning protocols and staffing issues.

The most recent survey of child care providers, which took place in 2018, reported that the median monthly cost of child care in a licensed center in the region was \$660 for an infant, \$540 for a toddler, and \$500 for a three- to five-year-old. These costs are approximately 30% to 40% less than the statewide medians, however, families in Yuma County are paying a similar proportion (12-16%, depending on the child's age) of their overall income for a child care slot as other families statewide. For low-income families, Department of Economic Security (DES) subsidiesⁱⁱ help make child care more affordable and in 2019, 743 young children in the Yuma Region received a subsidy, an increase from the previous year when only 582 children received these subsidies.

The number of young children referred to the Arizona Early Intervention Program (AZEIP) in the Yuma Region dropped substantially from 462 in 2019 to 337 in 2020, likely a result of constraints of the COVID-19 pandemic. The number of children referred and found eligible also decreased, but only slightly, from 154 to 143, resulting in an increased proportion of young children referred to AZEIP being determined eligible for services (2019, 33%; 2020, 42%). Overall, there was also a decline in the number of young children receiving Division of Developmental Disabilities (DDD) services between 2017 and 2020 (-38%) across the Yuma Region and all sub-regions. Patterns for school aged children (ages 3-5) differ: data from the Arizona Department of Education (ADE) show that the number of young children with special needs receiving services from local education agencies (LEAs) in the region increased 40% since the 2017-18 school year, with 310 children receiving services in 2019-20, a much higher increase than seen across the state as a whole (4%). In the Yuma Region, these children received services for developmental delays (43%), speech or language impediments (32%), preschool severe delay (22%), and other disabilities (4%). In addition, there were 1,092 older children enrolled in special education in the region's schools, from kindergarten through third grade.

Child Health. Not having health insurance is a barrier to quality, consistent medical care. An estimated 6% of children under 6 years old in the Yuma Region lack health insurance coverage; in the South subregion, this proportion is higher at 11%.

For births in the region in 2019, 14% were to mothers with fewer than the recommended five prenatal visits and 6% were to mothers with no prenatal care at all. Both of these percentages are greater than the statewide averages of 8% and 3%. Other maternal characteristics that may affect newborns' health are pre-pregnancy obesity (35% in the region; 30% statewide) and tobacco use during pregnancy (2.1% in

ⁱⁱ DES child care subsidy amounts vary based on a number of factors including the age of the child, the type of provider and the quality status of the provider. For more information please see the current DES reimbursement rates for child care at https://des.az.gov/sites/default/files/dl/CCA-1227A_1.pdf?time=1646262773961

the region; 4.3% statewide). The incidence of low birthweight and preterm delivery were relatively less frequent in the Yuma Region (6.3% and 8.7%), compared to the entire state (7.4% and 9.3%). In both the region and the state, about 8% of babies were admitted to a Neonatal Intensive Care Unit (NICU) shortly after birth.

Although it is likely that the pandemic has caused many children to miss or delay their scheduled immunizations, the Yuma Region has good vaccination compliance. Fewer than 1% of children in child care or in kindergarten have exemptions from all required vaccines, compared to more than 3% of children statewide, in the 2019-20 school year.

The 2019 infant mortality rate in the region (6.8 deaths per thousand live births) is higher than the rate across the state (5.4 per thousand), and higher than the Healthy People 2020 target of 6 per thousand.

Family Support and Literacy. Undoubtedly the COVID-19 pandemic has led to increased stress, anxiety and depression in adults, especially those who are caretakers. National data suggest that alcohol and other substance use increased substantially during the early weeks of the pandemic. However, in Yuma County, the number of non-fatal overdoses involving opioids or opiates increased substantially between 2017 and 2019, then had a sharp decrease into 2020, a pattern inconsistent with what was seen across the state. Showing a similar decrease, the number of children birth to age 5 removed from their homes in the region decreased from 19 in state fiscal year 2019 to 14 the following fiscal year.

Family-based literacy programs in the Yuma Region include the Yuma Early Literacy Project, a program of Arizona PBS and Arizona State University, and Reach Out and Read Yuma, which operates through doctors' offices and other medical-care settings.

ABOUT THIS REPORT

The data in this report come from a variety of sources including federal and state agencies and local agencies or service providers. Federal government sources include publicly available data from the 2010 Census and the 2015-2019 American Community Survey (ACS) 5-Year Estimates. Because the 2010 Census is now a decade old, it is used minimally in this report.ⁱⁱⁱ For example, children who were under 6 years old in 2010 are now between 11 and 16 years old. The Census Bureau expects to release detailed tables from the 2020 Census later in 2022.¹ Data in this report from the ACS summarize the responses from samples of residents taken between 2015 and 2019, which is notably before the COVID-19 pandemic began. Because these estimates are based on samples rather than the full population, ACS data should not be considered exact. Estimates for smaller geographies, such as subregions, are less accurate than estimates for larger geographies, such as the county or state, because they are based on smaller sample sizes. Estimates which are based on very few respondents (fewer than 50) will not be included in the data tables in this report.

Data were provided to First Things First (FTF) by state agencies including the Arizona Department of Health Services (ADHS), the Arizona Department of Education (ADE), the Arizona Department of Economic Security (DES), and the Arizona Department of Child Safety (DCS). In most cases, the data in this report were calculated especially for the Needs & Assets process and are more detailed than the data that are published by these agencies for the general public. Whenever possible, this report will use data tailored to the region and sometimes subregions, but in some cases, there are only county-level or statewide data available to report. This report also includes publicly available data for the state and counties from state agencies such as the Arizona Department of Commerce's Office of Economic Opportunity (OEO) and DCS semi-annual child welfare reports to supplement data received through specific requests.

Additionally, this report includes local quantitative and qualitative data collected from the Western Arizona Council of Governments (W.A.C.O.G.) and Chicanos Por La Causa. Regional Partnership Council members and other local stakeholders participated in a facilitated data discussion on September 16, 2021 which allowed them to share their local knowledge and perspective in interpreting the data collected. Perspectives and feedback from participating session members are included as key informant perspectives within this report. The Data Interpretation Session paid special interest to the region's priority areas:

- 1. Early education
- 2. Children with special needs.

Additional information and data are included on these topics as possible.

ii Only Table 1 ("Population and households") and Figure 2 ("Share of children birth to 5 by sub-region") use 2010 Census data.

In most tables in this report, the top rows of data correspond to the FTF Yuma Region and defined subregions. Not all data are available at the FTF regional level because not all data sources analyze their data based on FTF regional boundaries. The last table rows present data that are useful for comparison purposes, including Yuma County, the state of Arizona, and national estimates or targets where available. Data tables and graphs are as complete as possible. Data which are not available for a particular geography are indicated by the abbreviation "N/A." State agencies have varying policies about reporting small values. Entries such as "<10" or "<11" are used when the count is too small to be reported and has been suppressed to protect privacy. In some cases, table entries will indicate a range of values such as "[11 to 27]" because the suppression policy prevented the vendor from knowing the exact value, but comparison of these ranges of possible values to other values in the table or figure may still be useful. Table entries of "DS" indicate that data have been suppressed and we are unable to provide a useful range of possible values.

THE YUMA REGION

The First Things First regional boundaries were initially established in 2007, creating 31 regions which were designed to (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, and facilitate the ability to convene a Regional Partnership Council; and (d) allow for the collection of demographic and indicator data. The regional boundaries are reviewed every two years. In state fiscal year 2015, the boundaries were modified using census blocks, creating 28 regions. This report uses the 2015 definition of the regional boundaries.

The First Things First Yuma Region lies in the southwest corner of Arizona, bordering Mexico and California. The Yuma Region has the same boundaries as Yuma County minus the Cocopah Tribe reservation lands (which are included in the First Things First Cocopah Tribe Region). The region does include the Arizona portion of the land belonging to the Fort Yuma Quechan Indian Tribe. In this report, data reported for the Yuma Region do not include the Cocopah Indian Reservation, but data reported for Yuma County do include the Cocopah Reservation.

The Yuma Region covers about 5,500 square miles and had a population of 194,934 in the 2010 U. S. Census. The local economy is primarily based on farming, cattle, tourism, and two military bases. The Yuma Proving Ground and the Barry M Goldwater West Range are large, uninhabited areas within the Yuma Region. A small portion of the Fort Yuma-Quechan Reservation is located within the Yuma Region, near the city of Yuma. The larger, more populated part of the reservation lies across the Colorado River in California.

Because communities may vary in terms of needs and assets, this report will present data at a subregional level whenever possible, in order to provide a more detailed picture of the region. Dividing the region in sub-regions helps the Regional Partnership Council target strategies to use resources effectively and efficiently. Three sub-regions within the Yuma Region have been identified by the Regional Partnership Council and Director:

The **Central** sub-region is, by population, the largest of the three. This sub-region includes the city of Yuma, and stretches east as far as Fortuna Foothills, and as far north as Martinez Lake. Other unincorporated places within this sub-region include Buckshot, Donovan Estates, Drysdale, El Prado Estates, Padre Ranchitos and Wall Lane. There are 41 census tracts in this sub-region (numbered 1 through 111, plus 117 and 9800.06). The northern section of the Cocopah Reservation lies in Census Tract 110 and is assigned to the First Things First Cocopah Tribe Region.

The **East** sub-region is defined as the three census tracts (112.01, 112.02 and 121) in the eastern part of the county, east of the Gila Mountains. This sub-region includes the town of Wellton and several unincorporated places: Wellton Hills, Roll, Tacna, Dateland and Aztec. The East is the most lightly populated of the three subregions.

The **South** sub-region is defined as the nine census tracts (114.03, 114.05, 114.06, 115.01, 115.03, 115.04, 116, 118 and 9800.05) which lie south of County 14th Street. This sub-region includes the cities of San Luis and Somerton and the unincorporated places of Gadsden, Rancho Mesa Verde and Orange Grove Mobile Manor. Census Tract 115.01 also includes the eastern and western sections of the Cocopah Reservation (which are part of the Cocopah Tribe Region).

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



Figure 1. The First Things First Yuma Region and its subregions

Source: 2010 TIGER/Line Shapefiles prepared by the U.S. Census. Map produced by CRED.



POPULATION CHARACTERISTICS

POPULATION CHARACTERISTICS

Why It Matters

Families with young children often utilize community resources such as early education, health care facilities and social services to help their children thrive.^{2,3,4,5,6} Accurate and up-to-date information about the characteristics of families is critical for ensuring policy makers and program providers can determine what resources are needed in their regions, including where these services should be located and how to tailor offerings to the specific needs of those who are likely to use them. Having reliable access to child care, health care and social services has been shown to improve children's health and educational outcomes.^{7,8,9,10} As Arizona communities become increasingly diverse, providers need access to relevant demographic data to ensure they engage with families in culturally responsive ways.^{11,12,13}

In addition to growing racial, ethnic and social diversity, U.S. and Arizona families are becoming more diverse in terms of family structure.¹⁴ Many children live in single-parent households, and it is increasingly common for children to live in kinship care (care of children by someone other than their parents, such as relatives or close friends).^{15,16} Multi-generational households, particularly where grandparents live in the home with children and parents, are common in some communities and cultures and can provide financial and social benefits.¹⁷ As family structure changes, so can family strengths and challenges that impact child development, such as poverty, access to health and education resources and the quality of a child's interactions with adult caregivers.^{18,19,20,21} Regardless of their family structure, all young children benefit from nurturing relationships with adults. Research has identified that these early relationships are a primary influence on brain development.²² Ensuring that children have adult caregivers who consistently engage in high quality interactions beginning in infancy can help protect young children from negative effects of stress and adversity and builds a foundation in the brain for all of the learning, behavior and health that follow.^{23,24}

Program and policy decisions that are informed by data on the structure and stability of children's home and community environments help ensure more effective supports for families and have a greater chance to improve well-being, economic security and educational outcomes for children.

What the Data Tell Us

Population, race and ethnicity

According to the 2010 U.S. Census, the Yuma Region had a population of 194,934, of whom 17,983 were children under the age of 6 (Table 1). One out of every five households (20%) in the Yuma Region has at least one child under 6 years old, slightly higher than across the state as a whole (16%). The largest concentration of these families in the region is in the South sub-region, where 32% of households have a young child, followed by the Central (18%) and East (12%) sub-regions. Numerically, the

Central sub-region has the largest share of young children across the three sub-regions (68%), with the East sub-region having the lowest share (3%) (Figure 2).

Geography	Total population	Population (ages 0-5)	Total number of households	Number a households wit child	and percent of h one or more Iren (ages 0-5)
Yuma Region	194,934	17,983	64,455	12,951	20%
Central subregion	138,632	12,238	49,859	8,837	18%
East subregion	7,184	487	2,803	349	12%
South subregion	49,118	5,258	11,793	3,765	32%
Yuma County	195,751	18,048	64,767	12,998	20%
Arizona	6,392,017	546,609	2,380,990	384,441	16%
United States	308,745,538	24,258,220	116,716,292	17,613,638	15%

Table 1. Population and households in the 2010 U.S. Census

Source: U.S. Census Bureau. (2010). 2010 Decennial Census, Summary File 1, Tables P1, P14, & P20

Note: The total population of Arizona in the 2020 Decennial Census is 7,151,502, which is a 12 percent increase.





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

Over the past six years, about 2% fewer babies were born in Arizona each year compared to the previous year. This decrease in natality in Arizona mirrors a trend in the U.S., where between 1 and 2% fewer

babies were born each year in the same time period.²⁵ The decrease in the Yuma Region has been smaller, with a drop of less than 4% overall between 2014 and 2019, and with a non-linear trajectory, with an increase in births between 2017 and 2018 (Figure 3). Decreases were similar by sub-region, varying between 1% and 2% between the periods 2014-2016 and 2017-2019 (Figure 4).



Figure 3. Number of babies born, 2014 to 2019

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



Figure 4. Number of babies born by sub-region, 2014-2016 to 2017-2019

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

According to the American Community Survey (ACS) five-year averages, 64% of the Yuma Region's population identifies as Hispanic or Latino, compared to 31% across the state as a whole (Figure 5). Just under one-third of the region (31%) identify as non-Hispanic White compared to 55% across the state, with smaller fractions in the region identifying their race as Black (2%), American Indian or Alaska Native (1%), Asian or Pacific Islander (1%), or multi-racial (3%). Across sub-regions, the South sub-region had the largest share of the population identified as Hispanic or Latino (92%), followed by the Central sub-region (54%) and East sub-region (48%) (Figure 6).



Figure 5. Race and ethnicity of the population of all ages, 2015-2019 ACS

Source: U.S. Census Bureau. (2021). American Community Survey five-year estimates 2015-2019, Tables B01001, B01001b, B01001c, B01001d, B01001e, B01001g, B01001h, & B01001i

Note: The six percentages shown in this figure may sum to more or less than 100% because (a) persons reporting Hispanic ethnicity are counted twice if their race is Black, American Indian, Asian, Pacific Islander, or any combination of two or more races, (b) persons reporting any other race are not counted here unless they have Hispanic ethnicity, and (c) rounding.





Source: U.S. Census Bureau. (2021). American Community Survey five-year estimates 2015-2019, Tables B01001, B01001b, B01001c, B01001b, B01001b, & B01001i

According to ACS five-year estimates, almost eight in 10 young children in the Yuma Region (79%) are identified as Hispanic or Latino and another 17% are identified as non-Hispanic White (Figure 7). The percentage of Latino children in the Yuma Region (79%) is considerably higher than that across the state of Arizona as a whole (45%). Looking across sub-regions, the South sub-region had the largest share of young children identified as Hispanic or Latino (96%), followed by the Central (71%) and East (49%) sub-regions (Figure 8). The Central sub-region had the largest difference in the share of young children identified as Hispanic or Latino (71%) compared to the all age population (54%). Differences in share of young children and all age population identified as Hispanic or Latino were much smaller in the East (49% vs 48%) and South (96% vs 92%) sub-region.



Figure 7. Race and ethnicity for children birth to 4, 2015-2019 ACS

Source: U.S. Census Bureau. (2021). American Community Survey five-year estimates 2015-2019, Tables B01001, B01001b, B01001c, B01001d, B01001e, B01001g, B01001h, & B01001i

Note: The six percentages shown in this figure may sum to more or less than 100% because (a) persons reporting Hispanic ethnicity are counted twice if their race is Black, American Indian, Asian, Pacific Islander, or any combination of two or more races, (b) persons reporting any other race are not counted here unless they have Hispanic ethnicity, and (c) rounding.



Figure 8. Share of children birth to 4 who are Hispanic or Latino, 2015-2019 ACS

Source: U.S. Census Bureau. (2021). American Community Survey five-year estimates 2015-2019, Tables B01001, B01001b, B01001c, B01001d, B01001e, B01001g, B01001h, & B01001i

Families and language use

A growing number of children nationwide live in a family where one or both of their parents is foreignborn.²⁶ Despite the fact that the vast majority of these young children are citizens,²⁷ changes in national immigration policy have led some immigrant families to avoid using social services for which they and their children are legally qualified due to fear of deportation or risking their legal status in the country.^{28,29,30} This can put immigrant families at risk of reduced access to medical care and increased food insecurity, which can lead to long-term impacts on health and educational attainment, as well as community-level economic impacts.^{31,32,33,34} In addition, during the COVID-19 pandemic, immigrants have been more likely to work in frontline positions and experience job loss, increasing their risk of COVID-19 exposure and creating additional barriers to testing and treatment with the loss of employersponsored health insurance.³⁵

About four in 10 young children (39%) in the Yuma Region live with one or two parents who are foreign-born, higher than across the state as a whole (25%) (Figure 9). Note these parents may or may not have become naturalized citizens or permanent residents. The South sub-region has the highest proportion of children under the age of 6 living with foreign-born parents (65%), followed by the East (41%) and Central (27%) sub-regions.



Figure 9. Children ages birth to 5 living with parents who are foreign-born, 2015-2019 ACS

Source: U.S. Census Bureau. (2021). American Community Survey five-year estimates 2015-2019, Table B05009 Note: The term "parent" here includes step-parents.

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.^{36,37,38,39} The ACS estimates that a majority of residents in the Yuma Region (52%) speak Spanish at home, compared to just 20% across the state (Figure 10). Just under half (47%) of residents in the region speak only English at home, lower than the nearly three-quarters (73%) across the state as a whole. Across sub-regions, the South sub-region had the highest proportion of the population ages 5 and older speaking Spanish at home (85%), followed by the Central (40%) and East (37%) sub-regions.



Figure 10. Language spoken at home (by persons ages 5 and older), 2015-2019 ACS

Speak only English at home Speak Spanish at home Speak languages other than English or Spanish at home

Source: U.S. Census Bureau. (2021). American Community Survey five-year estimates 2015-2019, Table C16001

Note: The three percentages in each row may not sum to 100% because of rounding. The American Community Survey (ACS) no longer specifies the proportion of the population who speak Native North American languages for geographies smaller than the state. In Arizona, Navajo and other Native American languages (including Apache, Hopi, and O'odham) are the most commonly spoken (2%), following English (73%) and Spanish (20%).

Households with multiple languages spoken pose a unique balance of benefits for child learning and barriers to caregiver engagement (e.g., when interacting with schools or health care providers⁴⁰). Acknowledging and valuing linguistic heritage and recognizing needs for resources and services in languages other than English remain important considerations for organizations and agencies across Arizona.

The ACS estimates that 33% of those in the Yuma Region and 19% of Arizonans speak a language other than English at home and speak English "very well,"^{iv} meaning they are proficiently bi- or multi-lingual. Those in the South sub-region have even higher levels with 47% reporting speaking a language other than English in the home and speaking English very well (Figure 11).

In addition to those who are multi-lingual, one in five in the Yuma Region (20%) and about 9% of Arizona residents speak a language other than English at home and do not consider themselves as speaking English "very well." The South sub-region also has the highest proportion with this language

^{iv} "Very well" refers to the self-rated ability to speak English in response to the American Community Survey question "How well does this person speak English?". Other response options include: "well," "not well" and "not at all." See <u>https://www.census.gov/topics/population/language-use/about.html</u>

pattern (38%) of the three sub-regions in the Yuma Region. Parents and caregivers with limited English proficiency may experience barriers to accessing health care and social services, as well as barriers to engaging in important interactions at their children's schools; these barriers can affect a family's ability to promote positive child development. The availability of bi- or multi-lingual staff and resources can help support these families.^{41,42}





Ten percent of households in the region and 4% across the state are identified as "limited-Englishspeaking," which means that no adult or teenager in the household speaks English very well (Figure 12). Similar to other language patterns discussed above, the South sub-region has the highest proportion of limited-English speaking households (24%) of the three sub-regions.

Source: U.S. Census Bureau. (2021). American Community Survey five-year estimates 2015-2019, Table C16001 Note: The three percentages in the figure should sum to 100%, but may not because of rounding.





Source: U.S. Census Bureau. (2021). American Community Survey five-year estimates 2015-2019, Table C16002 Note: A "limited-English-speaking" household is one in which no one over the age of 13 speaks English very well.

The number of English language learners enrolled in kindergarten to 3rd grade has increased in the region between the 2017-18 and 2019-20 school years (Table 2). During the 2019-20 school year, 29% of kindergarten to third grade students were English language learners in Yuma Region schools, with the Gadsden Elementary District (58%), Harvest Community Development Group, Inc. (54%) and Somerton Elementary District (40%) having the largest percentage of English language learners enrolled (Figure 13).

Table 2. Number	of English Language	e Learners	enrolled ir	n kindergarten to	3rd grade,	2017-18
to 2019-20						

Geography	K-3 English Language Learners, 2017-18	K-3 English Language Learners, 2018-19	K-3 English Language Learners, 2019-20
Yuma Region Schools	3,076	3,202	3,210
Yuma County Schools	3,103	3,234	3,210
Arizona Schools	37,144	35,025	37,313

Source: Arizona Department of Education (2021). [Oct 1 Enrollment Dataset]. Custom tabulation of unpublished data by the UArizona CRED Team.

Note: English Language Learners are students who do not score 'proficient' in the English language based on the Arizona English Language Learning Assessment (AZELLA) and thus are eligible for additional supportive services for English language acquisition.

Figure 13. Percent of kindergarten to 3rd grade students who were English Language Learners, 2019-20



Source: Arizona Department of Education (2021). [Oct 1 Enrollment Dataset]. Custom tabulation of unpublished data by the UArizona CRED Team.

Note: English Language Learners are students who do not score 'proficient' in the English language based on the Arizona English Language Learning Assessment (AZELLA) and thus are eligible for additional supportive services for English language acquisition.

Family and household composition

An estimated three-fifths (59%) of the children under 6 in the Yuma Region and Arizona live with two parents (or a parent and a step-parent) and the majority of the rest (Yuma Region 38%; Arizona 37%) live with a single parent (Table 3). Far fewer live with relatives other than parents (such as grandparents, uncles and aunts), or in the household of an unrelated person (such as a foster parent) (Yuma Region 2% for both, Arizona 3% and 2%). The East sub-region had the largest share of young children living with two parents (85%) or with non-relatives (6%) of the three sub-regions.

With the move to remote learning during the pandemic, parents and caregivers took on the challenging role of assisting with children's online learning. The burden was particularly taxing for single-parent households, with more than three-quarters (78%) of single parents surveyed nationally managing children's online learning. Single-parent households were more likely to experience unemployment, food insecurity, difficulty paying for housing and utilities and heightened behavioral difficulties in children during the pandemic. ^{43,44,45} Single-parent households were also more likely to rely upon grandparents to take on primary caregiving (37%) and support of children's remote learning (20%) compared to the overall population (26% and 11%, respectively).⁴⁶ With nearly four in 10 young children in the Yuma Region living with a single parent, these families have likely faced these added demands.

Geography	Estimated number of children (birth to 5 years old) living in households	Living with two married parents	Living with one parent	Living not with parents but with other relatives	Living with non- relatives
Yuma Region	17,469	59%	38%	2%	2%
Central subregion	11,513	59%	38%	1%	1%
East subregion	500	85%	10%	0%	6%
South subregion	5,456	55%	40%	2%	3%
Yuma County	17,556	59%	38%	2%	2%
Arizona	517,483	59%	37%	3%	2%
United States	23,640,563	63%	33%	2%	2%

Table 3. Living arrangements for children ages birth to 5, 2015-2019 ACS

Source: U.S. Census Bureau. (2021). American Community Survey five-year estimates 2015-2019, Tables B05009, B09001, & B17001

Note: The four percentages in each row should sum to 100%, but may not because of rounding. The term "parent" here includes stepparents. Please note that due to the way the ACS asks about family relationships, children living with two unmarried, cohabitating parents are not counted as living with two parents (these children are counted in the 'one parent' category).

The ACS estimates that 18% of young children in the Yuma Region and 13% across Arizona live in their grandparent's household (Figure 14). Note that the grandparent may or may not be responsible for raising the child, and that the child's parent(s) may or may not also be living in the household. Across sub-regions, the South sub-region has the highest percentage of children aged birth to 5 living in a grandparent's household (30%), followed by the East (19%) and Central (12%) sub-regions.





Source: U.S. Census Bureau. (2021). American Community Survey five-year estimates 2015-2019, Tables B10001 & B27001 Note: This table includes all children (under six years old) living in a household headed by a grandparent, regardless of whether the grandparent is responsible for them, or whether the child's parent lives in the same household.

Understanding the circumstances of grandparents caring for their grandchildren is critical to providing services in a way that will meet the unique needs of grandparent-led families. Although multigenerational households can enhance family bonds and provide additional financial and caregiving resources, children's risk of living in poverty is higher for those living with grandparents and grandparents often encounter multiple barriers when accessing public assistance as caregivers and face unique psychological and physical stressors. ^{47,48,49,50} Grandparents with limited English proficiency who are their grandchildren's primary care provider may experience barriers to accessing health care and social services for their grandchildren, as well as barriers to engaging in important interactions at schools.

Grandparents who care for their grandchildren may require targeted outreach and information about resources, support services, benefits and policies available to aid in their caregiving role.⁵¹ Grandparents in multigenerational households are also at heightened risk of COVID-19 infection, especially those living with essential workers.⁵² Given that the risk for severe illness from COVID-19 increases with age,⁵³ targeted supports for multigenerational households will be important for preventing continued spread of the disease.

An estimated 2,374 grandparents in the region are responsible for raising one or more grandchildren (up to age 17) who live with them (Table 4). Of these grandparents, 63% are female, 42% are in their sixties or older, 32% are in poverty, and 48% are not proficient English speakers. These grandparents in the region are more likely to live in poverty (32%) than those across the state (22%) and are more likely to not speak English very well (48%) compared to those across Arizona (21%). Almost one-third of these grandparents (29%) also do not have the child's parent(s) living in the household (Figure 15).

Interesting differences in these households are also seen by sub-region. Grandparents who are responsible for one or more grandchildren under 18 in their households in the East sub-region are less likely to be female (22%), have an income below the poverty level (10%), not speak English very well (9%) and not have the child's parents in the household (10%) than grandparents across the Central and East sub-regions and the Yuma Region as a whole (Table 4).

Table 4. Selected characteristics of grandparents who are responsible for one or more grandchildren under 18 in their households, 2015-2019 ACS

	Estimated number of	Percent of these grandparents who:					
Geography	grandparents who live with and are responsible for grandchildren under 18 years old	Are female	Are 60 years old or older	Have an income below the poverty level	Do not speak English very well	Do not have the child's parents in the household	
Yuma Region	2,374	63%	42%	32%	48%	29%	
Central subregion	1,270	70%	41%	33%	38%	29%	
East subregion	88	22%	45%	10%	9%	10%	
South subregion	1,016	57%	44%	32%	64%	31%	
Yuma County	2,389	63%	42%	31%	48%	29%	
Arizona	64,841	62%	42%	22%	21%	31%	
United States	2,465,864	63%	44%	19%	14%	36%	

Source: U.S. Census Bureau. (2021). American Community Survey five-year estimates 2015-2019, Tables B10051, B10054, B10056, & B10059

Note: Grandparents are considered responsible for their grandchild or grandchildren if they are "currently responsible for most of the basic needs of any grandchildren under the age of 18" who live in the grandparent's household.
Figure 15. Selected characteristics of grandparents who are responsible for one or more grandchildren under 18 in their households, 2015-2019 ACS



Source: U.S. Census Bureau. (2021). American Community Survey five-year estimates 2015-2019, Tables B10051, B10054, B10056, & B10059

Note: Grandparents are considered responsible for their grandchild or grandchildren if they are "currently responsible for most of the basic needs of any grandchildren under the age of 18" who live in the grandparent's household.

Additional data tables related to Population Characteristics can be found in Appendix 1 of this report.



ECONOMIC CIRCUMSTANCES

ECONOMIC CIRCUMSTANCES

Why it Matters

Poor economic conditions are a threat to child well-being across a range of indicators including academic achievement, physical health and mental health.⁵⁴ Poverty can affect the way children grow and develop, even including changes to their brains.^{55,56} As such, children in impoverished homes are at a greater risk of problems that include being born at a low birth weight, lower school achievement and poor health.^{57,58,59,60,61,62,63} They are also more likely to remain poor later in life, passing along these challenges to future generations.^{64,65} On the other hand, children raised in families with higher incomes tend to do better in a variety of ways across their lives. This includes being less likely to have health problems like depression and diabetes and more likely to finish high school and earn higher wages.^{66,67,68,69}

Economic resources are important for meeting basic needs, like providing nutrition. Food security, defined by the U.S. Department of Agriculture (USDA) as "access at all times to enough food for an active, healthy life for all household members"⁷⁰ is linked with many aspects of child well-being, and yet households with young children experience food insecurity at nearly twice the rate (15.3%) of households with no children (8.8%).⁷¹ Safety-net programs aim to minimize the impacts of poverty on child and family well-being.^{72,73,74} These programs include:

- The Supplemental Nutrition Assistance Program (SNAP; also referred to as "nutrition assistance" and "food stamps"),^v
- The Special Supplemental Nutrition Program for Women, Infants and Children (WIC),^{vi}
- The National School Lunch Program^{vii} and Summer Food Service Program,^{viii}
- Temporary Assistance for Needy Families (TANF),^{ix}
- KidsCare (the state children's health insurance program),^x
- Child care assistance^{xi} and
- Housing support.xii

^v For more information see: <u>https://www.fns.usda.gov/snap/supplemental-nutrition-assistance-program</u>

vi For more information see: <u>https://www.fns.usda.gov/wic</u>

vii For more information see: <u>https://www.fns.usda.gov/nslp</u>

viii For more information see: <u>https://www.fns.usda.gov/sfsp/summer-food-service-program</u>

ix For more information see: <u>https://www.acf.hhs.gov/ofa/programs/tanf</u>

^{*} For more information see: <u>https://www.azahcccs.gov/Members/GetCovered/Categories/KidsCare.html</u>

xi For more information see: <u>https://des.az.gov/services/child-and-family/child-care</u>

xii For more information see: <u>https://des.az.gov/services/basic-needs/shelter-housing</u>

Other factors related to economic stability include employment and housing.⁷⁵ Unemployment (and underemployment^{xiii}) can limit access to resources like health insurance – typically provided by employers – that support children's health and well-being. Unemployment can also contribute to family stress, conflict, homelessness and child abuse.^{76,77} Similarly, housing instability can harm the physical, social-emotional and cognitive development of young children.⁷⁸ High housing costs, relative to family income, are associated with increased risk for overcrowding, frequent moving, poor nutrition, declines in mental health and homelessness.^{79,80} This high relative cost leaves inadequate funds for other necessities, such as food and utilities.⁸¹

What the Data Tell Us

Income and poverty

The median family income for the state of Arizona is estimated to be \$70,200, which means that half of the state's families have incomes less than that amount and the other half have incomes greater. This includes all families of at least two people, whether or not they have children. For families who have at least one child (up to 17 years old), the median incomes are \$88,400 for married couples, \$42,900 for unmarried men, and \$30,400 for unmarried women. For Yuma County, these median incomes are much lower. The median income in Yuma County is \$50,300 for all families, roughly \$20,000 less than across the state. For married couples with children, the median income in Yuma County is higher at \$61,100, but roughly \$27,000 less than across the state. The median incomes for unmarried men with children (\$31,700), and unmarried women with children (\$20,200), are substantially lower than for married couples in Yuma County, and also lower than single-parent headed households across the state (Figure 16).

xiii Underemployment means that someone works fewer hours than they would like or is in a job that does not require the skills or training that they have





Note: Half of the families in the population are estimated to have annual incomes above the median value, and the other half have incomes below the median. The median family income for all families includes families without children ages birth to 17.

The number of families and young children who live in poverty according to official definitions (i.e., the federal poverty level) far underestimates the number of children in families who struggle to make ends meet. As a benchmark, the Federal Poverty Guideline – the criterion used for establishing eligibility for some safety net programs – for a family of four was \$25,750 in 2019 and \$26,200 in 2020.^{82,83} However, the federal poverty guideline definition of poverty was developed in the 1950s and is based on the assumption that basic nutrition accounts for one-third of family spending; it is widely considered to be much less than what a family actually needs to earn for financial stability. The "self-sufficiency standard" attempts to estimate how much families need to earn to fully support themselves, accounting for differences in costs of housing, transportation, child care and other budget items across places.⁸⁴ The 2021 self-sufficiency standards for a family comprised of two parents, one infant and one preschooler for Yuma County is \$57,207.⁸⁵ Note that the self-sufficiency standard falls below the median income for families who have at least one child (up to 17 years old) in the county (\$61,100), but far exceeds the median incomes for single-male (\$31,700) and single-female-headed households (\$20,200), suggesting that a portion of families in Yuma County are likely to be struggling to fully support themselves.

In addition, the COVID-19 pandemic had a sudden and dramatic impact on income for many families nationwide. To combat this widespread economic hardship brought on by the COVID-19 pandemic, the federal government issued three Economic Impact Payments to eligible individuals in 2020 and 2021. These funds were available to U.S. citizens or lawful permanent residents whose adjusted gross incomes were no more than \$75,000 for single adults, \$112,500 for heads of household, and \$150,000 for married couples filing jointly.⁸⁶ Eligible families received: \$1,200 per adult and \$500 per child in April 2020, \$600 per family member in December 2020/January 2021 and \$1,400 per person in March 2021.⁸⁷

Source: U.S. Census Bureau. (2021). American Community Survey five-year estimates 2015-2019, Table B19126

While these payments were a financial boon for many families, immigrant families were excluded from the first round of payments under the CARES Act. Families in which at least one parent filed using an individual Taxpayer Identification Number (ITIN) (as a resident or nonresident immigrant) instead of a social security number (SSN) were originally excluded from the payments. This includes the families of 104,000 Arizona children who were ineligible for the first round of stimulus payments.⁸⁸ Although a subsequent bill allowed for retroactive payments if one parent had an SSN, these had to be claimed through 2020 tax returns.^{89,90} For the second round of payments, filers using ITINs were ineligible, but their spouses and children were eligible if the spouse used an SSN. Children who only have parents with ITINs received none of the emergency support, regardless of economic need.

In March 2021, the American Rescue Plan was passed, including an expansion of the child tax credit. Previously, families earning sufficient income were given a \$2,000 credit for children under 17. In the new plan, eligible families will receive a credit of \$3,600 for each child under age 6 and \$3,000 for each child age 6-17. Under this plan, these funds are available to more low-income families and began being disbursed through monthly payments in July 2021.⁹¹ It is estimated that this funding will enhance the economic resources for 1.5 million Arizonan children overall.⁹² Although many family advocates champion making the expansion permanent, at the time of this report, the expansion was only enacted for 2021.⁹³

How well an income meets a families' needs depends on family size, among other factors. Accordingly, the definition of poverty in the United States depends on family size and composition, and as noted previously, a family of four earning an income lower than \$26,200 is considered to be in poverty.⁹⁴ Based on five-year estimates from the American Community Survey (ACS), about one out of every five persons (19%) live in poverty in the Yuma Region, a rate higher than across the state (15%) (Figure 17). Among young children, the rates are higher: nearly one out of every three children under the age of 6 in the region (29%) live in families with incomes below the poverty level, with 23% in the same circumstance across the state. Young children in the South sub-region experience the highest poverty rates, at 33%, followed by 28% in the Central sub-region, suggesting that programs that support low-income families are especially important to the futures of young children in these two sub-regions.



Figure 17. Rates of poverty for persons of all ages and for children ages birth to 5

Note: This graph includes only persons whose poverty status can be determined. Adults who live in group settings such as dormitories or institutions are not included. Children who live with unrelated persons are not included. In 2019, the poverty threshold for a family of two adults and two children was \$25,926; for a single parent with one child, it was \$17,622.

Compared to Arizona as a whole, the Yuma Region has a comparable proportion of young children who live far below the poverty level, however, they have a notably lower proportion living at or above 185% of the federal poverty level. In the region, 4,975 children under 6 years old (13%) live in a household whose income is less than half of the federal poverty level, compared to 11% across the state (Table 5). However, fewer than half (42%) of the region's young children live in households with incomes of at least 185% of the poverty level, compared to more than half (54%) across the state. The East sub-region has the lowest proportion of children living in a household whose income is less than half of the federal poverty level (2%), and the highest proportion living in households with incomes of at least 185% of the poverty level (70%).

Source: U.S. Census Bureau. (2020). American Community Survey five-year estimates 2015-2019, Table B17001

Geography	Estimated number of children (birth to 5 years old) who live with parents or other relatives	Percent of children under 50% of the poverty level	Percent of children between 50% and 99% of the poverty level	Percent of children between 100% and 184% of the poverty level	Percent of children at or above 185% of the poverty level
Yuma Region	17,137	13%	16%	29%	42%
Central subregion	11,351	14%	14%	26%	46%
East subregion	472	2%	7%	21%	70%
South subregion	5,314	12%	21%	36%	31%
Yuma County	17,224	13%	16%	29%	42%
Arizona	508,453	11%	13%	22%	54%
United States	23,253,254	9%	11%	19%	60%

Table 5. Children ages birth to 5 living at selected poverty thresholds, 2015-2019 ACS

Source: U.S. Census Bureau. (2021). American Community Survey five-year estimates 2015-2019, Table B17024

Note: The four percentages in each row should sum to 100%, but may not because of rounding. In 2019, the poverty threshold for a family of two adults and two children was \$25,926; for a single parent with one child, it was \$17,622. The 185% thresholds are \$47,963 and \$32,600, respectively.

Public assistance programs are one way of counteracting the effects of poverty and providing supports to children and families in need. The Temporary Assistance for Needy Families (TANF) Cash Assistance program provides temporary cash benefits and supportive services to children and families. Eligibility is based on citizenship or qualified resident status, Arizona residency and limits on resources and monthly income. The immediate, widespread economic hardship induced by the pandemic resulted in shifts in existing cash assistance programs and the development of additional economic supports. For example, between February and July 2020, the number of families using TANF rose 35%. During the state of emergency order, Arizona suspended the TANF work requirement⁹⁵ and lifetime eligibility limit of 12 months,⁹⁶ which had been the shortest in the nation,⁹⁷ thereby allowing more families to tap into these emergency funds.

The number of young children supported by TANF and the number of households with children under 6 receiving TANF has steadily declined in the Yuma Region in recent years (Figure 18). In addition, the region did not experience the increase in participation numbers in state fiscal year 2020 (SFY2020) that took place across the state as a whole. The percentage of young children participating in TANF in SFY2020 (1.9%) was lower overall than for young children across the state (2.5%), and decreased from 2.6% in SFY2016 (Figure 19). Recognizing that overall participation in TANF is low across the region, there were no notable differences in TANF participation in SFY2020 across sub-regions (Figure 19).

Figure 18. Number of children ages birth to 5 and families with children ages birth to 5 receiving TANF, state fiscal years 2016 to 2020



Sources: Arizona Department of Economic Security (2021). [Division of Benefits and Medical Eligibility dataset]. Unpublished data.





Sources: Arizona Department of Economic Security (2021). [Division of Benefits and Medical Eligibility dataset]. Unpublished data. & U.S. Census Bureau (2010). 2010 Decennial Census, SF 1, Table P14 & P20.

The gap between the thresholds of low income needed to qualify for public supports and the substantial income needed to actually support a family can also lead to a "benefits cliff"⁹⁸ for low-income families. This problematic phenomenon occurs when a low-income earner gets a boost in earnings – either

through a raise, working additional hours or other means – that makes them ineligible for programs, like SNAP, WIC or subsidized health insurance that they previously qualified for, even if the additional earnings cannot make up the difference in the family budget. Thus, many families who may not technically be living in poverty or be considered low-income may still face substantial economic hardship.

