

 **FIRST THINGS FIRST**

Santa Cruz Region



**2022**

NEEDS AND ASSETS  
**REPORT**

# **SANTA CRUZ REGIONAL PARTNERSHIP COUNCIL 2022 NEEDS AND ASSETS REPORT**

Funded by the  
**First Things First Santa Cruz 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 Santa Cruz 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 Santa Cruz 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 Santa Cruz 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

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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 Santa Cruz Region.

Lastly, we want to acknowledge the current and past members of the Santa Cruz 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 First Things First Santa Cruz Region covers almost all of Santa Cruz County. The area surrounding the Amado community in the northwestern corner of the county is assigned to the Pima South Region. Santa Cruz County is the smallest county in the state of Arizona. To look at variations within the region, there are 7 subregions: Nogales, Rio Rico, Patagonia, Sonoita, Elgin, Tumacacori, and Tubac.

## **Population Characteristics.**

In the 2010 Census, the Santa Cruz Region had a population of 47,084, of whom 4,416 were children under the age of 6. Most of the population, including over 90% of young children, live in Nogales and Rio Rico subregions. About 21% of the households in the region had at least one child under 6. There are about 600 babies born per year in the region.

Residents of the Santa Cruz Region predominately identify as Hispanic or Latino (84%), but the Elgin, Sonoita, Tubac, and Patagonia subregions are predominately White. About 80% of residents older than age 5 speak a language other than English at home; the majority of these people also speak English very well. However, over a quarter (28%) of Santa Cruz Region residents do not consider themselves as speaking English “very well”; this is true for over a third of residents (36%) in the Nogales subregion. There are nearly 3,000 households in the region identified as “limited-English-speaking,” which means that no adult or teenager in the household speaks English very well, making Spanish-language resources essential in this region.

Most young children under the age of 6 (51%) live in single-parent households. Most of the rest (48%) live with two parents. About 19% of the children under 6 live in a household which is headed by their grandparents; many of these are multi-generational households in which the child and the parent(s) are living with the grandparents and some of these are households in which the grandparent is raising the child. An estimated 852 grandparents in the Santa Cruz Region are responsible for raising one or more grandchildren (up to age 17) who live with them. Most (82%) of these grandparent-led households do also include the child's parent(s).

## **Economic Circumstances.**

According to the American Community Survey (ACS), the median family income in Santa Cruz County is about \$46,700 per year, which is substantially less than the statewide median of \$70,200. This median income is also less than the self-sufficiency standard for a family of four, suggesting that many of the families in the county earn less than the amount estimated to be necessary to fully support themselves.

The Santa Cruz Region has a greater proportion of economically vulnerable families than are found elsewhere in Arizona. The American Community Survey (ACS) estimates that about 23% of the region's population—and 38% of its children under age 6—live below the poverty level. Poverty rates are highest in the Nogales subregion.



Overall, use of social safety net programs had been declining in the region, pre-pandemic. For example, the numbers of families and children participating in the Temporary Assistance to Needy Families (TANF), Supplemental Nutrition Assistance Program (SNAP), and Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) has decreased each year since SFY2016. During the COVID-19 pandemic, many families were helped financially by the Economic Impact Payments, but some were not eligible due to their citizenship status, which could have limited the benefit of these federal support mechanisms in the region.

Food insecurity is a particular problem for low-income children. With schools closed, children lost access to free and reduced-price lunches. The Pandemic Electronic Benefits Transfer program (P-EBT) was created to fill in the gap. In the Santa Cruz Region in May of 2021, 10,083 children received P-EBT benefits, of whom 343 were children under six. While important, this program failed to reach many families with children who should have been eligible. The Summer Food Service Program (SFSP), also operating under a new set of rules during the pandemic, was expanded to help fill the void left by the loss of meals served through the National School Lunch Program, serving over 390,000 meals in 2019-20.

Pre-pandemic, unemployment rates in the Santa Cruz County had been on a steady decline since 2013. In the last few months before the pandemic began, the monthly unemployment rate in Santa Cruz County was around 8%. In April of 2020, however, the unemployment rate leapt up to 16.9% in the county. The most recently available data show monthly rates in the range of 10-11%, which is higher than the pre-pandemic levels.