Food insecurity

Many families struggle with consistent access to "enough food for an active, healthy life," a problem known as food insecurity.⁹⁹ This limited or uncertain availability of food is negatively associated with many markers of health and well-being for children, including heightened risks for developmental delays¹⁰⁰ and being overweight or obese.¹⁰¹ To help reduce food insecurity, there are a variety of federally-funded programs including the Supplemental Nutrition Assistance Program (SNAP),¹⁰² the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC),¹⁰³ the National School Lunch Program,¹⁰⁴ the School Breakfast Program,¹⁰⁵ the Summer Food Service Program,¹⁰⁶ and the Child and Adult Care Food Program (CACFP).¹⁰⁷ However, only about 58% of food insecure households nationwide report participating in federally-funded nutrition assistance programs.¹⁰⁸

An additional food resource in the Yuma Region is the Emergency Food Assistance Program (TEFAP) which helps supplement the diets of low-income individuals by providing them with emergency food and nutrition assistance at no cost. TEFAP foods are distributed as Emergency Food Packages and in meals served at Congregate Feeding Sites (Soup Kitchens). There are 10 TEFAP sites in the Yuma Region^{xiv}.

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.¹⁰⁹ 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%.¹¹⁰ However, even among those accessing SNAP benefits, nearly half of households in poverty still struggle with food security.¹¹¹

Additionally, in 2019, the Department of Homeland Security broadened the types of public benefits that would deem green card or visa applications ineligible on "public charge grounds."¹¹² The 2019 expanded definition of "public charge" included utilization of Medicaid, public housing and SNAP benefits as part of public charge determination. Though the 2019 Public Charge Final Rule is no longer

xiv For more information on TEFAP please visit: https://des.az.gov/services/basic-needs/food-assistance/emergency-food-assistance

in effect as of March 2021,^{xv} its chilling effect may have lasting impacts on immigrant families accessing supports they are legally entitled to.

In the years prior to the pandemic, the proportion of families with young children who participated in SNAP steadily declined across the Yuma Region and the state (Figure 20). This decline likely reflected the continuing economic recovery from the Great Recession.¹¹³ Despite the proportion of young children who received SNAP benefits declining between SFY2016 and SFY2020, at least 50% of all children ages birth to 5 received SNAP benefits, underscoring how important this support is for childhood food security in the region (Figure 21).

Figure 20. Number of children ages birth to 5 and households with children birth to 5 participating in SNAP, state fiscal years 2016 to 2020



Sources: Arizona Department of Economic Security (2021). [Division of Benefits and Medical Eligibility dataset]. Unpublished data.

xv For a description of what is and is not currently considered during public charge determinations, see <u>https://www.uscis.gov/green-</u> card/green-card-processes-and-procedures/public-charge/public-charge-resources



Figure 21. Estimated percent of children ages birth to 5 participating in SNAP, state fiscal years 2016 to 2020

Sources: Arizona Department of Economic Security (2021). [Division of Benefits and Medical Eligibility dataset]. Unpublished data. & U.S. Census Bureau (2010). 2010 Decennial Census, SF 1, Table P14 & P20.

Differences can also be seen in the receipt of SNAP benefits by sub-region (Figure 22). Nearly twothirds of young children in the South sub-region (62%) were participating in SNAP in SFY2020. The smallest percentage was in the East sub-region, with 22% of children aged birth to 5 participating in SNAP that year.



Figure 22. Estimated percent of children ages birth to 5 participating in SNAP, state fiscal year 2020

Sources: Arizona Department of Economic Security (2021). [Division of Benefits and Medical Eligibility dataset]. Unpublished data. & U.S. Census Bureau (2010). 2010 Decennial Census, SF 1, Table P14 & P20.

During the COVID-19 pandemic, changes were made to SNAP program administration to better meet the needs of families in a time of crisis. Beginning in December 2020, participants received a 15% increase in benefits. Among other administrative changes, interviews were waived, certification periods were extended and online shopping was approved, making it easier for families to access benefits. WIC also adjusted administrative guidelines, and participants were allotted extra monthly funds to use on fruits and vegetables. These waivers and emergency allotments can be extended while the state is under a COVID-19 emergency declaration and were still in effect as of this report being written (October 2021). Beginning October 2021, the USDA also instituted a roughly 27% increase in SNAP benefits, the largest permanent increase in the program's history.

A nationally representative survey found that for caregivers in low-income families, food insecurity during the pandemic, exacerbated by the loss of free meals (e.g., school lunch), was the lone consistent predictor of anxiety, depression and stress. Arizona families with young children are particularly vulnerable to being persistently food insecure and becoming food insecure during the pandemic. Furthermore, food insecurity tends to be worse for people of color. Nationally, Hispanic individuals are almost twice as likely (15.8%) as non-Hispanic White individuals (8.1%) to be food insecure, and Native Americans are three times as likely (23.5%) to be food insecure.

The Pandemic Electronic Benefit Transfer Program (P-EBT), a collaboration between the Arizona Department of Education, the Arizona Department of Economic Security and the USDA Food and Nutrition Service, was established to offset the loss of meals normally received for free at schools or child care settings. Eligible families included those participating in SNAP with a child under age 6 and those with a child who received free or reduced-price school lunch. Over 520,200 children were eligible for the program in Arizona, which ended on September 24, 2021.

The majority of the children who received P-EBT in the Yuma Region were above the age of 5, even though children age 5 and under who were receiving SNAP were eligible to receive P-EBT. For example, in March 2021, only 1,579 of the 34,376 children aged birth to 17 receiving P-EBT were under 6 years of age (Table 6; Figure 23). In contrast, in 2020, 9,010 children under the age of 6 were participating in SNAP in the region (Figure 20), indicating that less than 20% of the youngest children who were eligible were enrolled in Pandemic EBT. In addition, while receipt of P-EBT remained constant across all children aged birth to 17, receipt for children aged birth to 5 decreased between March and May 2021 across all sub-regions.

Table 6. Children ages birth to	17 and birth to 5 receiving Pandemic	c EBT, March to May 2021
0	0	

	Children ages 0-17 receiving P-EBT			Children ages 0-5 receiving P-EBT			
Geography	March 2021	April 2021	May 2021	March 2021	April 2021	May 2021	
Yuma Region	34,376	34,376	34,378	1,579	1,426	1,299	
Central subregion	21,572	21,572	21,574	1,088	981	898	
East subregion	476	476	476	17	14	14	
South subregion	12,328	12,328	12,328	474	431	387	
Yuma County	34,476	34,476	34,478	1,583	1,429	1,302	
Arizona	628,147	628,087	628,221	38,053	34,402	30,926	

Sources: Arizona Department of Economic Security (2021). [Division of Benefits and Medical Eligibility dataset]. Unpublished data.



Figure 23. Children ages birth to 17 and birth to 5 receiving Pandemic EBT, March to May 2021

Sources: Arizona Department of Economic Security (2021). [Division of Benefits and Medical Eligibility dataset]. Unpublished data.

An additional resource to address food security is the Special Supplemental Nutrition Program for Women, Infants and Children (WIC) program administered by the Arizona Department of Health Services. WIC 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% of the federal poverty level). The program offers funds for nutritious food, breastfeeding and nutrition education, and referrals to health and social services.¹¹⁴ 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.¹¹⁵

The number of women enrolled and participating in WIC declined in the region and across the state between 2016 and 2020 (Figure 24). In spite of these declines, participation rates have remained high, with 94% of women enrolled in WIC receiving WIC benefits in both 2016 and 2020 in the region.



Figure 24. Women enrolled and women participating in WIC, 2016 to 2020

Source: Arizona Department of Health Services (2021). [WIC Dataset]. Unpublished data.

Note: Women enrolled or participating in WIC include both pregnant and breastfeeding women. Women are counted as 'participating' if they received benefits during the time period in question.

Similar to declines in women's enrollment and participation in WIC, the number of children aged birth to 4 enrolled and participating in WIC has steadily declined between 2016 and 2020 in the Yuma Region and across the state (Figure 25). Also, similar to women's participation in WIC, children's' participation rates remained steady and high, with 90% of children aged birth to 4 enrolled in WIC receiving WIC benefits in 2016 and 91% in 2020. Participation rates for infants were slightly higher still, with 96% of infants enrolled in WIC receiving benefits in 2020 (Figure 26).

It should be noted that while the available safety-net programs are important for families, not all key costs are covered. For families of young children in particular, the fact that SNAP and WIC funds cannot be used to purchase diapers can present a major financial burden.¹¹⁶



Figure 25. Children ages birth to 4 enrolled and participating in WIC, 2016 to 2020

Source: Arizona Department of Health Services (2021). [WIC Dataset]. Unpublished data. Note: Children are counted as 'participating' if they received benefits during the time period in question.



Figure 26. WIC participation rates by category, 2020

Source: Arizona Department of Health Services (2021). [WIC Dataset]. Unpublished data. Note: Individuals are counted as 'participating' if they received benefits during the time period in question.

Schools are an important part of the nutrition assistance system, especially for children that may be food insecure. Administered by the Arizona Department of Education, the National School Lunch Program (NSLP) provides free and reduced-price meals at school for students whose family incomes are at or less than 130% of the federal poverty level for free lunch, and 185% of the federal poverty level for reduced-

price lunch. Just over three-quarters (76%) of students in the Yuma Region were eligible for free and reduced-price lunch between the 2017-2018 and 2019-2020 school years, although there was variability by school district (Table 7; Figure 27). The percentage of children eligible for free and reduced-price lunch in the region, is also roughly 20% higher than that across the state as a whole. Whereas data available shows free and reduced-price lunch eligibility, a key informant noted that some schools choose to provide free lunch to all students, and during the pandemic families at those schools were also provided Pandemic-EBT.

Geography	Students eligible for free or reduced-price lunch, 2017-18	Students eligible for free or reduced-price lunch, 2018-19	Students eligible for free or reduced-price lunch 2019-20
Yuma Region Schools	76%	76%	76%
Yuma Elementary District	71%	71%	68%
Somerton Elementary District	87%	87%	87%
Crane Elementary District	70%	75%	74%
Hyder Elementary District	89%	71%	71%
Mohawk Valley Elementary District	81%	85%	77%
Wellton Elementary District	80%	79%	65%
Gadsden Elementary District	93%	93%	93%
Antelope Union High School District	78%	81%	81%
Yuma Union High School District	71%	71%	73%
Az-Tec High School	93%	93%	>98%
Yuma Private Industry Council, Inc.	73%	73%	78%
Private	59%	63%	65%
Portable Practical Educational Preparation, Inc. (PPEP, Inc.)	78%	81%	81%
Juniper Tree Academy	49%	50%	48%
Harvest Power Community Development Group, Inc.	81%	85%	85%
Yuma County Schools	75%	76%	75%
Arizona	57%	56%	55%

Table 7. Free and reduced-price lunch	eligibility (All students),	2017-18 to 2019-20
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Source: Arizona Department of Education (2021). [Health & Nutrition Dataset]. Custom tabulation of unpublished data by the UArizona CRED Team

Figure 27. Free and reduced-price lunch eligibility, 2019-20



Source: Arizona Department of Education (2021). [Health and Nutrition Dataset]. Custom tabulation of unpublished data by the UArizona CRED Team.

In addition to the NSLP, the Arizona Department of Education supports two other programs addressing children's food security. Funded by the United States Department of Agriculture (USDA), the Child and Adult Care Food Program (CACFP)¹¹⁷ gives reimbursements to participating child care centers, preschools, emergency centers, and after school programs for nutritious meals and snacks served to eligible children. Providers must complete a renewal each year. Eligible providers include for-profit child care centers serving at least 25% free or reduced-price participants or be a non-profit.¹¹⁸ Also funded by the USDA, the Summer Food Service Program (SFSP)¹¹⁹ works to keep all children through age 18 fed when school is out of session by providing free meals (breakfast, lunch, supper) and snacks at community sites. The SFSP program unites community sponsors like camps, faith-based organizations and schools with sites like parks, libraries, community centers and apartment complexes in high-need areas to distribute food.¹²⁰

Figure 28 shows varying trends across school nutrition programs with decreases overall in NSLP and CACFP lunches served between 2017-18 and 2019-20, and an overall increase in lunches served through the SFSP. Decreases in the NSLP and CACFP were likely due to closures of child care centers and schools in the spring of 2020 due to the COVID-19 pandemic. In contrast, the USDA allowed the SFSP to operate year-round during the pandemic with no free or reduced-price lunch eligibility criteria applied, allowing more children to benefit from this program.



Figure 28. Trends in lunches served through school nutrition programs, 2017-18 to 2019-20

Source: Arizona Department of Education (2021). [Health and Nutrition Dataset]. Custom tabulation of unpublished data by the UArizona CRED Team.

Note: Due to the COVID-19 pandemic, the USDA issued a substantial number of waivers for school nutrition programs to allow greater flexibility for schools to get meals to students in need. More information on the pandemic's effect on school nutrition can be found on the ADE website: <u>https://www.azed.gov/hns/covid19</u>

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.¹²¹ Unemployment can also put families at greater risk for stress, family conflict and homelessness.¹²²

The unemployment rate is the ratio of the number of persons who are unemployed and looking for work to the total number of persons in the civilian labor force. Note that unemployment rates do 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.¹²³ In addition, unemployment rates have been consistently higher in Yuma County compared to the state, perhaps due to the seasonality of the county's largest industry, agriculture.¹²⁴

Pre-pandemic, nationwide unemployment rates had been on a steady decline since the end of the Great Recession in 2009. In the last year prior to the pandemic, 2019, the unemployment rate in Yuma County was 16.8% compared to 4.9% statewide (Figure 29). Nationally, in 2020, the unemployment rate more than doubled (from 3.7% to 8.1%) as a result of the pandemic. Unemployment rates jumped in Arizona as well (7.9%), but rose only slightly in Yuma County (17.1%).



Figure 29. Average annual unemployment rates, 2010 to 2020

Source: Arizona Commerce Authority (2021), Office of Economic Opportunity, Local Area Unemployment Survey (LAUS)

The impact of the pandemic on unemployment rates can be more clearly seen in monthly rates shown in Figure 30. Unemployment rates in the county and across the state jumped in April 2020, then proceeded to decrease in subsequent months. Interestingly, in Yuma County, unemployment rates then fell below pre-pandemic levels, a pattern not reflected across the state, where unemployment rates remained at levels higher than before the COVID-19 pandemic began.



Figure 30. Monthly unemployment rates (seasonally adjusted), 2019 to 2021

Source: Arizona Commerce Authority (2021), Office of Economic Opportunity, Local Area Unemployment Survey (LAUS) Note: 'Seasonal adjustment' refers to a statistical technique that tries to remove the influence of predictable seasonal patterns on employment rates (such as harvest schedules or major holidays).

Statewide, unemployment insurance claims peaked at 262,523 the week of May 16, 2020. This is over twice the number of claims at the peak of the Great Recession in 2009.¹²⁵ In March 2020, the Pandemic Unemployment Assistance (PUA) program temporarily expanded unemployment insurance eligibility to categories of workers who were not previously eligible for unemployment, including self-employed workers, freelancers, independent contractors and part-time workers. The Pandemic Emergency Unemployment Assistance (PEUC) program extended benefits for those who had already used the 26 weeks of benefits usually allowed in Arizona.¹²⁶ In addition to expanded eligibility, federal provisions granted unemployed workers nationwide supplemental funds during the pandemic - \$600 additional per week through July 31, 2020, and \$300 additional per week through September 5, 2021.¹²⁷

The impact of these programs in the Yuma Region can be seen in Figure 31, where the number of unemployment claims jumped substantially, from 301 before March 2020, to 7,130 in April 2020. Claims then dropped back to near pre-pandemic levels by November 2020. The proportion of unemployment claims found eligible and paid was the lowest (42%) when claims were at their highest levels in April 2020.

In May 2021, the governor announced that supplemental unemployment funding would end early in Arizona, on July 10, 2021, and instead launched Arizona's Back to Work Program which offered financial incentives for returning to work (\$2000 for full-time, \$1000 for part-time for eligible workers) as well as scholarships for community colleges.^{128,129}



Figure 31. Monthly unemployment claims in the Yuma Region, Nov. 2019 to Nov. 2020

Source: Arizona Commerce Authority (2021), Office of Economic Opportunity, Local Area Unemployment Survey (LAUS)

Given the pre-pandemic need for child care and the already limited availability of child care in the state, the closure of many child care centers and schools due to the COVID-19 pandemic had substantial effects on the ability of parents to work. According to the U.S. Census Bureau's Household Pulse survey, during the pandemic, about one in five non-working adults in households with children reported that their main reason for not working was because of children not in school or child care. In Arizona, the share of non-working adults with children who reported that lack of care was the primary reason for not working ranged from 8% to 40% depending on the survey week. For the majority (16 of 27) of weeks of the Household Pulse, caring for children not in school or child care was the number one reason given why non-retired adults were not working in Arizona.¹³⁰ This suggests that access to child care is essential for parents and other caregivers in Arizona to access employment opportunities.

Addressing the financial barriers to accessing child care, during the pandemic (through September 2021), DES offered the Essential Workers' Scholarship Program which offered essential workers, including critical health care workers, first responders, essential government operations, grocery store and food bank workers, and licensed/certified child care workers, child care scholarships that could be used for children through age 12.¹³¹ Arizona's Back To Work Program, announced in May 2021, could

provide eligible parents returning to work between June and September 2021 with funding assistance for three months of child care.¹³²

The most recent data available on parents in the labor force pre-dates the COVID-19 pandemic. According to ACS five-year estimates, of the 16,844 children birth to 5 years old living with parents in the Yuma Region, 9,516 or 56% live in households where all present parents are in the workforce (that is, are employed, or actively seeking paying work) (Table 8). This includes children in households with a single-parent in the labor force (30%) and two-parent households where both parents work (26%). In other words, the majority of households with young children in the Yuma Region likely require some form of child care. Yet, the Center for American Progress estimates that 48% of Arizonans live in a "child care desert," defined as an area where there are at least three times as many children as there are child care slots, meaning that the absence of accessible, affordable child care may be a barrier to employment.¹³³ In Arizona, the majority of rural families (67%), low-income families (59%) and Hispanic/Latino families (55%) live in a child care desert, making them disproportionately impacted by barriers to child care and therefore barriers to employment.¹³⁴ This is slightly worse than in the U.S. as a whole, where 60% of rural families and 55% of low-income families live in child care deserts.

This high need is most relevant to two of three sub-regions in the Yuma Region, with the exception of the East sub-region, where only 15% of young children live in households where all present parents are in the workforce, and would therefore potentially need child care (Table 8).

Table 8. Parents of children ages birth to 5 who are or are not in the labor force, 2015-2019 ACS

Geography	Estimated number of children (birth to 5 years old) living with parent(s)	Living with two married parents, both in the labor force	Living with two married parents, one in the labor force and one not	Living with two married parents, neither in the labor force	Living with one parent, in the labor force	Living with one parent, not in the labor force
Yuma Region	16,844	26%	33%	1%	30%	9%
Central subregion	11,187	27%	33%	1%	32%	7%
East subregion	472	10%	80%	0%	5%	5%
South subregion	5,186	28%	30%	0.2%	27%	15%
Yuma County	16,927	26%	33%	1%	30%	9%
Arizona	494,590	32%	28%	1%	29%	9%
United States	22,727,705	39%	25%	1%	27%	7%

Source: U.S. Census Bureau. (2021). American Community Survey five-year estimates 2015-2019, Table B23008

Note: The labor force is all persons who are working (employed) or looking for work (unemployed). Persons not in the labor force are mostly students, stay-at-home parents, retirees, and institutionalized people. The term "parent" here includes step-parents. The five percentages in each row should sum to 100% but may not because of rounding. Please note that due to the way the ACS asks about family relationships, children living with two unmarried, cohabitating parents are not counted as living with two parents (these children are counted in the 'one parent' category).

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.¹³⁵

While pre-pandemic housing cost burdens were already high enough to cause concern in some counties in Arizona, the economic disruptions of the COVID-19 pandemic, including losses of household employment income reported by approximately half of adults in the state, led to housing instability for some families as they struggled to make housing payments. There have been multiple federal efforts to prevent eviction or foreclosure and ease housing instability among households in the U.S. throughout the pandemic. Eviction moratoriums and mortgage forbearance programs for federally-backed mortgages aimed to prevent families from losing their homes during the pandemic, and the Emergency Rental Assistance Program aimed to distribute funds for rental and utility payments to households at risk of eviction.¹³⁶ The American Rescue Plan provided additional assistance for both homeowners and renters with the aim of preventing eviction and foreclosure.¹³⁷ However, local housing agencies have struggled to implement many of these programs, and shifting funding requirements or stringent reimbursement policies have hampered efforts to get funds to households who need them.¹³⁸ The end of the federal

eviction moratorium issued by the Centers for Disease Control and Prevention means that effective administration of housing aid is all the more important for protecting families from eviction and foreclosure.¹³⁹

The most recent data available on housing affordability again pre-dates the COVID-19 pandemic. Traditionally, housing has been deemed affordable for a family if it costs less than 30% of their annual income.¹⁴⁰ According to ACS five-year estimates, of the estimated 72,759 households in the Yuma Region, 29% are housing-cost burdened, spending more than 30% of their household income on housing. Those renting are even more likely to be housing-cost burdened, with 41% of renter-occupied housing units in the region costing more than 30% of household income (Figure 32). Both these proportions are similar to the state, with only small differences across all households in the region by sub-region (34% South; 28% Central; 20% East) (Figure 33). This amount of income spent on housing leaves less available for food, utilities, early education programs and other supports that help young children thrive. Additionally, high housing costs, relative to family income, are associated with increased risk for overcrowding, frequent moving, poor nutrition, declines in mental health and homelessness.^{141,142}

Figure 32. Percent of households with housing costs of 30 percent or more of household income by home ownership status, 2015-2019 ACS



Source: U.S. Census Bureau. (2021). American Community Survey five-year estimates 2015-2019, Table B25106

Figure 33. Percent of households with housing costs of 30 percent or more of household income, 2015-2019 ACS



Source: U.S. Census Bureau. (2021). American Community Survey five-year estimates 2015-2019, Table B25106

Information access through computers and internet

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. During the COVID-19 pandemic, a reliable internet connection was essential for a successful transition to remote work for many. 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.¹⁴³ The term "digital divide" refers to disparities in communication and information technologies, ¹⁴⁴ and the lack of sustained access to information and communication technologies in low-income communities is associated with economic and social inequality.¹⁴⁵ 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).¹⁴⁶

In addition, as schools closed and transitioned to remote learning, access to a computing device and the internet became increasingly important for children to engage in educational activities and to connect socially with teachers or peers. Schools and communities applied multiple strategies to close the digital divide, from provision of mobile hotspot devices and laptops by schools and libraries. One silver-lining to the pandemic is the allocation of CARES Act and American Rescue Plan dollars for expanding rural broadband access, which may help shrink the digital divide.¹⁴⁷ Still, access to internet and computing devices was not evenly distributed across all communities—rural, low-income, and Native, Black and

Hispanic students disproportionately faced access issues.¹⁴⁸ Even as schools return to in-person learning, investments in closing the digital divide remain essential to ensuring equity in outcomes for all students.

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.¹⁴⁹ 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.^{150,151,152}

In the Yuma Region, 61% of households have both a computer and smartphone; less than across Arizona as a whole (73%) (Figure 34). In the region, households are more likely to have a smartphone with no computer (18%) compared to the state (12%) or have neither a smartphone nor computer (Yuma Region 14%; Arizona 8%), with only slight variation by sub-region in the latter (Figure 35).





Source: U.S. Census Bureau. (2021). American Community Survey five-year estimates 2015-2019, Table B28010

Note: In this table, "computer" includes both desktops and laptops; "smartphone" includes tablets and other portable wireless devices. The four percentages in each row should sum to 100%, but may not because of rounding.





The majority of people in the Yuma Region (83%) and across Arizona (87%) who live in households have access to a computer connected to the internet (Figure 36). In the Yuma Region, only about 7% have a computer without internet while another 10% have no computer, with only slight variation across sub-regions. When children enter school, computer and internet access are increasingly important for completing school assignments and projects, particularly during the later years of primary education and beyond.¹⁵³ For children under the age of 18 in households, the percentages are similar: 86% in the region and 88% across the state have access to an internet-connected computer (Figure 37). Again, across sub-regions, large differences did not appear in the percentages over five years, they may underestimate the current rates of computer and smartphone ownership.

Whereas connectivity in the region appears high, it should again be noted that in many rural parts of the state, even those families with internet access and a computer may find connectivity frustratingly slow or inconsistent.¹⁵⁴ Households in rural areas typically experience more limited coverage from mobile networks and slower-speed internet services.¹⁵⁵ This gap in the ability to connect will likely continue to be an issue in rural areas unless concerted efforts are made to improve access.

Source: U.S. Census Bureau. (2021). American Community Survey five-year estimates 2015-2019, Table B28010 Note: In this table, "computer" includes both desktops and laptops; "smartphone" includes tablets and other portable wireless devices. The four percentages in each row should sum to 100%, but may not because of rounding.

Figure 36. Persons of all ages in households with and without computers and internet connectivity, 2015-2019 ACS



Source: U.S. Census Bureau. (2021). American Community Survey five-year estimates 2015-2019, Table B28005 Note: The three percentages in each row should sum to 100%, but may not because of rounding. Figure 37. Percent of children ages birth to 17 in household with a computer and internet connectivity, 2015-2019 ACS



Source: U.S. Census Bureau. (2021). American Community Survey five-year estimates 2015-2019, Table B28005 Note: The three percentages in each row should sum to 100%, but may not because of rounding.

Additional data tables related to *Economic Circumstances* can be found in Appendix 1 of this report.



EDUCATIONAL INDICATORS

EDUCATIONAL INDICATORS

Why it Matters

A community's K-12 education system can support positive outcomes for children and their families, as well as the economic well-being of the entire community. Individuals with higher levels of education are less likely to live in poverty and tend to live longer and healthier lives.¹⁵⁶ Graduating from high school, in particular, is associated with better health and financial stability, lower risk for incarceration and better socio-emotional outcomes compared to dropping out of high school.^{157,158} Parents with more education are also more likely to have children with positive outcomes related to school readiness and educational achievement, with children of parents who have at least a high school diploma or GED scoring higher in reading, math and science in their first four years of school.^{159,160} The educational achievement of adults within a region speaks to the assets and challenges of a community's workforce, including those that are working with or on behalf of young children and their families.

High-quality early learning experiences lay a foundation for children's learning in kindergarten, early elementary school and beyond.¹⁶¹ Participation in high-quality early education has been linked to better school performance in elementary and high school.¹⁶² Reading skills in third grade, specifically, are an important predictor of later academic learning and success measured in standardized tests. Students who are at or above grade-level reading in third grade are more likely to graduate high school and attend college.¹⁶³ Poor school attendance can cause children to fall behind academically, leading to lower proficiency in reading and math and increased risk of not being promoted to the next grade.¹⁶⁴ Chronic absenteeism, defined as missing more than 10% of the school days within a school year, also negatively impacts the development of key social-emotional skills, including self-management, self-efficacy and social awareness,¹⁶⁵ and it affects even the youngest children, with more than 10% of U.S. kindergarteners and first graders considered chronically absent.¹⁶⁶ Consistent school attendance is particularly important for children from economically disadvantaged backgrounds, the group of children most at risk for chronic absenteeism.^{167,168} Given these intergenerational impacts of educational attainment and 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

Academic engagement early in life can significantly impact the direction of a child's schooling. With the vast majority of students learning at home during the COVID-19 pandemic, the home environment was all the more central to students' education, which exacerbated pre-existing disparities in educational access. Low-income, Black and Hispanic students nationwide were less likely to have high quality distance learning environments with effective technology and internet access or a parent at home who could help supervise learning.¹⁶⁹ English language learners and students with disabilities also faced

substantial challenges in engaging in distance learning as families struggled with language barriers and students with disabilities were unable to access specialized instructional supports.¹⁷⁰

The pandemic also had a notable impact on both school attendance and engagement, with absenteeism levels significantly higher during virtual learning compared to in-person levels pre-pandemic.¹⁷¹ A nationally representative survey of teachers found that in May 2020, 23% of K-12 students were considered truant, neither logging into online work nor contacting their teacher.¹⁷² Students of color, low-income students, English language learners, students with disabilities, and homeless and foster youth experienced disproportionately high rates of absenteeism compared to their peers.¹⁷³

In the 2019-20 school year roughly 11,771 children were enrolled in preschool through third grade in Yuma Region public and charter schools (Table 9). The lowest enrollment was in preschool with 526 children enrolled, with more than 2,700 enrolled in kindergarten and increasing enrollments through third grade.

Geography	Preschool	Kindergarten	1st Grade	2nd Grade	3rd Grade
Yuma Region Schools	526	2,739	2,806	2,850	2,850
Yuma Elementary District	172	915	945	970	939
Somerton Elementary District	88	322	307	330	313
Crane Elementary District	184	594	625	645	654
Hyder Elementary District	N/A	DS	15	DS	14
Mohawk Valley Elementary District	N/A	12	DS	14	DS
Wellton Elementary District	N/A	18	21	24	18
Gadsden Elementary District	71	483	497	497	514
The Charter Foundation, Inc.	N/A	58	56	49	53
Juniper Tree Academy	N/A	168	160	164	158
Harvest Power Community Development Group, Inc.	N/A	155	167	142	166
Yuma County Schools	515	2,736	2,804	2,848	2,847
Arizona Schools	21,867	81,606	82,386	82,305	83,003

Table 9. Kindergarten to 3rd grade students enrolled in public and charter schools, 2019-20

Source: Arizona Department of Education (2021). [Oct 1 Enrollment Dataset]. Custom tabulation of unpublished data by the UArizona CRED Team

Chronic absences in children enrolled in kindergarten through third grade in the region in the 2018-19 school year (14%) were similar to the percentage seen across the state (13%), with slight variability

across school districts (Figure 38). Chronic absences fell in both the region and state in the following school year, however, school closures and transitions to distance learning substantially affected how attendance was tracked by schools in the spring of 2020.



Figure 38. Chronic absenteeism rates, 2018-19 to 2019-20

Source: Arizona Department of Education (2021). [Absenteeism Dataset]. Custom tabulation of unpublished data by the UArizona CRED Team.

Note: Students are considered chronically absent if they miss more than 10 percent of the school days in a school year. This table includes children who are absent due to chronic illness. Please note that school closures and transitions to distance learning substantially affected how attendance was tracked by schools in the spring of 2020.

Many factors impact school attendance and chronic absenteeism, including having a negative attitude towards school, low parent-school involvement, low socio-economic status, as well as the characteristics of the school itself.¹⁷⁴ In the Yuma Region, the prevalence of migrant and seasonal farmworkers due to the importance of agriculture in the region poses an additional challenge. Children in these families may face additional educational barriers due to frequent moves, social and cultural isolation, strenuous work outside of school and poverty.^{175,176} Recognizing the importance of migrant students are supported through high quality educational programs. In Arizona, there are over 10,000 children of migratory workers aged 3 to 21 in educational programs, and these children are served through the Arizona

Migrant Education Program.^{xvi} Figure 39 shows that 11% of students enrolled in Yuma Region schools participate in this program, with PPEP, Inc. (48%), Yuma Union High School District (19%), and the Gadsden Elementary School District (16%) having the highest participation in the region.





Source: Arizona Department of Education (2021). [Oct 1 Enrollment Dataset]. Custom tabulation of unpublished data by the UArizona CRED Team.

Note: Migrant students are those students participating in the Arizona Migrant Education Program, a federally-funded, state-run program that provides supplemental services to the children of migrant farmworkers.

Achievement on standardized testing

A child's third grade reading skills have been identified as a critical indicator of future academic success.¹⁷⁷ Students who are at or above grade level reading in third grade are more likely to go on to graduate high school and attend college.¹⁷⁸ The link between poor reading skills and risk of dropping out of high school is even stronger for children living in poverty. More than a quarter (26%) of children who were living in poverty and not reading proficiently in third grade did not finish high school. This is more than six times the high school dropout rate of proficient readers.¹⁷⁹

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 2019, the

xvi For more information on the Arizona Migrant Education Program see https://www.azed.gov/migrant
statewide assessment tool for English language arts (ELA), including reading and writing, is Arizona's Statewide Achievement Assessment for English Language Arts and Math (AzM2).^{xvii,180,181}

AzM2 scores are used to determine promotion from the third grade in accordance with the *Move on When Reading* policy. *Move on When Reading* legislation states that a student shall not be promoted to fourth grade if their reading score falls far below the third-grade level, as established by the State Board of Education.¹⁸² 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.

The most recent data available is from the 2018-19 school year, when the AzMERIT assessment was administered. In the 2018-2019 school year, only 38% percent of Yuma Region students achieved passing scores on the third grade ELA assessment, which was lower than across Arizona as a whole (46%) (Table 10). This was an improvement over previous years in the region, however, increasing from 33% achieving passing scores on the ELA assessment in the 2015-16 school year (Figure 40). Variation also was present across school districts in the region, with the Mohawk Valley Elementary District having the highest percentage of third graders passing the ELA assessment at 67%.

Performance on the Math test was slightly better in the region, with 46% of Yuma third grade students achieving passing scores in the 2018-19 school year, compared to 51% across the state (Table 11), again with improvement shown since a low of 38% passing this assessment in the 2015-16 school year (Figure 41). Again, variation in passing rates were present across districts in the region with the highest proportion of students passing the Math assessment at the Juniper Tree Academy (70%).

xvii AzMERIT was renamed to AzM2 during the 2019-2020 school year. In 2022, AzM2 will be replaced by AASA (Arizona's Academic Standards Assessment).

Table 10. AzMERIT	assessment results: 3rd	d Grade English	Language Arts.	2018-19
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	Students	Falls Far				
Geography	Tested	Below	Approaches	Meets	Exceeds	Passing
Yuma Region	2,723	46%	16%	28%	10%	38%
Yuma Elementary District	DS	44%	16%	31%	9%	40%
Somerton Elementary District	DS	50%	16%	22%	12%	34%
Crane Elementary District	DS	44%	16%	29%	12%	40%
Hyder Elementary District	DS	22%	33%	44%	<2%	44%
Mohawk Valley Elementary District	DS	28%	6%	50%	17%	67%
Wellton Elementary District	DS	30%	10%	60%	<2%	60%
Gadsden Elementary District	DS	52%	16%	23%	9%	32%
The Charter Foundation, Inc.	DS	38%	24%	29%	10%	38%
Juniper Tree Academy	DS	24%	20%	44%	12%	56%
Harvest Power Community Development Group, Inc.	DS	69%	12%	16%	2%	18%
Yuma County Schools	2,754	46%	16%	28%	10%	38%
Arizona Schools	82,653	40%	14%	32%	14%	46%

Source: Arizona Department of Education (2021). [AzMERIT Dataset]. Custom tabulation of unpublished data by the UArizona CRED Team.



Figure 40. Trends in passing rates for AzMERIT 3rd Grade English Language Arts, 2015-16 to 2018-19

Source: Arizona Department of Education (2021). [AzMERIT Dataset]. Custom tabulation of unpublished data by the UArizona CRED Team.

Table 11. AzMERI7	assessment results: 3	3rd Grade Math, 2018-19
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	Students	Falls Far				
Geography	Tested	Below	Approaches	Meets	Exceeds	Passing
Yuma Region Schools	2,740	26%	28%	32%	14%	46%
Yuma Elementary District	DS	22%	26%	36%	16%	52%
Somerton Elementary District	DS	29%	29%	29%	14%	42%
Crane Elementary District	DS	25%	28%	32%	14%	46%
Hyder Elementary District	DS	11%	44%	22%	22%	44%
Mohawk Valley Elementary District	DS	17%	17%	56%	11%	67%
Wellton Elementary District	DS	20%	45%	35%	<2%	35%
Gadsden Elementary District	DS	35%	27%	27%	11%	38%
The Charter Foundation, Inc.	DS	19%	26%	40%	14%	55%
Juniper Tree Academy	DS	7%	23%	48%	22%	70%
Harvest Power Community Development Group, Inc.	DS	46%	34%	17%	3%	20%
Yuma County Schools	2,771	26%	28%	33%	14%	46%
Arizona Schools	83,042	23%	26%	33%	18%	51%

Source: Arizona Department of Education (2021). [AzMERIT Dataset]. Custom tabulation of unpublished data by the UArizona CRED Team.





Source: Arizona Department of Education (2021). [AzMERIT Dataset]. Custom tabulation of unpublished data by the UArizona CRED Team.

Graduation rates and adult educational attainment

Understanding current high school graduation and dropout rates within the state provides insight into the assets and challenges faced by a community and its future workforce. Adults who 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.^{183,184} Increasingly, a high school education is necessary for employment in the U.S., with nearly two-thirds of all jobs in 2020 requiring more than a high school education.¹⁸⁵ Educational attainment has also heightened economic challenges during the pandemic, with adults with less than a high school diploma experiencing more than twice the unemployment rate of adults with a bachelor's degree or higher.¹⁸⁶

The four and five-year graduation rates in the Yuma Region in 2019 (88% and 90%) were higher than across Arizona as whole (79% and 83%), although variability did exist within districts and schools within the region (Figure 42). These overall graduation rates remained largely stable between 2017 and 2019 in the Yuma Region, again with variability among individual districts or schools, with both increases and decreases in graduations rates across years at the individual district or school level (Table 12).



Figure 42. 4-year and 5-year graduation rates, 2019

Source: Arizona Department of Education (2021). [Graduation Dataset]. Custom tabulation of unpublished data by the UArizona CRED Team

	4-Yea	ar Graduation	Rates	5-Year Graduation Rates		
Geography	2017	2018	2019	2017	2018	2019
Yuma Region Schools	87%	87%	88%	90%	90%	90%
Antelope Union High School District	72%	94%	84%	88%	94%	86%
Yuma Union High School District	91%	92%	93%	92%	94%	94%
Az-Tec High School	40%	35%	32%	55%	38%	39%
Yuma Private Industry Council, Inc.	30%	31%	39%	62%	56%	50%
Portable Practical Educational Preparation, Inc. (PPEP, Inc.)	23%	34%	21%	36%	44%	37%
Harvest Power Community Development Group, Inc.	93%	91%	94%	95%	93%	99%
Carpe Diem Collegiate High School	62%	62%	90%	62%	76%	90%
Yuma County Schools	88%	88%	89%	90%	91%	91%
Arizona Schools	78%	78%	79%	82%	82%	83%

Table 12. Trends in 4-year and 5-year graduation rates, 2017 to 2019

Source: Arizona Department of Education (2021). [Oct 1 Enrollment Dataset]. Custom tabulation of unpublished data by the UArizona CRED Team.

The high school drop-out rate in the Yuma Region remained low at 2% between 2017-18 and 2019-20 school years, slightly lower than across the state as a whole (Table 13). Rates were similar across most schools in the region with the exception of three that had dropout rates between 17% and 24% in the 2019-2020 school year (Yuma Private Industry Council, Inc., 24%; Portable Practical Educational Preparation, Inc. (PPEP, Inc.), 20%; Az-Tec High School 17%).

Table 13. 7th to	12th grade dropout rates	, 2017-18 to 2019-20
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Geography	Dropout Rate, 2017-18	Dropout Rate, 2018-19	Dropout Rate, 2019-20
Yuma Region Schools	2%	2%	2%
Yuma Elementary District	2%	2%	3%
Somerton Elementary District	1%	4%	2%
Crane Elementary District	0%	1%	1%
Hyder Elementary District	0%	0%	0%
Mohawk Valley Elementary District	0%	2%	0%
Wellton Elementary District	0%	2%	1%
Gadsden Elementary District	2%	2%	1%
Antelope Union High School District	2%	4%	2%
Yuma Union High School District	1%	1%	1%
Az-Tec High School	24%	26%	17%
Yuma Private Industry Council, Inc.	37%	30%	24%
Portable Practical Educational Preparation, Inc. (PPEP, Inc.)	26%	29%	20%
Harvest Power Community Development Group, Inc.	0%	0%	1%
Carpe Diem Collegiate High School	1%	5%	4%
Yuma County Schools	2%	3%	2%
Arizona Schools	5%	4%	3%

Source: Arizona Department of Education (2021). [Dropout Dataset]. Custom tabulation of unpublished data by the UArizona CRED Team

Note: Dropouts are defined by ADE as students who were enrolled in school at any time during the school year but were not enrolled at the end of the year and who did not transfer to another school, graduate, or die. Dropout rates are calculated by dividing the number of dropouts by the total enrollment.

Educational attainment of adults aged 25 and older in the Yuma Region lags behind the state as a whole. In the region, over a quarter of the population 25 and older (27%) did not complete high school compared to 13% across the state, and in the South sub-region, more than four in 10 adults (44%) did not finish high school (Figure 43). Across the region, an additional 26% of adults have a high-school diploma or a GED equivalent and another 48% have some education beyond the high-school level. The Central sub-region has the highest proportion of adults with more than a high school education, at 52%.



Figure 43. Level of education for the adult population (ages 25 and older)



Parental educational attainment has been shown to influence child educational outcomes.¹⁸⁷ Education is also a key mechanism for upward mobility; parents with higher educational levels typically secure higher incomes to support their families.¹⁸⁸ Higher maternal education, in particular, is linked to both cognitive and socio-emotional development as well as general health in young children.¹⁸⁹ Less than half of mothers giving birth in the region in 2018 (48%) and 2019 (47%) had more than a high-school education, less than across the state (57% both years) (Table 14). The Yuma Region is therefore particularly poised to benefit from programs that aim to simultaneously serve both young children and their parents. Such *two-generation programs* are designed to provide family-centered supports to low-income parents and their young children by providing access to education and workforce development for parents and high-quality early education for young children.^{190,191} Providing resources and programming to support parental and youth education can help grow the human capital of both.^{192,193}

Geography	Calendar year	Number of births	Mother had less than a high-school education	Mother finished high school or had GED	Mother had more than a high-school education
V De sie s	2018	2,988	23%	28%	48%
Yuma Region	2019	2,939	22%	32%	47%
Vuma County	2018	3,030	23%	28%	48%
	2019	2,945	22%	32%	46%
	2018	80,539	17%	26%	57%
	2019	79,183	16%	27%	57%

Table 14. Level of education for the mothers of babies born in 2018 and 2019

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

Note: Mothers of twins are counted twice in this table.

Additional data tables related to Educational Indicators can be found in Appendix 1 of this report.



EARLY LEARNING

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.^{194,195} 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 two and a half years of age;¹⁹⁶ those disparities that persist until kindergarten tend to predict later academic problems.¹⁹⁷

Quality early care and education can positively influence children's overall development.^{198,199} This is particularly true for children in poverty.²⁰⁰ Access to quality child care and classroom environments can provide enriching experiences children might not have access to at home. Children who attend 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.²⁰¹ Furthermore, early childhood programs help identify children with special needs and can provide targeted interventions that may reduce their risk of developmental delays and prevent preschool expulsion.^{202, 203} Children with special health care needs may particularly benefit from high quality teacher-child interactions in classrooms,^{204,205} as they are more likely to experience more adverse childhood experiences than typically developing children,²⁰⁶ and are at an increased risk for maltreatment and neglect.^{207,208}

A statewide early care and education system that is accessible, affordable and high-quality is essential for the social and economic health of Arizona. Not only does access to affordable, quality child care make a positive difference for children's health and development, it also allows parents to keep steady jobs and support their families.²⁰⁹ Investment in programs for young children leads to increased education and employment, reduced crime and better overall health.^{210,211} The investment in early childhood is also potentially one of the most productive investments a community can make, with experts estimating that society gets back about \$8.60 for every \$1 spent on early learning programs.²¹²

What the Data Tell Us

Early care and education enrollment

Children who begin their education in high-quality preschool programs repeat grades less frequently, score higher on standardized tests, have fewer behavior problems and are more likely to graduate from high school.²¹³ This provides 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.^{214,215} The American Community Survey (ACS) estimates that 2,449 (38%) of the Yuma Region's 6,389 3- and 4-year-old children are enrolled in some type of school, such as nursery school,

preschool, or kindergarten, similar to the state as a whole (39%) (Figure 44). The East sub-region has the lowest percentage of 3- and 4-year old children enrolled in school, at 20%.





Though high-quality early care and education can promote development, families often face barriers in accessing these opportunities for their children. Families in both urban and rural areas of Arizona face a gap between the number of young children and the availability of licensed child care, and this gap is larger in rural parts of the state.^{216,217,218,219} As of 2019, Arizona needed an additional 76,740 licensed or registered early care and education slots to provide spaces for all young children in working families according to analyses by the Bipartisan Policy Center.²²⁰ This highlights the need for additional, high-quality, affordable early care and education providers in Arizona.

In December 2014, Arizona was one of 18 states awarded Preschool Development Grants (PDG) by the federal Department of Education. These grants were awarded to support state efforts to create and expand preschool opportunities for children from low and moderate incomes and provided funding through December 2019.²²¹ In Arizona, 9,505 children were served between January 1, 2015 and December 31, 2018 through this PDG funding. In Yuma County in the last year of PDG funding, 13 early care and education programs were contracted with the Arizona Department of Education to provide early care and education opportunities for young children in the county.^{xviii} These programs provided 581 full-time slots and 18 part-time slots across the county. It is likely a portion of these early care and education opportunities were lost when this PDG grant funding ended, if other sources of

Source: U.S. Census Bureau. (2021). American Community Survey five-year estimates 2015-2019, Table B14003 Note: In this table, "school" may include nursery school, preschool, or kindergarten.

xviii Data on slots supported through PDG funding by Legislative District provided through personal correspondence with FTF.

funding were not available to continue to support these programs. Across Arizona, the percentage of 3and 4-year-old children in quality early learning settings^{xix} declined in recent years, from 24% in 2017 to 19% in 2019. This decline may be related to the loss of these federal Preschool Development Block Grants (PDG) and Preschool Development Birth through Five Grants (PDG B-5), which resulted in a loss of \$20 million in annual funding that served more than 70 Arizona school districts.^{222,223,224}

In the Yuma Region, there are 125 registered child care providers approved to serve up to 5,863 children (Table 15). Providers in the region are most often home providers (n=50), however these providers only have the capacity to serve 354 children. Conversely, the 37 child care centers in the region can serve 3,010 children. Not surprisingly, the Central sub-region, which has the largest share of children under age 6 in the region (68%, Figure 2), has the highest number of early care and education providers, however the slots available represent 79% of all slots available in the region. The South sub-region, which has 29% of young children in the region (Figure 2), has only 20% of the available early care and education capacity.

	Tota Prov	I ECE /iders	Child ca	re centers	Head Start		Public schools		Home providers	
Geography	Number	Capacity	Number	Capacity	Number	Capacity	Number	Capacity	Number	Capacity
Yuma Region	125	5,863	37	3,010	24	1,616	14	883	50	354
Central subregion	85	4,632	30	2,642	14	1,112	9	632	32	246
East subregion	2	80	1	60	1	20	0	0	0	0
South subregion	38	1,151	6	308	9	484	5	251	18	108
Yuma County	127	5,903	3	3,030	25	1,636	14	883	50	354
Arizona	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table	15.	Estimated	Number	and Ca	apacitv	of Early	Care &	Education	Providers.	2020-2021
I UDIC	10.	Loundied	Number		ipuoity					2020 2021

Source: Arizona Department of Economic Security (2021). Child Care Administration [Dataset]. Data received by request. Arizona Department of Health Services (2021). Child Care Licensing [Dataset]. Data received by request. First Things First (2021). Quality First Data Center [Dataset]. Western Arizona Council of Governments (2021). Head Start Program Data [Dataset]. Data received by request. Chicanos Por La Causa (2021). Head Start Program Data [Dataset]. Data received by request. Analyses conducted by the UArizona CRED Team.

Note: This table was compiled by merging five different licensing and enrollment datasets from ADHS, DES, FTF, W.A.C.O.G., and Chicanos Por La Causa Head Start programs. We removed all duplicate programs (based on name, phone number, and address) as well as program that only serve children ages 5-12, as these are typically before- & after-school programs that only serve school-age children. Head Start & Early Head Start programs are counted separately. Data are not available statewide due to the integration of data that are only available through localized requests. This table does not include centers located in California.

xix 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).

In addition, less than one-third (32%) of the available early care and education capacity in the region are in Quality First providers (Figure 45). With an estimated 9,516 young children in the region with all parents in the labor force who may therefore need child care, the region's capacity of 5,863 slots, including only 1,900 Quality First slots, likely leaves a large number of families without an available, quality child care option. A map of early care and education providers in the region can be found in Figure 46.

Figure 45. Estimated capacity of Early Care & Education Providers (2020-2021) compared to estimated child care demand (ACS 2015-2019)



Children ages 0-5 with all parents in the labor force (ACS) Total Capacity in ECE Providers

Source: Arizona Department of Economic Security (2021). Child Care Administration [Dataset]. Data received by request. Arizona Department of Health Services (2021). Child Care Licensing [Dataset]. Data received by request. First Things First (2021). Quality First Data Center [Dataset]. Western Arizona Council of Governments (2021). Head Start Program Data [Dataset]. Data received by request. Chicanos Por La Causa (2021). Head Start Program Data [Dataset]. Data received by request. Analyses conducted by the UArizona CRED Team. U.S. Census Bureau. (2021). American Community Survey five-year estimates 2015-2019, Table B23008

Note: This table was compiled by merging five different licensing and enrollment datasets from ADHS, DES, FTF, and Western Arizona Council of Governments and Chicanos Por La Causa Head Start programs. We removed all duplicate programs (based on name, phone number, and address) as well as programs that only serve children ages 5-12, as these are typically before- & after-school programs that only serve school-age children. Head Start & Early Head Start programs are counted as distinct programs. Child care demand is estimated using the population of children ages 0-5 with all parents (including step-parents) in the labor force, which means they are working (employed) or actively looking for work (unemployed).

[■] Total Capacity in QF Programs





Source: Arizona Department of Economic Security (2021). Child Care Administration [Dataset]. Data received by request. Arizona Department of Health Services (2021). Child Care Licensing [Dataset]. Data received by request. First Things First (2021). Quality First Data Center [Dataset]. Western Arizona Council of Governments (2021). Head Start Program Data [Dataset]. Data received by request. Chicanos Por La Causa (2021). Head Start Program Data [Dataset]. Data received by request. Analyses conducted by the UArizona CRED Team.

Note: This table was compiled by merging five different licensing and enrollment datasets from ADHS, DES, FTF, and Western Arizona Council of Governments and Chicanos Por La Causa Head Start programs. We removed all duplicate programs (based on name, phone number, and address) as well as programs that only serve children ages 5-12, as these are typically before- & after-school programs that only serve school-age children.

DES-registered providers

The Child Care Resource & Referral (CCR&R) Guide is a resource for families to locate available child care providers. Providers listed with CCR&R are licensed, certified, regulated, or registered through the Arizona Department of Economic Security (DES), Arizona Department of Health Services (ADHS), Arizona Department of Education (ADE), CCR&R, or a Military or Tribal Authority. The 118 CCR&R providers in the region have a capacity to serve 5,751 children either through child care centers (69 sites, capacity to serve 5,407) or family child care providers (49 sites, capacity to serve 344) (Table 16). Child care centers represent 58% of providers in the region, but 94% of the available child care capacity (Figure 47). The East sub-region has only two child care centers registered with CCR&R, while the South sub-region has an equal number of child care centers and home-based providers (18 for both) listed in the CCR&R Guide.

Table 16. Number and licensed capacity of licensed or registered child care providers by type, December 2020

	All pro	oviders	Nannies o prov	r individual iders	Child care centers		Family child care providers		
Geography	Number	Capacity	Number	Capacity	Number	Capacity	Number	Capacity	
Yuma Region	118	5,751	0	0	69	5,407	49	344	
Central	80	4,580	0	0	49	4,344	31	236	
East	2	80	0	0	2	80	0	0	
South	36	1,091	0	0	18	983	18	108	
Yuma County	122	5,952	0	0	73	5,608	49	344	
Arizona	2,521	202,010	26	89	1,909	198,100	586	3,821	

Source: Arizona Department of Economic Security (2021). [Child Care Administration dataset]. Unpublished data.

Note: This table only includes data for providers listed in the National Data System for Child Care NACCRRAware database. These providers are listed through the Child Care Resource & Referral Guide to allow parents and caregivers to find child care and early education providers. Providers that only provide before- and after-school care are not included in this table.

Figure 47. Number and capacity of providers listed in the Child Care Resource & Referral guide in the Yuma Region by type



Source: Arizona Department of Economic Security (2021). [Child Care Administration dataset]. Unpublished data.

Note: This figure only includes data for providers listed in the National Data System for Child Care NACCRRAware database. These providers are listed through the Child Care Resource & Referral Guide to allow parents and caregivers to find child care and early education providers. Providers that only provide before- and after-school care are not included in this figure.

Providers are considered quality educational environments by DES if they receive a Quality First 3-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)²²⁵. Twenty-four providers in the region are accredited, or 20% of providers listed with CCR&R, representing 13% of the capacity of providers in the region (Figure 48). Both of the two providers in the East-subregion are accredited.



Figure 48. Percent of child care providers that are accredited, December 2020

Note: This figure shows the percent of 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.

The COVID-19 pandemic made child care even less accessible for many families. Many child care centers and homes closed in the early days of the pandemic due to concerns about safety of children, staff and families.^{226,227} The pandemic's effect on out-of-home child care arrangements heightened stress for families and widened pre-existing inequities in work, income and well-being. In the summer of 2020 about half of families with young children (47%) in a nationally-representative survey reported that they lost their pre-pandemic child care arrangements, and the majority of parents and caregivers surveyed (70%) were worried about returning to prior arrangements.²²⁸

During the month of December 2020, more than one-third (37%) of the regulated early care providers that were listed in the CCR&R guide were closed. These providers accounted for 36% of the known care capacity in the state. In the Yuma Region, of 118 providers, 41 providers or 35% were closed in December 2020, representing a loss of 2,915 slots or 51% of the previous capacity (Figure 49). Closures were especially high in the South sub-region, where 17 of 36 providers were closed (47%) but those providers represented 74% of the South sub-region's early care and education providers capacity (808 of 1,091).

Source: Arizona Department of Economic Security (2021). [Child Care Administration dataset]. Unpublished data.

Figure 49. Number and capacity of regulated early care and educational providers by operational status in December 2020



Source: Arizona Department of Economic Security (2021). [Child Care Administration dataset]. Unpublished data.

Note: This table only reflects providers registered with the Child Care Resource and Referral (CCR&R) Guide. Closure status for providers were gathered by CCR&R staff throughout the pandemic, who made a strong effort to keep this information up to date; however, these data may not reflect current closure status in the region.

Even if child care centers remained opened during the pandemic, they had to shoulder additional costs related to cleaning and staffing changes, among others. Over half of centers (56%) surveyed by the National Association for the Education of Young Children (NAEYC) reported that they were losing money while operating in December 2020, and a quarter of home-based providers and a third of center-based providers surveyed indicated that they would close in the next three months without additional support.²²⁹ While the extent that these costs are passed on to families remains to be seen, estimates indicate that child care operating costs increased by an average of 47% nationwide. In Arizona, costs were projected to jump substantially more, potentially increasing by 84% for center-based providers (\$685 to \$1,257) and 75% for family home providers (\$732 to \$1281).²³⁰ Many providers are also facing significant staffing challenges and low enrollments. According to a survey by NAEYC in July 2021, most Arizona child care centers surveyed (84%) experienced staffing shortages, driven in large part by the low wages in the early education sector.²³¹

For many providers, relief funds provided through the Coronavirus Aid, Relief and Economic Security (CARES) Act, Coronavirus Response and Relief Supplemental Appropriations Act and American Rescue Plan have been critical for reducing debt incurred during the pandemic.²³² The relief bills passed by Congress during the pandemic have allocated significant funds for child care providers, including \$1.2 billion allocated for Arizona for the next three years through the American Rescue Plan and

Coronavirus Response and Relief Supplemental Appropriations Act.²³³ The 2022 state fiscal year budget includes \$74 million specifically focused on increasing the number of quality child care and preschool settings in Arizona, which could add up to 800 Quality First providers over the next three years. This investment, and others, will hopefully offset the 2019 loss of \$20 million in federal funding through the Preschool Development Block Grants (PDG) and Preschool Development Birth through Five Grants (PDG B-5).^{234,235}

To help counteract the effects of the pandemic, First Things First helped recruit providers to become Arizona Enrichment Centers.²³⁶ The Arizona Enrichment Center program provided funding to licensed child care facilities in order to serve the children of essential workers during the pandemic in 2020 and provided scholarships to essential workers making less than \$65,000 annually.^{237, xx} Two-thirds of all Arizona Enrichment Centers were Quality First participating providers (334 of 506 total enrichment centers).²³⁸ Sixteen providers in the Yuma Region, all but one in the Central sub-region, were Arizona Enrichment Centers, serving 303 children through the program (Table 17). In addition, 91 providers in the region were enrolled in the Child Care COVID-19 grant program offered through DES. ^{xxi} The goal of this program is to help child care providers cover operational costs including, but not limited to, salaries, tuition relief for families, cleaning supplies, and rent and utilities to safely remain open or reopen during the pandemic.

xx As of December 2020, this program transitioned to become the Essential Workers Relief Scholarship, which provided similar funds and scholarships through August 2021. More information can be found on the DES website: <u>https://des.az.gov/services/child-and-family/child-care/emergency-child-care-scholarship-program</u>

xxi For more information on the DES COVID-19 grant program please see (<u>https://des.az.gov/services/child-and-family/child-care/child-</u> care-covid-19-grant-program)

Table 17. Arizona Enrichment Centers and ECE providers who received COVID-19 grants, December 2020

Geography	Arizona Enrichment Centers	Number of children approved for enrollment	Percent of CCRR- listed providers that were AZ Enrichment Centers	Number of providers enrolled in COVID-19 grant program
Yuma Region	16	303	13%	91
Central subregion	15	298	17%	68
East subregion	0	0	0%	0
South subregion	1	<10	3%	23
Yuma County	16	303	13%	91
Arizona	480	5,681	19%	1,808

Source: Arizona Department of Economic Security (2021). [Child Care Administration dataset]. Unpublished data.

Note: COVID-19 grantees include afterschool programs that serve children ages 5-12 as well as early childhood providers.

Head Start

Head Start is a comprehensive early childhood education program for children whose families meet Department of Health and Human Services income eligibility guidelines. The program offers a broad range of individualized services in the areas of education and child development, special education, health services, nutrition and parent/family development. Preschool-aged children are served through Head Start programs, and infants and toddlers are served through Early Head Start. In the Yuma Region, the Western Association Council of Governments (WACOG) operates 11 Head Start sites. In the East sub-region of the Yuma Region there is a single Head Start, Wellton. There are also three WACOG Head Starts in the South sub-region, Carlisle, Orange Grove and San Luis, and the remaining seven WACOG Head Starts are in the Central sub-region: Carver, Foothills, Gwyneth Ham, Helping Hand, Pecan Grove, Rancho Viejo and Yuma West.

These WACOG programs served 671 children in Head Start in the 2019-20 school year, just over half in part day programs (n=357) with the remainder in expanded duration programs (n=314). A small number of children, 48, were served in Early Head Start programs at WACOG Head Start Centers in the region and an additional 36 were served through the Child Care Partnership (CCP) program of Early Head Start which partners Early Head Start programs with child care centers and family home providers.

When combined with data from Chicanos Por La Causa (CPLC), which operates additional Head Start and Early Head Start programs in the Yuma Region, cumulative enrollment across the region in Head Start and Early Head Start programs decreased from 1,451 in 2019-20 to 999 in 2020-21. Most programs showed a decrease in enrollment across those two years, with the exception of the Gwyneth Ham Early Learning Head Start, and the Rancho Viejo and Pecan Grove Early Head Start programs which saw slight increases in enrollment from 2019-20 to 2020-21 (Figure 50). Waitlists for CLPC programs decreased across the two years, with all CLPC sites reporting either no, or less than 10 young children on wait lists for their programs in both reporting years. WACOG did not provide data on waitlists for this report.

Figure 50. Cumulative enrollment in Yuma Region W.A.C.O.G. and Chicanos Por La Causa Head Start programs, 2019-20 to 2020-21



■2019-20 ■2020-21

Source: Western Arizona Council of Governments (2021). Head Start Program Data [Dataset]. Data received by request. Chicanos Por La Causa data received through personal correspondence.

Note: Cumulative enrollment is the total number of students enrolled throughout the year; this number often exceeds funded enrollment as students enter and exit a program.

More than eight in 10 children enrolled across all WACOG Head Start and Early Head Start programs in the region in the 2020-21 school year were Hispanic or Latino (84%; 596 of 713 enrolled) (Table 18), very similar to the ethnicity of young children across the region (79% of children aged birth-4 were identified as Hispanic or Latino, see Figure 7).



Contor Nama	Hispanic or Latino	Non- Hispanic or Latino	American Indian or Alaska	Asian	Plack	Pacific	\\/bita	Multi- or Bi-
Yuma Region	596	62	Nauve 10	Asian <10	17	Islander 0	659	Naciai 22
Wellton Head Start Center	<10	<10	<10	0	0	0	10	0
Foothills Head Start Center	46	<10	<10	<10	0	0	53	<10
Foothills Early Head Start Center	21	0	0	0	0	0	21	<10
Gwyneth Ham Early Learning Center- Early Head Start	46	<10	<10	0	<10	0	50	0
Gwyneth Ham Early Learning Center- Head Start	76	16	<10	<10	<10	0	92	<10
Helping Hand Head Start Center	35	<10	<10	0	0	0	38	<10
Carver Head Start Center	35	<10	0	0	<10	0	37	0
Pecan Grove Head Start	16	<10	0	0	0	0	19	<10
Pecan Grove Early Head Start	13	<10	<10	0	<10	0	16	0
Yuma West Head Start Center	32	<10	0	0	<10	0	38	<10
Rancho Viejo Head Start Center	82	<10	<10	<10	<10	0	89	<10
Rancho Viejo Early Head Start Center	19	<10	0	0	<10	0	22	<10
Orange Grove Head Start Center	18	0	0	0	0	0	18	<10
Carlisle Head Start Center	43	<10	0	0	0	0	48	0
San Luis Early Head Start Center	30	<10	0	0	0	0	31	0
San Luis Head Start Center	76	<10	0	0	0	0	77	0

Source: Western Arizona Council of Governments (2021). Head Start Program Data [Dataset]. Data received by request.

Quality First

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.²³⁹ 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.^{240,241,242}

Beyond the basic goal of being a safe place for children, there are a number of different ways for a child care program to enrich a child's experience. Quality standards help ensure these early environments support positive outcomes for children's well-being, academic achievement and success later in life.²⁴³ The Quality First program notes that quality settings include teachers and staff who know how to work with young children and offer hands-on activities, create learning environments that nurture the development of every child, and foster positive, consistent relationships and interactions that give children the individual attention they need.²⁴⁴ Quality First is Arizona's Quality Rating and Improvement System (QRIS) for early child care and preschool providers.²⁴⁵ 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. Through Quality First, child care health consultants also help provide health and safety guidance to providers.²⁴⁶

Almost all (92%; 45 of 49) Quality First providers in Yuma Region meet quality standards (3-star rating or higher), higher than the 79% across the state as a whole (Figure 51). Of the 1,372 children enrolled in Quality First sites in the region, 1,088 (79%) are in a quality level setting (3-star rating or higher). Just over a quarter of children enrolled in Quality First providers in the region are served through Quality First scholarships (28%; 387 children).

Figure 51. Percent of Quality First programs with a 3-5 star rating and children enrolled in quality-level programs, state fiscal year 2020



Source: Arizona Department of Economic Security (2021). [Child Care Administration dataset]. Unpublished data. Note: Quality First considers providers with a 3-star rating and above to be 'quality level.'

Early care and education affordability

The high cost of early care and education can place formalized care out of reach of many families. The average annual cost of full-time center-based care for a young child in Arizona is nearly equal to the cost of one year at a public college.^{247,248}

The average monthly cost for child care in Arizona varies based on the type of provider and age of the child, with licensed child care centers often having the highest rates across all age groups. Without accounting for possible family discounts for families with multiple children at the same center, a family with one preschooler and one infant can expect to pay about \$1,521 per month for a licensed child care center provider. This monthly cost exceeds what many Arizonans likely pay per month on housing, creating potential financial challenges that are further compounded for families with multiple children under the age of 5.^{xxii,249,250} A married family with two children living at the poverty line in Arizona, for example, would need to pay over 77% of their household income for center-based care. ^{251,252}

The cost of care in the Yuma Region also varies by the type of care and the age of the child receiving care; however, the median cost in the region relative to the cost of similar care across the state is usually lower (Figure 52). For example, residents in the region pay lower prices than parents statewide for child care centers (e.g., \$660 per month for infant care vs. \$861/month) and approved family homes (e.g., \$380 per month for infant care vs. \$400/month), but the same amount for certified group homes (e.g., both \$600/month). Within the region, care in all types of settings is almost always most expensive for infants, which is not surprising given that typically, the lower teacher-to-child ratio needed for infant care necessitates a higher cost of care.

Families in Yuma County are paying a similar proportion (12-16%, depending on the child's age) of their overall income for a child care slot as other families statewide (Figure 53). However, to avoid being overburdened, the Department of Health and Human Services recommends that parents spend no more than 10% of their family income on child care,²⁵³ and families in the county are paying more than that recommended 10%. Also, these percentages reflect the burden for families with only one young child in need of full-time care. Families with more children would spend a greater proportion of their income on child care. Additionally, these proportions were calculated based on the median income for all families. Single parent homes, particularly those with a single female householder, have a much lower median income (see Figure 16), resulting in a higher proportion of their income being spent on child care.

^{xxii} In addition to the financial challenges faced by parents paying for child care, the early care and education workforce is one of the most underpaid fields in the country. Nationally, educators working with infants and toddlers are 7.7 times more likely to live in poverty compared to K-8 teachers. The median hourly wage for a child care worker in Arizona (\$11.97) is \$13.19 less per hour than what is considered a living wage for a single parent with one child (\$25.16). For more information on early care and education workforce wages visit <u>https://cscce.berkeley.edu/workforce-index-2020/the-early-educator-workforce/early-educator-pay-economic-insecurity-across-thestates/</u>



Figure 52. Median monthly charge for full-time child care, 2018

Source: Arizona Department of Economic Security (2021). [Child Care Administration dataset]. Unpublished data.

Note: Median monthly charges are calculated by multiplying the daily median cost of care by 20 to approximate a full month of care.





Child care subsidies provided by government agencies can help to offset families' child care costs, reducing financial barriers to accessing child care and ensuring parents can remain employed and provide for their family's needs.²⁵⁴ In June 2019, for the first time since the Great Recession, the 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.²⁵⁵ This was due to \$56 million in additional federal funds from the Child Care and Development Fund (CCDF) that was authorized by the Arizona State Legislature. 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.²⁵⁶

With the suspension of the waiting list part way through the year, the number of children receiving DES child care subsidies in the Yuma Region increased substantially from 2018 (n=582) to 2019 (n=743) and 2020 (n=771). However, the percentage of children eligible to receive these subsidies who actually received them in the region decreased from 2019 (93%) to 2020 (85%), although at a less precipitous rate than across the state as a whole (Figure 54). This 2020 decline reflects the impact the pandemic had on child care arrangements, with many parents and caregivers using no out-of-home care for their children.²⁵⁷ In the summer of 2020, about half of families with young children (47%) in a nationally representative survey reported that they lost their pre-pandemic child care arrangements, and the majority of parents and caregivers surveyed (70%) were worried about returning to prior arrangements.²⁵⁸ Given these substantial disruptions to the early care and education system, it is difficult at this moment to determine what the longer term effects of the suspension of the child subsidy waitlist will be as providers begin to return to normal operations. The number of DCS-involved children receiving DES child care subsidies also decreased substantially from 2019 (80%) to 2020 (53%),

Source: Arizona Department of Economic Security (2021). [Child Care Administration dataset]. Unpublished data. Note: Annual costs of care are calculated by multiplying the median daily cost of care by 240 to approximate a full year of care.

although declines had been occurring in the years previous as well (93% were receiving subsidies in 2015).



Figure 54. Children birth to 5 eligible for, receiving, and on waitlist for DES child care subsidies, 2015 to 2020

Note: The DES child care waitlist was suspended in June 2019, so there are no waitlist numbers for 2020. DES child care subsidy amounts vary based on a number of factors including the age of the child, the type of provider and the quality status of the provider. For more information please see the current DES reimbursement rates for child care at https://des.az.gov/sites/default/files/dl/CCA-1227A_1.pdf?time=1646262773961

Eligible families may not access child care subsidies for a number of reasons, including limited knowledge about how to navigate the system, an inability to afford child care even with the subsidy, or a lack of providers within their area who will take subsidy payments.^{259,260} The percentage of families who applied and were found eligible for DES child care subsidies but did not utilize them increased slowly in the region from 2015 (5%) to 2018 (12%), decreased sharply to 6% in 2019, before increasing again in 2020 (14%), another reflection of the pandemics effect on child care arrangements (Figure 55). Interestingly, between 2018 and 2020, overall, only 2% more families who were eligible to receive subsidies in the region didn't, compared to 10% more families across the state overall.

Sources: Arizona Department of Economic Security (2021). [Child Care Administration dataset]. Unpublished data.



Figure 55. Eligible families not using DES child care subsidies, 2015 to 2020

Source: Arizona Department of Economic Security (2021). [Child Care Administration dataset]. Unpublished data.

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. The U.S. Department of Health and Human Services defines children with special health care needs 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."²⁶¹

Children with special health care needs may particularly benefit from high quality teacher-child interactions in classrooms,^{262,263} as they are more likely to experience more adverse childhood experiences than typically developing children,²⁶⁴ and are at an increased risk for maltreatment and neglect.^{265,266} Adverse Childhood Experiences (ACEs) ^{xxiii} include childhood experiences of abuse, neglect, and other forms of potential trauma. Nearly one in five children in the state of Arizona have special health care needs (17.6%), and according to a public survey of families conducted by the Arizona Department of Health Services, lack of child care is a major barrier for these families when trying to access services.²⁶⁷

Timely and appropriate developmental screenings can help to identify children who may have special needs. By identifying these children early, intervention can help young children with, or at risk for, developmental delays to improve language, cognitive and socio-emotional development.^{268,269} It also

xxiii 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.

reduces educational costs by decreasing the need for special education.²⁷⁰ In Arizona, services available to families with children with special needs include those provided through the Arizona Early Intervention Program (AzEIP),^{xxiv} the Division of Developmental Disabilities (DDD),^{xxv} and the Arizona Department of Education Early Childhood Special Education Program.^{xxvi}

The Arizona Early Intervention Program (AzEIP)^{xxvii} is an interagency system of services and supports for families of young children (birth to 2) with disabilities or developmental delays in Arizona. AzEIP may refer families to the Division of Developmental Disabilities (DDD) if the child has or is at risk for developing a qualifying disability, including cerebral palsy, epilepsy, autism spectrum disorder or an intellectual or cognitive disability.^{xxviii,xxix}

The number of young children referred to AzEIP in the Yuma Region dropped substantially from 462 in 2019 to 337 in 2020, likely a result of constraints of the COVID-19 pandemic (discussed more later) (Figure 56). Key informants also noted a change in the AzEIP contracted provider in the region prior to the pandemic's start, so this transition just prior to an event impacting interaction with providers in the region may have presented an additional hurdle to referrals. The number of children referred and found eligible decreased only slightly from 154 in 2019 to 143 in 2020, resulting in an increased proportion of young children referred to AzEIP being determined eligible for services between 2019 and 2020 from 33% to 42%. Once constraints on referrals caused by the pandemic ease, this trend in increases in children being determined eligible for AzEIP services could mean even more young children referred to and found eligible for AzEIP in 2020 were similar across sub-regions (Figure 57).

xxiv For more information on AzEIP, visit <u>https://www.azdes.gov/azeip/</u>

xxv For more information on DDD, visit <u>https://des.az.gov/services/disabilities/developmental-disabilities</u>

xxvi For more information on ADE's Early Childhood Special Education program, <u>visit http://www.azed.gov/ece/early-childhood-special-education/</u> and <u>http://www.azed.gov/special-education/az-find/</u>

xxvii For more information on AzEIP, visit <u>https://www.azdes.gov/azeip/</u>

xxviii DDD provides services to individuals with qualifying disabilities through adulthood. Qualifying children may receive services from both AzEIP and DDD.

xxix For more information on the Division of Developmental Disabilities (DDD) eligibility see <u>https://des.az.gov/services/disabilities/developmental-disabilities/determine-eligibility</u>

Figure 56. Children ages birth to 2 referred to and found eligible for AzEIP, federal fiscal years 2018 to 2020



Sources: Arizona Department of Economic Security (2021). [Arizona Early Intervention Program dataset]. Unpublished data. Note: These data reflect the Oct 1 snapshot of AzEIP services, not a cumulative total throughout the year.

Figure 57. Children ages birth to 2 referred to and found eligible for AzEIP, federal fiscal year 2020



Sources: Arizona Department of Economic Security (2021). [Arizona Early Intervention Program dataset]. Unpublished data. Note: These data reflect the Oct 1 single-day snapshot of AzEIP services, not a cumulative total throughout the year. Overall, there was a decline in the number of young children receiving DDD services between 2017 and 2020 (-38%) across the Yuma Region and all sub-regions (Figure 58). This pattern is different than that across the state as a whole, and the reasons for the decline before the pandemic are unknown. Interestingly the number of children being served by DDD increased very slightly from 2019 to 2020 in both the Yuma Region and across the state. In 2020, the number of children receiving services through DDD by sub-region mirrored the share of young children in each (Figure 59).

Figure 58. Number of children (ages 0-5) receiving DDD services, state fiscal years 2017 to 2020



Sources: Arizona Department of Economic Security (2021). [Arizona Early Intervention Program dataset]. Unpublished data.



Figure 59. Number of children (ages 0-5) receiving DDD services, state fiscal year 2020

The COVID-19 pandemic likely added to already decreasing service numbers through disrupting much of the system for providing services and learning opportunities to children with special needs. In spring 2020, AzEIP halted in-home and community services and switched to virtual visits (computer-or phone-based).²⁷¹ The transition to remote services was challenging for both service providers and families. Technology was a barrier to families receiving early intervention services, and the form of services often transitioned to more of a family-coaching approach rather than direct interaction with the child.²⁷² Given these added challenges, it is not surprising that families with young children with special needs also struggled more emotionally and psychologically through the pandemic. According to a nationally representative series of surveys throughout the pandemic, in households of children with disabilities, both young children and their caregivers experience higher levels of stress and anxiety than households of typically developing children.^{273,274}

A 2008 study using nationally representative data estimates that approximately 13% of children ages 0-2 in the U.S. have developmental delays that could benefit from early intervention services, but only about 3% of children actually receive services, which is consistent with current early intervention service data.²⁷⁵ Only 1.8% of children birth to 2 years were receiving services from AzEIP or DDD in 2020 in the Yuma Region (Table 19). These data suggest that there are likely many children across the region who would benefit from early intervention services but are not receiving them. This is likely in part because Arizona has some of the strictest eligibility requirements for early intervention services compared to most other states in the U.S.²⁷⁶

Sources: Arizona Department of Economic Security (2021). [Arizona Early Intervention Program dataset]. Unpublished data.

Of note, across the Yuma Region, the percentage of the youngest children receiving AzEIP or DDD services increased slightly between 2019 (n=157) and 2020 (n=160). This positive change (+2%) was not reflected in the Central sub-region which experienced a 20% decrease in the number of children 0-2 receiving services between 2019 and 2020. In the South sub-region, conversely, the number of children 0-2 receiving services in AzEIP or DDD increased between 2019 and 2020. It would be interesting to determine what strategies or resources were in place in the South sub-region that supported this increase. The Center for Children with Special Needs & Autism,^{xxx} housed in the San Luis Walk-In Clinic, Inc, was established in March 2018, and may be a resource for raising awareness about potential delays and engaging in early intervention services in the South sub-region.

Geography	Children receiving AzEIP or DDD services, SFY 2019	Children receiving AzEIP or DDD services, SFY 2020	Percent change from 2019 to 2020	Population of Children (ages 0-2), 2010 Census	Estimated percent of children (ages 0- 2) receiving AzEIP or DDD services, SFY 2020
Yuma Region	157	160	+2%	8,917	1.8%
Central subregion	114	91	-20%	6,166	1.5%
East subregion	[1 to 9]	[1 to 9]	N/A	222	DS
South subregion	[36 to 42]	[60 to 68]	N/A	2,529	2.4-2.7%
Yuma County	158	161	+2%	8,951	1.8%
Arizona	6,376	5,721	-10%	270,519	2.1%

Table 19. Numbers of children (ages 0-2) receiving services from AzEIP, DDD, or both; state fiscal years 2019 and 2020

Source: Arizona Department of Economic Security (2021). [Arizona Early Intervention Program & Division of Developmental Disabilities datasets]. Unpublished data. U.S. Census Bureau (2010). Decennial Census, Table P14.

Note: These data reflect the Oct 1 snapshot of services, not a cumulative total throughout the year.

The Center for Children with Special Needs & Autism also publishes a Community Resource Guide which lists local and statewide resources for families with young children.^{xxxi} This list, which is also available on the Center's website, includes local organizations that provide services for young children with special needs. These providers, and a brief description of the services they provide can be found in Table 20.

xxx For more information on the Center for Children with Special Needs & Autism, please see http://www.centercsn-autism.org/

xxxi http://www.centercsn-autism.org/wp-content/uploads/2019/09/CC-SNA-Community-Resource-Guide_2018-2019_v3.pdf
Organization	Podiatric convices provided	Location
Organization		Location
Arenwald-Theranova Occupational Safety	Occupational therapy	Yuma
Center for Children w Special Needs & Autism	Speech language therapy and behavioral health services	Somerton
Saguaro Speech Therapy	Speech language and feeding therapy	Yuma
STI Physical Therapy	Physical therapy	Yuma
Strong Beginnings LLC	Applied Behavior Analysis (ABA) therapy	Yuma
YRMC Children's Rehabilitative Services	Specialized care for children with eligible chronic conditions	Yuma

Table 20: Regional providers serving young children with special needs

Source: http://www.centercsn-autism.org/link-resources/

An additional asset for young children with special needs in the region is the Easterseals Blake Foundation, Early Care and Education Inclusion Plus (ECEI+) program. ECEI+ works with early care and education providers through a combination of training and on-site coaching assistance to provide additional support, developmental screenings and referrals for children with special needs enrolled in these early care settings.

As a child with special needs approaches age 3, they transition from receiving services through AzEIP to receiving services from their local education authority (LEA). Data from the Arizona Department of Education show that the number of young children (ages 3 to 5) with special needs receiving services from LEAs in the Yuma Region has increased 40% since the 2017-18 school year, with 310 children receiving services in 2019-20 (Figure 60). This increase is much higher than that seen across the state as a whole (4%). Key informants discussed the possible impact of additional preschool opportunities made available over this period through Preschool Development Grant funding. Children enrolled in these additional early education settings were then with trained early education providers who may observe potential developmental delays that could then be referred for assessment and services. How the loss of this funding, and a portion of these additional early education opportunities, will impact these trends is yet to be seen.

Pandemic-related school closures also especially impacted children with special needs. In-person services for children through LEAs were disrupted and required transitions to remote modalities.²⁷⁷ School-based services for children with special needs were also significantly impacted, with remote learning creating barriers to fulfilling students' Individualized Education Plans (IEPs) resulting, for some, in a loss of academic, social and physical skills that will require targeted support to address.²⁷⁸ As schools return to in-person learning, children with special needs may need additional supports to build skills and recover unfinished learning over the past year and a half.

Figure 60. Trends in preschoolers with disabilities served by Local Education Authorities (LEAs), 2017-18 to 2019-20



Source: Arizona Department of Education (2021). [Special Needs Dataset]. Custom tabulation of unpublished data by the UArizona CRED Team

The increases in the number of children aged 3-5 with special needs receiving services in the region and state match national trends. Nationwide, the number of children receiving special education services has been increasing over the past few years.^{279,280,281} Providing early intervention services for young children has been shown to reduce the need for special education services later in childhood,²⁸² so assuring that children have access to timely and adequate screening and intervention services from birth to 5 can be key for helping children to be ready for kindergarten.

Among children who are in special education programs in public preschools in the Yuma Region, the majority of children have either a developmental delay (43%) or speech or language impairment (32%) (Table 21, Figure 61). The remainder either have a preschool severe delay (22%) or other disability (4%). This pattern is not consistent across school districts where data is available. The Somerton and Gadsden School Districts have the highest proportion of preschoolers receiving services diagnosed with a speech or language impairment (40% and 62% respectively) (Table 21).

Table 21. Preschoolers with disabilities receiving services through Local Education Authorities by type of disability, 2019-20

Geography	Number of preschoolers enrolled	Developmental Delay	Preschool Severe Delay	Speech or Language Impairment	Other Disabilities
Yuma Region Schools	310	43%	22%	32%	4%
Yuma Elementary District	129	47%	26%	27%	<2%
Somerton Elementary District	45	38%	22%	40%	<2%
Crane Elementary District	67	60%	24%	16%	<2%
Hyder Elementary District	DS	DS	DS	DS	DS
Mohawk Valley Elementary District	DS	DS	DS	DS	DS
Wellton Elementary District	DS	DS	DS	DS	DS
Gadsden Elementary District	58	26%	12%	62%	<2%
The Charter Foundation, Inc.	DS	DS	DS	DS	DS
Juniper Tree Academy	DS	DS	DS	DS	DS
Harvest Power Community Development Group, Inc.	DS	DS	DS	DS	DS
Yuma County Schools	299	44%	22%	33%	<2%
Arizona Schools	10,521	43%	20%	34%	3%

Source: Arizona Department of Education (2021). [Special Needs Dataset]. Custom tabulation of unpublished data by the UArizona CRED Team

Note: The discrepancy between Yuma County and Yuma Region is due to a difference in assigning of children attending the Yuma campus of the Arizona State Schools for the Deaf and Blind. These children are included in the region total but not in the county total. The preschool severe delay category is defined by Arizona as a very low score on assessments of in one or more of these areas: cognitive development, physical development, communication development, social or emotional development, or adaptive development. <u>https://www.azed.gov/specialeducation/disability-categories/</u>

Figure 61. Preschoolers with disabilities receiving services through Local Education Authorities (LEAs) by type of disability, 2019-20



Developmental Delay Preschool Severe Delay Speech or Language Impairment Other Disabilities

Sources: Arizona Department of Economic Security (2021). [Arizona Early Intervention Program dataset]. Unpublished data.