Housing costs can be another economic stressor. An estimated 34% of households in the Santa Cruz Region live in housing which costs 30% or more of their income. This housing-cost burden is especially true among renters (47%), but still an issue for over a quarter (29%) of homeowners as well.

Most homes have some means of accessing the internet. In the Santa Cruz Region, 86% of children (through age 17) are in a household with access to a computer and internet connection.

### **Educational Indicators.**

In the Santa Cruz Region, during the 2019-20 school year, enrollment in public and charter schools for kindergarten through third grade was approximately 700 students per grade. When the region's third grade students took the AzMERIT achievement assessments in the 2018-19 school year, 42% received passing scores in English Language Arts (ELA) and 41% had passing scores in Math. This puts Santa Cruz Region students behind those statewide, where 46% and 51% of third graders received passing scores in ELA and Math, respectively.

Overall graduation rates increased slightly between 2017 and 2019 in the Santa Cruz Region. The four and five-year graduation rates in the Santa Cruz Region in 2019 (92% and 94%) were higher than across Arizona as whole (79% and 83%). As graduation rates have climbed, dropout rates have declined to a low of 0.9% in 2019-20.

Among the adult population of the region, 77% have a high-school education or more. The greatest proportions of more highly educated residents, i.e., those with some post-secondary education, reside in the Tubac (82%), Elgin (80%) and Sonoita (75%) subregions. Among mothers of babies born in 2018 or 2019 in the Santa Cruz Region, 77% have a high-school education or more.

### **Early Learning.**

The Santa Cruz Region is home to 46 registered early care and education providers—a mix of child care centers, Head Start centers, public-school based programs, and home-based care—enough to care for up to 997 children if functioning at full capacity. Notably, all 8 providers who participate in Arizona’s Quality First program have achieved a 3-star rating or higher, indicating that they meet quality standards. A majority of child care providers in the region are small, home-based providers. Comparing the number of children birth to 5 to the number of available child care slots in the region overall, there are 4.5 times as many children as slots – meaning the region could be described as a “child care desert.”

Child care is expensive. The United States Department of Health and Human Services recommends that parents spend no more than 10% of their family income on child care to avoid being overburdened.

Families in Santa Cruz County pay about 10-13% of their income for child care in center-based programs, depending on the child’s age. This puts child care as a substantial cost for families, especially for families with multiple young children needing care. Fewer than 150 children across the region use subsidies from the Department of Economic Security (DES) to reduce their child care costs.

In Arizona, children with special needs can receive services through the Arizona Early Intervention Program (AzEIP), the Division of Developmental Disabilities (DDD), the Arizona Department of Education’s Early Childhood Special Education Program, and Head Start. Children can be referred into these programs after developmental screenings, or parents can self-refer. The number of children found eligible has averaged about 20 in recent years, which is less than a quarter (22-24%, depending on the year) of those referred within a given year, meaning there are many families with concerns about their children’s development who are not receiving services who may benefit from some form of additional support or education. There are also many times more kindergarten to 3rd grade students enrolled in special education than there are children being served by early intervention services. Furthermore, given shortages of service providers and the challenges of offering services remotely, families of children with special needs have faced particularly large challenges during the pandemic.

### **Child Health.**

Access to health care is a critical part of optimal child development. In the Santa Cruz Region, it is estimated that 4% of young children and 10% of the general population do not have health insurance coverage. Public insurance systems (i.e., Medicaid/AHCCCS and the Indian Health Service) cover about two-thirds of the births in the region each year. In 2019, there were 596 babies born to mothers living in the Santa Cruz Region. Worryingly, fewer than half of mothers began prenatal care in the first trimester,

and over a quarter had fewer than 5 prenatal visits. About 1 in every 8 babies (12% in 2019) was born to a mother who had received no prenatal care at all.

The Santa Cruz Region has a slightly higher proportion of teen mothers than Arizona as a whole. In 2019, 7% of mothers giving birth in the Santa Cruz Region were in their teens, with 3% under age 18. Innovative efforts in the Santa Cruz Valley School District offer telemedicine appointments at the high school, thus minimizing the disruptions to teen mothers' academic schedules while supporting them in receiving prenatal care.

Children in child care settings and kindergarteners are required to have certain vaccinations. Vaccine coverage in the Santa Cruz Region tends to be strong, with vaccination rates above 95% for the major series. While it remains low overall, the proportion of parents claiming exemptions from child care vaccines has increased in recent years.

### **Family Support and Literacy.**

Family support services are a critical need for many families in the region, especially with the disruptions caused by the pandemic. Children do best in stable, nurturing environments where they feel safe and supported, but many families face challenges because of poverty, mental-health problems, substance-use problems, or other stressors. Home visiting programs are one approach to supporting parents and families. In the Santa Cruz Region, 62 families are slated to receive home visiting services through First Things First funding.

National data suggest that alcohol and other substance use increased substantially during the early weeks of the pandemic. However, in Santa Cruz County, the number of non-fatal overdoses involving opioids or opiates was already on a steady rise, rising to a high of 24 overdoses in 2020. Between 2016 and 2020, there were 15 newborns in the Santa Cruz Region hospitalized because of maternal drug use during pregnancy.

In 2020, there were 168 maltreatment reports for children aged birth to 17 made in Santa Cruz County that were assigned for investigation. Less than 10% (15) of those reports were substantiated. 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. In the Santa Cruz Region, DCS removed 16 children from their homes in SFY2020.

# 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.<sup>i</sup> For example, children who were under six 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.<sup>ii</sup> 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 ACS estimates are based on samples rather than the full population, these 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. In the Santa Cruz Region, the Patagonia, Elgin, Tubac, and Tumacacori sub-regions have particularly small sample sizes (200 respondents or less). Due to these small sample sizes, detailed data for some sub-populations, including children birth to 5, preschool-aged children, and grandparents cannot be reported on reliably. Tables and figures where sample size limitations prevent the reporting of reliable estimates will show ‘N/A’ in the sub-region row and have a table note explaining that data were not available due to small sample sizes.

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 data collected from Mariposa Community Health Center and Child Parent Centers. Regional Partnership Council members and other local stakeholders participated in a facilitated data discussion on September 13, 2021, which allowed them to share their local knowledge and perspective in interpreting the data collected. Perspectives and feedback from

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

<sup>ii</sup> 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>

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. Access to and utilization of high-quality early care and education
2. Pregnant and parenting teens and their young children
3. Grandparents raising grandchildren and other kinship-care families

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

In most tables in this report, the top rows of data correspond to the FTF Santa Cruz 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 Santa Cruz County, 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 SANTA CRUZ 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 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 Santa Cruz Region covers almost all of Santa Cruz County (Figure 1). The area surrounding the Amado community in the northwestern corner of the county is assigned to the Pima South Region. Santa Cruz County is the smallest county in the state of Arizona. Situated in the Sonoran Desert of Southeast Arizona, Santa Cruz County and the Santa Cruz Region are home to six communities: Nogales, Patagonia, Rio Rico, Sonoita, Elgin, and Tubac. Nogales is the county seat and is one of the largest ports of entry between Mexico and the United States. The region contains many tourist attractions, including numerous state and historic parks which highlight the region's natural beauty and rich cultural history, as well as the vineyards of Sonoita and Elgin, which are known as "Arizona's Wine Country," and the art galleries of Tubac, which have attracted national acclaim.

Because communities may vary in terms of needs and assets, the Santa Cruz Regional Partnership Council requested that data be analyzed and reported at a sub-regional level in order to provide a more complete picture of the region. Dividing the region in sub-regions helps the Council target strategies to use resources effectively and efficiently. Seven sub-regions within the Santa Cruz Region were identified by the Regional Partnership Council and Director as focus areas.

The **Elgin** sub-region is defined as the southwestern portion 85611 zip code that lies within Santa Cruz County. It contains the Census Designated Place (CDP) of Elgin.

The **Nogales** sub-region encompasses the entirety of the 85621 zip code and contains the city of Nogales and the CDP of Kino Springs. This area is the most populous in the region in terms of both overall population and the population of young children.

The **Patagonia** sub-region encompasses the entirety of the 85624 zip code and contains the town of Patagonia as well as the unincorporated community of Harshaw.