Note: The discrepancy between Yuma County and Yuma Region is due to a difference in assigning of children attending the Yuma campus of the Arizona State Schools for the Deaf and Blind. These children are included in the region total but not in the county total. The preschool severe delay category is defined by Arizona as a very low score on assessments of in one or more of these areas: cognitive development, physical development, communication development, social or emotional development, or adaptive development. <u>https://www.azed.gov/specialeducation/disability-categories/</u>

For older children in the region (enrolled in kindergarten through third grade), the number of children enrolled in special education services in public or charter schools increased slightly from 1,042 in the 2017-18 school year to 1,092 in 2019-20 (Table 22). Given that this is over six times the number of children birth to 2 in the region being served by early intervention services (160 served by AzEIP and DDD in 2020), it may be that children with delays are being identified and diagnosed when they are older, missing the earlier years when intervention can be more effective and less costly. Key informants in the region echoed this likelihood, noting that issues such as lack of knowledge, stigma or denial may impact family's willingness to acknowledge or address potential developmental concerns before children enter school and have potential issues identified by early intervention professionals.

Of those kindergarten through third grade students enrolled in special education in public and charter schools in the region, most have a primary disability of a speech or language impairment (33%) or developmental delay (24%) (Table 23, Figure 62). Less often these children have a primary disability of specific learning disability (16%), other disability (15%) or autism (13%). These proportions are quite similar to those for children across the state as a whole, but again this pattern is not consistent across school districts where data is available.

Table 22. Kindergarten to 3rd grade students enrolled in special education in public and charter schools, 2017-18 to 2019-20

Geography	K-3 students enrolled in special education, 2017-18	K-3 students enrolled in special education, 2018-19	K-3 students enrolled in special education on Oct 1, 2019-20
Yuma Region Schools	1,042	1,064	1,092
Yuma Elementary District	344	360	376
Somerton Elementary District	139	155	178
Crane Elementary District	187	195	208
Hyder Elementary District	DS	DS	DS
Mohawk Valley Elementary District	DS	DS	DS
Wellton Elementary District	DS	DS	DS
Gadsden Elementary District	221	205	198
The Charter Foundation, Inc.	[14 to 24]	[18 to 28]	[18 to 28]
Juniper Tree Academy	[53 to 63]	[50 to 60]	[44 to 54]
Harvest Power Community Development Group, Inc.	[24 to 34]	[21 to 31]	[27 to 37]
Yuma County Schools	1,061	1,077	1,106
Arizona Schools	36,807	38,115	39,071

Source: Arizona Department of Education (2021). [Special Needs Dataset]. Custom tabulation of unpublished data by the UArizona CRED Team

Table 23. Kindergarten to 3rd grade students enrolled in special education in public and charter schools by primary disability, 2019-20

Geography	Number of K-3 students enrolled	Autism	Developmental Delay	Specific Learning Disability	Speech or Language Impairment	Other Disabilities
Yuma Region Schools	1,092	13%	24%	16%	33%	15%
Yuma Elementary District	376	15%	24%	15%	31%	15%
Somerton Elementary District	178	17%	24%	11%	36%	12%
Crane Elementary District	208	13%	26%	19%	26%	17%
Hyder Elementary District	DS	14%	<2%	<2%	71%	14%
Mohawk Valley Elementary District	DS	10%	10%	10%	60%	10%
Wellton Elementary District	DS	<2%	<2%	33%	33%	33%
Gadsden Elementary District	198	8%	30%	12%	41%	11%
The Charter Foundation, Inc.	[18 to 28]	8%	<2%	15%	77%	<2%
Juniper Tree Academy	[44 to 54]	10%	18%	35%	24%	12%
Harvest Power Community Development Group, Inc.	[27 to 37]	7%	7%	34%	45%	7%
Yuma County Schools	1,106	13%	24%	16%	33%	14%
Arizona Schools	39,071	11%	25%	15%	36%	14%

Source: Arizona Department of Education (2021). [Special Needs Dataset]. Custom tabulation of unpublished data by the UArizona CRED Team

Figure 62. Kindergarten to 3rd grade students enrolled in special education in public and charter schools by primary disability, 2019-20



■ Autism ■ Developmental Delay ■ Specific Learning Disability ■ Speech or Language Impairment ■ Other Disabilities Sources: Arizona Department of Economic Security (2021). [Arizona Early Intervention Program dataset]. Unpublished data.

Additional data tables related to *Early Learning* can be found in Appendix 1 of this report.



CHILD HEALTH

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. Early childhood health, and even maternal health before pregnancy, has lasting impacts on an individual's quality of life.^{283,284} Experiences during the prenatal and early childhood period can result in lifelong impacts on immune functioning, brain development and risk for chronic diseases.^{285,286} Early health also has lasting impacts on long-term economic well-being and the well-being of their future children, with poor childhood health potentially perpetuating the harmful cycle of intergenerational poverty.^{287,288} Therefore, adequate access to health insurance, preventive care and treatment services are not only vital to support a child's current health, but for their long-term development and future success.^{289,290,291}

One useful set of metrics 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 children and mothers fall in relation to these national benchmarks (Healthy People 2020)^{xxxii,292} 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 Healthy People 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.²⁹³

What the Data Tell Us

Access to care

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.^{294,295} 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.²⁹⁶ 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.^{297,298} Access to health insurance is also an important indicator of children's access to health services. Children who lack health insurance are more likely to be hospitalized and to miss school.²⁹⁹

xxxii Data included in this report are presented alongside Healthy People 2020 benchmarks because data are available through 2019. However, new Healthy People 2030 benchmarks have now been released and are noted where appropriate. For more information about Healthy People 2030 visit <u>https://health.gov/healthypeople</u>

In addition to the direct impacts of COVID-19 on the health of millions of people, the pandemic has also created barriers to important preventive care for children and families. In a nationally-representative survey, it was found that more than one in four (28%) families with young children missed a well-baby/well-child visit during the pandemic, including more than one in three (36%) families with young children with special needs.^{300,301} Families with young children (18 months-5 years), low-income families and Black and Hispanic families experienced the greatest barriers to attending well-child visits and scheduled vaccinations.³⁰²

Federal relief efforts during the pandemic have included expansion of subsidies for health insurance purchased on Affordable Care Act marketplaces as well as special and expanded enrollment periods for insurance through these marketplaces.³⁰³ These efforts helped prevent losses of insurance for many Americans despite the enormous number of jobs lost and may make health insurance more accessible for families in Arizona.³⁰⁴

In the Yuma Region, according to American Community Survey (ACS) data averaged over the five years from 2015 to 2019, an estimated 13% of the population do not have health insurance coverage, slightly higher than across the state as a whole (10%) (Figure 63). Coverage is, however, higher for young children under 6, with only 6% of young children in the region uninsured, similar to the state (7%). Health insurance coverage does vary by sub-region, with the South sub-region having the highest percentage amongst the whole population uninsured (19%) and the highest percentage of uninsured young children (11%).



Figure 63. Health insurance coverage, 2015-2019 ACS

Source: U.S. Census Bureau. (2021). American Community Survey five-year estimates 2015-2019, 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" by the U.S. Census Bureau.

Prenatal care

Consistent and accessible health care during and after pregnancy is critical for supporting pregnant mothers and young children. Prenatal care, starting early in pregnancy and continuing at regular intervals to delivery, can improve health outcomes for mothers and infants and reduces the risk of prenatal smoking, pregnancy complications, prematurity and maternal and infant mortality.^{305,306,307,308} Given the impacts of inadequate prenatal care on birth outcomes, targeted efforts to engage more women in early and adequate prenatal care could help improve the health of Arizona mothers and babies.

In 2019, there were 2,939 births in the Yuma Region (Table 24). Just under six in 10 of these births were to mothers (59.7%) who began prenatal care in their first trimester, far below the Healthy People 2020 target of 84.8%. In addition, this percentage in 2019 reflected a decrease in the percentage of births with mothers receiving this care from 2018, when 62.6% of births in the region were to mothers beginning prenatal care in the first trimester. The state also falls below the Healthy People 2020 target for prenatal care, but births across the state had a higher proportion of mothers beginning prenatal care in the first trimester in 2019 than in the region.

Geography	Calendar year	Number of births	Mother had no prenatal care	Mother had fewer than five prenatal visits	Mother began prenatal care in the first trimester
Vume Denien	2018	2,988	5%	12%	62.6%
ruma Region	2019	2,939	6%	14%	59.7%
	2018	3,030	5%	12%	62.5%
Yuma County	2019	2,945	6%	14%	59.8%
Arizono	2018	80,539	3%	8%	68.8%
Arizona	2019	79,183	3%	8%	68.9%
Healthy People 2020	0 Target				84.8%

Table 24. Prenatal care for the mothers of babies born in 2018 and 2019

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

Note: Mothers of twins are counted twice in this table.

Across years, births in the Yuma Region were more likely to have been to mothers with no prenatal care or fewer than five prenatal visits than births across the state as a whole, with twice as many births to mothers (6%) with no prenatal care and almost twice as many (14%) with less than five prenatal visits, compared to the state in 2019 (Figure 64). Differences also exist across sub-regions, with only 48.6% of the 2,910 births in the South sub-region between 2017-2019 to mothers who began prenatal care in the first trimester (Figure 65).



Figure 64. Births to mothers with inadequate prenatal care, 2014 to 2019

Source: Arizona Department of Health Services (2021). [Vital Statistics Births dataset]. Unpublished data. Note: Mothers of twins are counted twice in these figures

Note: Mothers of twins are counted twice in these figures

Figure 65. Births to mothers who began prenatal care in the first trimester by subregion, 2017-2019 combined



Source: Arizona Department of Health Services (2021). [Vital Statistics Births dataset]. Unpublished data. Note: Mothers of twins are counted twice in this figure.

Maternal characteristics

Certain maternal characteristics can increase the risk of poor health outcomes for both mothers and their babies. A mother's health status before, during and after pregnancy influences her child's health. A mother's use of substances, such as drugs and alcohol, 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.^{309,310}

Pregnancy during the teen years is also associated with a number of health concerns for children, including neonatal death, sudden infant death syndrome and child abuse and neglect.³¹¹ Teenaged parents are less likely to complete high school or college and more likely to require public assistance and live in poverty than their peers who are not parents.^{312,313,314}

In 2019, births in the Yuma Region were slightly more likely than that statewide to be to mothers younger than 20 (8% vs. 5%) (Table 25). In addition, more than six in 10 births (61%) were to mothers relying on AHCCCS or Indian Health Service (IHS) coverage, higher than the statewide proportion (50%). The same percentage of births in the region and state were to mothers with gestational diabetes in 2019 (9%), while slightly more in the region were to mothers with pre-pregnancy obesity than across the state (35% vs 30%). A lower proportion of births in the Yuma Region were to mothers who reported smoking (2.1%) than across the state (4.3%), although both fell above the Healthy People 2020 goal of 1.4%.

Geography	Calendar year	Number of births	Mother was younger than 18	Mother was younger than 20	Birth was covered by AHCCCS or IHS	Mother had gestational diabetes	Mother had pre- pregnancy obesity	Mother used tobacco during pregnancy
Yuma Dagian	2018	2,988	3%	9%	63%	7%	28%	2.1%
ruma Region	2019	2,939	2%	8%	61%	9%	35%	2.1%
	2018	3,030	3%	9%	62%	7%	36%	2.1%
Yuma County	2019	2,945	2%	8%	62%	9%	36%	2.1%
	2018	80,539	2%	6%	51%	8%	29%	4.5%
Arizona	2019	79,183	1%	5%	50%	9%	30%	4.3%
Healthy People 2020 Targets								1.4%

Table 25. Selected characteristics of mothers giving birth, 2018 to 2019

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

Note: Mothers of twins are counted twice in the age, payor, and tobacco columns of this table. The Healthy People 2030 target for maternal use of tobacco during pregnancy was increased to 4.3% of females giving birth reporting smoking during pregnancy, or alternatively 95.7% of females reporting abstaining from smoking during pregnancy. Only 0.4% of births in 2018 and 0.5% of births in 2019 were covered by IHS, meaning that most births with a public payor were covered by AHCCCS.

Differences exist in these characteristics across sub-region, notably with the highest percentages of births to younger mothers and births covered by AHCCCS or IHS in the South sub-region (Table 26). The South sub-region also had the lowest percentage of births to mothers using tobacco during

pregnancy, and met the Healthy People 2020 target of less than 1.4% of births to mothers using tobacco during pregnancy.

Subregion	Three-year period	Number of births	Mother was younger than 18	Mother was younger than 20	Birth was covered by AHCCCS or IHS	Mother used tobacco during pregnancy
Control	2014-2016	5,911	2%	8%	54%	3.6%
Central	2017-2019	5,800	2%	7%	56%	2.8%
	2014-2016	163	1%	[1 to 10%]	64%	[1 to 10%]
East	2017-2019	161	1%	[1 to 10%]	64%	[1 to 10%]
Couth	2014-2016	2,970	4%	12%	[67 to 69%]	0.9%
South	2017-2019	2,910	3%	10%	75%	0.7%
Healthy People 2020 Targets						1.4%

Table 26. Selected characteristics of mothers giving birth by subregion, 2014-2016 to 2017-2019

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

Note: Mothers of twins are counted twice in the age, payor, and tobacco columns of this table. The Healthy People 2030 target for maternal use of tobacco during pregnancy was increased to 4.3% of females giving birth reporting smoking during pregnancy, or alternatively 95.7% of females reporting abstaining from smoking during pregnancy.

Maternal obesity is associated with increased risk of birth complications and neonatal and infant mortality. ^{315,316} In addition to health implications early in life, babies of mothers who are obese are at an increased risk for chronic conditions in childhood and adulthood, including asthma, diabetes and heart disease. ³¹⁷

Among women who were enrolled in WIC in 2020, slightly more in the region (41%) than the state (37%) were obese before pregnancy (Figure 66). Differences can be seen across sub-regions as well, with a slightly higher percentage in the South sub-region (45%) and slightly lower percentage in the East sub-region (33%) with pre-pregnancy obesity. The proportion of WIC enrolled women in the Yuma Region with pre-pregnancy obesity remained stable at 39% between 2017 and 2019, before increasing slightly in 2020 (Figure 67). Across the state, pre-pregnancy obesity has risen at a consistent rate between 2016 and 2020.



Figure 66. WIC-enrolled women with pre-pregnancy obesity, 2020

Source: Arizona Department of Health Services (2021). [WIC dataset]. Unpublished data.





Source: Arizona Department of Health Services (2021). [WIC dataset]. Unpublished data.

Birth outcomes

Preterm birth, birth at less than 37 weeks of gestation, is associated with higher infant and child mortality and often results in longer hospitalization, increased health care costs and longer-term impacts such as physical and developmental impairments. ^{318,319} Babies born at a low birth weight (less than 5 pounds, 8 ounces) are at increased risk of infant mortality and longer-term health problems such as diabetes, hypertension and cardiac disease. ^{320,321} Babies born in the Yuma Region are slightly less likely to be born at low birth weight (6.3% in 2019) or preterm (8.7% in 2019) than across the state as a whole

(7.4% and 9.3% respectively) (Table 27). The region has met the Healthy People 2020 targets of less than 7.8% of babies born at low birth weight and less than 9.4% born preterm since 2014, with only slight variation by year (Figure 68; Figure 69). There is also little variation across sub-regions with regard to these birth outcomes.

Newborns are admitted into neonatal intensive care units (NICUs) for numerous reasons that can vary across medical providers and have implications for the short and long-term health of babies.³²² While NICU admissions may be an indicator of important health concerns in newborns, including low birth weight, they can also be a site of family-based interventions that can positively impact infant development and parent-child relationships.³²³ The Yuma Region and Arizona had comparable percentages of newborns admitted to a NICU in 2019 (8%) (Table 27).

Geography	Calendar year	Number of births	Baby weighed less than 2500 grams	Baby was preterm (less than 37 weeks)	Baby was admitted to a NICU
Vumo Donion	2018	2,988	6.1%	7.7%	7%
ruma Region	2019	2,939	6.3%	8.7%	8%
	2018	3,030	6.1%	7.8%	7%
	2019	2,945	6.3%	8.8%	8%
Arizono	2018	80,539	7.6%	9.5%	8%
Arizona	2019	79,183	7.4%	9.3%	8%
Healthy People 20	20 Targets		7.8%	9.4%	

Table 27. Selected birth outcomes, 2018 to 2019

Source: Arizona Department of Health Services (2021). [Vital Statistics Births dataset]. Unpublished data. Note: The Healthy People 2030 target for preterm births remains 9.4% or fewer of live births.



Figure 68. Low birthweight births (less than 2,500 grams), 2014 to 2019

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





Source: Arizona Department of Health Services (2021). [Vital Statistics Births dataset]. Unpublished data. Note: The Healthy People 2030 target for preterm births remains 9.4% or fewer of live births.

A mother's use of substances such as drugs and alcohol also have implications for her baby. 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.³²⁴ 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.³²⁵ In the Yuma Region, there were 151 newborns hospitalized because of maternal drug use during pregnancy between January 2016 and June 2020 (Table 28).

Table 28. Newborns hospitalized because of maternal drug use during pregnancy, Jan. 2016-Jun. 2020

Geography	Newborns hospitalized	Average length of stay (days)
Yuma Region	151	4.3
Yuma County	190	4.4
Arizona	11,027	6.0

Source: Arizona Department of Health Services (2021). [Hospital Discharge dataset]. Unpublished data.

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.³²⁶ The American Academy of Pediatrics recommends exclusive breastfeeding for about 6 months, and continuing to breastfeed as new foods are introduced for one year or longer.³²⁷ The percent of WIC-enrolled infants ever breastfeed in the Yuma Region increased slightly overall between 2016 (76%) and 2020 (78%) (Figure 70).

Figure 70. Percent of WIC-enrolled infants ever breastfed, 2016 to 2020



Source: Arizona Department of Health Services (2021). [WIC dataset]. Unpublished data.

A child's weight status can have long-term impacts on health and well-being. Nationwide, an estimated 19% of children (ages 2-19) are obese and 4% are underweight, numbers that have both increased in recent years.^{328,329} Obesity can have negative consequences on physical, social and psychological well-being that begin in childhood and continue into and throughout adulthood.³³⁰ 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).^{331, 332} Child underweight, or low weight-for-age, can be caused by chronic undernutrition or infectious disease and can lead to long-term impacts on cognitive and physical development.³³³

In 2020, 18% of WIC-enrolled children aged 2-4 in the Yuma Region were obese, with 3% underweight, with similar rates across sub-regions (Table 29). The 18% obesity rate in the region reflects a slight increase from previous years (Figure 71), although this may be an artifact of the pandemic, because far fewer children had known weight status in 2020, likely due to fewer health visits.

Geography	Children ages 2-4 with known weight status	Children who are underweight	Percent underweight	Children with obesity	Percent obese
Yuma Region	1,268	43	3%	226	18%
Central subregion	702	28	4%	126	18%
East subregion	14	<6	DS	<6	DS
South subregion	552	13	2%	96	17%
Yuma County	1,275	43	3%	229	18%
Arizona	26,929	1,148	4%	4,318	16%

Table 29. Weight status of WIC-enrolled children ages 2-4, 2020

Source: Arizona Department of Health Services (2021). [WIC Dataset]. Unpublished data.



Figure 71. Obesity rates for WIC-enrolled children ages 2-4, 2016 to 2020

Source: Arizona Department of Health Services (2021). [WIC dataset]. Unpublished data.

Note: The number of children for whom weight status was determined in 2020 dropped substantially, so changes in the obesity rate in 2020 may be more reflective of interruptions in WIC-related health visits rather than actual increase in the obesity rate.

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.³³⁴ A national study showed that low-income children were more likely than higher-income children to have untreated cavities.³³⁵ 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%).³³⁶ 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.³³⁷

An asset in the region relating to oral health is Yuma First Smiles.³³⁸ This First Things First funded program provides oral health education, screenings and fluoride varnish applications by a trained oral health care professional and works with local dental providers to increase children's access to preventive dental care. Services are provided to young children at pre-schools, child care centers, community events, and other locations by request. Screenings and fluoride varnish applications decreased during the COVID-19 pandemic due to the closures of schools and child care centers, but program staff continued to offer oral health education to young children and pregnant women virtually during that time.

Immunizations and infectious disease

Vaccination against preventable diseases protects children and the surrounding community from illness and potentially death. Childhood vaccinations also have long-term effects on the physical, social and economic welfare of children, their families and their communities.³³⁹ In order to attend licensed child care programs and schools, children must obtain all required vaccinations or obtain an official exemption, which can be requested based on a specific medical condition or based on personal or religious beliefs.³⁴⁰

The pandemic has impacted young children's access to vaccinations for preventable diseases. Among children under 2 enrolled in Medicaid/CHIP nationally, vaccination rates dropped 34% between January 2020 and May 2020.³⁴¹ In addition, a separate national study of eight U.S. health systems in six states found that a lower proportion of children under 2 were up to date with all age-specific recommended vaccines compared to prior to the pandemic, with just 74% of young children (age 7 months) considered up-to-date in September 2020 compared to 81% in September 2019.³⁴² These trends are worrisome because in order to assure community immunity of preventable infectious diseases, which helps to protect unvaccinated children and adults, vaccination rates need to remain high.³⁴³ For measles, for example, between 90 and 95% of children need to be vaccinated in order to prevent the disease spreading if one child becomes infected.³⁴⁴

Although immunization rates vary by vaccine, over 91% of children in child care in the Yuma Region had completed each of the three major (DTAP, polio, and MMR) vaccine series, and regional rates were similar to the state (Table 30). The East and South sub-regions had even higher rates for each of the major vaccine series (100% for all East sub-region children in child care, and between 95.6% and 97.9% in the South sub-region). The Healthy People 2020 target for vaccination coverage for children ages 19-35 months for these vaccines is 90 percent,³⁴⁵ suggesting the region is meeting this goal.

Exemptions were also low across the region, with only 0.9% of children in child care exempt from all vaccines in the region, compared to 3.1% across the state. Vaccine exemptions rates have varied slightly across years in the region, but have not reflected the consistent increase in exemptions seen across the state (Figure 72).

Geography	Number Enrolled	DTaP	Polio	MMR	Religious Exemption	Medical Exemption	Exempt from Every Required Vaccine
Yuma Region	2,642	91.2%	92.8%	93.3%	1.0%	0.6%	0.9%
Central subregion	1,965	89.6%	91.1%	91.9%	1.0%	0.3%	0.9%
East subregion	19	100.0%	100.0%	100.0%	0.0%	0.0%	0.0%
South subregion	658	95.6%	97.4%	97.6%	0.9%	1.5%	0.9%
Yuma County	2,449	94.9%	96.6%	97.2%	1.0%	0.6%	0.9%
Arizona	83,851	91.9%	93.4%	93.9%	5.0%	0.6%	3.1%
Healthy People 2020 Targ	ets	90.0%	90.0%	90.0%			

Table 30. Children in child care with selected required immunizations, 2019-20

Source: Arizona Department of Health Services (2021). Childcare Immunization Coverage, 2019-2020 School Year. Unpublished data received by request & aggregated by the Community, Research, & Development Team. Arizona Department of Health Services (2020). Childcare Immunization Coverage by County, 2019-2020 School Year. Retrieved from https://www.ardba.gov/coverage.org/ariel.cov/coverage.o

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Figure 72. Child care immunization exemption rates, 2015-16 to 2019-20

Source: Arizona Department of Health Services (2021). Childcare Immunization Coverage, 2015-2016 to 2019-2020 School Years. Unpublished data received by request & aggregated by the Community, Research, & Development Team. Arizona Department of Health Services (2021). Childcare Immunization Coverage by County, 2015-2016 through 2019-2020 School Years. Retrieved from: <u>https://www.azdhs.gov/preparedness/epidemiology-disease-control/immunization/index.php#reports-immunization-coverage</u>

Note: The high rate of exemptions in the 2015-16 school year was driven by an unusually high number of exemptions reported at a single child care center. In subsequent years, this center did not report exemptions at a rate higher than similar centers.

Rates for the three major (DTAP, polio, and MMR) vaccine series for children in kindergarten (96.9%, 97.7%, 97.7%) exceeded the rates for children in child care (91.2%, 92.8%, 93.3%) in the region (Table 31). These again also exceeded the Healthy People target of 95%, and were also higher than rates across the state as a whole. Exemptions in kindergarten were again much lower in the region (0.7%) than across Arizona (3.4%) (Figure 73).

Geography	Number Enrolled	DTaP	Polio	MMR	Personal Belief Exemption	Medical Exemption	Exempt from Every Required Vaccine
Yuma Region	2,716	96.9%	97.7%	97.7%	1.3%	0.0%	0.7%
Central subregion	1,797	96.9%	97.6%	97.7%	1.8%	0.0%	1.0%
East subregion	28	39.3%	50.0%	46.4%	0.0%	0.0%	0.0%
South subregion	891	98.9%	99.3%	99.3%	0.2%	0.0%	0.0%
Yuma County	2,716	96.9%	97.7%	97.7%	1.3%	0.0%	0.7%
Arizona	82,358	93.2%	93.8%	93.5%	5.4%	0.3%	3.4%
Healthy People 2020 Targ	ets	95.0%	95.0%	95.0%			

Table 31. Kindergarteners with selected required immunizations, 2019-20

Source: Arizona Department of Health Services (2021). Kindergarten Immunization Coverage, 2019-2020 School Year. Unpublished data received by request & aggregated by the Community, Research, & Development Team. Arizona Department of Health Services (2020). Kindergarten Immunization Coverage by County, 2019-2020 School Year. Retrieved from https://www.azdhs.gov/preparedness/epidemiology-disease-control/immunization/index.php#reports-immunization-coverage

Note: The Healthy People 2030 target for immunization rates of children in kindergarten for the MMR vaccine remains 95%.

Note: The low rates in the East sub-region are likely the result of a large number of children enrolled in Wellton Elementary that appear in immunization data as "non-compliant". This may be a complication of the pandemic.



Figure 73. Kindergarten immunization exemption rates, 2015-16 to 2019-20

Source: Arizona Department of Health Services (2021). Kindergarten Immunization Coverage, 2015-2016 to 2019-2020 School Years. Unpublished data received by request & aggregated by the Community, Research, & Development Team. Arizona Department of Health Services (2021). Kindergarten Immunization Coverage by County, 2015-2016 through 2019-2020 School Years. Retrieved from: <u>https://www.azdhs.gov/preparedness/epidemiology-disease-control/immunization/index.php#reports-immunization-coverage</u>

Note: The Healthy People 2030 target for immunization rates of children in kindergarten for the MMR vaccine remains 95%.

Illness, injury and mortality

Asthma is the most common chronic illness affecting children,³⁴⁶ and it is more prevalent among boys, Black children, American Indian or Alaska Native children, and children in low-income households.^{347,348} The total health care 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.³⁴⁹

In the Yuma Region, between 2016 and 2020, 29 children aged birth-4 and 76 children aged birth-14 (both excluding newborns) were hospitalized due to asthma with an average length of stay similar to the state (1.9 and 2 days) (Table 32). There were 1,139 emergency room visits due to asthma in the region during the same period.

Geography	Number of inpatient asthma hospitalizations for children ages birth to 4 (except newborns)	Number of inpatient asthma hospitalizations for children ages birth to 14 (except newborns)	Average length of stay for asthma hospitalization for children ages birth to 14	Number of emergency department visits for asthma, children ages birth to 14
Yuma Region	29	76	1.9	1,139
Yuma County	30	77	1.9	1,142
Arizona	2,214	5,672	2.0	41,103

Table 32. Hospitalizations and emergency room visits due to asthma, 2016-2020 combined

Source: Arizona Department of Health Services (2021). [Hospital Discharge dataset]. Unpublished data.

Unintentional injuries are the leading cause of death for children in Arizona and nationwide. ^{350,351} It is estimated that as many as 90% 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. ³⁵² 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. ^{353,354}

Between 2016 and 2020, there were 71 non-fatal inpatient hospitalizations, and 5,531 non-fatal emergency department visits for unintentional injuries in the region among children aged birth-4. The most common reasons for emergency departments visits were similar for the region and state, with falls being the most common, other, the second most common, and being struck by another the third most common reason for a non-fatal emergency department visits (Figure 74). For unintentional injuries requiring inpatient hospitalizations, falls were still the most common reason, but poisoning was the second most common reason in both the region and state.



Figure 74: Non-fatal hospitalizations and emergency department visits due to unintentional injuries for children ages birth to 4 by selected mechanism of injury, 2016-2020 combined

Source: Arizona Department of Health Services (2021). [Hospital Discharge dataset]. Unpublished data.

Infant mortality describes the number of deaths of children under 1 year of age relative to live births. Arizona ranks in the middle of U.S. states in terms of infant mortality, with the 20th lowest infant mortality rate nationwide in 2019.³⁵⁵ The most common causes of infant mortality in Arizona and the U.S. are congenital abnormalities, low birthweight and preterm birth, with a smaller proportion related to maternal pregnancy complications, sudden infant death syndrome (SIDS) and unintentional injuries.^{356,357} Ensuring access to adequate and timely prenatal care and newborn screening are therefore both critical for preventing and reducing infant mortality.³⁵⁸

In the Yuma Region, 15 infants died in 2018 and 20 in 2019 (data on the cause of these deaths was not available due to small numbers) (Table 33). This increase in deaths in 2019, put the region above the Healthy People 2020 target infant mortality rate of 6.0 in 2019 (Figure 75).

Table 33. Numbers of deaths and mortality rates for infants, young children ages birth to 4, and all children ages birth to 17, 2018 to 2019

Geography	Calendar year	Number of infant deaths	Infant mortality rate (per 1,000 live births)	Number of young child deaths (ages 0-4)	Young child mortality rate (per 100,000 population)	All child deaths (0-17 years old)	All child mortality rate (per 100,000 population)
Yuma Region	2018	15	5.0	18	N/A	24	N/A
	2019	20	6.8	21	N/A	26	N/A
Yuma County	2018	15	5.0	18	110.1	24	54.0
	2019	20	6.8	21	127.2	26	57.9
Arizona	2018	447	5.6	562	127.4	824	65.2
	2019	430	5.4	513	117.4	777	61.6
Healthy People	2020 Targets		6.0				

Source: Arizona Department of Health Services (2021). [Vital Statistics FTF Death Report dataset]. Unpublished data.

Note: The Healthy People 2030 target for infant mortality rate was decreased to 5 infant deaths per 1,000 live births.



Figure 75. Infant mortality rates, 2018 to 2019

Source: Arizona Department of Health Services (2021). Kindergarten Immunization Coverage, 2019-2020 School Year. Unpublished data received by request & aggregated by the Community, Research, & Development Team. Arizona Department of Health Services (2020). Kindergarten Immunization Coverage by County, 2019-2020 School Year. Retrieved from https://www.azdhs.gov/preparedness/epidemiology-disease-control/immunization/index.php#reports-immunization-coverage

Note: The Healthy People 2030 target for infant mortality rate was decreased to 5 infant deaths per 1,000 live births.

Additional data tables related to Child Health can be found in Appendix 1 of this report.



FAMILY SUPPORT AND LITERACY

FAMILY SUPPORT AND LITERACY

Why it Matters

Responsive relationships and language-rich experiences for young children help build a strong foundation for later success in school and in life. 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, academic skills, and literacy during a child's earliest years and lead to better social, physical, academic, and economic outcomes later in life. ^{359,360,361,362,363} 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. ³⁶⁴ Children benefit when their families have the knowledge, resources, and support to use positive parenting practices that support their child's healthy development, nutrition, early learning and language acquisition. Specifically, parental knowledge of positive parenting practices and child development is one of five key protective factors that improve child outcomes and reduce the incidence of child abuse and neglect.^{xxxiii,365}

Unfortunately, not all children are able to begin their lives in positive, stable, nurturing environments. Adverse childhood experiences (ACEs)^{xxxiv} have been associated with developmental disruption, mental illness, drug and alcohol use and overall increased healthcare utilization.^{366,367} Arizona is among the top ten states with the highest proportion of children birth to 5 who have experienced at least one ACE, with nearly one in three (31.8%) young children in Arizona having one or more ACEs.³⁶⁸ Future poor health outcomes are more likely as an individual's ACE score increases.³⁶⁹ Children in Arizona are nearly twice as likely to have experienced two or more ACEs (15.5%) compared to children across the country (8.6%).³⁷⁰ Very young children are most at risk for extremely adverse experiences, such as child abuse, neglect and fatalities from abuse and neglect. In 2019, children ages birth to five made up more than half (55%) of child maltreatment victims in Arizona.³⁷¹ These children and their families may require specific, targeted resources and interventions in order to reduce harm and prevent future risk.³⁷²

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, long-term impacts on mental and relational health.³⁷³ Strategies for preventing ACEs include: strengthening economic supports for families; promoting social norms that protect against violence and adversity;

^{xxxiii} The Center for the Study of Social Policy developed Strengthening Families: A Protective Factors FrameworkTM 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.

xxxiv 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.

ensuring a strong start for children; enhancing skills to help parents and children handle stress, manage emotions, and tackle everyday challenges; connecting youth to caring adults and activities; and intervening to lessen immediate and long-term harms.³⁷⁴

What the Data Tell Us

Literacy supports

Communities may employ many resources to support families in engaging with their children. Assets related to literacy in the region are Read On Yuma, Reach Out and Read Yuma and the Yuma Early Literacy Project. Read On Yuma,^{xxxv} facilitated by the United Way of Yuma, is a collaboration of 15 organizations in the region. The goals of Read On Yuma are to improve literacy and language acquisition among young children in Yuma County so that they are reading at grade level or higher by third grade. Reach Out and Read Yuma^{xxxvi} promotes literacy during health interventions, when doctors, nurses and other health professionals advise parents about the importance of reading aloud to their children and provide developmentally-appropriate books for children during pediatric check-ups. Reach Out and Read is available at 17 sites in Yuma County, in Yuma, Somerton and San Luis.^{xxxvii} The Yuma Early Literacy Project^{xxxviii}, offered by Arizona PBS and Arizona State University, provides literacy workshops for parents and caregivers in Yuma County, with the goal of enhancing language development in children.

Mental health

Understanding the mental health of mothers is important for the well-being of Arizona's young children. Mothers dealing with mental 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.³⁷⁵ Improving supports available through coordinated, collaborative efforts are key to early identification and intervention with young children and their families.^{376,377}

The COVID-19 pandemic has caused heightened stress, anxiety and depression in both children and caregivers. ³⁷⁸ While the average stress level for U.S. adults as a whole was significantly higher than pre-pandemic, according to the *Stress in America*TM survey, conducted annually by the American Psychological Association, a notably larger proportion of adults with children reported high levels of stress during the pandemic compared to adults without children (46% and 28%, respectively).³⁷⁹ Data from the U.S. Census Bureau's Household Pulse Survey shows that early in the pandemic (April 23-May 5, 2020) the proportion of U.S. adults with symptoms of anxiety disorder nearly tripled compared

xxxv For more information on Read On Yuma please see <u>http://readonarizona.org/read-on-communities/yuma/</u>

xxxvi For more information on Reach Out and Read Arizona please see <u>http://www.azaap.org/Reach_Out_and_Read</u>

xxxvii For more information on Reach Out and Read Yuma locations please see https://reachoutandread.org/find-a-site/

xxxviii For more information on the Yuma Early Literacy Project please see <u>https://azpbs.org/outreach/arizona-pbs-educational-outreach-</u> <u>2/early-childhood-workshops/</u>

to pre-pandemic (30.8% and 8.1%, respectively), and a similar trend was seen for adults with symptoms of depressive disorder (25.3% and 6.5%, respectively).³⁸⁰ While a larger proportion of Arizona adults reported symptoms of anxiety disorder (32.3%) compared to the U.S. overall (30.8%) early in the pandemic, a smaller proportion reported symptoms of depressive disorder (22.4% compared to 25.3%). Though data from spring 2021 show declines in Arizona adults with anxiety disorder symptoms (25.8%) and depression disorder symptoms (20.4%) over the course of the pandemic, these proportions are still notably higher than those seen pre-pandemic.

The stress and uncertainty of the pandemic led to an increase in overall conflict, spousal conflict and parent-child conflict during the pandemic. Low-income households and households with children with special needs, in particular, reported higher levels of children's emotional difficulties alongside greater anxiety, depression, loneliness and stress among caregivers.^{381,382,383} Parents' and caregivers' inability to access early intervention services and well-child visits has not only impacted young children's healthy development, but also limited access to the critical emotional and mental health support caregivers and children receive from medical and social services professionals.³⁸⁴ Access to family support services will be all the more critical for young children and their families as the pandemic continues.

Substance use disorders

In addition to impacts on children's physical health (as noted previously, there were 151 newborns in the Yuma Region hospitalized because of maternal drug use during pregnancy between 2016 and 2020 (Table 28)), 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).³⁸⁵ 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.^{386,387} 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.³⁸⁸

Along with an increase in stress and mental health concerns among adults in the U.S., data from the Census Bureau's Household Pulse Survey show that more than one in 10 adults (12%) reported increases in alcohol consumption or substance use during the pandemic.³⁸⁹ Drug overdose deaths in the early months of the pandemic, when many states instituted stay at home or lockdown orders, were notably higher than pre-pandemic levels, particularly for synthetic opioids.³⁹⁰ While drug overdose deaths increased across all racial and ethnic groups during the pandemic, American Indian and Alaska Native, Black, and Hispanic individuals showed greater increases compared to White individuals.³⁹¹

In Yuma County, the number of non-fatal overdoses involving opioids or opiates increased substantially between 2017 and 2019, then had a sharp decrease into 2020, a pattern inconsistent with what was seen across the state (Figure 76). During the same time period, 2017-2020, there were 18 deaths with opioids or opiates as a contributing factor in the region, and 26 across the county as a whole.

Figure 76. Number of non-fatal overdoses with opioids or opiates contributing to the overdose, 2017 to 2020



Source: Arizona Department of Health Services (2021). [Hospital Discharge dataset]. Unpublished data.

Child removals and foster care

National studies suggest that the transition to distance learning and remote work resulted in fewer opportunities for educators, health care professionals, and other key social service providers to identify and report child maltreatment during the pandemic.³⁹² Families also experienced limited access to key social programs, including family support services and school nutrition programs, which can promote physical and mental health and help decrease and prevent instances of child maltreatment.³⁹³

In situations where the harm in remaining with their family is determined to be too great to a child, they may be removed from their home, either temporarily or permanently. The Arizona Department of Child Safety (DCS) oversees this process. 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.³⁹⁴ 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. The Family First Prevention Services Act, signed into law on February 9, 2018, includes reform to child welfare policies, as well as federal investments, to keep children safely with their families and avoid the traumatic experience of entering foster care when possible.³⁹⁵ The Act also aims to ensure children are placed in the least restrictive, most family-like setting appropriate to their special needs when foster care is needed. In Arizona, DCS also led an agency-wide strategic effort to standardize and improve the quality of in-home preservation services, which contributed to improved outcomes for families and stronger relationships between DCS and service providers.³⁹⁶ In addition, the federal response to the pandemic has included additional funds for child welfare agencies, including nearly \$15 million in CARES Act funding for the state of Arizona.³⁹⁷

In the Yuma Region, DCS removed a total of 33 children from their homes in state fiscal years 2019 (SFY2019) and 2020 (SFY2020), with a decrease in the number of removals from SFY2019 (n=19) to SFY2020 (n=14) (Figure 77). In contrast, across the state, the number of removals increased from SFY2019 (n=3,989) to SFY2020 (n=4,124). The proportion of removals by sub-region was somewhat different than the share of young children in each, with the South sub-region having a lower proportion of young children removed (21%) than would be expected based on its share of the young child population (29%) across the three sub-regions (Figure 78).



Figure 77. Number of children ages birth to 5 removed by DCS, state fiscal years 2019 to 2020

Source: Arizona Department of Child Safety (2021). [Child removal dataset]. Unpublished data.

Note: These data were received by zip code and geocoded to the Yuma Region by the UArizona CRED team. The data reflect the last known address of the caregiver from whose custody the child was removed, not the location where the removal took place.

Figure 78. Share of children ages birth to 5 removed by DCS in the Yuma Region by subregion compared to the population ages birth to 5, state fiscal years 2019-2020 combined



Source: Arizona Department of Child Safety (2021). [Child removal dataset]. Unpublished data.

Note: These data were received by zip code and geocoded to the Yuma Region by the UArizona CRED team. The data reflect the last known address of the caregiver from whose custody the child was removed, not the location where the removal took place.

The Arizona Department of Child Safety (DCS) produces a semi-annual report on child welfare services which includes types of maltreatment experienced by children involved with DCS. Of 27 substantiated maltreatment reports for children aged birth to 17 between July and December 2020, most (89%) were due to neglect in Yuma County (Figure 79). This proportion was higher than across the state (69%), and the region had a much smaller proportion of substantiated reports due to physical abuse (7%) compared to the state (25%) during that time period.