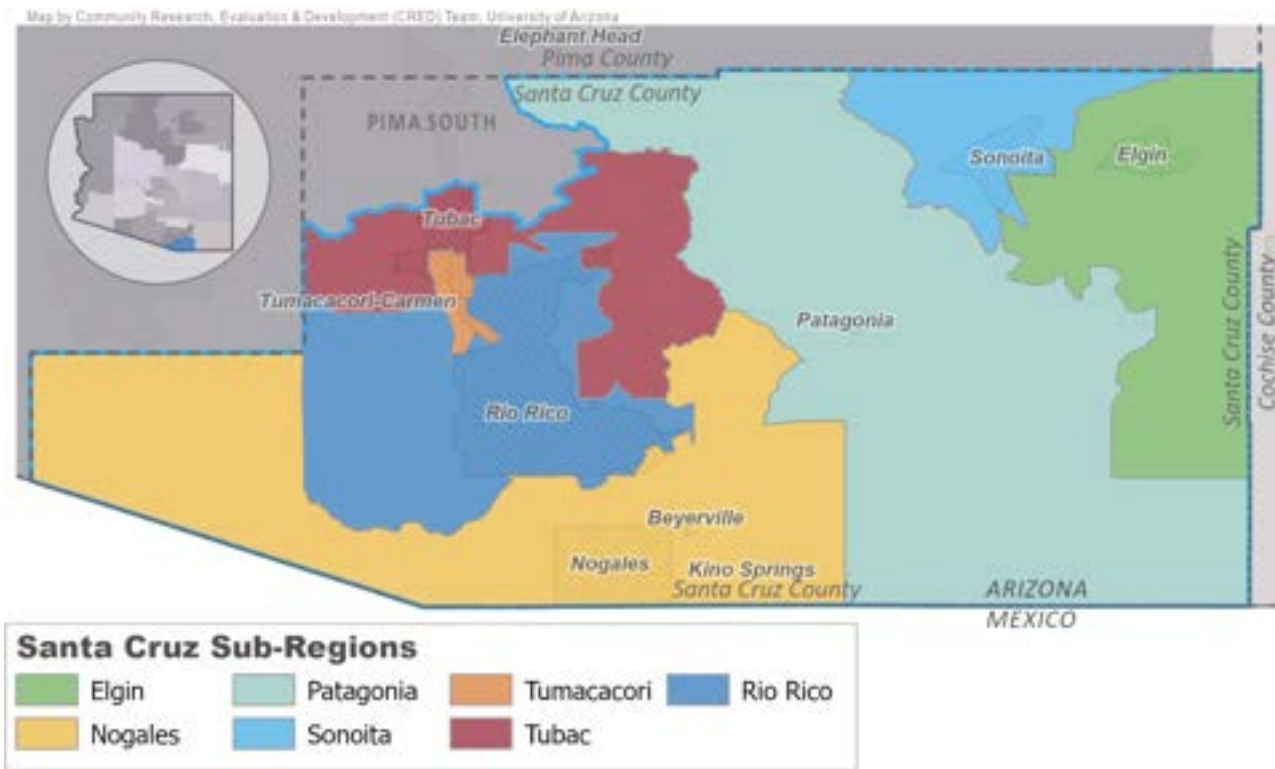
The **Rio Rico** sub-region is defined as the whole 85648 zip code and contains the Rio Rico CDP.

The **Sonoita** sub-region is defined as the southernmost portion of the 85637 zip code that lies within Santa Cruz County. It contains the Sonoita CDP.

The **Tubac** sub-region covers all of the 85646 zip code and contains the Tubac CDP.

The **Tumacacori** sub-region is the smallest area within the region, encompassing the 85640 zip code and containing the Tumacacori-Carmen CDP.

Figure 1. The First Things First Santa Cruz Region and its subregions



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



## **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.<sup>1,2,3,4,5</sup> 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.<sup>6,7,8,9</sup> As Arizona communities become increasingly diverse, providers need access to relevant demographic data to ensure they engage with families in culturally responsive ways.<sup>10,11,12</sup>

In addition to growing racial, ethnic and social diversity, U.S. and Arizona families are becoming more diverse in terms of family structure.<sup>13</sup> 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).<sup>14,15</sup> 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.<sup>16</sup> 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.<sup>17,18,19,20</sup> 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.<sup>21</sup> 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.<sup>22,23</sup>

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 Santa Cruz Region had a population of 47,084, of whom 4,416 were children under the age of 6 (Table 1). Twenty-one percent of the households in the Santa Cruz Region included at least one young child, compared to only 16% of households statewide.

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

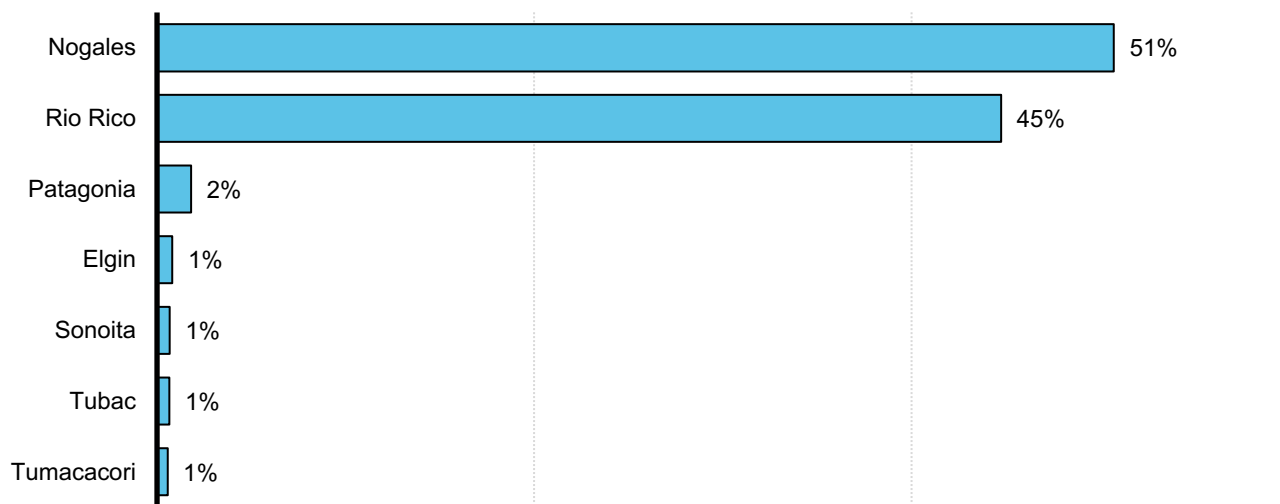
Geography	Total population	Population (ages 0-5)	Total number of households	Number and percent of households with one or more children (ages 0-5)	
				Number	Percent
<b>Santa Cruz Region</b>	<b>47,084</b>	<b>4,416</b>	<b>15,287</b>	<b>3,219</b>	<b>21%</b>
Elgin	772	36	341	26	8%
Nogales	23,054	2,240	7,297	1,607	22%
Patagonia	1,430	80	669	58	9%
Rio Rico	19,080	1,976	5,672	1,468	26%
Sonoita	1,054	30	490	23	5%
Tubac	1,253	29	656	25	4%
Tumacacori	441	25	162	12	7%
Santa Cruz County	47,420	4,435	15,437	3,231	21%
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%

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.

As of the 2010 Census, over half (51%) of the young children in the Santa Cruz Region are in the Nogales subregion (Figure 2). Most of the remaining children are in the Rio Rico subregion (45%). Much smaller proportions of children reside in the Patagonia (2%), Elgin (1%), Sonoita (1%), Tubac (1%) and Tumacacori (1%) subregions.