Figure 79. Substantiated maltreatment reports by type for children ages birth to 17, July-Dec 2020



Source: Department of Child Safety (2021). Semiannual child welfare report, March 2021. Retrieved from https://dcs.az.gov/reports

DCS semi-annual reports also include information on patterns of removals. Of the 84 children aged birth to 17 removed by DCS in Yuma County between July and December 2020, 10% had previously been removed in the last 24 months, a proportion higher than across the state as a whole (4%) (Figure 80).

Figure 80. Children age birth to 17 removed by the Department of Child Services (DCS), July-Dec 2020



Source: Department of Child Safety (2021). Semiannual child welfare report, March 2021. Retrieved from https://dcs.az.gov/reports

Additional data tables related to Child Welfare can be found in Appendix 1 of this report.
SUMMARY AND CONCLUSIONS

This Needs and Assets Report is the eighth biennial assessment of the challenges and opportunities facing children birth to age 5 and their families in the First Things First Yuma Region. In addition to providing an overview of the region, this report looks more closely at some of the community-level variation within it, by including data by sub-region (Central, East and South) when available.

It is clear that the region has substantial strengths. We base this conclusion on the quantitative data reported here, as well as key informant information provided during a data interpretation session. A summary of identified regional assets is included below.

Population Characteristics

• A third (33%) of those in the Yuma Region speak a language other than English at home and speak English "very well," meaning they are proficiently bi- or multi-lingual, with an even higher percentage in the South sub-region (47%).

Economic Circumstances

- A portion of young children eligible for Pandemic EBT (P-EBT) in the region received this benefit in 2021 to offset the loss of school meals due to school closures.
- The number of meals provided through the Summer Food Service Program in Yuma County increased from 118,553 in the 2017-18 school year to 1,341,170 in the 2019-20 school year.
- The unemployment rate in Yuma County dropped 8% between 2010 and 2020, and dropped even further following a spike at the beginning of the COVI-19 pandemic.

Educational Indicators

• Four and five-year graduation rates in the Yuma Region in 2019 (88% and 90%) were higher than across Arizona as whole (79% and 83%).

Early Learning

- Providers in the region were supported during the pandemic, with 16 becoming Arizona Enrichment Centers (representing 13% of CCR&R listed providers), and 91 enrolling in the Child Care COVID-19 grant program offered through DES.
- Almost all (92%; 45 of 49) Quality First providers in Yuma Region meet quality standards (3star rating or higher), higher than the 79% across the state as a whole.
- Even though the number of young children referred to and found eligible for AzEIP services fell between FY2019 and FY2020, the proportion of children referred who were found eligible for AzEIP services increased from 33% to 42%. Once constraints on referrals caused by the

pandemic ease, this trend in increases in children being determined eligible could mean even more young children receive needed early intervention services in the future.

• The number of young children (ages 3 to 5) with special needs receiving services from LEAs in the region has increased 40% since the 2017-18 school year, with 310 children receiving services in 2019-20, representing a much higher increase than that seen across the state as a whole (4%).

Child Health

- A lower proportion of mothers in the Yuma Region reported smoking (2.1%) than across the state (4.3%), although only the South sub-region (0.7% 2017-2019) fell below the Healthy People 2020 goal of 1.4%.
- Babies born in the region are slightly less likely to be born at low birth weight or preterm than across the state as a whole, and the region has met the Healthy People 2020 targets for both low birth weight and preterm births since 2014.
- Rates for the three major (DTAP, polio, and MMR) vaccine series for children in child care and in kindergarten in the Yuma Region are higher than those across the state as a whole and have exceeded Healthy People 2020 targets.

Family Support and Literacy

- In Yuma County, the number of non-fatal overdoses involving opioids or opiates decreased sharply between 2019 and 2020, a pattern inconsistent with what was seen across the state.
- Read On Yuma, Reach Out and Read Yuma and the Yuma Early Literacy Project continue to support literacy promotion and language acquisition in the region.

Even with substantial strengths in the region, there continue to be challenges to fully serving the needs of families with young children, and it is particularly important to recognize that there is considerable variability in the needs of families across the region. A full list of regional challenges follows, but we first summarize key needs in the region based on available data. Many of these have been recognized as ongoing issues by the Yuma Regional Partnership Council. These include:

- The need for affordable, high quality and accessible child care A portion of gains made through increasing early care and education opportunities through Preschool Development Grant funding may be lost with the end of those funds. In addition, it is likely that a portion of the 37% of regulated early care providers that closed during the COVID-19 pandemic may not re-open. Those factors coupled with the fraction of child care capacity available to serve the number of children who have all parents in the labor force, indicate the need for a continued effort to increase the availability of quality, affordable early care and education opportunities in the region.
- The need for additional supports for the youngest children with special needs Only 1.8% of children aged birth-2 years are participating in early intervention services in the Yuma

Region, whereas research suggests about 13% of young children would typically qualify for early intervention services. The number of young children referred to and served by AzEIP and DDD decreased in recent years, at the same time that the number of older children (aged 3-5 years) being served in the region was increasing. Identifying children with developmental concerns earlier can help to address and lessen deficits and decrease the need for special education services once children reach school age. The increase in the proportion of referred children deemed eligible to receive AzEIP services highlights the possibility that as more children are referred, many more will benefit from these earliest interventions.

• The need for additional economic supports for families with young children particularly related to food insecurity – Just over three quarters of students (76%) have been eligible for free or reduced-price lunch since the 2017-18 school year in the region. In addition, the median household income in the region and particularly the median household income of single-female headed households (\$20,000) and single male-headed households (\$31,700) fall far below that of all families in the state. This coupled with the added hardships of job loss, and increased housing instability during the pandemic, decreases in participation in TANF, SNAP and WIC, and lower than expected participation in Pandemic EBT, suggest that many families may be facing even greater economic struggles further impacting food security. In the South sub-region, these needs may be even more acute as both the total and the young child population are more likely to live below the poverty level than for the region as a whole. Participation in one supplemental food program has increased in the region due to changes in eligibility and operating times, however more resources are likely needed.

A full list of regional challenges highlighted in this report is shown below.

Population Characteristics

• Ten percent of households in the Yuma Region and 26% in the South sub-region who speak Spanish at home are classified as limited-English-speaking. For young children enrolled in kindergarten through third grade in the region, almost one-third (29%) are classified as "Englishlanguage learners", higher than the statewide proportion (11%). These households and children may need additional language supports to access resources.

Economic Characteristics

- Almost three-quarters of families with children in the South sub-region (69%) live below 185% of the federal poverty level, as do more than half (58%) across the region as a whole.
- Decreases in receipt of TANF continued in the region in SFY2020, contrary to the increase seen across the state as a whole.
- Decreases in SNAP and WIC participation continued in the region into SFY2020.
- Just over three quarters (76%) of students in the Yuma Region were eligible for free or reducedprice lunch between the 2017-18 and 2019-20 school years, roughly 20% higher than that across the state as a whole.

• Prior to the pandemic, 41% of renter-occupied households were housing-cost burdened (spending more than 30% of their income on housing) a percentage that likely increased during the pandemic with job losses.

Educational Indicators

• Over a quarter (27%) of the population 25 and older did not complete high school, and in the South sub-region, more than four in 10 adults (44%) did not complete high school, both much higher than across the state as a whole (13%).

Early Learning

- The loss of Preschool Development Grant funding in December 2019 may have led to the loss of a portion of additional early care and education opportunities gained in the region through that funding.
- With an estimated 9,516 young children in the region with all parents in the labor force who may therefore need child care, the region's capacity of 5,863 slots, including only 1,900 Quality First slots, likely leaves a large number of families without an available, quality, child care option.
- During the month of December 2020, more than one third (37%) of the regulated early care providers that were listed in the CCR&R guide were closed. Closures were especially high in the South sub-region, where 17 of 36 providers were closed (47%) but those providers represented 74% of the South sub-region's early care and education providers capacity (808 of 1,091).
- The number of young children referred to AzEIP in the Yuma Region dropped substantially from 462 in 2019 to 337 in 2020, likely a result of constraints of the COVID-19 pandemic.
- Overall, there was a decline in the number of young children receiving DDD services between 2017 and 2020 (-38%) across the Yuma Region and all sub-regions.
- Approximately 1.8% of children aged birth through two years (n=157) are participating in early intervention services in the Yuma Region. Research suggests that about 13% of children would typically qualify for early intervention services suggesting that many young children who would benefit from early intervention services in the region are not receiving them.

Child Health

• Across years, births in the Yuma Region were more likely to have been to mothers who had no prenatal care or fewer than five prenatal visits than births across the state as a whole, with twice as many births (6%) to mothers with no prenatal care and almost twice as many (14%) to mothers with less than five prenatal visits.

Successfully addressing the needs outlined in this report will require the continued concentrated effort of collaboration among First Things First and other state agencies, the Yuma Regional Partnership Council and staff, local providers, and other community stakeholders in the region. Families are drawn to the Yuma Region both for the close-knit, supportive nature of many of its communities and for the

increasing number of opportunities available to its residents. Continued collaborative efforts have the long-term potential to make these opportunities available to more families across the Yuma Region.

APPENDIX 1: ADDITIONAL DATA TABLES

Population Characteristics

Table 34. Number of babies born, 2015 to 2019

Geography	CY 2014	CY 2015	CY 2016	CY 2017	CY 2018	CY 2019
Yuma Region	3,048	3,005	2,992	2,946	2,988	2,939
Yuma County	3,058	3,017	3,004	2,956	3,030	2,945
Arizona	86,648	85,024	84,404	81,664	80,539	79,183

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

Table 35. Race and ethnicity of the population of all ages, 2015-2019 ACS

Geography	Estimated population (all ages)	Hispanic or Latino	White, not Hispanic or Latino	Black or African- American	American Indian or Alaska Native	Asian or Pacific Islander	Two or more races
Yuma Region	208,652	64%	31%	2%	1%	1%	3%
Central subregion	144,648	54%	40%	3%	2%	2%	4%
East subregion	7,359	48%	50%	0.03%	1%	1%	2%
South subregion	56,644	92%	6%	1%	1%	0.3%	1%
Yuma County	209,468	64%	31%	2%	2%	1%	3%
Arizona	7,050,299	31%	55%	5%	5%	4%	4%
United States	324,697,795	18%	61%	13%	1%	6%	3%

U.S. Census Bureau. (2021). American Community Survey five-year estimates 2015-2019, Tables B01001, B01001b, B01001c, B01001d, B01001e, B01001g, B01001h, & B01001i

Note: The six percentages in each row may sum to more or less than 100% because (a) persons reporting Hispanic ethnicity are counted twice if their race is Black, American Indian, Asian, Pacific Islander, or any combination of two or more races, (b) persons reporting any other race are not counted here unless they have Hispanic ethnicity, and (c) rounding.

Table 36	Race and	ethnicity	of	children	birth	to 4
	Race and	Cumony		or mar or r	Dirtit	

Geography	Estimated number of children (birth to 4 years old)	Hispanic or Latino	White, not Hispanic or Latino	Black or African- American	American Indian or Alaska Native	Asian or Pacific Islander	Two or more races
Yuma Region	14,990	79%	17%	1%	1%	1%	5%
Central subregion	9,875	71%	22%	2%	1%	1%	8%
East subregion	374	49%	51%	0%	0%	0%	1%
South subregion	4,741	96%	3%	1%	1%	0%	0.1%
Yuma County	15,071	79%	17%	1%	1%	1%	5%
Arizona	433,968	45%	38%	5%	6%	3%	9%
United States	19,767,670	26%	50%	14%	1%	5%	8%

Source: U.S. Census Bureau. (2021). American Community Survey five-year estimates 2015-2019, Tables B01001, B01001b, B01001c, B01001d, B01001e, B01001g, B01001h, & B01001i

Note: The six percentages in each row may sum to more or less than 100% because (a) children reporting Hispanic ethnicity are counted twice if their race is Black, American Indian, Asian, Pacific Islander, or any combination of two or more races, (b) children reporting any other race are not counted here unless they have Hispanic ethnicity, and (c) rounding.

Table 37.	Race and	ethnicity	for the	mothers	of babies	born ir	า 2018	and	2019
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Geography	Calendar year	Number of births	Mother was non-Hispanic White	Mother was Hispanic or Latina	Mother was Black or African- American	Mother was American Indian or Alaska Native	Mother was Asian or Pacific Islander
Vumo Donion	2018	2,988	20%	77%	1%	1%	1%
ruma Region	2019	2,939	18%	78%	2%	1%	1%
Yuma County	2018	3,030	20%	76%	1%	1%	1%
	2019	2,945	18%	78%	2%	1%	1%
ARIZONA	2018	80,539	43%	41%	6%	6%	4%
	2019	79,183	43%	41%	6%	6%	4%

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

Note: The five percentages in each row should sum to 100%, but may not because of rounding. Mothers who report more than one race or ethnicity are assigned to the one which is smaller. Mothers of twins are counted twice in this table.

Subregion	Three-year period	Number of births	Mother was non-Hispanic White	Mother was Hispanic or Latina	Mother was Black or African- American	Mother was American Indian or Alaska Native	Mother was Asian or Pacific Islander
Operatural	2014-2016	5,911	30%	65%	2%	1%	2%
Central	2017-2019	5,800	27%	68%	2%	2%	2%
	2014-2016	163	33%	62%	[1 to 3%]	1%	[1 to 3%]
East	2017-2019	161	29%	68%	2%	1%	1%
South	2014-2016	2,970	3%	97%	[0 to 1%]	[0 to 1%]	[0 to 1%]
	2017-2019	2,910	3%	96%	0%	[0 to 1%]	[0 to 1%]

Table 38. Race and ethnicity of mothers by subregion

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

Note: The five percentages in each row should sum to 100%, but may not because of rounding. Mothers who report more than one race or ethnicity are assigned to the one which is smaller. Mothers of twins are counted twice in this table.

Table 39. Children ages birth to 5 living with parents who are foreign-born, 2015-2019 ACS

Geography	Estimated number of children (birth to 5 years old) living with one or two parents	Number and percent living	y with one or two foreign-born parents
Yuma Region	16,844	6,596	39%
Central subregion	11,187	3,028	27%
East subregion	472	192	41%
South subregion	5,186	3,376	65%
Yuma County	16,927	6,612	39%
Arizona	494,590	126,082	25%
United States	22,727,705	5,631,005	25%

Source: U.S. Census Bureau. (2021). American Community Survey five-year estimates 2015-2019, Table B05009

Note: The term "parent" here includes step-parents.

Table 40.	Migrant student	s (grades K-12) enrolled ir	n public and	l charter	schools,	2017-18 to
2019-20							

	Number of migrant students			Percent of students who were migrant students		
Geography	2017-18	2018-19	2019-20	2017-18	2018-19	2019-20
Yuma Region Schools	3,674	3,042	4,087	10%	8%	11%
Yuma Elementary District	537	135	414	6%	2%	5%
Somerton Elementary District	242	148	243	8%	5%	8%
Crane Elementary District	340	229	372	6%	4%	6%
Hyder Elementary District	DS	DS	DS	DS	DS	DS
Mohawk Valley Elementary District	DS	DS	DS	DS	DS	DS
Wellton Elementary District	DS	DS	DS	DS	DS	DS
Gadsden Elementary District	686	812	803	13%	15%	16%
Antelope Union High School District	DS	DS	DS	DS	DS	DS
Yuma Union High School District	1,744	1,577	2,149	16%	14%	19%
Az-Tec High School	DS	DS	DS	DS	DS	DS
Yuma Private Industry Council, Inc.	DS	DS	DS	DS	DS	DS
The Charter Foundation, Inc.	DS	DS	DS	DS	DS	DS
Juniper Tree Academy	DS	DS	DS	DS	DS	DS
Harvest Power Community Development Group, Inc.	DS	DS	DS	DS	DS	DS
Carpe Diem Collegiate High School	DS	DS	DS	DS	DS	DS
Portable Practical Educational Preparation, Inc. (PPEP, Inc.)	123	141	106	57%	60%	48%
Yuma County Schools	3,596	2,961	4,014	10%	8%	10%
Arizona Schools	4,023	3,426	4,498	0.4%	0.3%	0.4%

Source: Arizona Department of Education (2021). [Oct 1 Enrollment Dataset]. Custom tabulation of unpublished data by the UArizona CRED Team.

Note: Migrant students are those students participating in the Arizona Migrant Education Program, a federally-funded, state-run program that provides supplemental services to the children of migrant farmworkers.

Geography	Estimated population (age 5 and older)	Speak only English at home	Speak Spanish at home	Speak languages other than English or Spanish at home
Yuma Region	193,676	47%	52%	2%
Central subregion	134,790	58%	40%	2%
East subregion	6,985	62%	37%	1%
South subregion	51,901	15%	85%	1%
Yuma County	194,397	47%	52%	2%
Arizona	6,616,331	73%	20%	7%
United States	304,930,125	78%	13%	8%

Table 41. Language spoken at home (by persons ages 5 and older), 2015-2019 ACS

Source: U.S. Census Bureau. (2021). American Community Survey five-year estimates 2015-2019, Table C16001

Note: The three percentages in each row may not sum to 100% because of rounding. The American Community Survey (ACS) no longer specifies the proportion of the population who speak Native North American languages for geographies smaller than the state. In Arizona, Navajo and other Native American languages (including Apache, Hopi, and O'odham) are the most commonly spoken (2%), following English (73%) and Spanish (20%).

Table 42. English-language proficiency (for persons ages 5 and older), 2015-2019 ACS

Geography	Estimated population (age 5 and older)	Speak only English at home	Speak another language at home, and speak English very well	Speak another language at home, and do not speak English very well
Yuma Region	193,676	47%	33%	20%
Central subregion	134,790	58%	29%	13%
East subregion	6,985	62%	24%	15%
South subregion	51,901	15%	47%	38%
Yuma County	194,397	47%	33%	20%
Arizona	6,616,331	73%	19%	9%
United States	304,930,125	78%	13%	8%

Source: U.S. Census Bureau. (2021). American Community Survey five-year estimates 2015-2019, Table C16001

Note: The three percentages in each row should sum to 100%, but may not because of rounding.

Table 43. Limited-English-speaking	households, 2015-2019 ACS
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Geography	Estimated number of households	Number and percent	of limited-English-speaking households
Yuma Region	72,759	7,271	10%
Central subregion	54,954	3,459	6%
East subregion	2,792	183	7%
South subregion	15,013	3,629	24%
Yuma County	73,098	7,321	10%
Arizona	2,571,268	102,677	4%
United States	120,756,048	5,308,496	4%

Source: U.S. Census Bureau. (2021). American Community Survey five-year estimates 2015-2019, Table C16002

Note: A "limited-English-speaking" household is one in which no one over the age of 13 speaks English very well.

Table 44. Percent of kindergarten to 3rd grade students who were English Language Learners, 2017-18 to 2019-20

Geography	Percent of K-3 Students who were English Language Learners, 2017-18	Percent of K-3 Students who were English Language Learners, 2018-19	Percent of K-3 Students who were English Language Learners, 2019-20
Yuma Region Schools	29%	29%	29%
Yuma County Schools	29%	29%	29%
Arizona Schools	11%	11%	11%

Source: Arizona Department of Education (2021). [Oct 1 Enrollment Dataset]. Custom tabulation of unpublished data by the UArizona CRED Team.

Note: English Language Learners are students who do not score 'proficient' in the English language based on the Arizona English Language Learning Assessment (AZELLA) and thus are eligible for additional supportive services for English language acquisition.

Table 45.	Grandchildren	ages birth to	5 living in a	grandparent's	household,	2015-2019 ACS
		0			,	

Geography	Estimated number of children (birth to 5 years old) living in households	Number and percent liv	ing in their grandparent's household
Yuma Region	17,469	3,066	18%
Central subregion	11,513	1,363	12%
East subregion	500	93	19%
South subregion	5,456	1,609	30%
Yuma County	17,556	3,079	18%
Arizona	517,483	67,495	13%
United States	23,640,563	2,521,583	11%

Source: U.S. Census Bureau. (2021). American Community Survey five-year estimates 2015-2019, Tables B10001 & B27001

Note: This table includes all children (under six years old) living in a household headed by a grandparent, regardless of whether the grandparent is responsible for them, or whether the child's parent lives in the same household.

Economic Circumstances

Table 46. Median annual family income, 2015-2019 ACS

Geography	Median annual income for all families	Median annual income for married-couple families with children under 18 years old	Median annual income for single-male-headed families with children under 18 years old	Median annual income for single-female-headed families with children under 18 years old
Yuma County	\$50,300	\$61,100	\$31,700	\$20,200
Arizona	\$70,200	\$88,400	\$42,900	\$30,400
United States	\$77,300	\$100,000	\$45,100	\$29,000

Source: U.S. Census Bureau. (2021). American Community Survey five-year estimates 2015-2019, Table B19126

Note: Half of the families in the population are estimated to have incomes above the median value, and the other half have incomes below the median.

Geography	Households with one or more children (ages 0-5)	Number of fa	amilies with cl SFY 2017	nildren (ages SFY 2018	0-5) participa SFY 2019	ting in TANF SFY 2020	Percent of households with young children (ages 0-5) participating in TANF in SFY 2020
Yuma Region	12,951	340	301	275	267	247	2%
Central subregion	8,837	250	226	211	203	191	2%
East subregion	349	[1 to 9]	[1 to 9]	[1 to 9]	[2 to 18]	[2 to 18]	N/A
South subregion	3,765	[81 to 89]	[66 to 74]	[55 to 63]	[46 to 62]	[38 to 54]	1%
Yuma County	12,998	348	313	282	272	251	2%
Arizona	384,441	13,925	12,315	10,538	9,360	9,947	3%

Table 47. Families with children ages birth to 5 receiving TANF, state fiscal years 2016 to 2020

Sources: Arizona Department of Economic Security (2021). [Division of Benefits and Medical Eligibility dataset]. Unpublished data. & U.S. Census Bureau (2010). 2010 Decennial Census, SF 1, Table P20.

Table 48. Children ages birth to 5 receiving TANF, state fiscal years 2016 to 2020

	Number of young children (ages 0-5) in	Number of	Percent of young children (ages 0-5) participating in				
Geography	the population	SF1 2010	SF12017	SF1 2010	SF1 2019	SFT 2020	TANE IN SET 2020
Yuma Region	17,983	470	425	385	381	334	2%
Central subregion	12,238	353	317	304	296	260	2%
East subregion	487	[1 to 9]	[1 to 9]	[1 to 9]	[2 to 18]	[2 to 18]	N/A
South subregion	5,258	[108 to 116]	[99 to 107]	[72 to 80]	[67 to 83]	[56 to 72]	1%
Yuma County	18,048	481	440	395	389	340	2%
Arizona	546,609	18,968	17,143	14,659	13,029	13,747	3%

Sources: Arizona Department of Economic Security (2021). [Division of Benefits and Medical Eligibility dataset]. Unpublished data. & U.S. Census Bureau (2010). 2010 Decennial Census, SF 1, Table P14.

Geography	Households with one or more children (ages 0-5)	Number of families participating in SNAP					Percent of households with young children (0- 5) participating in SNAP in SFY 2020
Yuma Region	12,951	7,225	7,069	6,897	6,572	6,214	48%
Central subregion	8,837	4,332	4,244	4,176	3,973	3,858	44%
East subregion	349	113	103	96	81	70	20%
South subregion	3,765	2,780	2,722	2,625	2,518	2,286	61%
Yuma County	12,998	7,279	7,122	6,943	6,615	6,253	48%
Arizona	384,441	171,977	164,092	151,816	140,056	132,466	34%

Table 49. Families participating in SNAP, state fiscal years 2016 to 2020

Sources: Arizona Department of Economic Security (2021). [Division of Benefits and Medical Eligibility dataset]. Unpublished data. & U.S. Census Bureau (2010). 2010 Decennial Census, SF 1, Table P20.

Table 50. Children participating in SNAP, state fiscal years 2016 to 2020

	Number of young children (ages 0-5) in	Number of children (0-5) participating in SNAP					Percent of young children (0-5) participating in
Geography	the population	SFY 2016	SFY 2017	SFY 2018	SFY 2019	SFY 2020	SNAP IN SFY 2020
Yuma Region	17,983	10,493	10,334	10,061	9,633	9,010	50%
Central subregion	12,238	6,398	6,301	6,157	5,901	5,633	46%
East subregion	487	154	146	156	130	105	22%
South subregion	5,258	3,941	3,887	3,748	3,602	3,272	62%
Yuma County	18,048	10,582	10,420	10,133	9,701	9,071	50%
Arizona	546,609	258,455	247,414	229,275	211,814	198,961	36%

Sources: Arizona Department of Economic Security (2021). [Division of Benefits and Medical Eligibility dataset]. Unpublished data. & U.S. Census Bureau (2010). 2010 Decennial Census, SF 1, Table P14.

Table 51. Women enrolled in WIC, 2016 to 2020

Geography	Enrolled women, 2016	Enrolled women, 2017	Enrolled women, 2018	Enrolled women, 2019	Enrolled women, 2020
Yuma Region	4,204	4,109	4,019	3,970	3,581
Central subregion	2,563	2,462	2,449	2,499	2,274
East subregion	69	70	55	58	60
South subregion	1,572	1,567	1,515	1,413	1,247
Yuma County	4,224	4,124	4,031	3,982	3,604
Arizona	80,063	75,882	72,098	68,312	63,111

Source: Arizona Department of Health Services (2021). [WIC Dataset]. Unpublished data.

Note: Enrolled women include both pregnant and breastfeeding women.

Table 52. Women participating in WIC, 2016 to 2020

Geography	Participating women, 2016	Participating women, 2017	Participating women, 2018	Participating women, 2019	Participating women, 2020
Yuma Region	3,975	3,873	3,815	3,755	3,358
Central subregion	2,417	2,303	2,310	2,347	2,108
East subregion	61	65	53	57	59
South subregion	1,497	1,495	1,452	1,351	1,191
Yuma County	3,994	3,887	3,827	3,767	3,380
Arizona	75,126	70,840	67,687	64,225	59,477

Source: Arizona Department of Health Services (2021). [WIC Dataset]. Unpublished data.

Note: Participating women include both pregnant and breastfeeding women. Women are counted as 'participating' if they received benefits during the time period in question.

Table 55. Officient ages birth to \pm emoled in Wio, 2010 to 2020	Table 53.	Children a	ages birth	to 4 enr	olled in	WIC,	2016 to	2020
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Geography	Enrolled infants and children, 2016	Enrolled infants and children, 2017	Enrolled infants and children, 2018	Enrolled infants and children, 2019	Enrolled infants and children, 2020
Yuma Region	10,885	10,580	10,246	9,987	9,370
Central subregion	6,446	6,259	6,098	5,994	5,688
East subregion	187	188	161	153	150
South subregion	4,252	4,119	3,987	3,840	3,532
Yuma County	10,947	10,622	10,291	10,034	9,435
Arizona	206,626	196,482	187,737	178,300	167,186

Source: Arizona Department of Health Services (2021). [WIC Dataset]. Unpublished data.

Table 54. Children ages birth to 4 participating in WIC, 2016 to 2020

Geography	Participating infants and children, 2016	Participating infants and children, 2017	Participating infants and children, 2018	Participating infants and children, 2019	Participating infants and children, 2020
Yuma Region	9,973	9,624	9,468	9,071	8,552
Central subregion	5,820	5,637	5,569	5,370	5,156
East subregion	178	176	148	133	136
South subregion	3,975	3,797	3,751	3,568	3,260
Yuma County	10,027	9,660	9,511	9,118	8,615
Arizona	185,185	175,423	169,372	161,287	154,501

Source: Arizona Department of Health Services (2021). [WIC Dataset]. Unpublished data.

Note: Children are counted as 'participating' if they received benefits during the time period in question.

Table 55. Lunches served through the National School Lunch Program, 2017-18 to 2019-20

	Number of schools			Num	Number of lunches served		
Geography	2017-18	2018-19	2019-20	2017-18	2018-19	2019-20	
Yuma Region Schools	N/A	N/A	N/A	N/A	N/A	N/A	
Yuma County Schools	627	621	505	5,269,685	5,453,761	4,032,979	
Arizona Schools	18,190	18,202	14,767	101,727,112	102,012,129	76,454,370	

Source: Arizona Department of Education (2021). [Health and Nutrition Dataset]. Custom tabulation of unpublished data by the UArizona CRED Team.

Note: Due to the COVID-19 pandemic, the USDA issues a substantial number of waivers for school nutrition programs to allow greater flexibility for schools to get meals to students in need. More information on the pandemic's effect on school nutrition can be found on the ADE website: https://www.azed.gov/hns/covid19

Table 56. Lunches served through the Child and Adult Care Feeding Program, 2017-18 to 2019-20

	Number of schools			Number of lunches served			
Geography	2017-18 2018-19 2019-20			2017-18	2018-19	2019-20	
Yuma Region Schools	N/A	N/A	N/A	N/A	N/A	N/A	
Yuma County Schools	380	402	342	307,396	335,922	239,315	
Arizona Schools	7,693	7,336	6,305	7,225,302	7,242,730	5,556,341	

Source: Arizona Department of Education (2021). [Health and Nutrition Dataset]. Custom tabulation of unpublished data by the UArizona CRED Team.

Note: Due to the COVID-19 pandemic, the USDA issues a substantial number of waivers for school nutrition programs to allow greater flexibility for schools to get meals to students in need. More information on the pandemic's effect on school nutrition can be found on the ADE website: https://www.azed.gov/hns/covid19

Table 57. Lunches served through the Summer Food Service Program, 2017-18 to 2019-20

	Number of schools			Number of lunches served			
Geography	2017-18	2018-19	2019-20	2017-18	2018-19	2019-20	
Yuma Region Schools	N/A	N/A	N/A	N/A	N/A	N/A	
Yuma County Schools	93	76	334	118,553	99,284	1,341,170	
Arizona Schools	2,199	1,845	9,136	1,870,111	1,868,539	21,786,393	

Source: Arizona Department of Education (2021). [Health and Nutrition Dataset]. Custom tabulation of unpublished data by the UArizona CRED Team.

Note: Due to the COVID-19 pandemic, the USDA issues a substantial number of waivers for school nutrition programs to allow greater flexibility for schools to get meals to students in need. More information on the pandemic's effect on school nutrition can be found on the ADE website: https://www.azed.gov/hns/covid19

Table 58. Unemployment and labor-force participation for the adult population (ages 16 and older), 2015-2019 ACS

Occurrenter	Estimated working-age population (age 16 and	Unemployment	Labor-force participation	Percent of working-age population in the labor force	Percent of working-age population in the labor force	Percent of working-age population not in the labor
Geography	older)	rale	rate	and employed	but unemployed	lorce
Yuma Region	161,372	10%	54%	49%	5%	46%
Central subregion	113,361	10%	54%	49%	5%	46%
East subregion	6,046	4%	42%	40%	2%	58%
South subregion	41,965	12%	58%	51%	7%	42%
Yuma County	161,991	10%	54%	49%	5%	46%
Arizona	5,600,921	6%	60%	56%	3%	40%
United States	259,662,880	5%	63%	60%	3%	37%

Source: U.S. Census Bureau. (2021). American Community Survey five-year estimates 2015-2019, Table B23025

Note: The labor force is all persons who are working (employed) or looking for work (unemployed). Persons not in the labor force are mostly students, stay-at-home parents, retirees, and institutionalized people. The "labor force participation rate" is the fraction of the population who are in the labor force, whether employed or unemployed. The "unemployment rate" is the fraction of the civilian labor force which are unemployed. The last three percentages in each row (employed, unemployed, and not in the labor force) should sum to 100%, but may not because of rounding.

		Yuma Region			Arizona	
Geography	Total Claims (All Outcomes)	Claims found eligible and paid	Percent of claims found eligible and paid	Total Claims (All Outcomes)	Claims found eligible and paid	Percent of claims found eligible and paid
Nov 2019	222	73	33%	7,787	2,275	29%
Dec 2019	262	101	39%	7,906	2,312	29%
Jan 2020	345	79	23%	9,892	2,712	27%
Feb 2020	301	98	33%	7,185	1,919	27%
Mar 2020	2,595	1,219	47%	110,129	66,655	61%
Apr 2020	7,130	3,006	42%	186,217	93,529	50%
May 2020	5,430	2,659	49%	98,786	33,481	34%
Jun 2020	3,713	1,423	38%	94,720	30,465	32%
July 2020	4,255	2,396	56%	78,744	26,081	33%
Aug 2020	2,121	1,201	57%	46,360	16,028	35%
Sept 2020	1,193	435	36%	39,660	9,464	24%
Oct 2020	983	391	40%	30,032	7,807	26%
Nov 2020	456	66	14%	15,835	1,812	11%

Table 59. Monthly unemployment insurance claims, Nov 2019 to Nov 2020

Sources: Arizona Department of Economic Security (2021). [Unemployment Insurance dataset]. Unpublished data.

Table 60. Housing-cost burden for all households, and for owners and renters separately, 2015-2019 ACS

Geography	Estimated number of households	Housing costs 30 percent or more of household income	Estimated number of owner- occupied housing units	Housing costs 30 percent or more of household income	Estimated number of renter- occupied housing units	Housing costs 30 percent or more of household income
Yuma Region	72,759	29%	48,832	23%	23,928	41%
Central subregion	54,954	28%	36,315	21%	18,639	41%
East subregion	2,792	20%	1,936	18%	856	24%
South subregion	15,013	34%	10,581	30%	4,433	43%
Yuma County	73,098	29%	49,048	23%	24,050	41%
Arizona	2,571,268	30%	1,656,756	22%	914,512	45%
United States	120,756,048	31%	77,274,381	22%	43,481,667	46%

Source: U.S. Census Bureau. (2021). American Community Survey five-year estimates 2015-2019, Table B25106

Note: An "occupied housing unit" is a house, an apartment, a mobile home, a group of rooms, or a single room that is occupied as separate living quarters. Buildings such as dormitories, bunkhouses and motel rooms are not counted as housing units. The number of households is equal to the number of occupied housing units.

Table 61. Students experiencing homelessness (all grades) enrolled in public and charter schools, 2017-18 to 2019-20

	Number o	of students ex homelessnes	periencing s	Percent of students experiencing homelessness		
Geography	2017-18	2018-19	2019-20	2017-18	2018-19	2019-20
Yuma Region Schools	330	232	232	1%	1%	1%
Yuma Elementary District	125	99	72	1%	1%	1%
Somerton Elementary District	DS	DS	DS	DS	DS	DS
Crane Elementary District	77	DS	71	1%	DS	1%
Hyder Elementary District	DS	DS	DS	DS	DS	DS
Mohawk Valley Elementary District	DS	DS	DS	DS	DS	DS
Wellton Elementary District	DS	DS	DS	DS	DS	DS
Gadsden Elementary District	50	46	DS	1%	1%	DS
Antelope Union High School District	DS	DS	DS	DS	DS	DS
Yuma Union High School District	46	41	50	0.4%	0.4%	0.4%
Az-Tec High School	DS	DS	DS	DS	DS	DS
Yuma Private Industry Council, Inc.	DS	DS	DS	DS	DS	DS
The Charter Foundation, Inc.	DS	DS	DS	DS	DS	DS
Juniper Tree Academy	DS	DS	DS	DS	DS	DS
Harvest Power Community Development Group, Inc.	DS	DS	DS	DS	DS	DS
Carpe Diem Collegiate High School	DS	DS	DS	DS	DS	DS
Portable Practical Educational Preparation, Inc. (PPEP, Inc.)	29	39	24	14%	17%	11%
Yuma County Schools	315	215	220	1%	1%	1%
Arizona Schools	15,923	12,931	11,538	1%	1%	1%

Source: Arizona Department of Education (2021). [Oct 1 Enrollment Dataset]. Custom tabulation of unpublished data by the UArizona CRED Team.

Note: The McKinney-Vento Act provides funding and supports to ensure that children and youth experiencing homelessness have access to education. Under the McKinney-Vento Act, children are defined as homeless if they lack a "fixed, regular, and adequate nighttime address." This includes children living in shelters, cars, transitional housing, campground, motels, and trailer parks, as well as children who are living 'doubled up' with another family due to loss of housing or economic hardship. More information can be found on the ADE website: https://www.azed.gov/homeless

Geography	Estimated number of households	Have both computer and smartphone	Have computer but no smartphone	Have smartphone but no computer	Have neither smartphone nor computer
Yuma Region	72,759	61%	6%	18%	14%
Central subregion	54,954	64%	7%	16%	13%
East subregion	2,792	57%	7%	19%	17%
South subregion	15,013	51%	4%	27%	18%
Yuma County	73,098	61%	6%	18%	14%
Arizona	2,571,268	73%	7%	12%	8%
United States	120,756,048	71%	7%	13%	10%

Table 62. Households with and without computers and smartphones, 2015-2019 ACS

Source: U.S. Census Bureau. (2021). American Community Survey five-year estimates 2015-2019, Table B28010

Note: In this table, "computer" includes both desktops and laptops; "smartphone" includes tablets and other portable wireless devices. The four percentages in each row should sum to 100%, but may not because of rounding.

Table 63. Persons of all ages in households with and without computers and internet connectivity, 2015-2019 ACS

Geography	Estimated number of persons (all ages) living in households	Have a computer and internet	Have a computer but no internet	Do not have a computer
Yuma Region	203,115	83%	7%	10%
Central subregion	141,391	85%	6%	9%
East subregion	7,275	84%	5%	10%
South subregion	54,449	78%	9%	13%
Yuma County	203,925	83%	7%	10%
Arizona	6,892,175	87%	7%	6%
United States	316,606,796	86%	7%	6%

Source: U.S. Census Bureau. (2021). American Community Survey five-year estimates 2015-2019, Table B28005

Note: The three percentages in each row should sum to 100%, but may not because of rounding.

Table 64. Children ages birth to 17 in households with and without computers and internet connectivity, 2015-2019 ACS

Geography	Estimated number of children (ages 0-17) living in households	Have a computer and internet	Have a computer but no internet	Do not have a computer
Yuma Region	53,019	86%	6%	7%
Central subregion	34,839	88%	6%	6%
East subregion	1,500	92%	8%	0%
South subregion	16,680	83%	7%	10%
Yuma County	53,204	86%	6%	7%
Arizona	1,632,019	88%	8%	4%
United States	73,225,376	89%	7%	3%

Source: U.S. Census Bureau. (2021). American Community Survey five-year estimates 2015-2019, Table B28005

Note: The three percentages in each row should sum to 100%, but may not because of rounding.

Table 65. Persons in households by type of internet access (broadband, cellular, and dial-up), 2015-2019 ACS

Geography	Estimated number of persons (all ages) living in households with computer and internet	With fixed- broadband internet	With cellular-data internet	With only dial-up internet
Yuma Region	168,022	83%	81%	0.2%
Central subregion	119,531	85%	83%	0.3%
East subregion	6,144	79%	87%	0.5%
South subregion	42,347	80%	75%	0.0%
Yuma County	168,562	83%	81%	0.2%
Arizona	5,968,639	87%	82%	0.3%
United States	273,795,622	88%	82%	0.3%

Source: U.S. Census Bureau. (2021). American Community Survey five-year estimates 2015-2019, Table B28008

Note: The percentages in each row sum to more than 100% because many households use both fixed-broadband and cellular-data internet.

Educational Indicators

Geography	K-3 students enrolled, 2018-19	K-3 students with chronic absences, 2018-19	Chronic absence rate, 2018-19	K-3 studentsen rolled, 2019-20	K-3 students with chronic absences, 2019-20	Chronic absence rate, 2019-20
Yuma Region	11,001	1,572	14%	11,245	836	7%
Yuma Elementary District	3,657	624	17%	3,769	283	8%
Somerton Elementary District	1,236	161	13%	1,272	68	5%
Crane Elementary District	2,500	377	15%	2,518	215	9%
Hyder Elementary District	DS	DS	11%	DS	DS	6%
Mohawk Valley Elementary District	DS	DS	7%	DS	DS	<2%
Wellton Elementary District	DS	DS	8%	DS	DS	5%
Gadsden Elementary District	1,954	249	13%	1,991	107	5%
The Charter Foundation, Inc.	225	23	10%	216	18	8%
Juniper Tree Academy	640	22	3%	650	30	5%
Harvest Power Community Development Group, Inc.	590	101	17%	630	108	17%
Yuma County Schools	11,161	1,603	14%	11,235	836	7%
Arizona Schools	326,891	43,773	13%	329,300	25,382	8%

Table 66. Kindergarten to 3rd grade students with chronic absences, 2018-19 to 2019-20

Source: Arizona Department of Education (2021). [Absenteeism Dataset]. Custom tabulation of unpublished data by the UArizona CRED Team.

Note: Students are considered chronically absent if they miss more than 10 percent of the school days in a school year. This table includes children who are absent due to chronic illness. Please note that school closures and transitions to distance learning substantially affected how attendance was tracked by schools in the spring of 2020.

Table 67. 4-year and 5-year graduation rates, 2019

Geography	4-Year Senior Cohort (2019)	4-Year Graduates (2019)	4-Year Graduation Rate (2019)	5-Year Graduates (2019)	5-Year Graduation Rate (2019)
Yuma Region Schools	2,989	2,625	88%	2,708	90%
Antelope Union High School District	57	48	84%	49	86%
Yuma Union High School District	2,623	2,429	93%	2,481	94%
Az-Tec High School	62	20	32%	24	39%
Yuma Private Industry Council, Inc.	67	26	39%	34	50%
Portable Practical Educational Preparation, Inc. (PPEP, Inc.)	91	19	21%	35	37%
Harvest Power Community Development Group, Inc.	69	65	94%	67	99%
Carpe Diem Collegiate High School	20	18	90%	18	90%
Yuma County Schools	2,943	2,612	89%	2,688	91%
Arizona Schools	86,355	68,393	79%	71,610	83%

Source: Arizona Department of Education (2021). [Graduation Dataset]. Custom tabulation of unpublished data by the UArizona CRED Team

Note: The 2019 four-year senior cohort is the number of students who are expected to graduate in 2019. It represents all students who enrolled in high school in the region or Arizona for the first time in grade 9 in the 2015-16 school year, those who enrolled in high school in the region or Arizona for the first time in grade 10 in the 2016-2017 school year, those who enrolled in high school in Arizona for the first time in grade 10 in the 2016-2017 school year, those who enrolled in high school in Arizona for the first time in grade 10 in the 2016-2017 school year, those who enrolled in high school in Arizona for the first time in grade 10 in the 2016-2017 school year, those who enrolled in high school in Arizona for the first time in grade 11 in the 2017-2018 school year, and those who enrolled in high school in the region or Arizona for the first time in grade 12 in the 2018-2019 school year. This group of students provides the denominator that can be compared to the number of graduates to in order to calculate the four-year graduation rate. Five-year graduation rates are similarly calculated, but with a 5-year cohort denominator (so students who started in grade 9 in 2014-15 as well as students entering that cohort in subsequent years).

Table 68. Level of mother's education by subregion

Subregion	Three-year period	Number of births	Mother had less than a high-school education	Mother finished high school or had GED	Mother had more than a high-school education
Control	2014-2016	5,911	19%	28%	52%
Central	2017-2019	5,800	19%	31%	50%
F t	2014-2016	163	21% to 29%	25%	N/A
East	2017-2019	161	N/A	33%	N/A
South	2014-2016	2,970	32%	27%	40%
	2017-2019	2,910	31%	27%	42%

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

Note: Mothers of twins are counted twice in this table.

Early Learning

Table 69. School enrollment for children ages 3 to 4, 2015-2019 ACS

Geography	Estimated number of children	Number a	and percent enrolled in school
Yuma Region	6,389	2,449	38%
Central subregion	4,119	1,763	43%
East subregion	210	42	20%
South subregion	2,060	644	31%
Yuma County	6,421	2,462	38%
Arizona	183,386	71,233	39%
United States	8,151,928	3,938,693	48%

Source: U.S. Census Bureau. (2021). American Community Survey five-year estimates 2015-2019, Table B14003

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

Table 70: Number and capacity of regulated early care and educational providers by operational status in December 2020

	All pro	oviders	Providers closed		Providers closed Providers open		Percent of providers closed	
Geography	Number	Capacity	Number	Capacity	Number	Capacity	Number	Capacity
Yuma Region	118	5,751	41	2,915	77	2,836	35%	51%
Central subregion	80	4,580	23	2,087	57	2,493	29%	46%
East subregion	2	80	1	20	1	60	50%	25%
South subregion	36	1,091	17	808	19	283	47%	74%
Yuma County	122	5,952	43	3,022	79	2,930	35%	51%
Arizona	2,521	202,010	930	71,576	1,591	130,434	37%	35%

Source: Arizona Department of Economic Security (2021). [Child Care Administration dataset]. Unpublished data.

Note: This table only reflects providers registered with the Child Care Resource and Referral (CCR&R) Guide. Closure status for providers were gathered by CCR&R staff throughout the pandemic, who made a strong effort to keep this information up to date; however, these data may not reflect current closure status in the region.

Table 71. Funded enrollment in Yuma Region W.A.C.O.G. Head Start programs, 2019-20

Center Name	Head Start- Expanded Day	Head Start- Part Day	Early Head Start	Early Head Start- CCP
Yuma Region Total	314	357	48	36
Wellton Head Start Center	20	N/A	N/A	N/A
Foothills Head Start Center	20	40	N/A	N/A
Foothills Early Head Start Center	N/A	N/A	16	N/A
Gwyneth Ham Early Learning Center- Early Head Start	N/A	N/A	N/A	28
Gwyneth Ham Early Learning Center- Head Start	140	N/A	N/A	N/A
Helping Hand Head Start Center	N/A	60	N/A	N/A
Carver Head Start Center	N/A	60	N/A	N/A
Pecan Grove Head Start	20	N/A	N/A	N/A
Pecan Grove Early Head Start	N/A	N/A	<10	N/A
Yuma West Head Start Center	N/A	40	N/A	N/A
Rancho Viejo Head Start Center	17	97	N/A	N/A
Rancho Viejo Early Head Start Center	N/A	N/A	16	N/A
Orange Grove Head Start Center	20	N/A	N/A	N/A
Carlisle Head Start Center	60	N/A	N/A	N/A
San Luis Early Head Start Center	N/A	N/A	<10	<10
San Luis Head Start Center	17	60	N/A	N/A

Source: Western Arizona Council of Governments (2021). Head Start Program Data [Dataset]. Data received by request.

Note: CCP stands for Child Care Partnership. Child Care Partnership is a program of Early Head Start that partners Early Head Start programs with child care centers and family home providers...

Table 72. Cumulative enrollment in Yuma Region W.A.C.O.G. and Chicanos Por La Causa Head Start programs, 2019-20 to 2020-21

Center Name	Cumulative Enrollment (2019- 20)	Waitlist (2019-20)	Cumulative Enrollment (2020- 21)	Waitlist (2020-21)
Yuma Region	1,451	24	999	12
Wellton Head Start Center	21	N/A	11	N/A
Foothills Head Start Center	70	N/A	59	N/A
Foothills Early Head Start Center	30	N/A	23	N/A
Gwyneth Ham Early Learning Center- Early Head Start	51	N/A	55	N/A
Gwyneth Ham Early Learning Center- Head Start	160	N/A	105	N/A
Helping Hand Head Start Center	63	N/A	44	N/A
Carver Head Start Center	68	N/A	38	N/A
Pecan Grove Head Start	20	N/A	20	N/A
Pecan Grove Early Head Start	17	N/A	19	N/A
Yuma West Head Start Center	40	N/A	40	N/A
Rancho Viejo Head Start Center	128	N/A	98	N/A
Rancho Viejo Early Head Start Center	23	N/A	26	N/A
Orange Grove Head Start Center	21	N/A	19	N/A
Carlisle Head Start Center	63	N/A	48	N/A
San Luis Early Head Start Center	33	N/A	31	N/A
San Luis Head Start Center	91	N/A	77	N/A
Bubbles Childcare and Preschool-CCP	<10	0	0	0
Rancho Viejo - CCP	23	0	16	0
Jardin Angelical-CCP	<10	0	<10	0
Yuma Center	139	0	78	0
Bienestar Del Cielo-CCP	<10	<10	<10	0
Somerton Center	100	<10	64	<10
San Luis G Center	89	<10	47	<10
Bienestar First Step	25	<10	<10	0
San Luis D Center	89	<10	39	<10
Las Casitas	19	<10	<10	<10
Estrellita Child Care Center-CCP	<10	0	<10	0
San Luis C Center	45	0	21	0

Source: Western Arizona Council of Governments (2021). Head Start Program Data [Dataset]. Data received by request. Chicanos Por La Causa (2021). Head Start Program Data [Dataset]. Data received by request

Notes: CCP stands for Child Care Partnership. Child Care Partnership is a program of Early Head Start that partners Early Head Start programs with child care centers and family home providers. Cumulative enrollment is the total number of students enrolled throughout the year; this number often exceeds funded enrollment as students enter and exit a program. W.A.C.O.G. Head Start did not provide any waitlist data for individual centers.

	Total Pr	ograms	2-Star P	rograms	3-Star P	rograms	4-Star P	rograms	5-Star P	rograms	Progra publicly	ms not ⁄ rated
Geography	Number	Capacity	Number	Capacity								
Yuma Region	43	1,900	2	14	14	482	15	962	9	173	3	269
Central	34	1,608	2	14	13	472	11	809	5	44	3	269
East	0	0	0	0	0	0	0	0	0	0	0	0
South	9	292	0	0	1	10	4	153	4	129	0	0
Yuma County	43	1,900	2	14	14	482	15	962	9	173	3	269
Arizona	925	84,921	141	15,042	334	31,428	250	22,443	70	4,200	130	11,808

Table 73. Number and capacity of Quality First Programs, January 2021

Source: First Things First (2021). Quality First Data Center [Dataset]. Retrieved from https://datacenter.azftf.gov/ in January 2021. Note: This table reflects a snapshot of the Quality First program in January 2021.

Table 74. Quality First Programs, state fiscal year 2020

Geography	Child care providers served	Child care providers with a 3-5 star rating	Percent of child care providers with a 3-5 star rating
Yuma Region	49	45	92%
Yuma County	N/A	N/A	N/A
Arizona	1,045	824	79%

Source: First Things First (2021). Quality First Summary Data. Unpublished data.

Table 75. Children enrolled in Quality First Programs, state fiscal year 2020

Geography	Children enrolled at a Quality First provider site	Children enrolled at a Quality First provider site with a 3-5 star rating	Percent of children in a quality-level setting (3-5 Stars)
Yuma Region	1,372	1,088	79.3%
Yuma County	N/A	N/A	N/A
Arizona	60,927	45,822	75%

Source: First Things First (2021). Quality First Summary Data. Unpublished data.

Geography	Number of accredited providers	Percent of providers who are accredited	Capacity in accredited providers	Percent of provider capacity which is with accredited providers
Yuma Region	24	20%	747	13%
Central subregion	15	19%	532	12%
East subregion	2	100%	80	100%
South subregion	7	19%	135	12%
Yuma County	24	20%	747	13%
Arizona	233	9%	24,824	12%

Table 76. Number and licensed capacity of accredited child care providers, December 2020

Source: Arizona Department of Economic Security (2021). [Child Care Administration dataset]. Unpublished data.

Note: This table includes only 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 77. Median daily charge for full-time child care, 2018

	App	proved family	homes	Ce	rtified group	homes	Licensed centers			
Geography	One infant	One 1 or 2 year old	One 3 to 5 year old	One infant	One 1 or 2 year old	One 3 to 5 year old	One infant	One 1 or 2 year old	One 3 to 5 year old	
Yuma Region	\$19.00	\$20.00	\$15.00	\$30.00	\$30.00	\$28.50	\$33.00	\$27.00	\$25.00	
Central subregion	\$25.00	\$21.50	\$22.00	\$29.00	\$28.50	\$28.50	\$34.00	\$29.00	\$25.82	
East subregion	\$16.50	\$16.50	\$16.50	N/A	N/A	N/A	N/A	N/A	N/A	
South subregion	\$15.00	\$15.00	\$15.00	\$40.00	\$30.00	\$28.00	\$23.50	\$25.00	\$25.00	
Yuma County	\$19.00	\$20.00	\$15.00	\$30.00	\$30.00	\$28.50	\$33.00	\$27.00	\$25.00	
Arizona	\$20.00	\$20.00	\$20.00	\$30.00	\$28.00	\$28.00	\$43.03	\$38.00	\$33.00	

Source: Arizona Department of Economic Security (2021). [Child Care Administration dataset]. Unpublished data.

	Approved family homes			Cei	rtified group l	homes	Licensed centers			
Geography	One infant	One 1 or 2 year old	One 3 to 5 year old	One infant	One 1 or 2 year old	One 3 to 5 year old	One infant	One 1 or 2 year old	One 3 to 5 year old	
Yuma Region	\$380	\$400	\$300	\$600	\$600	\$570	\$660	\$540	\$500	
Central subregion	\$500	\$430	\$440	\$580	\$570	\$570	\$680	\$580	\$516	
East subregion	\$330	\$330	\$330	N/A	N/A	N/A	N/A	N/A	N/A	
South subregion	\$300	\$300	\$300	\$800	\$600	\$560	\$470	\$500	\$500	
Yuma County	\$380	\$400	\$300	\$600	\$600	\$570	\$660	\$540	\$500	
Arizona	\$400	\$400	\$400	\$600	\$560	\$560	\$861	\$760	\$660	

Table 78. Median monthly charge for full-time child care, 2018

Source: Arizona Department of Economic Security (2021). [Child Care Administration dataset]. Unpublished data.

Table 79. Cost of center-based child care as a percentage of income, 2018

Geography	Median family income	Cost for an infant	Cost for a 1 to 2 year	Cost for a 3 to 5 year
Yuma Region	N/A	N/A	N/A	N/A
Yuma County	\$50,300	15.7%	12.9%	11.9%
Arizona	\$70,200	14.7%	13.0%	11.3%

Sources: Arizona Department of Economic Security (2021). [Child Care Administration dataset]. Unpublished data. & U.S. Census Bureau. (2021). American Community Survey five-year estimates 2015-2019, Table B19126.

Note: Annual costs of care are calculated by multiplying the median daily cost of care by 240 to approximate a full year of care.

		Number	of childre	en receivi	ng subsi	Percent of eligible children receiving subsidy						
Geography	2015	2016	2017	2018	2019	2020	2015	2016	2017	2018	2019	2020
Yuma Region	603	521	491	582	743	771	94%	91%	91%	88%	93%	85%
Central	475	425	411	501	608	649	95%	93%	92%	89%	93%	85%
East	0	[1 to 9]	[1 to 9]	[1 to 9]	12	[1 to 9]	DS	DS	DS	DS	100%	DS
South	128	[87 to 95]	[71 to 79]	[72 to 80]	123	[113 to 121]	93%	DS	DS	DS	92%	DS
Yuma County	605	522	492	582	743	773	94%	91%	91%	88%	93%	85%
Arizona	19,040	17,784	16,922	19,813	23,155	19,909	94%	93%	93%	92%	92%	80%

Table 80. Children receiving DES child care subsidies

Source: Arizona Department of Economic Security (2021). [Child Care Administration dataset]. Unpublished data.

Table 81. DCS-involved children	receiving DES	child care	subsidies
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	Number of DCS children receiving subsidy							Percent of DCS eligible children receiving subsidy				ubsidy
Geography	2015	2016	2017	2018	2019	2020	2015	2016	2017	2018	2019	2020
Yuma Region	170	198	172	158	128	81	93%	95%	94%	84%	80%	53%
Central	141	163	144	124	105	63	93%	95%	94%	82%	83%	53%
East	[1 to 29]	[1 to 34]	[1 to 27]	0	[1 to 22]	[1 to 17]	N/A	N/A	N/A	N/A	N/A	N/A
South	[1 to 29]	[1 to 34]	[1 to 27]	34	[1 to 22]	[1 to 17]	N/A	N/A	N/A	92%	N/A	N/A
Yuma County	171	198	172	158	128	81	93%	95%	94%	84%	80%	53%
Arizona	13,098	13,352	12,201	12,219	11,808	7,137	91%	89%	88%	82%	82%	59%

Source: Arizona Department of Economic Security (2021). [Child Care Administration dataset]. Unpublished data.

Table 82. I	Eligible families	not using DES chi	ild care subsidies,	2015 to 20	020
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Geography	2015	2016	2017	2018	2019	2020
Yuma Region	5%	8%	9%	12%	6%	14%
Central subregion	5%	7%	9%	12%	DS	13%
East subregion	N/A	0%	0%	0%	0%	DS
South subregion	7%	13%	12%	15%	DS	DS
Yuma County	5%	8%	9%	13%	6%	13%
Arizona	6%	6%	7%	8%	8%	18%

Source: Arizona Department of Economic Security (2021). [Child Care Administration dataset]. Unpublished data.

Table 83.	Children	ages birth	to 2 referr	ed to and	d found	eligible f	or AzEIP,	federal	fiscal ye	ears
2018 to 2	020									

	Number o ref	of children (erred to Azl	ages 0-2) EIP	Number o elig	of children (a gible for AzE	ages 0-2) EIP	Percent of referrals found eligible			
Geography	FFY 2018	FFY 2019	FFY 2020	FFY 2018	FFY 2019	FFY 2020	FFY 2018	FFY 2019	FFY 2020	
Yuma Region	451	462	337	137	154	143	30%	33%	42%	
Central subregion	306	280	180	95	96	86	31%	34%	48%	
East subregion	[1-9]	11	[1-9]	[1-9]	[1-9]	0	DS	DS	DS	
South subregion	[166-144]	171	[148-156]	[33-41]	[49-57]	57	DS	DS	DS	
Yuma County	454	466	339	138	155	143	30%	33%	42%	
Arizona	13,803	14,692	13,615	5,372	5,225	4,675	39%	36%	34%	

Source: Arizona Department of Economic Security (2021). [Arizona Early Intervention Program dataset]. Unpublished data.

Table 84. Number of children (ages 0-5) receiving DDD services, state fiscal years 2017 to 2020

Geography	SFY 2017	SFY 2018	SFY 2019	SFY 2020	Percent change from 2017 to 2020
Yuma Region	111	109	67	69	-38%
Central subregion	76	77	47	50	-34%
East subregion	[1-9]	[1-9]	[1-9]	[1-9]	N/A
South subregion	[30-34]	[28-31]	[18-19]	[16-18]	N/A
Yuma County	111	109	67	69	-38%
Arizona	5,520	6,123	4,005	4,078	-26%

Source: Arizona Department of Economic Security (2021). [Division of Developmental Disabilities dataset]. Unpublished data.

Table 85. Preschoolers with disabilities receiving services through Local Education Authorities, 2017-18 to 2019-20

Geography	Preschoolers enrolled in special education, 2017-18	Preschoolers enrolled in special education, 2018-19	Preschoolers enrolled in special education, 2019-20
Yuma Region Schools	221	263	310
Yuma Elementary District	70	97	129
Somerton Elementary District	46	50	45
Crane Elementary District	41	40	67
Hyder Elementary District	DS	DS	DS
Mohawk Valley Elementary District	DS	DS	DS
Wellton Elementary District	DS	DS	DS
Gadsden Elementary District	54	68	58
The Charter Foundation, Inc.	DS	DS	DS
Juniper Tree Academy	DS	DS	DS
Harvest Power Community Development Group, Inc.	DS	DS	DS
Yuma County Schools	215	255	299
Arizona Schools	10,123	10,314	10,521

Source: Arizona Department of Education (2021). [Special Needs Dataset]. Custom tabulation of unpublished data by the UArizona CRED Team

Note: The discrepancy between Yuma County and Yuma Region is due to a difference in assigning of children attending the Yuma campus of the Arizona State Schools for the Deaf and Blind. These children are included in the region total but not in the county total.
Child Health

	Estimated civilian non- institutionalized			
Geography	population (all ages)	Without health insurance (all ages)	Estimated number of children (ages 0-5)	Without health insurance (ages 0-5)
Yuma Region	201,766	13%	17,484	6%
Central	140,004	10%	11,528	4%
East	7,285	15%	500	5%
South	54,477	19%	5,456	11%
Yuma County	202,580	13%	17,571	6%
Arizona	6,941,028	10%	517,639	7%
United States	319,706,872	9%	23,653,661	4%

Table 86. Health insurance coverage, 2015-2019 ACS

Source: U.S. Census Bureau. (2021). American Community Survey five-year estimates 2015-2019, 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" by the U.S. Census Bureau.

Table 87. Prenatal care by subregion, 2014-2016 to 2017-2019

Subregion	Three-year period	Number of births	Mother had no prenatal care	Mother had fewer than five prenatal visits	Mother began prenatal care in the first trimester
Central	2014-2016	5,911	3%	9%	67.8%
Central	2017-2019	5,800	4%	10%	67.9%
East	2014-2016	163	6%	N/A	61.3%
	2017-2019	161	[1 to 10%]	7%	68.3%
South	2014-2016	2,970	9%	19%	47.8%
South	2017-2019	2,910	8%	18%	48.6%
Healthy People 2020	0 Target				84.8%

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

Note: Mothers of twins are counted twice in this table.

Geography	Women for whom pre- pregnancy weight is known, 2019	Women with pre-pregnancy obesity, 2019	Percent with pre- pregnancy obesity, 2019	Women for whom pre- pregnancy weight is known, 2020	Women with pre-pregnancy obesity, 2020	Percent with pre-pregnancy obesity, 2020
Yuma Region	2,077	811	39%	765	317	41%
Central subregion	1,317	500	38%	1,175	192	40%
East subregion	27	12	44%	34	6	33%
South subregion	733	299	41%	639	119	45%
Yuma County	2,081	815	39%	769	319	41%
Arizona	32,816	11,893	36%	14,640	5,449	37%

Table 88. WIC-enrolled women with pre-pregnancy obesity, 2019 to 2020

Source: Arizona Department of Health Services (2021). [WIC dataset]. Unpublished data.

Table 89. Pre-pregnancy obesity rate for WIC-enrolled women, 2016 to 2020

Geography	Pre-pregnancy obesity rate, 2016	Pre-pregnancy obesity rate, 2017	Pre-pregnancy obesity rate, 2018	Pre-pregnancy obesity rate, 2019	Pre-pregnancy obesity rate, 2020
Yuma Region	36%	39%	39%	39%	41%
Central subregion	38%	40%	39%	38%	40%
East subregion	33%	38%	54%	44%	33%
South subregion	33%	37%	38%	41%	45%
Yuma County	36%	39%	39%	39%	41%
Arizona	33%	34%	35%	36%	37%

Source: Arizona Department of Health Services (2021). [WIC Dataset]. Unpublished data.

Table §	90. Selected	birth outcom	es by sub	pregion, 2	2018 to	2019
				U /		

Subregion	Three-year period	Number of births	Baby weighed less than 2500 grams	Baby was preterm (less than 37 weeks)	Baby was admitted to a NICU
Central	2014-2016	5,911	6.3%	8.4%	7%
	2017-2019	5,800	6.1%	8.5%	8%
East	2014-2016	163	[1 to 10%]	[1 to 10%]	[1 to 10%]
	2017-2019	161	[1 to 10%]	[1 to 10%]	[1 to 10%]
South	2014-2016	2,970	6.6%	8.9%	7%
	2017-2019	2,910	5.8%	7.8%	7%
Healthy People 20	20 Targets		7.8%	9.4%	

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

Note: Mothers of twins are counted twice in this table.

Note: The Healthy People 2030 target for preterm births remains 9.4% or fewer of live births.

Table 91. WIC-enrolled infants ever breastfed, 2020

Geography	Infants for whom breastfeeding status is determined	Infants ever breastfed	Percent of infants ever breastfed
Yuma Region	1,848	1,436	78%
Central	1,175	930	79%
East	34	26	76%
South	639	480	75%
Yuma County	1,865	1,446	78%
Arizona	32,545	25,322	78%

Source: Arizona Department of Health Services (2021). [WIC dataset]. Unpublished data.

	Table 92.	Percent of	WIC-enrolled	infants ever	breastfed,	2016 to	2020
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Geography	Breastfeeding rate, 2016	Breastfeeding rate, 2017	Breastfeeding rate, 2018	Breastfeeding rate, 2019	Breastfeeding rate, 2020
Yuma Region	76%	75%	78%	79%	78%
Central subregion	78%	77%	77%	81%	79%
East subregion	91%	68%	73%	80%	76%
South subregion	71%	72%	80%	75%	75%
Yuma County	76%	75%	78%	79%	78%
Arizona	73%	77%	77%	79%	78%

Source: Arizona Department of Health Services (2021). [WIC Dataset]. Unpublished data.

Table 93. Children ages 2-4 with obesity 2016 to 2020

	Numl	ber of child	lren ages 2	2-4 with ob	oesity	Percent of children ages 2-4 with obesity				
Geography	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
Yuma Region	664	686	683	646	226	15%	16%	16%	16%	18%
Central	381	401	400	368	126	15%	16%	17%	16%	18%
East	10	14	11	14	<6	11%	16%	18%	25%	DS
South	273	270	272	264	96	14%	15%	15%	16%	17%
Yuma County	672	691	690	656	229	15%	16%	16%	16%	18%
Arizona	10,870	10,564	10,463	10,085	4,318	14%	14%	15%	15%	16%

Source: Arizona Department of Health Services (2021). [WIC Dataset]. Unpublished data.

	Childre	n in child ca	are with rel	ligious exe	mptions	Children in child care exempt from all vaccines				
Geography	2015-16	2016-17	2017-18	2018-19	2019-20	2015-16	2016-17	2017-18	2018-19	2019-20
Yuma Region	0.6%	0.6%	1.7%	0.8%	1.0%	2.2%	0.4%	0.4%	0.6%	0.9%
Central	0.5%	0.5%	2.3%	1.1%	1.0%	3.2%	0.5%	0.5%	0.8%	0.9%
East	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.9%	0.0%	0.0%
South	0.7%	0.7%	0.1%	0.1%	0.9%	0.0%	0.2%	0.0%	0.0%	0.9%
Yuma County	0.5%	0.6%	1.8%	0.8%	1.0%	0.3%	0.4%	0.4%	0.6%	0.9%
Arizona	3.5%	3.9%	4.3%	4.5%	5.0%	2.1%	2.4%	2.9%	3.0%	3.1%

Table 94. Child care immunization exemption rates, 2015-16 to 2019-20

Source: Arizona Department of Health Services (2021). Childcare Immunization Coverage, 2015-2016 to 2019-2020 School Years. Unpublished data received by request & aggregated by the Community, Research, & Development Team. Arizona Department of Health Services (2021). Childcare Immunization Coverage by County, 2015-2016 through 2019-2020 School Years. Retrieved from: https://www.azdhs.gov/preparedness/epidemiology-disease-control/immunization/index.php#reports-immunization-coverage

Note: The high rate of exemptions in the 2015-16 school year was driven by an unusually high number of exemptions reported at a single child care center. In subsequent years, this center did not report exemptions at a rate higher than similar centers

	Kinderg	arteners wi	th persona	l belief exe	mptions	Kindergarteners exempt from all vaccines				
Geography	2015-16	2016-17	2017-18	2018-19	2019-20	2015-16	2016-17	2017-18	2018-19	2019-20
Yuma Region	1.1%	1.0%	1.4%	1.3%	1.3%	0.5%	0.4%	0.7%	0.7%	0.7%
Central	1.6%	1.3%	1.6%	1.8%	1.8%	0.7%	0.6%	0.9%	1.0%	1.0%
East	0.0%	0.0%	3.4%	2.9%	0.0%	0.0%	0.0%	3.4%	0.0%	0.0%
South	0.0%	0.4%	1.0%	0.2%	0.2%	0.0%	0.0%	0.2%	0.0%	0.0%
Yuma County	1.1%	1.0%	1.2%	1.3%	1.3%	0.3%	0.4%	0.5%	0.7%	0.7%
Arizona	4.5%	4.9%	5.4%	5.9%	5.4%	1.8%	2.4%	3.5%	3.8%	3.4%

Table 95. Kindergarten immunization exemption rates, 2015-16 to 2019-20

Source: Arizona Department of Health Services (2021). Kindergarten Immunization Coverage, 2015-2016 to 2019-2020 School Years. Unpublished data received by request & aggregated by the Community, Research, & Development Team. Arizona Department of Health Services (2021). Kindergarten Immunization Coverage by County, 2015-2016 through 2019-2020 School Years. Retrieved from: https://www.azdhs.gov/preparedness/epidemiology-disease-control/immunization/index.php#reports-immunization-coverage Table 96. Confirmed and probable cases of infectious diseases in children ages birth to 4, 2018 to 2020

Geography	Calendar year	Pertussis (Whooping Cough)	Varicella (Chicken Pox)	Haemophilus influenzae	Meningococcal disease	Mumps	Measles
	2018	<6	<6	0	0	0	0
Yuma County	2019	<6	<6	0	0	0	0
	2020	0	<6	0	0	0	0
	2018	48	57	30	0	0	0
Arizona	2019	92	62	22	0	0	0
	2020	96	22	12	<6	<6	0

Source: Arizona Department of Health Services (2021). [VPD Flu RSV dataset]. Unpublished data.

Table 97. Confirmed and probable cases of infectious diseases in children ages birth to 4, 2017-18 to 2019-20

Geography	Season	Influenza	Respiratory Syncytial Virus (RSV) Infection
	2017-18	133	170
Yuma County	2018-19	118	117
	2019-20 (preliminary)	204	124
	2017-18	5,319	4,530
Arizona	2018-19	4,603	3,897
	2019-20 (preliminary)	6,612	5,351

Source: Arizona Department of Health Services (2021). [FTF VPD Flu RSV dataset]. Unpublished data.

Table 98. Non-fatal hospitalizations and emergency department visits due to unintentional injuries for children ages birth to 4, 2016-2020 combined

Geography	Non-fatal inpatient hospitalizations for unintentional injuries	Non-fatal emergency department visits for unintentional injuries
Yuma Region	71	5,531
Yuma County	73	5,552
Arizona	2,890	181,0135

Source: Arizona Department of Health Services (2021). [Hospital Discharge dataset]. Unpublished data.

Table 99. Number of deaths with opiates or opioids contributing, 2017 through 2020

Geography	Number of deaths with opiates or opioids contributing, 2017 through 2020
Yuma Region	18
Yuma County	26
Arizona	5,455

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

Family Support and Literacy

Table 100. Number of children ages birth to 5 removed by DCS, state fiscal years 2019 to 2020

Geography	Children (ages 0-5) removed (SFY 2019)	Children (ages 0-5) removed (SFY 2020)	Children (ages 0-5) removed (SFY2019- 2020)	Children (ages 0-5) in the population
Yuma Region	19	14	33	17,983
Central subregion	74%	DS	67%	68%
East subregion	DS	DS	DS	3%
South subregion	DS	DS	21%	29%
Yuma County	N/A	N/A	N/A	N/A
Arizona	3,989	4,124	8,113	546,609

Source: Arizona Department of Child Safety (2021). [Child removal dataset]. Unpublished data.

Note: These data were received by zip code and geocoded to the Yuma Region by the UArizona CRED team. The data reflect the last known address of the caregiver from whose custody the child was removed, not the location where the removal took place.

Table 101. Substantiated maltreatment reports by type for children ages birth to 17, July-Dec. 2020

Geography Yuma Region	Total Substantiated Maltreatment Reports N/A	Neglect N/A	Physical Abuse N/A	Sexual Abuse N/A	Emotional Abuse N/A
Yuma County	27	89%	7%	4%	0%
Arizona	1,669	69%	25%	6%	0%

Source: Department of Child Safety (2021). Semiannual child welfare report, March 2021. Retrieved from https://dcs.az.gov/reports

Table 102. Children ages birth to 17 removed by the Department of Child Services (DCS), July-Dec. 2020

Geography	Total Reports	Number of children removed	Percent of children removed	Number of children with prior removal in last 24 months	Percent of children with prior removal in last 24 months
Yuma Region	N/A	N/A	N/A	N/A	N/A
Yuma County	645	84	13%	8	10%
Arizona	30,526	4,967	16%	198	4%

Source: Department of Child Safety (2021). Semiannual child welfare report, March 2021. Retrieved from https://dcs.az.gov/reports

APPENDIX 2: METHODS AND DATA SOURCES

The data contained in this report come from a variety of sources.

U.S. Census and American Community Survey Data. The U.S. Census³⁹⁸ 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 Yuma Region presented in this report were calculated by identifying each block in the region and aggregating the data over all of those blocks. The Census Bureau is expected to publish new block-level population estimates and detailed tables later in 2022.

The American Community Survey (ACS)³⁹⁹ 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 Yuma 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 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 2015 to 2019. In general, the reliability of ACS estimates is greater for more populated areas. Statewide estimates, for example, are more reliable than county-level estimates.

Data Suppression. To protect the confidentiality of program participants, the First Things First (FTF) Data Dissemination and Suppression Guidelines preclude our reporting social service and early education programming data if the count is less than 10 and preclude our reporting data related to health or developmental delay if the count is less than 6. In addition, some data received from state agencies are suppressed according to their own guidelines. The Arizona Department of Health Services (ADHS) does not report counts less than 6; the Arizona Department of Economic Security (DES) does not report counts between 1 and 9; and the Arizona Department of Education (ADE) does not report counts less than 11. Additionally, both ADE and DES require suppression of the second-smallest value or the denominator in tables where a reader might be able to use the numbers provided to calculate a suppressed value. 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 or because the number was suppressed as a second-smallest value that could be used to calculate a suppressed value. 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 enrolled in Child-only TANF and 12 children enrolled in a household with TANF, the entry in the table would read "13 to 21." This is because the suppressed number of children in Child-only TANF is between 1 and 9, so the possible range of values is the sum of the 2 known numbers plus 1 on the lower bound to the sum of the 2 known numbers plus 9 on the upper bound. Ranges that include numbers below the suppression threshold of less than 6 or 10 may still be included if the upper limit of the range is above 6 or 10. Since a range is provided rather than an exact number, the confidentiality of program participants is preserved.

Education Data from ADE. Education data from ADE included in this report were obtained through a custom tabulation of unredacted data files conducted by the vendor on a secure ADE computer terminal in the spring of 2021. The vendor worked with the regional director to create a list of all public and charter schools in the region based on the school's physical location within the region as well as local knowledge as to whether any schools located outside the region served a substantial number of children living within the region. This list was used to assign schools and districts to the region as well to aggregate school-level data to the region-level. This methodology differs slightly from the methods that ADE uses to allocate school-level data to counties, so county and region totals may vary in some tables. Data were presented over time where available; however, due to changes in the ADE data system and business rules over the past 3 years, some indicators could not be presented as a time series.

Child Care Capacity Calculations. Overall child care capacity estimates were compiled by merging multiple licensing and enrollment datasets from ADHS, DES, Quality First and local Head Start programs. Duplicate programs were identified and removed based on name, phone number and address. Programs that only serve children ages 5-12 were also removed, as these are typically before- & after-school programs that only serve school-age children. Providers were geocoded using addresses or coordinates provided in the various datasets to assign them to both regions and sub-regions. The child care capacity estimates are meant to provide a best guess at the supply of child care slots in regulated care providers. These estimates do not reflect the capacity of unlicensed, unregulated or informal child care as it did not account for pandemic-related closures, child care providers that operate under licensed capacity by choice, or children who enroll in multiple facilities (e.g., a child who attends part-day Head Start or preschool in the morning and a child care center in the afternoon).

The Report Process. This report was the product of collaboration between the vendor, the regional director, the regional partnership council and the FTF Evaluation team. The vendor worked with the FTF Evaluation team to identify and review indicators for the report and prepare data requests to submit to state agencies. The regional partnership council, regional director, and the vendor worked together to define priority areas, identify local sources of data, and submit local data requests. The vendor worked to process, compile, analyze, and visualize data gathered as well as to review data for quality and accuracy. Following data analysis, visualization, and review, the vendor facilitated a data interpretation session with the regional director, the regional partnership council, and key stakeholders in the region.

This session aimed to allow participants to share their local knowledge and perspectives in interpreting the data collected. The vendor finally synthesized the data, analysis and findings from the data interpretation session in this report, which has been reviewed by the regional director and regional partnership council prior to publication.

APPENDIX 3: ZIP CODES OF THE YUMA REGION

Figure 81. Zip Code Tabulation Areas (ZCTAs) in the Yuma 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 (https://www.census.gov/cgi-bin/geo/shapefiles/index.php)

Zip Code Tabulation Area (ZCTA)	Population (all ages)	Population (ages 0-5)	Total number of households	Households with young children (ages 0-5)	Percent of this ZCTA's total population living in the Yuma Region	This ZCTA is shared with
Yuma Region	194,934	17,983	64,455	12,951		
85364	74,539	7,394	24,700	5,325	99.51%	Cocopah Tribe
85365	43,653	3,909	15,519	2,810	100%	
85367	20,429	935	9,634	702	100%	
85333	713	42	246	31	90.25%	Southwest Maricopa
85347	716	62	248	46	100%	
85352	461	37	171	26	100%	
85356	4,539	262	1,861	188	100%	
85336	700	65	199	49	100%	
85349	25,517	2,853	5,956	2,018	100%	
85350	20,751	2,208	4,909	1,608	97.82%	Cocopah Tribe

Table 103. Zip Code Tabulation Areas (ZCTAs) in the Yuma Region

Source: U.S. Census Bureau (2010). 2010 Decennial Census, Summary File 1, Tables P1, P14, & P20

APPENDIX 4: SCHOOL DISTRICTS OF THE YUMA REGION

Figure 82. School Districts in the Yuma 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 (https://www.census.gov/cgi-bin/geo/shapefiles/index.php)

Name of district or Local Education Agency (LEA)	Number of schools	Number of students in kindergarten through third grade
Yuma Region	69	11,245
Yuma Elementary District	19	939
Somerton Elementary District	5	313
Crane Elementary District	13	654
Hyder Elementary District	1	14
Mohawk Valley Elementary District	1	DS
Wellton Elementary District	1	18
Gadsden Elementary District	9	514
Antelope Union High School District	2*	N/A
Yuma Union High School District	7*	N/A
Az-Tec High School	1	N/A
Yuma Private Industry Council, Inc.	1	N/A
The Charter Foundation, Inc.**	2	53
Juniper Tree Academy	1	158
Harvest Power Community Development Group, Inc.**	2	166
Carpe Diem Collegiate High School***	2*	N/A
Portable Practical Educational Preparation, Inc. (PPEP, Inc.)	2	N/A

Table 104. School Districts and Local Education Authorities (LEAs) in the Yuma Region

Source: Arizona Department of Education. [Enrollment dataset]. Custom tabulation of agency data.

Note: * Yuma Union and Antelope Union High School Districts list their online programs as a separate school from their other high school campuses. ** The Charter Foundation, Inc. operates AmeriSchools Academy. Harvest Power Community Development Group, Inc. operates Harvest Preparatory Academy. *** Carpe Diem Collegiate High School operates through online and distance learning.

APPENDIX 5: DATA SOURCES

- Arizona Department of Child Safety (2021). Semi-Annual Child Welfare Reports. Retrieved from https://dcs.az.gov/DCS-Dashboard
- Arizona Department of Child Safety (2021). [Child removal dataset]. Unpublished raw data received from the First Things First State Agency Data 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. (2021). [Child Care Market Rate Survey 2018, custom tabulation]. Data received from the First Things First State Agency Data Request.
- Arizona Department of Economic Security. (2021). [AzEIP Data]. Unpublished raw data received through the First Things First State Agency Data Request.
- Arizona Department of Economic Security. (2021). [Child Care Assistance Data]. Unpublished raw data received through the First Things First State Agency Data Request.
- Arizona Department of Economic Security. (2021). [DDD Data]. Unpublished raw data received through the First Things First State Agency Data Request.
- Arizona Department of Economic Security. (2021). [Division of Benefits and Medical Eligibility data set]. Unpublished raw data received from the First Things First State Agency Data Request.
- Arizona Department of Education (2021). [AzMERIT dataset]. Custom tabulation of unpublished data.
- Arizona Department of Education. (2021). [Chronic absence dataset]. Custom tabulation of unpublished data.
- Arizona Department of Education. (2021). [Graduation & dropout dataset]. Custom tabulation of unpublished data.
- Arizona Department of Education. (2019). [Health & Nutrition dataset]. Custom tabulation of unpublished data.
- Arizona Department of Education (2021). [Oct 1 enrollment dataset]. Custom tabulation of unpublished data.
- Arizona Department of Education (2021). [Special Education dataset]. Custom tabulation of unpublished data.
- Arizona Department of Health Services (2021). [Child asthma dataset]. Unpublished data received by request.
- Arizona Department of Health Services (2021). [Child diabetes dataset]. Unpublished data received by request.

- Arizona Department of Health Services (2021). [Child unintentional injuries dataset]. Unpublished data received by request.
- Arizona Department of Health Services (2021). [Child care licensing dataset]. Unpublished data received by request.
- Arizona Department of Health Services. (2021). [Immunizations dataset]. Unpublished raw data received from the First Things First State Agency Data Request.
- Arizona Department of Health Services. (2021). [Infectious disease dataset]. Unpublished raw data received from the First Things First State Agency Data Request.
- Arizona Department of Health Services (2021). [Opioid and Neonatal Abstinence Syndrome dataset]. Unpublished data received by request.
- Arizona Department of Health Services (2021). [WIC dataset]. Unpublished data received by request.
- Arizona Department of Health Services, Bureau of Public Health Statistics. (2021). [Vital Statistics Dataset]. Unpublished data received from the First Things First State Agency Data Request.
- Arizona Department of Health Services, Office of Disease Prevention and Health Promotion. (2020). Arizona Health Status and Vital Statistics, 2014-2019 Annual Reports. Retrieved from <u>https://pub.azdhs.gov/health-stats/report/ahs/index.php</u>
- Arizona Office of Economic Opportunity. (2020). Arizona Population Projections: 2018 to 2055, Medium Series. Retrieved from <u>https://www.azcommerce.com/oeo/population/population-projections/</u>
- Arizona Office of Economic Opportunity. (2021). Local area unemployment statistics (LAUS). Retrieved from <u>https://www.azcommerce.com/oeo/labor-market/</u>
- First Things First (2019). Quality First, a Signature Program of First Thing First. Unpublished data received by request
- U.S. Census Bureau. (2012). 2010 Decennial Census, Tables P1, P4, P11, P12A, P12B, P12C, P12D, P12E, P12F, P12G, P12H, P14, P20, P32, P41. Retrieved from https://data.census.gov/cedsci/
- U.S. Census Bureau. (2020). 2020 Decennial Census, Redistricting File. Retrieved from https://data.census.gov/cedsci/
- U.S. Census Bureau. (2019). American Community Survey 5-Year Estimates, 2014-2019, Table B05009, B09001, B10002, B14003, B15002, B16001, B16002, B16005, B17001, B17002, B17006, B17022, B19126, B23008, B23025, B25002, B25106, B27001, B28005, B28008, B28010. Retrieved from https://data.census.gov/cedsci/
- U.S. Census Bureau. (2020). 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

² 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>.