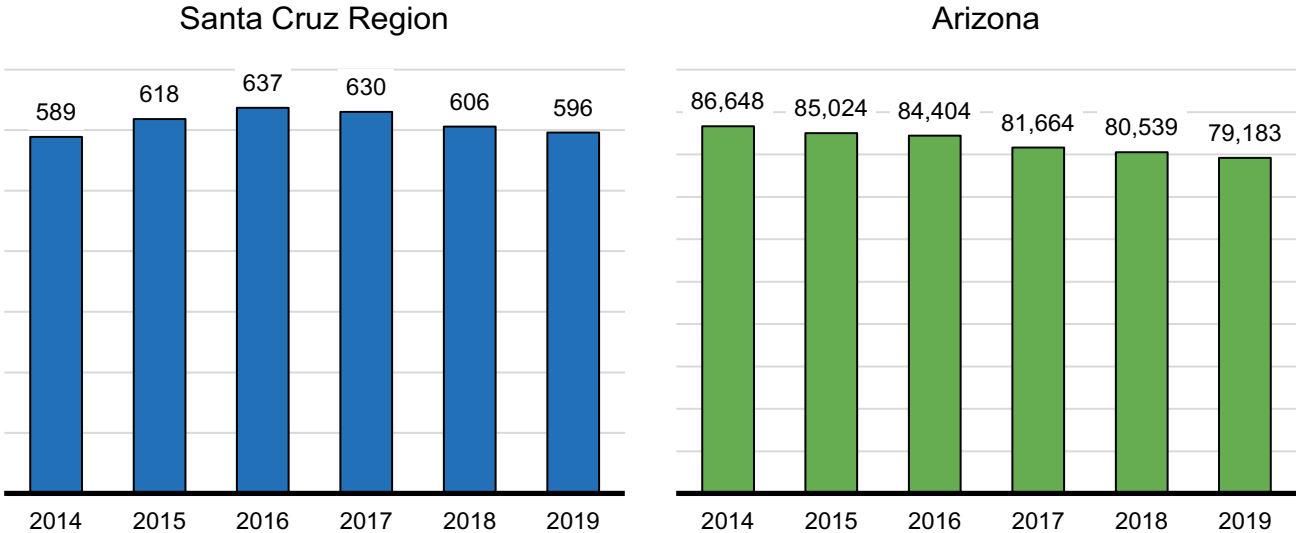
Figure 2. Percent of children birth to 5 by sub-region, 2010 U.S. Census



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

Between 2014 and 2019, there were about 600 babies born annually in the Santa Cruz Region, with some variation from year to year. With 637 births that year, births were highest in 2016 and have declined slightly since then (Figure 3). Statewide, there has been a consistent decline in births since 2014, with about 2% fewer babies born each year compared to the previous year. This decrease in natality mirrors a similar nationwide trend in the U.S., where between 1 and 2% fewer babies were born each year in the same time period.<sup>24</sup>

Figure 3. Number of babies born, 2014 to 2019



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

Residents of the Santa Cruz Region predominately identify as Hispanic or Latino, with some notable variations across subregions (Table 2). According to the American Community Survey (ACS) five-year averages, 84% of the region's population identifies as Hispanic or Latino, 15% as non-Hispanic White, with smaller fractions identifying their race as Black or African American (1%), American Indian or Alaskan Native (1%), Asian or Pacific Islander (1%) or multi-racial (1%). Unlike the region as a whole, a minority of residents in the Elgin (8%), Sonoita (12%), Tubac (20%), and Patagonia (29%) subregions identify as Hispanic or Latino, with reciprocal rises in the proportions of residents identifying as White. Given that the COVID-19 pandemic disproportionately impacted Hispanic, Black and American Indian communities,<sup>25,26</sup> these subregional variations may be helpful to consider in supporting communities as they recover in the wake of the pandemic.

Table 2. 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
<b>Santa Cruz Region</b>	<b>46,429</b>	<b>84%</b>	<b>15%</b>	<b>1%</b>	<b>1%</b>	<b>1%</b>	<b>1%</b>
Elgin	826	8%	90%	0%	3%	1%	0%
Nogales	22,074	93%	5%	1%	1%	2%	2%
Patagonia	1,293	29%	60%	1%	0%	0%	10%
Rio Rico	19,681	88%	12%	0%	1%	0%	1%
Sonoita	1,039	12%	86%	1%	0.2%	0%	0%
Tubac	1,342	20%	80%	0%	0%	0%	0%
Tumacacori	174	58%	42%	0%	0%	0%	0%
Santa Cruz County	46,480	83%	15%	1%	1%	1%	1%
Arizona	7,050,299	31%	55%	5%	5%	4%	4%
United States	324,697,795	18%	61%	13%	1%	6%	3%

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) 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.

The racial and ethnic composition of population of children birth to 4 in the Santa Cruz Region generally reflects the makeup of the overall population, again with Hispanic and Latino young children comprising the majority of the population (90%). As in the overall population, White, non-Hispanic children make up a small proportion of children region-wide (6%) but are the majority in many of the smaller subregions (Table 3). Also similar to the overall population, there are relatively low proportions of Black (1%), American Indian (0%), Asian and Pacific Islander (3%), and multiracial (2%) children.