³ Campbell, F., Conti, G., Heckman, J. J., Moon, S. H., Pinto, R., Pungello, E., & Pan, Y. (2014). Early childhood investments substantially boost adult health. *Science*, 343(6178), 1478-1485.

⁴ Hong, K., Dragan, K., & Glied, S. (2019). Seeing and hearing: The impacts of New York City's universal pre-kindergarten program on the health of low-income children. *Journal of Health Economics*, *64*, 93-107.

⁵ Bakken, L., Brown, N., & Downing, B. (2017). Early childhood education: The long-term benefits. *Journal of Research in Childhood Education*, *31*(2), 255-269, DOI: 10.1080/02568543.2016.1273285

⁶ Rossin-Slater, M. (2013). WIC in your neighborhood: New evidence on the impacts of geographic access to clinics. *Journal of Public Economics*, *102*, 51-69.

⁷ Campbell, F., Conti, G., Heckman, J. J., Moon, S. H., Pinto, R., Pungello, E., & Pan, Y. (2014). Early childhood investments substantially boost adult health. *Science*, *343*(6178), 1478-1485.

⁸ Hong, K., Dragan, K., & Glied, S. (2019). Seeing and hearing: The impacts of New York City's universal pre-kindergarten program on the health of low-income children. *Journal of Health Economics*, *64*, 93-107.

⁹ Bakken, L., Brown, N., & Downing, B. (2017). Early childhood education: The long-term benefits. *Journal of Research in Childhood Education*, *31*(2), 255-269, DOI: 10.1080/02568543.2016.1273285

¹⁰ Rossin-Slater, M. (2013). WIC in your neighborhood: New evidence on the impacts of geographic access to clinics. *Journal of Public Economics*, *102*, 51-69.

¹¹ Frey, W. H. (2020). The nation is diversifying even faster than predicted, according to new census data. *Brookings*. Retrieved August 16, 2021 from https://www.brookings.edu/research/new-census-data-shows-the-nation-is-diversifying-even-faster-than-predicted/

¹² 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>.

¹³ Halgunseth, L. (2009). Family engagement, diverse families and early childhood education programs: An integrated review of the literature. *Young Children*, *64*(5), 56-68.

¹⁴ 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>.

¹⁵ Pew Research Center. (2018). *The changing profile of unmarried parents*. Retrieved August 16, 2021 from https://www.pewsocialtrends.org/2018/04/25/the-changing-profile-of-unmarried-parents/

¹⁶ Vandivere, S., Yrausquin, A., Allen, T., Malm, K., and 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 August 16, 2021 from <u>http://aspe.hhs.gov/basic-report/children-nonparental-care-review-literature-and-analysis-data-gaps</u>

¹⁷ 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 August 16, 2021 from http://scholarworks.wmich.edu/grandfamilies/vol3/iss1/4

¹⁸ Shonkoff, J. P., & Phillips, D. A. (Eds.). (2000). From Neurons to Neighborhoods: The Science of Early Childhood Development. Washington, DC, US: National Academy Press.

¹⁹ Taylor, Z. E., & Conger, R. D. (2014). Risk and resilience processes in single-mother families: An interactionist perspective. In Sloboda, Z. & Petras, H. (Eds.), *Defining prevention science* (pp. 195-217). Springer, Boston, MA.

²⁰ Coles, R. L. (2015). Single-father families: A review of the literature. Journal of Family Theory & Review, 7(2), 144-166.

²¹ Ellis, R. R., & Simmons, T. (2014). Coresident grandparents and their grandchildren: 2012. *Current Population Reports*, pp. 20-576. U.S. Census Bureau: Washington, DC.

²² Britto PR, Lye SJ, Proulx K, et al, and the Early Childhood Development Interventions Review Group, for the Lancet Early Childhood Development Series Steering Committee (2016). Nurturing care: promoting early childhood development. *Lancet*, *389*, 91-102.

¹ U.S. Census Bureau (2021). About 2020 Census Data Products, Demographic and Housing Characteristics File. Accessed at https://www.census.gov/programs-surveys/decennial-census/decade/2020/planning-management/release/about-2020-data-products.html

²³ Ibid

²⁴ Harvard University, Center on the Developing Child "Serve & Return Interaction Shapes Brain Circuitry." Retrieved from http://developingchild.harvard.edu/resources/multimedia/videos/three_core_concepts/serve_and_return/

²⁵ Martin, J. A., Hamilton, B. E., Osterman, M. J. K., Driscoll, A. K., Schwartz, S., & Horon, I. (2021). Births: Final data for 2019. *National Vital Statistics Reports*, 70(2), 1–51.

²⁶ 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 September 14, 2021 from <u>https://www.urban.org/research/publication/young-children-immigrants-leading-edge-americas-future</u>

²⁷ 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 September 14, 2021 from <u>https://www.urban.org/research/publication/young-children-immigrants-leading-edge-americas-future</u>

²⁸ Androff, D. K., Ayon, C., Becerra, D., & Gurrola, M. (2011). US immigration policy and immigrant children's well-being: The impact of policy shifts. *Journal of Sociology & Social Welfare, 38*, 77.

²⁹ 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.

³⁰ Bernstein, H., Gonzalez, D., Karpman, M., & Zuckerman, S. (2019, May 22). One in seven adults in immigrant families reported avoiding public benefit programs in 2018. *Urban Institute*. Retrieved August 16, 2021 from <u>https://www.urban.org/research/publication/one-seven-adults-immigrant-families-reported-avoiding-public-benefit-programs-2018</u>

³¹ 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 August 16, 2021 from <u>https://www.kff.org/report-section/living-in-an-immigrant-family-in-america-issue-brief/</u>

³² 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 August 16, 2021 from http://webarchive.urban.org/UploadedPDF/413260-Barriers-to-Immigrants-Access-to-Health-and-Human-Services-Programs.pdf

³³ Bernstein, H., McTarnaghan, S., & Gonzalez, D. (2019). Safety net access in the context of the public charge rule. *Urban Institute*. Retrieved August 16, 2021 from

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

³⁴ Ku, L. (2019, October 9). New evidence demonstrates that the public charge rule will harm immigrant families and others. *Health Affairs*. Retrieved September 14, 2021 from <u>https://www.healthaffairs.org/do/10.1377/hblog20191008.70483/full/</u>

³⁵ Capps, R., & Gelatt, J. (2020, May). Barriers to COVID-19 testing and treatment: Immigrants without health coverage in the United States. *Migration Policy Institute* (Fact Sheet). Retrieved August 24, 2021 from <u>https://www.migrationpolicy.org/research/covid-19-testing-treatment-immigrants-health-insurance</u>

³⁶ 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/publication/benefits-being-bilingual</u>

³⁷ 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>.

³⁸ 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/publication/benefits-being-bilingual</u>

³⁹ 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>.

⁴⁰ 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>.

⁴¹ 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>.

⁴² 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>.

⁴³ Center for Translational Neuroscience. (2020, November 11). *Home alone: The pandemic is overloading single-parent families*. Medium. Retrieved August 18, 2021 from <u>https://medium.com/rapid-ec-project/home-alone-the-pandemic-is-overloading-single-parent-families-c13d48d86f9e</u>

⁴⁴ Center for Translational Neuroscience. (2020, December 1). *Facing hunger: The weight of the pandemic Is falling on American families*. Medium. Retrieved August 18, 2021 from <u>https://medium.com/rapid-ec-project/facing-hunger-the-weight-of-the-pandemic-is-falling-on-american-families-1cbeb047a955</u>

⁴⁵ Center for Translational Neuroscience. (2020, June 24). *Flattening the other curve: Trends for young children's mental health are good for some but concerning for others*. Medium. Retrieved August 18, 2021 from <u>https://medium.com/rapid-ec-project/flattening-the-other-curve-7be1e574b340</u>

⁴⁶ Center for Translational Neuroscience (2020, September 8). Something's gotta give: Parents face an untenable set of demands as schools and child care providers begin a new academic year. Medium. Retrieved August 18, 2021 from https://medium.com/rapid-ec-project/somethings-gotta-give-6766c5a88d18

⁴⁷ Generations United (2011). *Family Matters: Multigenerational Families in a Volatile Economy*. Retrieved October 15, 2021 from https://www.gu.org/app/uploads/2018/05/SignatureReport-Family-Matters-Multigen-Families.pdf

⁴⁸ Ellis, R., & Simmons, T. (2014). Co-resident Grandparents and Their Grandchildren: 2012, *Current Population Reports*, *P20-576*, U.S. Census Bureau: Washington, DC.

⁴⁹ Baker, L. A., Silverstein, M., & Putney, N. M. (2008). Grandparents raising grandchildren in the United States: Changing family forms, stagnant social policies. *Journal of societal & social policy*, 7, 53.

⁵⁰ Chan, K.L., Chen, M., Lo, K.M.C, Chen, Q., Kelley, S., & Ip, P. (2019). The effectiveness of Interventions for grandparents raising grandchildren: A meta-analysis. *Research on Social Work Practice*, *29,607-617*.

⁵¹ American Association for Marriage and Family Therapy. (2015). Grandparents raising grandchildren.

⁵² Stokes, J. E., & Patterson, S. E. (2020). Intergenerational Relationships, Family Caregiving Policy, and COVID-19 in the United States. Journal of Aging & Social Policy, 32(4-5), 416–424.

⁵³ Centers for Disease Control and Prevention. (2021, September 9). Risk for COVID-19 Infection, Hospitalization, and Death by Age Group. Retrieved September 13, 2021 from <u>https://www.cdc.gov/coronavirus/2019-ncov/covid-data/investigationsdiscovery/hospitalization-death-by-age.html</u>

⁵⁴ 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 September 14, 2021 from <u>https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health</u>

⁵⁵ Child Trends. (2014, January 8). *5 Ways Poverty Harms Children*. Retrieved September 14, 2021 from <u>https://www.childtrends.org/child-trends-5/5-ways-poverty-harms-children</u>

⁵⁶ Hair, N. L., Hanson, J. L., Wolfe, B. L., & Pollak, S. D. (2015). Association of child poverty, brain development, and academic achievement. *JAMA pediatrics*, *169*(9), 822-829.

⁵⁷ Brooks-Gunn, J. & Duncan, G. (1997). The effects of poverty on children. Children and Poverty, 7(2), 55-71.

⁵⁸ McLoyd, V. (1998). Socioeconomic disadvantage and child development. *American Psychologist*, *53*(2), 185-204. doi:10.1037/0003-066X.53.2.185

⁵⁹ Ratcliffe, C. & McKernan, S. (2012). Child poverty and its lasting consequences. *Low-Income Working Families Series*, The Urban Institute. Retrieved September 14, 2021 from https://www.urban.org/sites/default/files/publication/32756/412659-Child-Poverty-and-Its-Lasting-Consequence.PDF

⁶⁰ Duncan, G., Ziol-Guest, K., & Kalil, A. (2010). Early-childhood poverty and adult attainment, behavior, and health. *Child Development*, 81(1), 306-325. Retrieved September 14, 2021 from <u>http://onlinelibrary.wiley.com/doi/10.1111/j.1467-8624.2009.01396.x/full</u>

⁶¹ 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.

⁶² Jensen, S. K. G., Berens, A. E., & Nelson, C. A. (2017). Effects of poverty on interacting biological systems underlying child development. *The Lancet Child & Adolescent Health*, 1(3), 225–239. <u>https://doi.org/10.1016/s2352-4642(17)30024-x</u>

⁶³ Brisson, D., McCune, S., Wilson, J. H., Speer, S. R., McCrae, J. S., & Hoops Calhoun, K. (2020). A systematic review of the association between poverty and biomarkers of toxic stress. *Journal of Evidence-Based Social Work*, 17(6), 696-713.

⁶⁴ 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 September 14, 2021 from http://www.nccp.org/publications/pub_909.html

⁶⁵ Duncan, G., Ziol-Guest, K., & Kalil, A. (2010). Early-childhood poverty and adult attainment, behavior, and health. *Child Development*, 81(1), 306-325. Retrieved September 14, 2021 from <u>http://onlinelibrary.wiley.com/doi/10.1111/j.1467-8624.2009.01396.x/full</u>

⁶⁶ Alaimo, K., Olson, C.M., Frongillo Jr, E.A. and Briefel, R.R., 2001. Food insufficiency, family income, and health in US preschool and school-aged children. *American Journal of Public Health*, *91*(5), p.781.

⁶⁷ Hill, M.S. and Duncan, G.J., 1987. Parental family income and the socioeconomic attainment of children. *Social Science Research*, *16*(1), pp.39-73.

⁶⁸ Larson, K. and Halfon, N., 2010. Family income gradients in the health and health care access of US children. *Maternal and child health journal*, *14*(3), pp.332-342.

⁶⁹ Gilman, S.E., Kawachi, I., Fitzmaurice, G.M. and Buka, S.L., 2002. Socioeconomic status in childhood and the lifetime risk of major depression. *International journal of epidemiology*, *31*(2), pp.359-367.

⁷⁰ Coleman-Jensen, A., Rabbitt, M. P., Gregory, C. A., & Singh, A. (2021). Household food security in the United States in 2020, ERR-298. US Department of Agriculture, Economic Research Service.

⁷¹ Coleman-Jensen, A., Rabbitt, M. P., Gregory, C. A., & Singh, A. (2021). Household food security in the United States in 2020, ERR-298. US Department of Agriculture, Economic Research Service.

⁷² 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.

⁷³ Cohen, J., Hecht, A. A., McLoughlin, G. M., Turner, L., & Schwartz, M. B. (2021). Universal School Meals and Associations with Student Participation, Attendance, Academic Performance, Diet Quality, Food Security, and Body Mass Index: A Systematic Review. *Nutrients*, *13*(3), 911. https://doi.org/10.3390/nu13030911

⁷⁴ 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 September 14, 2021 from <u>http://www.cbpp.org/research/food-assistance/wic-works-addressing-the-nutrition-and-health-needs-of-low-income-families</u>

⁷⁵ 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 September 14, 2021 from <u>https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health</u>

⁷⁶ Berger, R.P., Fromkin, J.B., Stutz, H., Makoroff, K., Scribano, P.V., Feldman, K., Tu, L.C. and Fabio, A., 2011. Abusive head trauma during a time of increased unemployment: a multicenter analysis. *Pediatrics*, *128*(4), pp.637-643. Retrieved September 14, 2021 from https://pediatrics.aappublications.org/content/128/4/637.short

⁷⁷ Isaacs, J. (2013). Unemployment from a child's perspective. Retrieved June 7, 2022 from <u>https://www.urban.org/sites/default/files/publication/23131/1001671-Unemployment-from-a-Child-s-Perspective.PDF</u>

⁷⁸ McCoy-Roth, M., Mackintosh, B., & Murphey, D. (2012). When the bough breaks: The effects of homelessness on young children. *Child Health*, 3(1). Retrieved September 14, 2021 from <u>http://www.childtrends.org/wp-content/uploads/2012/02/2012-08EffectHomelessnessChildren.pdf</u>

⁷⁹ Stuart Gabriel and Gary Painter. 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. Accessed 10 April 2017. Available online at: <u>https://www.aei.org/wp-content/uploads/2017/04/CHA-Panel-1.pdf</u>

⁸⁰ 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 September 14, 2021 from https://www.childstats.gov/pdf/ac2015/ac_15.pdf

⁸¹ Schwartz, M. & Wilson, E. (n.d.). Who can afford to live in a home? A look at data from the 2006 American Community Survey. U.S. Census Bureau.

⁸² U.S. Department of Health & Human Services Office of the Assistant Secretary for Planning and Evaluation. (2019). 2019 Poverty Guidelines. Retrieved August 21, 2021 from <u>https://aspe.hhs.gov/2019-poverty-guidelines</u>

⁸³ U.S. Department of Health & Human Services Office of the Assistant Secretary for Planning and Evaluation. (2021). 2020 Poverty Guidelines. Retrieved August 23, 2021 from <u>https://aspe.hhs.gov/topics/poverty-economic-mobility/poverty-guidelines/prior-hhs-poverty-guidelines-federal-register-references/2020-poverty-guidelines</u>

⁸⁴ Pearce, D. (2019) The Self-Sufficiency Standard. Retrieved September 14, 2021 from <u>http://www.selfsufficiencystandard.org/the-standard</u>

⁸⁵ Center for Women's Welfare. (2021). Arizona | Self Sufficiency Standard (Version 2021) [Dataset]. Retrieved September 14, 2021 from <u>http://www.selfsufficiencystandard.org/arizona</u>

⁸⁶ IRS. (2021) Questions and Answers about the First Economic Impact Payment — Topic A: Eligibility. Retrieved August 24, 2021 from https://www.irs.gov/newsroom/questions-and-answers-about-the-first-economic-impact-payment-topic-a-eligibility

⁸⁷ USA.gov. (2021). Advance Child Tax Credit and Economic Impact Payments - Stimulus Checks. Retrieved August 25, 2021 from https://www.usa.gov/covid-stimulus-checks

⁸⁸ Children's Action Alliance. (2021, January 27). *Immigrant families should not be excluded from COVID-19 response*. Retrieved September 14, 2021 from <u>https://azchildren.org/news-and-events/immigrant-families-should-not-be-excluded-from-covid-19-response/</u>

⁸⁹ Congressional Research Service. (2021, January 19). *Noncitizen eligibility for the second round of direct payments to individuals* (No. IN11579). Retrieved September 14, 2021 from <u>https://www.aila.org/File/Related/20030201cn.pdf</u>

⁹⁰ Protecting Immigrant Families. (2021, March 26). *Immigrant eligibility for public programs during COVID-19*. Retrieved August 24, 2021 from <u>https://protectingimmigrantfamilies.org/immigrant-eligibility-for-public-programs-during-covid-19/</u>

⁹¹U.S. Department of The Treasury. (2021). *FACT SHEET: The American Rescue Plan Will Deliver Immediate Economic Relief to Families*. Retrieved August 24, 2021 from <u>https://home.treasury.gov/news/featured-stories/fact-sheet-the-american-rescue-plan-will-deliver-immediate-economic-relief-to-families</u>

⁹² CBPP staff. (2021, March 15). *American Rescue Plan Act will help millions and bolster the economy*. Center on Budget and Policy Priorities. Retrieved September 29, 2021 from: <u>https://www.cbpp.org/research/poverty-and-inequality/american-rescue-plan-act-will-help-millions-and-bolster-the-economy#tax</u>

⁹³ Congressional Research Service. (2021, May). The child tax credit: Temporary expansion for 2021 under the American Rescue Plan Act of 2021 (ARPA; P.L. 117–2). https://crsreports.congress.gov/product/pdf/IN/IN11613

⁹⁴ US Census Bureau. (2021, February 2). *Poverty Thresholds*. The United States Census Bureau. Retrieved September 14, 2021 from <u>https://www.census.gov/data/tables/time-series/demo/income-poverty/historical-poverty-thresholds.html</u>

⁹⁵ Arizona Department of Economic Security. (2021). *TANF Jobs Program*. Arizona Department of Economic Security. Retrieved September 2, 2021 from <u>https://des.az.gov/services/employment/job-seekers/tanf-jobs-program</u>

⁹⁶ https://www.azleg.gov/legtext/54leg/2R/bills/HB2904H.htm

⁹⁷ Floyd, I. (2016, July 5). *Arizona Cuts TANF Time Limit to Shortest Nationwide*. Center on Budget and Policy Priorities. Retrieved September 2, 2021 from: <u>https://www.cbpp.org/blog/arizona-cuts-tanf-time-limit-to-shortest-nationwide</u>

⁹⁸ Levert, M. (2018). Policy Brief. Benefits Cliffs. Presented to the J.T. Gorman Foundation in Support of the Maine Whole Family Approach to Jobs Working Group. Stepwise Data Research. Retrieved September 14, 2021 from https://www.jtgfoundation.org/wp-content/uploads/2019/06/Cliffs-Policy-Brief.pdf

⁹⁹ Economic Research Service, U.S. Department of Agriculture. (2021). *Definitions of Food Security*. Retrieved August 25, 2021 from https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/

¹⁰⁰ 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 <u>http://pediatrics.aappublications.org/content/121/1/65.full.pdf</u>

¹⁰¹ 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 https://www.cambridge.org/core/journals/public-health-nutrition/article/div-classtitlethe-relationship-between-food-insecurity-and-overweightobesity-differs-by-birthplace-and-length-of-us-residencediv/4BEE4D6C09F9FFCABEE404F9E313BE7C

¹⁰² 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>

¹⁰³ 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>

¹⁰⁴ 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>

¹⁰⁵ 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>

¹⁰⁶ 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>

¹⁰⁷ 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</u>

¹⁰⁸ Coleman-Jensen, A., Rabbitt, M.P., Gregory, C.A., & Singh, A. (2020). *Household food security in the United States in 2019, ERR-*275. U.S. Department of Agriculture, Economic Research Service. Retrieved August 25, 2021 from https://www.ers.usda.gov/webdocs/publications/99282/err-275.pdf

¹⁰⁹ 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.

110 Ibid

¹¹¹ Prevalence and distribution of food insecurity status by SNAP participation and poverty level, 2019. Retrieved August 25, 2021 from: <u>https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/interactive-charts-and-highlights/#disability</u>

¹¹² U.S. Citizenship and Immigration Services. (2021, March 10). Public Charge Fact Sheet

¹¹³ Rosenbaum, D., & Keith-Jennings, B. (2019, June 6). *SNAP caseload and spending declines have accelerated in recent years*. Center on Budget and Policy Priorities. Retrieved September 8, 2021 from <u>https://www.cbpp.org/research/food-assistance/snap-caseload-and-spending-declines-have-accelerated-in-recent-years</u>

¹¹⁴ For more information on the Arizona WIC Program, visit <u>http://azdhs.gov/prevention/azwic/</u>

¹¹⁵ Carlson, S., & Neuberger, Z. (2015). *WIC Works: Addressing the nutrition and health needs of low-income families for 40 years.* Washington, DC: Center on Budget and Policy Priorities. Retrieved from <u>http://www.cbpp.org/research/food-assistance/wic-works-addressing-the-nutrition-and-health-needs-of-low-income-families</u>

¹¹⁶ Smith, M.V., Kruse, A., Weir, A. and Goldblum, J., 2013. Diaper need and its impact on child health. *Pediatrics*, 132(2), pp.253-259.

¹¹⁷ For more information see: <u>https://www.azed.gov/hns/cacfp</u>

¹¹⁸ Arizona Department of Education. (2021, June 14). Introduction to the CACFP [Video]. Vimeo. https://vimeo.com/56287276

¹¹⁹ For more information see: <u>https://www.azed.gov/hns/sfsp</u>

¹²⁰ United States Department of Agriculture. (n.d.). How to participate in summer meals.

¹²¹ 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>

¹²² Isaacs, J. (2013). *Unemployment from a child's perspective*. Retrieved from <u>https://www.urban.org/sites/default/files/publication/23131/1001671-Unemployment-from-aChild-s-Perspective.PDF</u>

¹²³ For a discussion of current trends in labor force participation versus employment, see <u>Uchitelle</u>, L. (July 11, 2019). "Unemployment Is Low, but That's Only Part of the Story." Retrieved from <u>https://www.nytimes.com/2019/07/11/business/low-unemployment-not-seeking-work.html</u>

¹²⁴ The Arizona Republic. Despite high unemployment, Yuma's agribusiness continues to thrive. January 2, 2016. Retrieved from http://www.azcentral.com/story/money/business/economy/2016/01/02/yuma-unemployment-agribusiness-economy/78135406/

¹²⁵ Arizona Department of Economic Security. (2021, September 4). *Historical context*. Unemployment Insurance Data Dashboard. Retrieved September 9, 2021 from <u>https://des.az.gov/ui-data-dashboard</u>

¹²⁶ U.S. Department of Labor. (n.d.). *Unemployment insurance relief during COVID-19 outbreak*. Retrieved September 9, 2021 from <u>https://www.dol.gov/coronavirus/unemployment-insurance</u>

¹²⁷ U.S. Department of Labor. (2021, January 11). New COVID-19 unemployment benefits: Answering common questions. U.S. Department of Labor Blog. Retrieved September 14, 2021 from <u>https://blog.dol.gov/2021/01/11/unemployment-benefits-answering-common-questions</u>

¹²⁸ Arizona Department of Economic Security. (n.d.). *Arizona's back to work program*. Retrieved September 9, 2021 from <u>https://des.az.gov/back-to-work-program</u>

¹²⁹ Office of the Governor. (2021, May 13). *Governor Ducey announces "Arizona Back to Work.*" Office of the Arizona Governor. Retrieved September 14, 2021 from <u>https://azgovernor.gov/governor/news/2021/05/governor-ducey-announces-arizona-back-work</u>

¹³⁰ U.S. Census Bureau (2021). Household Pulse Survey Data, Phases 1, 2, & 3. Retrieved from <u>https://www.census.gov/programs-</u> surveys/household-pulse-survey.html

¹³¹ Arizona Department of Economic Security. (n.d.). Essential workers child care relief scholarship program.

¹³² Arizona Department of Economic Security. (n.d.-a). Child care for returning workers program. Retrieved December 15, 2021, from https://des.az.gov/child-care-returning-workers-program

¹³³ Center for American Progress. (2018). *Child Care Access in Arizona*. Retrieved August 31, 2021 from <u>https://childcaredeserts.org/2018/index.html?state=AZ</u>

¹³⁴ Center for American Progress. (2019). *Early learning factsheet 2019* | *Arizona*. Retrieved June 7, 2022 from https://americanprogress.org/wp-content/uploads/2019/09/Arizona.pdf

¹³⁵ 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>

¹³⁶ Consumer Financial Protection Bureau. (2021, March). Housing insecurity and the COVID-19 pandemic. Retrieved September 14, 2021 from https://files.consumerfinance.gov/f/documents/cfpb Housing insecurity and the COVID-19 pandemic.pdf

¹³⁷ National Low Income Housing Coalition. (2021, March). American Rescue Plan Act. Retrieved September 14, 2021 from https://nlihc.org/sites/default/files/COVID-Relief-Budget_Reconciliation.pdf

¹³⁸ Aiken, C., Reina, V., Verbrugge, J., Aurand, A., Yae, R., Gould Ellen, I., & Haupert, T. (2021, March). Learning from Emergency Rental Assistance Programs: Lessons from fifteen case studies. National Low Income Housing Coalition. Retrieved September 14, 2021 from <u>https://nlihc.org/sites/default/files/ERA-Programs-Case-Study.pdf</u>

¹³⁹ Snow, A. (2021, August 28). Eviction ban's end will allow pandemic lockouts to resume. Associated Press. Retrieved September 14, 2021 from https://apnews.com/article/business-health-coronavirus-pandemic-us-supreme-court-6e0841065389f4d2cf6f8b5aff38e994

¹⁴⁰ Herbert, C., Hermann, A. and McCue, D. (2018). Measuring Housing Affordability: Assessing the 30 Percent of Income Standard. Cambridge, MA: Joint Center for Housing Studies of Harvard University. Retrieved September 14, 2021 from https://www.jchs.harvard.edu/sites/default/files/Harvard JCHS Herbert Hermann McCue measuring housing affordability.pdf

¹⁴¹ Gabriel, S. and 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 September 14, 2021 from <u>https://www.aei.org/wp-content/uploads/2017/04/CHA-Panel-1.pdf</u>

¹⁴² 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 September 14, 2021 from <u>https://www.childstats.gov/pdf/ac2015/ac_15.pdf</u>

¹⁴³ Kinsner, K., Parlakian, R., Sanchez, G., Manzano, S., & Baretto, M. (2018). Millennial Connections: Findings from ZERO TO THREE's 2018 Parent Survey Executive Summary. *ZERO TO THREE*. Retrieved from <u>https://www.zerotothree.org/resources/2475-millennial-connections-executive-summary</u>

¹⁴⁴ OECD. (2001). Understanding the digital divide. Paris, France: OECD Publications.

¹⁴⁵ OECD. (2001). Understanding the digital divide. Paris, France: OECD Publications.

¹⁴⁶ 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

¹⁴⁷ Chandra, S., Fazlullah, A., Hill, H., Lynch, J., McBride, L., Weiss, D., Wu, M. (2020). Connect all students: How states and school districts can close the digital divide. San Francisco, CA: Common Sense Media

¹⁴⁸ Ali, T., Chandra, S., Cherukumilli, S., Fazlullah, A., Galicia, E., Hill, H., McAlpine, N., McBride, L., Vaduganathan, N., Weiss, D., Wu, M. (2021). Looking back, looking forward: What it will take to permanently close the K–12 digital divide. San Francisco, CA: Common Sense Media.

¹⁴⁹ Pew Research Center. (2019, June 12). *Internet/Broadband Fact Sheet*. Retrieved from <u>https://www.pewresearch.org/internet/fact-sheet/internet-broadband/</u>

¹⁵⁰ 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.

¹⁵¹ 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>

¹⁵² 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

¹⁵³ Rideout, V. J. & Katz, V.S. (2016). Opportunity for all? Technology and learning in lower-income families. A report of the Families and Media Project. New York: The Joan Ganz Cooney Center at Sesame Workshop.

¹⁵⁴ 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.

¹⁵⁵ 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.

¹⁵⁶ 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 <u>https://www.healthypeople.gov/2020/leading-health-indicators/2020-lhi-topics/Social-Determinants</u>

¹⁵⁷ National Research Council. 2012. Key National Education Indicators: Workshop Summary. Washington, DC: The National Academies Press. <u>https://doi.org/10.17226/13453</u>

¹⁵⁸ 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 August 20, 2021 from <u>https://www.healthypeople.gov/2020/topics-objectives/topic/Adolescent-Health</u>

¹⁵⁹ Child Trends Data Bank. (2015). Parental education: Indicators on children and youth. Retrieved September 7, 2021 from https://web.archive.org/web/20150525195005/http://www.childtrends.org/wp-content/uploads/2012/04/67-Parental_Education.pdf

¹⁶⁰ Rathbun, A., & McFarland, J. (2017). Risk factors and academic outcomes in kindergarten through third grade. *National Center for Education Statistics*. Retrieved September 7, 2021 from https://nces.ed.gov/programs/coe/pdf/ceetgd.pdf

¹⁶¹ 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>

¹⁶² Anderson, L., Shinn, C., Fullilove, M., Scrimshaw, S., Fielding, J., Normand, J., & Carande-Kulis, V. (2003). The effectiveness of early childhood development programs: A systematic review. American Journal of Preventive Medicine, 24(3), 3 2-46.

¹⁶³ 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 August 20, 2021 from https://assets.aecf.org/m/resourcedoc/aecf-ReadingonGradeLevelLongAnal-2010.PDF

¹⁶⁴ Dahlin, M., & Squires, J. (2016). *Pre-K attendance: Why it's important and how to support it.* Center on Enhancing Early Learning Outcomes. Retrieved August 20, 2021 from <u>http://nieer.org/wp-</u> content/uploads/2016/09/ceelo fastfact state ece attendance 2016 02 01 final for web.pdf

¹⁶⁵ Santibañez, L., & Guarino, C. M. (2021). The effects of absenteeism on academic and social-emotional outcomes: Lessons for COVID-19. *Educational Researcher*. https://doi.org/10.3102/0013189X21994488

¹⁶⁶ Robert Wood Johnson Foundation. (2016, September). *The relationship between school attendance and health*. Retrieved August 20, 2021 from https://www.rwjf.org/en/library/research/2016/09/the-relationship-between-school-attendance-and-health.html

¹⁶⁷ 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.

¹⁶⁸ Robert Wood Johnson Foundation. (2016, September). *The relationship between school attendance and health*. Retrieved August 20, 2021 from https://www.rwjf.org/en/library/research/2016/09/the-relationship-between-school-attendance-and-health.html

¹⁶⁹ Dorn, E., Hancock, B., Sarakatsannis, J., & Viruleg, E. (2021, June 23). *COVID-19 and student learning in the United States: The hurt could last a lifetime*. McKinsey & Company. <u>https://www.mckinsey.com/industries/public-and-social-sector/our-insights/covid-19-and-student-learning-in-the-united-states-the-hurt-could-last-a-lifetime</u>

¹⁷⁰ U.S. Department of Education Office of Civil Rights. (2021, June). *Education in a pandemic: The disparate impacts of COVID-19 on America's students*. U.S. Department of Education. <u>https://www2.ed.gov/about/offices/list/ocr/docs/20210608-impacts-of-covid19.pdf</u>

¹⁷¹ Hamilton, L. S., Grant, D., Kaufman, J. H., Diliberti, M., Schwartz, H. L., Hunter, G. P., Setodji, C. M., Young, C. J. (2020). COVID-19 and the state of K–12 schools: Results and technical documentation from the Spring 2020 *American Educator Panels COVID-19 Surveys*. https://doi.org/10.7249/RRA168-1

¹⁷² EdWeek Research Center. (2020, October 27). Survey tracker: Monitoring how K-12 educators are responding to Coronavirus. *EducationWeek*. Retrieved August 20, 2021 from <u>https://www.edweek.org/teaching-learning/survey-tracker-monitoring-how-k-12-educators-are-responding-to-coronavirus/2020/04</u>

¹⁷³ Besecker, M., Thomas, A., Daley, G. (2020). Student engagement online during school facilities closures: An analysis of LA Unified secondary students' Schoology activity from March 16 to May 22, 2020. Retrieved August 20, 2021 from http://laschoolboard.org/sites/default/files/IAU%20Report%202020%200707%20-%20Student%20Engagement%20Online%20During%20Closures.pdf

¹⁷⁴ Gubbels, J., van der Put, C.E., & Assink, M. (2019). Risk Factors for School Absenteeism and Dropout: A Meta-Analytic Review. Journal of Youth and Adolescence, Vol 48, 1637-1667. Retrieved from https://link.springer.com/article/10.1007/s10964-019-01072-5

¹⁷⁵ Wiseman, J. (2003). Barriers to Education for Children of Migrant Farmworkers. San Joaquin Agricultural Law Review Vol 13, 49-65, Retrieved from https://www.sjcl.edu/images/stories/sjalr/volumes/V13N1C1.pdf

¹⁷⁶ Mendez, J.J., & Bauman, S. (2018). From Migrant Farmworkers to First Generation Latina/o Students: Factors Predicting College Outcomes for Students Participating in the College Assistance Migrant Program. The Review of Higher Education, Vol 42(1), 173-208. Retrieved from https://muse.jhu.edu/article/704816/pdf

¹⁷⁷ 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 August 20, 2021 from https://assets.aecf.org/m/resourcedoc/aecf-ReadingonGradeLevelLongAnal-2010.PDF

¹⁷⁸ 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 August 20, 2021 from https://assets.aecf.org/m/resourcedoc/aecf-ReadingonGradeLevelLongAnal-2010.PDF

¹⁷⁹ 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 August 20, 2021 from http://files.eric.ed.gov/fulltext/ED518818.pdf

¹⁸⁰ Arizona Department of Education. (n.d.). Assessments. Retrieved August 20, 2021 from <u>https://www.azed.gov/assessment</u>

¹⁸¹ Altavena, L. (2021, February 8). Testing for Arizona students returns in April, with lots of unanswered questions. Arizona Republic.

¹⁸² For more information on Move on When Reading, visit <u>http://www.azed.gov/mowr/</u>

¹⁸³ National Research Council. 2012. *Key National Education Indicators: Workshop Summary*. Washington, DC: The National Academies Press. <u>https://doi.org/10.17226/13453</u>.

¹⁸⁴ 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>

¹⁸⁵ Carnevale, A. P., Smith, N., & Strohl, J. (2013). Recovery: Job growth and education requirements through 2020. *Georgetown Public Policy Institute – Center on Education and the Workforce*. Retrieved September 7, 2021 from <u>https://lgyhoq479ufd3yna29x7ubjn-wpengine.netdna-ssl.com/wp-content/uploads/2014/11/Recovery2020.ES</u>. Web .pdf

¹⁸⁶ Torpey, E. (2021, June). Education pays, 2020. *Career Outlook*, U.S. Bureau of Labor Statistics. Retrieved September 7, 2021 from <u>https://www.bls.gov/careeroutlook/2021/data-on-display/education-pays.htm</u>

¹⁸⁷ National Center for Education Statistics. (2021, May). Characteristics of children's families. Retrieved September 7, 2021 from https://nces.ed.gov/programs/coe/indicator/cce#fn1

¹⁸⁸ Sabol, T. J., Sommer, T. E., Chase-Lansdale, P. L., & Brooks-Gunn, J. (2021). Intergenerational economic mobility for low-Income parents and their children: A dual developmental science framework. *Annual Review of Psychology*, 72(1), 265–292. https://doi.org/10.1146/annurev-psych-010419-051001

¹⁸⁹ Halle, T., Forry, N., Hair, E., Perper, K., Wandner, L., Wessel, J., & Vick, J. (2009). Disparities in early learning and development: lessons from the Early Childhood Longitudinal Study–Birth Cohort (ECLS-B). *Washington, DC: Child Trends*, 1-7.

¹⁹⁰ Annie E. Casey Foundation (2014). Creating Opportunity for Families: A Two-Generation Approach.

Retrieved from https://www.aecf.org/resources/creating-opportunity-for-families

¹⁹¹ Chase-Lansdale, L. & Brooks-Gunn, J. (2014). Two-generation programs in the twenty-first century. Future Child, 24, 13-39.

¹⁹² Sabol, T. J., Sommer, T. E., Chase-Lansdale, P. L., & Brooks-Gunn, J. (2021). Intergenerational economic mobility for low-Income parents and their children: A dual developmental science framework. *Annual Review of Psychology*, 72(1), 265–292. https://doi.org/10.1146/annurev-psych-010419-051001

¹⁹³ Lombardi, J., Mosle, A., Patel, N., Schumacher, R., & Stedron, J. (2014). Gateways to Two-generations:

The Potential for Early Childhood Programs and Partnerships To Support Children and Parents

Together. Aspen Institute: Washington, D.C. Retrieved from

http://b.3cdn.net/ascend/d3336cff8a154af047_07m6bttk2.pdf

¹⁹⁴ Center on the Developing Child at Harvard University. (2010). *The foundations of lifelong health are built in early childhood*. Retrieved August 20, 2021 from <u>http://developingchild.harvard.edu/wp-content/uploads/2010/05/Foundations-of-Lifelong-Health.pdf</u>

¹⁹⁵ Kuhl, P.K. (2011). Early language learning and literacy: Neuroscience implications for education. *Mind, Brain, and Education, 5*(3), 128-142.

¹⁹⁶ 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.

¹⁹⁷ Lee., V. & Burkam, D. (2002). *Inequality at the Starting Gate: Social background Differences in Achievement as Children Begin School*. Washington, DC: Economic Policy Institute.

¹⁹⁸ 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 August 20, 2021 from http://www.jstor.org/stable/3202474

¹⁹⁹ 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 August 20, 2021 from https://www.fcd-us.org/assets/2013/10/Evidence20Base20on20Preschool20Education20FINAL.pdf

²⁰⁰ U.S. Department of Education. (2015). A matter of equity: Preschool in America. Retrieved August 20, 2021 from https://www2.ed.gov/documents/early-learning/matter-equity-preschool-america.pdf ²⁰¹ 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>

²⁰² Gilliam, W. S., Maupin, A. N., & Reyes, C. R. (2016). Early childhood mental health consultation: Results of a statewide randomcontrolled evaluation. *Journal of the American Academy of Child & Adolescent Psychiatry*, *55*(9), 754-761.

²⁰³ 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 August 20, 2021 from https://eclkc.ohs.acf.hhs.gov/publication/understanding-eliminating-expulsion-early-childhood-programs

²⁰⁴ 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

²⁰⁵ 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.

²⁰⁶ 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 August 20, 2021 from <u>https://mchb.hrsa.gov/data-research-epidemiology/research-epidemiology/nationalsurvey-publications-and-chartbooks</u>

²⁰⁷ 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 August 20, 2021 from http://www.ncmedicaljournal.com/content/77/1/30.full.pdf+html

²⁰⁸ 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

²⁰⁹ Montes G & Halterman JS. (2011). The impact of child care problems on employment: Findings from a national survey of US parents. Academic Pediatrics, 11(1):80-87.

²¹⁰ White House Council of Economic Advisors. (2014). *The economics of early childhood investments*. Retrieved August 20, 2021 from <u>https://obamawhitehouse.archives.gov/sites/default/files/docs/early_childhood_report_update_final_non-embargo.pdf</u>

²¹¹ 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 August 20, 2021 from http://heckmanequation.org/content/resource/research-summary-abecedarian-health

²¹² White House Council of Economic Advisors. (2014). *The economics of early childhood investments*. Retrieved August 20, 2021 from https://obamawhitehouse.archives.gov/sites/default/files/docs/early_childhood_report_update_final_non-embargo.pdf

²¹³ The Annie E. Casey Foundation. (2013). *The first eight years: Giving kids a foundation for lifetime success*. Retrieved August 20, 2021 from http://www.aecf.org/m/resourcedoc/AECF-TheFirstEightYearsKCpolicyreport-2013.pdf

²¹⁴ White House Council of Economic Advisors. (2014). *The economics of early childhood investments*. Retrieved August 20, 2021 from https://obamawhitehouse.archives.gov/sites/default/files/docs/early-childhood report update final non-embargo.pdf

²¹⁵ 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 August 20, 2021 from http://heckmanequation.org/content/resource/research-summary-abecedarian-health

²¹⁶ 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 August 20, 2021 from <u>https://www.americanprogress.org/issues/early-childhood/reports/2016/10/27/225703/child-care-deserts/</u>

²¹⁷ Tanoue, K.H., DeBlois, M., Daws, J., & Walsh, M. (2017). *Child Care and Early Education Accessibility in Tucson (White Paper No. 5)*. Retrieved August 20, 2021 from https://mapazdashboard.arizona.edu/article/child-care-and-early-education-accessibility-tucson

²¹⁸ 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 August 20, 2021 from http://usa.childcareaware.org/wp-content/uploads/2017/10/Arizona-Infant-Toddler-Brief1.pdf

²¹⁹ Smith, L. K., Bagley, A., & Wolters, B. (2020, October). Child care in 25 states: What we know and don't know (Rep.). Retrieved August 20, 2021 from https://bipartisanpolicy.org/wp-content/uploads/2020/10/BPC Working-Family-Solutions FinalPDFV4.pdf

²²⁰ Bipartisan Policy Center (2020). The supply of, potential need for, and gaps in child care in Arizona in 2019. Retrieved August 20, 2021 from https://childcaregap.org/assets/onePagers/Arizona.pdf

²²¹ United States Department of Education. (December 2019). Starting Strong: Increasing Preschool Quality and Access. The Preschool Development Grants Program Summary Report. Retrieved from <u>https://www2.ed.gov/programs/preschooldevelopmentgrants/pdg-summary-rpt-final-12202019.pdf</u>

²²² Masseur, L. (2019, December 20). PDG B5 update: Letter to the field. *Arizona Department of Education*. Retrieved August 20, 2021 from <u>https://www.azed.gov/ece/2019/12/20/letter-regarding-pdg-b-5-grant</u>

²²³ Cagle, R. (2019, June 8). Add preschool children to the list of Arizona students being shortchanged. AZ Central. Retrieved August 20, 2021 from <u>https://www.azcentral.com/story/opinion/op-ed/2019/06/08/preschool-funding-cut-hurt-arizona-students-years-come/1329883001/</u>

²²⁴ Education Forward Arizona. (2021). *Quality early learning*. Retrieved October 15, 2021 from https://educationforwardarizona.org/progress/indicators/quality-early-learning/?indicators=State::Arizona::All

²²⁵ 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

²²⁶ National Association for the Education of Young Children (2020). *Holding on until help comes: A survey reveals child care's fight to survive*. Retrieved August 20, 2021 from <u>https://www.naeyc.org/sites/default/files/globally-shared/downloads/PDFs/our-work/public-policy-advocacy/holding on until help comes.survey analysis july 2020.pdf</u>

²²⁷ Child Care Aware® of America (2020). *Picking up the pieces: Building a better child care system post COVID-19*. Arlington, VA: Child Care Aware of America. Retrieved August 20, 2021 from https://www.childcareaware.org/picking-up-the-pieces/

²²⁸ Center for Translational Neuroscience. (2020, June 2). Between a rock and a hard place: As the country reopens, households with young children are forced to choose between income and family safety. *Medium*. Retrieved August 20, 2021 from <u>https://medium.com/rapid-ec-project/between-a-rock-and-a-hard-place-245857e79d9d</u>

²²⁹ National Association for the Education of Young Children (2020). *Am I next? Sacrificing to stay open, child care providers face a bleak future without relief.* Retrieved August 20, 2021 from <u>https://www.naeyc.org/sites/default/files/globally-shared/downloads/PDFs/resources/blog/naeyc_july_2021_survey_progressperil_final.pdf</u>

²³⁰ Workman, S., & Jessen-Howard, S. (2020, September 3). *The true cost of providing safe child care during the coronavirus pandemic*. Center for American Progress. Retrieved September 29, 2021 from <u>https://www.americanprogress.org/issues/early-childhood/reports/2020/09/03/489900/true-cost-providing-safe-child-care-coronavirus-pandemic/</u>

²³¹ National Association for the Education of Young Children (2020). *State survey data: Child care at a time of progress and peril.* Retrieved Oct 6, 2021 from <u>https://www.naeyc.org/sites/default/files/wysiwyg/user-74/statedata_july2021_gf_092321.pdf</u>

²³² National Association for the Education of Young Children (2020). Progress and peril: Child care at a crossroads. Retrieved Oct 6, 2021 from <u>https://www.naeyc.org/sites/default/files/globally-shared/downloads/PDFs/resources/blog/naeyc july 2021 survey progressperil final.pdf</u>

²³³ Gonzalez, O. (2021, July 16). New funding set to nearly double the number of Quality First programs across Arizona. *First Things First*. Retrieved August 20, 2021 from https://www.firstthingsfirst.org/2021/07/new-funding-quality-first/

²³⁴ Masseur, L. (2019, December 20). PDG B5 update: Letter to the field. *Arizona Department of Education*. Retrieved August 20, 2021 from https://www.azed.gov/ece/2019/12/20/letter-regarding-pdg-b-5-grant

²³⁵ Cagle, R. (2019, June 8). Add preschool children to the list of Arizona students being shortchanged. AZ Central. Retrieved August 20, 2021 from https://www.azcentral.com/story/opinion/op-ed/2019/06/08/preschool-funding-cut-hurt-arizona-students-years-come/1329883001/

²³⁶ Ibid.

²³⁷ Office of the Governor (2020). Governor Ducey and state child care leaders announce launch of childcare for COVID-19 frontline workers. Retrieved August 20, 2021 from <u>https://azgovernor.gov/governor/news/2020/04/governor-ducey-and-state-child-care-leaders-announce-launch-childcare-covid-19</u>

²³⁸ Arizona Early Childhood Development and Health Board, First Things First. (2020). 2020 Annual Report. Phoenix, AZ: First Things First. Retrieved August 20, 2021 from https://www.firstthingsfirst.org/wp-content/uploads/2020/09/FTF-2020-AnnualReport.pdf

²³⁹ 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.

²⁴⁰ Gilliam, W. S., Maupin, A. N., & Reyes, C. R. (2016). Early childhood mental health consultation: Results of a statewide randomcontrolled evaluation. *Journal of the American Academy of Child & Adolescent Psychiatry*, *55*(9), 754-761.

²⁴¹ 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 August 20, 2021 from https://eclkc.ohs.acf.hhs.gov/publication/understanding-eliminating-expulsion-early-childhood-programs

²⁴² Donoghue, E. (2017). Quality early education and child care from birth to kindergarten. *Pediatrics*, 140(2).

²⁴³ 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

²⁴⁴ First Things First. (2020, July 15). *Quality First*. <u>https://www.firstthingsfirst.org/resources/quality-first/</u>

²⁴⁵ 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 <u>https://www.firstthingsfirst.org/wp-content/uploads/2018/02/AZ_QF_Exec-Summary.pdf</u>

²⁴⁶ Arizona Early Childhood Development and Health Board, First Things First. (2020). 2020 Annual Report. Phoenix, AZ: First Things First. Retrieved August 20, 2021 from https://www.firstthingsfirst.org/wp-content/uploads/2020/09/FTF-2020-AnnualReport.pdf

²⁴⁷ Child Care Aware® of America. (2014). Parents and the high cost of child care: 2014 report. Retrieved from https://www.ncsl.org/documents/cyf/2014 Parents and the High Cost of Child Care.pdf

²⁴⁸ Child Care Aware® of America. (2018). Arizona Cost of Child Care. Retrieved from <u>https://usa.childcareaware.org/wp-content/uploads/2018/10/Arizona2018.pdf</u>

²⁴⁹ National Low Income Housing Coalition. (2021). *Out of Reach 2021 – Arizona*. Retrieved September 7, 2021 from https://reports.nlihc.org/sites/default/files/oor/files/reports/state/az-2021-oor.pdf

²⁵⁰ Knueven, L. (2020, August 6). The average monthly mortgage payment by state, city, and year. *Business Insider*. Retrieved September 7, 2021 from <u>https://www.businessinsider.com/personal-finance/average-mortgage-payment</u>

²⁵¹ Child Care Aware® of America. (2020). *The US and the high cost of child care: Arizona*. Arlington, VA: Child Care Aware of America. Retrieved August 20, 2021 from <u>https://www.childcareaware.org/our-issues/research/the-us-and-the-high-price-of-child-care-2019/</u>

²⁵² Child Care Aware® of America. (2018). Arizona cost of child care. Retrieved August 20, 2021 from <u>https://usa.childcareaware.org/wp-content/uploads/2018/10/Arizona2018.pdf</u>

²⁵³ U.S. Department of Health and Human Services, Child Care Bureau (2008). Child Care and Development Fund: Report of state and territory plans: FY 2008-2009. Section 3.5.5 – Affordable co-payments, p. 89

²⁵⁴ For more information on child care subsidies see <u>https://des.az.gov/services/child-and-family/child-care</u>

²⁵⁵ Arizona Department of Economic Security. (n.d.). Child care waiting list.

²⁵⁶ Machelor, P. (2019, June 17). Arizona suspends child-care waiting list, increases provider reimbursements. Arizona Daily Star.

²⁵⁷ Center for Translational Neuroscience. (2020, June 2). Between a rock and a hard place: As the country reopens, households with young children are forced to choose between income and family safety. Medium. Retrieved August 20, 2021 from <u>https://medium.com/rapid-ec-project/between-a-rock-and-a-hard-place-245857e79d9d</u>

²⁵⁸ Center for Translational Neuroscience. (2020, June 2). Between a rock and a hard place: As the country reopens, households with young children are forced to choose between income and family safety. Medium. Retrieved August 20, 2021 from <u>https://medium.com/rapid-ec-project/between-a-rock-and-a-hard-place-245857e79d9d</u>

²⁵⁹ Walsh, M., Tanoue, K. H., & deBlois, M. (2018). Relationship of Economic Independence and Access to Childcare for Single Moms (2018 Research Brief). Tucson, AZ. Retrieved from https://www.womengiving.org/research/

²⁶⁰ Tanoue, K. H., deBlois, M., Daws, J., & Walsh, M. (2017). Child Care and Early Education Accessibility in Tucson (White Paper No.
5). Tucson, AZ. Retrieved from <u>https://mapazdashboard.arizona.edu/article/child-care-and-early-education-accessibility-tucson</u>

²⁶¹ 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 August 20, 2021 from <u>https://mchb.hrsa.gov/data-research-epidemiology/research-epidemiology/nationalsurvey-publications-and-chartbooks</u>

²⁶² 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

²⁶³ 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.

²⁶⁴ 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 August 20, 2021 from <u>https://mchb.hrsa.gov/data-research-epidemiology/research-epidemiology/national-survey-publications-and-chartbooks</u>

²⁶⁵ 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 August 20, 2021 from http://www.ncmedicaljournal.com/content/77/1/30.full.pdf+html

²⁶⁶ 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

²⁶⁷ Celaya, M., Lucas, A., Indatwa, A., & Tarango, P. (2021). 2020 Title V Maternal and Child Health Needs Assessment Report. Assessment. Phoenix, AZ: Arizona Department of Health Services. Retrieved August 16, 2021 from <u>https://www.azdhs.gov/documents/prevention/womens-childrens-health/reports-fact-sheets/title-v/2020-az-mch-needs-assessment-report-title-v.pdf</u>

²⁶⁸ 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 August 20, 2021 from <u>https://whsaonline.org/2011/05/nectac-fact-sheet-on-the-importance-of-early-intervention-and-idea-part-</u> c/#:~:text=The%20National%20Early%20Childhood%20Technical%20Assistance%20Center%20%28NECTAC%29,benefits%20of%20ea rly%20intervention%2C%20and%20current%20unmet%20needs.

²⁶⁹ 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 August 20, 2021 from https://www.sri.com/wp-content/uploads/2021/12/neils_finalreport_200702.pdf

²⁷⁰ 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 August 20, 2021 from <u>http://ectacenter.org/~pdfs/pubs/econbene.pdf</u>

²⁷¹ Arizona Department of Economic Security (2020). *AzEIP response to COVID-19* [Web]. Retrieved August 20, 2021 from <u>https://des.az.gov/services/disabilities/early-intervention/azeip-response-covid-19</u>

²⁷² Steed, E. A., Phan, N., Leech, N., & Charlifue-Smith, R. (2021). Remote delivery of services for young children with disabilities during the early stages of the COVID-19 pandemic in the United States. *Journal of Early Intervention*. https://doi.org/10.1177/10538151211037673

²⁷³ Center for Translational Neuroscience (2020, December 17). Overloaded: Families with children who have special needs are bearing an especially heavy weight, and support is needed. *Medium*. <u>https://medium.com/rapid-ec-project/overloaded-families-with-children-who-have-special-needs-are-bearing-an-especially-heavy-weight-4e613a7681bd</u>

²⁷⁴ Center for Translational Neuroscience. (2020, May 5). The forgotten households: Households of young children with disabilities are not getting the support they need during the COVID-19 pandemic. *Medium*. Retrieved August 20, 2021 from <u>https://medium.com/rapid-ec-project/the-forgotten-households-dfd2626098c7</u>

²⁷⁵ Rosenberg, S., Zhang, D. & Robinson, C. (2008). Prevalence of developmental delays and participation in early intervention services for young children. Pediatrics, 121(6) e1503-e1509. doi:10.1542/peds.2007-1680

²⁷⁶ Greer, M. (2021). 2020 Tipping Points Survey: Demographics and challenges. IDEA Infant & Toddler Coordinators Association. <u>https://www.ideainfanttoddler.org/pdf/2020-Tipping-Points-Survey.pdf</u>

²⁷⁷ Arizona Department of Education (2020). *Special education guidance for COVID-19: Spring 2020 school closure* [Web]. Retrieved August 20, 2021 from <u>https://www.azed.gov/specialeducation/special-education-guidance-for-covid-19</u>

²⁷⁸ Turner, C. (2021, June 16). After months of special education turmoil, families say schools owe them. *NPR*. Retrieved August 20, 2021 from https://www.npr.org/2021/06/16/994587239/after-months-of-special-education-turmoil-families-say-schools-owe-them

²⁷⁹ Zablotsky, B., Black, L.A., Blumberg, S.J. (2017). Estimated prevalence of children with diagnosed developmental disabilities in the United States, 2014-2016. *NCHS Data Brief*, 291. Centers for Disease Control. Retrieved from <u>https://www.cdc.gov/nchs/products/databriefs/db291.htm</u>

²⁸⁰ McFarland, J., Hussar, B., Zhang, J., Wang, X., Wang, K., Hein, S., Diliberti, M., Forrest Cataldi, E., Bullock Mann, F., and Barmer, A. (2019). The Condition of Education 2019. National Center for Education Statistics: Washington D.C. Retrieved from https://nces.ed.gov/pubs2109/2019144.pdf

²⁸¹ Houtrow, A.J., Larson, K., Olson, L.M., Newacheck, P.W., Halfon, N. (2014). Changing trends of childhood disability, 2001-2011. *Pediatrics*, 134 (3): 530-538. PMID: 25136051

²⁸² Reynolds, A. J., Temple, J. A., Robertson, D. L., & Mann, E. A. (2001). Long-term effects of an early childhood intervention on educational achievement and juvenile arrest: A 15-year follow-up of low-income children in public schools. *JAMA*, 285(18), 2339-2346.

²⁸³ 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 August 23, 2021 from https://futureofchildren.princeton.edu/sites/futureofchildren/files/media/policies to promote child health 25 full journal.pdf

²⁸⁴ Center on the Developing Child at Harvard University. (2010). The foundations of lifelong health are built in early childhood. Retrieved August 23, 2021 from <u>http://developingchild.harvard.edu/wp-content/uploads/2010/05/Foundations-of-Lifelong-Health.pdf</u>

²⁸⁵ Shonkoff, J. P., Garner, A. S., Siegel, B. S., Dobbins, M. I., Earls, M. F., McGuinn, L., ... & Committee on Early Childhood, Adoption, and Dependent Care. (2012). The lifelong effects of early childhood adversity and toxic stress. *Pediatrics*, *129*(1), e232-e246.

²⁸⁶ Center on the Developing Child at Harvard University. (2010). The foundations of lifelong health are built in early childhood. Retrieved August 23, 2021 from http://developingchild.harvard.edu/wp-content/uploads/2010/05/Foundations-of-Lifelong-Health.pdf

²⁸⁷ Center on the Developing Child. (n.d.). *Health and learning are deeply interconnected in the body*. Harvard University. Retrieved August 23, 2021 from <u>https://46y5eh11fhgw3ve3ytpwxt9r-wpengine.netdna-ssl.com/wp-content/uploads/2020/10/2020 WP15 actionguide FINAL.pdf</u>

²⁸⁸ Case, A., Fertig, A., & Paxson, C. (2005). The lasting impact of childhood health and circumstance. *Journal of health economics*, 24(2), 365-389.

²⁸⁹ Eunice Kennedy Shriver National Institute of Child Health and Human Development. (2017). *What is prenatal care and why is it important*? Retrieved August 23, 2021 from https://www.nichd.nih.gov/health/topics/pregnancy/conditioninfo/prenatal-care

²⁹⁰ 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 August 23, 2021 from http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2147600/

²⁹¹ 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 August 23, 2021 from http://pediatrics.appublications.org/content/118/1/405.full

²⁹² For more information about the Healthy People 2020 objectives, visit <u>https://www.healthypeople.gov/2020/</u>

²⁹³ Arizona Department of Health Services. (2017). Advance vital statistics by county of residence: Arizona, 2019. Table 6B: Monitoring progress toward Arizona and selected national year 2020 objectives: 2017 county profiles.

²⁹⁴ 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.

²⁹⁵ U.S. Department of Health and Human Service. (2017). *What is prenatal care and why is it important?* Retrieved from https://www.nichd.nih.gov/health/topics/pregnancy/conditioninfo/prenatal-care

²⁹⁶ 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. *MMWR*, 63(Suppl-2), 99-107. Retrieved from <u>https://www.cdc.gov/MMWR/pdf/other/su6302.pdf</u>

²⁹⁷ 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

²⁹⁸ The Henry J. Kaiser Family Foundation. (2016). *Key facts about the uninsured population*. The Kaiser Commission on Medicaid and the Uninsured. Retrieved from http://kff.org/uninsured/fact-sheet/key-facts-about-the-uninsured-population/

²⁹⁹ Child Trends Databank. (2016). Health care coverage: Indicators on children and youth. *Health Care Coverage, 2016*. Retrieved September 10, 2021 from <u>https://web.archive.org/web/20161015012130/http://www.childtrends.org/wp-content/uploads/2016/05/26 Health Care Coverage.pdf</u>

³⁰⁰ Center for Translational Neuroscience (2020, December 17). Overloaded: Families with children who have special needs are bearing an especially heavy weight, and support is needed. *Medium*. Retrieved August 23, 2021 from <u>https://medium.com/rapid-ec-project/overloaded-families-with-children-who-have-special-needs-are-bearing-an-especially-heavy-weight-4e613a7681bd</u>

³⁰¹ Center for Translational Neuroscience (2020, October 13). Health (still) interrupted: Pandemic continues to disrupt young children's healthcare visits. *Medium*. Retrieved August 23, 2021 from <u>https://medium.com/rapid-ec-project/health-still-interrupted-pandemic-continues-to-disrupt-young-childrens-healthcare-visits-e252126b76b8</u>

³⁰² Center for Translational Neuroscience (2020, October 13). Health (still) interrupted: Pandemic continues to disrupt young children's healthcare visits. *Medium*. Retrieved August 23, 2021 from <u>https://medium.com/rapid-ec-project/health-still-interrupted-pandemic-continues-to-disrupt-young-childrens-healthcare-visits-e252126b76b8</u>

³⁰³ Gee, E., & Waldrop, T. (2021, March 11). Policies To Improve Health Insurance Coverage as America Recovers From COVID-19. Center for American Progress. Retrieved September 10, 2021 from <u>https://www.americanprogress.org/issues/healthcare/reports/2021/03/11/497019/policies-improve-health-insurance-coverage-america-recovers-covid-19/</u>

³⁰⁴ Agarwal, S. D., & Sommers, B. D. (2020). Insurance Coverage after Job Loss — The Importance of the ACA during the Covid-Associated Recession. *New England Journal of Medicine*, 383(17), 1603–1606. <u>https://doi.org/10.1056/nejmp2023312</u>

³⁰⁵ 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. ³⁰⁶ Partridge, S., Balayla, J., Holcroft, C. A., & Abenhaim, H. A. (2012). Inadequate prenatal care utilization and risks of infant mortality and poor birth outcome: a retrospective analysis of 28,729,765 U.S. deliveries over 8 years. American Journal of Perinatology, 29(10), 787–793. <u>https://doi.org/10.1055/s-0032-1316439</u>

³⁰⁷ U.S. Department of Health and Human Services, Office of Surgeon General. (2020). *The Surgeon General's Call to Action to Improve Maternal Health*. Retrieved September 7, 2021 from https://www.hhs.gov/sites/default/files/call-to-action-maternal-health.pdf

³⁰⁸ Osterman MJK, Martin JA. (2018). Timing and adequacy of prenatal care in the United States, 2016. *National Vital Statistics Reports*, vol 67 no 3. Hyattsville, MD: National Center for Health Statistics.

³⁰⁹ 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 September 10, 2021 from https://www.ncbi.nlm.nih.gov/books/NBK53017/

³¹⁰ 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

³¹¹ 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.

³¹² Centers for Disease Control and Prevention. (n.d.). *Teen Pregnancy. About Teen Pregnancy*. Retrieved September 10, 2021 from <u>http://www.cdc.gov/teenpregnancy/aboutteenpreg.htm</u>

³¹³ 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 September 10, 2021 from http://link.springer.com/article/10.1007/s13524-015-0446-6.

³¹⁴ Youth.gov. (2016). *Pregnancy prevention: Adverse effects*. Retrieved September 10, 2021 from <u>http://youth.gov/youth-topics/teen-pregnancy-prevention/adverse-effects-teen-pregnancy</u>

³¹⁵ 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 September 10, 2021 from https://www.ncbi.nlm.nih.gov/pubmed/26942355

³¹⁶ 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 September 10, 2021 from http://jamanetwork.com/journals/jama/fullarticle/2503173

³¹⁷ Godfrey, K. M., Reynolds, R. M., Prescott, S. L., Nyirenda, M., Jaddoe, V. W., Eriksson, J. G., & Broekman, B. F. (2017). Influence of maternal obesity on the long-term health of offspring. The Lancet. *Diabetes & Endocrinology*, 5(1), 53–64. <u>https://doi.org/10.1016/S2213-8587(16)30107-3</u>

³¹⁸ Beam, A. L., Fried, I., Palmer, N., Agniel, D., Brat, G., Fox, K., ... & Armstrong, J. (2020). Estimates of healthcare spending for preterm and low-birthweight infants in a commercially insured population: 2008–2016. *Journal of Perinatology*, 40(7), 1091-1099.

³¹⁹ Luu, T. M., Mian, M. O. R., & Nuyt, A. M. (2017). Long-term impact of preterm birth: neurodevelopmental and physical health outcomes. *Clinics in perinatology*, *44*(2), 305-314.

³²⁰ Petrou, S., Sach, T., & Davidson, L. (2001). The long-term costs of preterm birth and low birth weight: Results of a systematic review. *Child: care, health and development*, *27*(2), 97-115.

³²¹ Goldenberg, R. L., & Culhane, J. F. (2007). Low birth weight in the United States. *The American journal of clinical nutrition*, 85(2), 584S-590S.

³²² Harrison, W., & Goodman, D. (2015). Epidemiologic trends in neonatal intensive care, 2007-2012. JAMA pediatrics, 169(9), 855-862.

³²³ Lean, R. E., Rogers, C. E., Paul, R. A., & Gerstein, E. D. (2018). NICU Hospitalization: Long-Term Implications on Parenting and Child Behaviors. *Current treatment options in pediatrics*, *4*(1), 49–69.

³²⁴ 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>

³²⁵ 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.

³²⁶ 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/needs-assessment2015.pdf

³²⁷ 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.

³²⁸ Fryar, C. D., Carroll, M. D., & Afful, J. (2020). Prevalence of underweight among children and adolescents aged 2–19 years: United States, 1963–1965 through 2017–2018. NCHS Health E-Stats. Retrieved September 10, 2021 from https://www.cdc.gov/nchs/data/hestat/underweight-child-17-18/underweight-child.htm

³²⁹ Fryar, C. D., Carroll, M. D., & Afful, J. (2020). Prevalence of overweight, obesity, and severe obesity among children and adolescents aged 2–19 years: United States, 1963–1965 through 2017–2018. NCHS Health E-Stats. Retrieved September 10, 2021 from https://www.cdc.gov/nchs/data/hestat/obesity-child-17-18/obesity-child.htm

³³⁰ 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 June 7, 2022 from <u>https://www.child-encyclopedia.com/child-obesity/according-experts/obesity-early-age-and-its-impact-child-development</u>

³³¹ 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 September 10, 2021 from <u>http://healthyeatingresearch.org/wp-content/uploads/2016/03/her_1000_days_final-1.pdf</u>

³³² Center on the Developing Child at Harvard University. (2010). *The foundations of lifelong health are built in early childhood*. Retrieved September 10, 2021 from <u>http://developingchild.harvard.edu/wp-content/uploads/2010/05/Foundations-of-Lifelong-Health.pdf</u>

³³³ World Health Organization. (2021, June 9). *Malnutrition*. Retrieved September 13, 2021 from <u>https://www.who.int/news-room/fact-sheets/detail/malnutrition</u>

³³⁴ 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>

³³⁵ 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.

³³⁶ First Things First. (2019). Building bright futures 2019: Arizona's early childhood opportunities report. *First Things First*. Retrieved October 22, 2021 from https://www.firstthingsfirst.org/wp-content/uploads/2019/12/NA_Report_2019.pdf

³³⁷ First Things First. (2016). Taking a bite out of school absences: Children's oral health report 2016. *First Things First*. Retrieved from http://azftf.gov/WhoWeAre/Board/Documents/FTF_Oral_Health_Report_2016.pdf

³³⁸ For more information of Yuma First Smiles, please see <u>https://www.facebook.com/FirstSmilesYuma/</u>

³³⁹ Rodrigues, C. M. C., & Plotkin, S. A. (2020). Impact of vaccines; Health, economic and social perspectives. *Frontiers in Microbiology*, *11*(1526). doi: 10.3389/fmicb.2020.01526. Retrieved August 24, 2021 from https://www.frontiersin.org/articles/10.3389/fmicb.2020.01526/full

³⁴⁰ Arizona Department of Health Services (2019, July). *The Arizona Immunization Handbook for School and Childcare Programs*. Retrieved September 10, 2021 from <u>https://azdhs.gov/documents/preparedness/epidemiology-disease-control/immunization/school-childcare/nofollow/school-childcare-immunization-guide.pdf</u>

³⁴¹ Garfield, R., & Chidambaram, P. (2020, September 24). Children's health and well being during the coronavirus pandemic. *KFF*. Retrieved August 24, 2021 from <u>https://www.kff.org/coronavirus-covid-19/issue-brief/childrens-health-and-well-being-during-the-coronavirus-pandemic/</u>

³⁴² DeSilva, M. B., Haapala, J., Vazquez-Benitez, G., Daley, M. F., Nordin, J. D., Klein, N. P., ... & Kharbanda, E. O. (2021). Association of the COVID-19 pandemic with routine childhood vaccination rates and proportion up to date with vaccinations across 8 US health systems in the Vaccine Safety Datalink. *JAMA pediatrics*. <u>https://doi.org/10.1001/jamapediatrics.2021.4251</u>

³⁴³ 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/needs-assessment2015.pdf

³⁴⁴ Office of Disease Prevention and Health Promotion. (2019). IID-10.2 Maintain the vaccination coverage level of 2 doses of measlesmumps-rubella (MMR) vaccine for children in kindergarten. *Data Details* | *Healthy People 2020*. Retrieved September 10, 2021 from https://www.healthypeople.gov/node/4649/data_details

³⁴⁵ Healthy People 2020. (2015). Immunization and infectious diseases. Washington, DC: U.S. Department of Health and Human Services. Retrieved from <a href="https://www.healthypeople.gov/2020/topics-objectives/topic/immunization-and-infectious-diseases/objectives/topic/immunization-and-infectives/topic/immunization-and-infectives/topic/immunization-and-infectives/topic/immunization-and-infectives/topic/immunization-and-infectives/topic/immunization-and-infectives/topic/immunization-and-infectives/topic/immunization-and-infectives/topic/immunization-and-infectives/topic/immunization-and-infectives/topic/immunization-and-infectives/to

³⁴⁶ 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.

³⁴⁷ 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.

³⁴⁸ 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.

³⁴⁹ 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.

³⁵⁰ Arizona Department of Health Services. (2019). Childhood injury fact sheet (2019).

³⁵¹ Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. (2018). *10 Leading causes of death by age group, United States – 2018*. Retrieved from <u>https://www.cdc.gov/injury/wisqars/pdf/leading_causes_of_death_by_age_group_2018-508.pdf</u>

³⁵² 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

³⁵³ West, B. A., Rudd, R. A., Sauber-Schatz, E. K., & Ballesteros, M. F. (2021). Unintentional injury deaths in children and youth, 2010–2019. *Journal of safety research*, *78*, 322-330.

³⁵⁴ 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.

³⁵⁵ National Center for Health Statistics. (2021, December 3). Stats of the States - Infant Mortality. Centers for Disease Control and Prevention. Retrieved September 10, 2021 from <u>https://www.cdc.gov/nchs/pressroom/sosmap/infant_mortality_rates/infant_mortality.htm</u>

³⁵⁶ Arizona Department of Health Services. (2019). Number of deaths for selected leading causes of infant mortality by year. *Population Health and Vital Statistics*.

³⁵⁷ Ely, D. M. & Driscoll, A. K. (2020, July 16). Infant morality in the United States, 2018: Data from the period linked birth/infant death file. *National Vital Statistics Reports, 69*(7). Retrieved October 11, 2021 from <u>https://www.cdc.gov/nchs/data/nvsr/nvsr69/NVSR-69-7-508.pdf</u>

³⁵⁸ Bellazaire, A. & Skinner, E. (2019, July 3). Preventing infant and maternal mortality: State policy options. *National Conference of State Legislatures*. Retrieved October 12, 2021 from <u>https://www.ncsl.org/research/health/preventing-infant-and-maternal-mortality-state-policy-options.aspx</u>

³⁵⁹ 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 August 18, 2021 from <u>http://www.p2presources.com/uploads/3/2/0/2/32023713/family_outcomes.pdf</u>

³⁶⁰ Evans, G., & Kim, P. (2013). Childhood poverty, chronic stress, self-regulation, and coping. *Child Development Perspectives*, 7(1), 43-48. Retrieved August 18, 2021 from <u>https://srcd.onlinelibrary.wiley.com/doi/full/10.1111/cdep.12013</u>

³⁶² Magnuson, K., & Duncan, G. (2013). Parents in poverty. In Bornstein, M. (Ed.), *Handbook of parenting: Biology and ecology of parenting vol. 4: Social conditions and applied parenting*. New Jersey: Lawrence Erlbaum.

³⁶³ Center on the Developing Child at Harvard University. (2010). *The foundations of lifelong health are built in early childhood*. Retrieved August 18, 2021 from <u>http://developingchild.harvard.edu/wp-content/uploads/2010/05/Foundations-of-Lifelong-Health.pdf</u>

³⁶⁴ American Academy of Pediatrics. (2014). *Literacy promotion: An essential component of primary care pediatric practice*. Retrieved August 18, 2021 from <u>https://pediatrics.aappublications.org/content/134/2/404</u>

³⁶⁵ Browne, C. (2014). The strengthening families approach and protective factors framework: Branching out and reaching deeper. *Center for the Study of Social Policy*. Retrieved August 18, 2021 from <u>https://cssp.org/wp-content/uploads/2018/11/Branching-Out-and-Reaching-Deeper.pdf</u>

³⁶⁶ Merrick, M. T., Ports, K. A., Ford, D. C., Afifi, T. O., Gershoff, E. T., & Grogan-Kaylor, A. (2017). Unpacking the impact of adverse childhood experiences on adult mental health. *Child Abuse & Neglect*, *69*, 10-19.

³⁶⁷ Kalmakis, K. A., & Chandler, G. E. (2015). Health consequences of adverse childhood experiences: a systematic review. *Journal of the American Association of Nurse Practitioners*, 27(8), 457-465.

³⁶⁸ Child and Adolescent Health Measurement Initiative (n.d). National Survey of Children's Health 2018-2019. 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). Indicator 6.13: Has this child experienced one or more adverse childhood experiences from the list of 9 ACEs?

³⁶⁹ 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.

³⁷⁰ Keating, K., Cole, P., & Schneider, A. (221). *State of Babies Yearbook: 2021*. Washington, DC: ZERO TO THREE and Bethesda MD: Child Trends. Retrieved August 18, 2021 from <u>https://stateofbabies.org/wp-content/uploads/2021/04/State-of-Babies-2021-Full-Yearbook.pdf</u>

³⁷¹ U.S. Department of Health & Human Services, Administration for Children & Families, Children's Bureau. (2019). *Child Welfare Outcomes Report Data for Arizona.*

³⁷² Centers for Disease Control and Prevention. (n.d.). *Preventing child abuse & neglect*. Retrieved August 18, 2021 from https://www.cdc.gov/violenceprevention/childabuseandneglect/fastfact.html

³⁷³ 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.

³⁷⁴ National Center for Injury Prevention and Control. (2020, September). *Adverse Childhood Experiences prevention strategy*. Center for Disease Control and Prevention. Retrieved August 18, 2021 from <u>https://www.cdc.gov/injury/pdfs/priority/ACEs-Strategic-Plan Final 508.pdf</u>

³⁷⁵ Healthy People 2020. (n.d.). *Maternal, infant, and child health: Life stages and determinants.* Retrieved August 18, 2021 from https://www.healthypeople.gov/2020/leading-health-indicators/2020-lhi-topics/Maternal-Infant-and-Child-Health/determinants

³⁷⁶ Zero to Three. (2017). *The basics of infant and early childhood mental health: A briefing paper*. Retrieved August 18, 2021 from https://www.zerotothree.org/resources/1951-the-basics-of-infant-and-early-childhood-mental-health-a-briefing-paper

³⁷⁷ Center on the Developing Child. (n.d.). *Early childhood mental health*. Harvard University. Retrieved August 18, 2021 from https://d6y5eh11fhgw3ve3ytpwxt9r-wpengine.netdna-ssl.com/wp-content/uploads/2015/05/InBrief-Early-Childhood-Mental-Health-1.pdf

³⁷⁸ Center for Translational Neuroscience (2020, July 30). A hardship chain reaction: Financial difficulties are stressing families' and young children's wellbeing during the pandemic, and it could get a lot worse. *Medium*. Retrieved September 10, 2021 from https://medium.com/rapid-ec-project/a-hardship-chain-reaction-3c3f3577b30

³⁷⁹ American Psychological Association (2020). *Stress in America*™ 2020: A National Mental Health Crisis. Retrieved October 14, 2021 from <u>https://www.apa.org/news/press/releases/stress/2020/report-october</u>

³⁸⁰ U.S. Census Bureau (2021). Household Pulse Survey Data, Phases 1 & 3. Retrieved from https://www.cdc.gov/nchs/covid19/pulse/mental-health.htm

³⁸¹ Center for Translational Neuroscience (2020, June 24). Flattening the other curve: Trends for young children's mental health are good for some but concerning for others. *Medium*. Retrieved September 10, 2021 from <u>https://medium.com/rapid-ec-project/flattening-the-other-curve-7be1e574b340</u>

³⁸² Center for Translational Neuroscience (2020, June 30). Flattening the other curve, part 2: Trends for parental well-being are improving overall, but not for everyone. *Medium*. Retrieved September 10, 2021 from <u>https://medium.com/rapid-ec-project/flattening-the-other-curve-part-2-5661a2d36a82</u>

³⁸³ Center for Translational Neuroscience (2020, May 5). The forgotten households: Households of young children with disabilities are not getting the support they need during the COVID-19 pandemic. *Medium*. Retrieved September 10, 2021 <u>https://medium.com/rapid-ec-project/the-forgotten-households-dfd2626098c7</u>

³⁸⁴ Center for Translational Neuroscience (2020, May 26). Health, interrupted: Well-child visits are declining during the COVID-19 pandemic. *Medium*. Retrieved September 10, 2021 <u>https://medium.com/rapid-ec-project/health-interrupted-a463733ce3c5</u>

³⁸⁵ 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).

³⁸⁶ 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.

³⁸⁷ Smith, V., & Wilson. R. (2016). Families affected by parental substance use. *Pediatrics*, 138(2). PMID: 27432847

³⁸⁸ Smith, V., & Wilson. R. (2016). Families affected by parental substance use. *Pediatrics*, 138(2). PMID: 27432847

³⁸⁹ Panchal, N., Kamal, R., Cox, C., & Garfield, R. (2021, Feb 10). The implications of COVID-19 for mental health and substance abuse. *KFF*. Retrieved October 25, 2021 from <u>https://www.kff.org/coronavirus-covid-19/issue-brief/the-implications-of-covid-19-for-mental-health-and-substance-use/</u>

³⁹⁰ Health Alert Network. (2020, Dec 17). Increase in fata drug overdoses across the United States driven by synthetic opioids before and during the COVID-19 pandemic. *Centers for Disease Control and Prevention*. Retrieved October 25, 2021 from <u>https://emergency.cdc.gov/han/2020/han00438.asp?ACSTrackingID=USCDC_511-DM44961&ACSTrackingLabel=HAN%20438%20-</u> <u>%20General%20Public&deliveryName=USCDC_511-DM44961</u>
³⁹¹ Panchal, N. Garfield, R., Cox, C., & Artiga, S. (2021, Aug 12). Substance use issues are worsening alongside access to care. *KFF*. Retrieved October 25, 2021 from https://www.kff.org/policy-watch/substance-use-issues-are-worsening-alongside-access-to-care/

³⁹² Swedo E, Idaikkadar N, Leemis R, et al. Trends In U.S. Emergency Department Visits Related to Suspected or Confirmed Child Abuse and Neglect Among Children and Adolescents Aged <18 Years Before and During the COVID-19 Pandemic — United States, January 2019–September 2020. *Morbidity and Mortality Weekly Report 2020*, 69:1841–1847. DOI: <u>http://dx.doi.org/10.15585/mmwr.mm6949a1</u>

³⁹³ Center for Translational Neuroscience (2020, June 16). Under the same roof, for better and for worse. *Medium*. Retrieved September 10, 2021 from https://medium.com/rapid-ec-project/under-the-same-roof-for-better-and-for-worse-af3333d23256

³⁹⁴ Turney, K., & Wildeman, C. (2016). Mental and physical health of children in foster care. *Pediatrics*, 138(5), e20161118.

³⁹⁵ Children's Defense Fund. (n.d.) *Family First Prevention Services Act.* Retrieved August 18, 2021 from https://www.childrensdefense.org/policy/policy-priorities/child-welfare/family-first/

³⁹⁶ Harvard Kennedy School Government Performance Lab. (n.d.) *Strengthening in-home child welfare services for families in Arizona*. Retrieved August 18, 2021 from https://govlab.hks.harvard.edu/files/govlabs/files/AZ_DCS_project_feature.pdf?m=1574064485

³⁹⁷ Government Accountability Office. (2021, July). Pandemic posed challenges, but also created opportunities for agencies to enhance future operations (GAO-21-483). Retrieved September 10, 2021 from <u>https://www.gao.gov/assets/gao-21-483.pdf</u>

³⁹⁸ U.S. Census Bureau. (May, 2000). Factfinder for the Nation. Retrieved from <u>http://www.census.gov/history/pdf/cff4.pdf</u>

³⁹⁹ 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