Table 3. Race and ethnicity of children birth to 4

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
<b>Santa Cruz Region</b>	<b>3,289</b>	<b>90%</b>	<b>6%</b>	<b>1%</b>	<b>0%</b>	<b>3%</b>	<b>2%</b>
Elgin	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nogales	1,236	93%	0%	2%	0%	7%	1%
Patagonia	109	9%	49%	0%	0%	0%	42%
Rio Rico	1,786	100%	0%	0%	0%	0%	1%
Sonoita	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tubac	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tumacacori	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Santa Cruz County	3,311	90%	6%	1%	0%	3%	2%
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

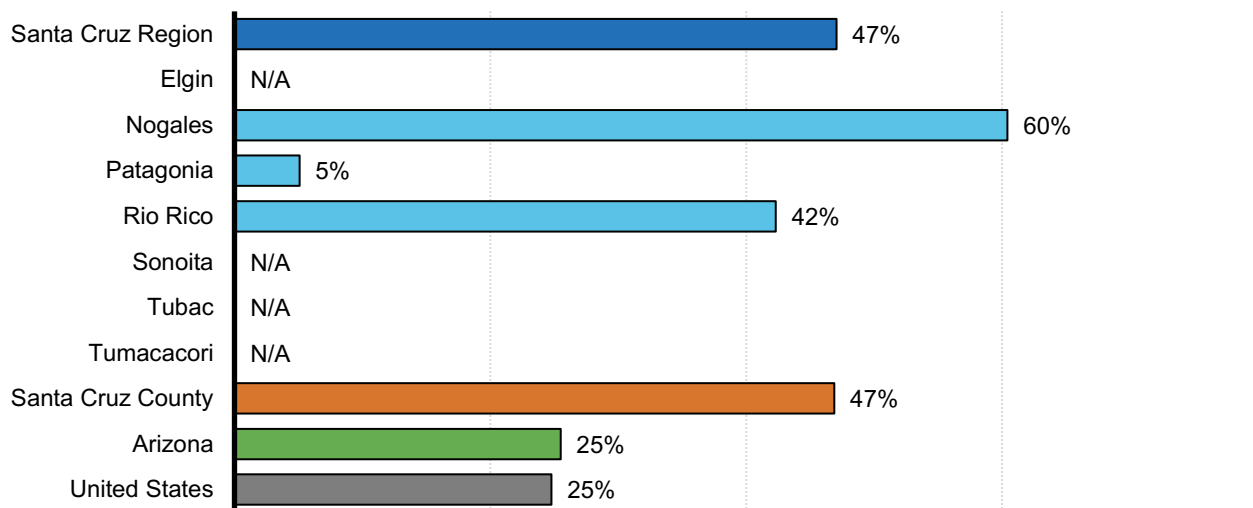
Note: The six percentages in each row may sum to more or less than 100% because (a) children reporting Hispanic ethnicity are counted twice if their race is Black, American Indian, Asian, Pacific Islander, or any combination of two or more races, (b) children reporting any other race are not counted here unless they have Hispanic ethnicity, and (c) rounding. Reliable data are not available for the Elgin, Sonoita, Tubac, or Tumacacori sub-regions due to sample size limitations.

### Immigrant Families and Language Use

A growing number of children nationwide live in a family where one or both of their parents is foreign-born.<sup>27</sup> Statewide, this is true for about a quarter (25%) of children (Figure 4). In the Santa Cruz Region overall, this is true for 47% of children, although it varies by subregion, rising to 60% in the Nogales subregion and dropping to near-zero levels in the small, rural subregions. Despite the reality that parents

may have become naturalized citizens or permanent residents and that the fact that the vast majority of these young children are citizens,<sup>28</sup> 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.<sup>29,30,31</sup> 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.<sup>32,33,34,35</sup> In addition, during the COVID-19 pandemic, immigrants have been more likely to work in frontline positions and experience job loss. These factors are associated with increased risk of COVID-19 exposure and can create additional barriers to testing and treatment with the loss of employer-sponsored health insurance.<sup>36</sup>

Figure 4. Children ages birth to 5 living with parents who are foreign-born, 2015-2019 ACS

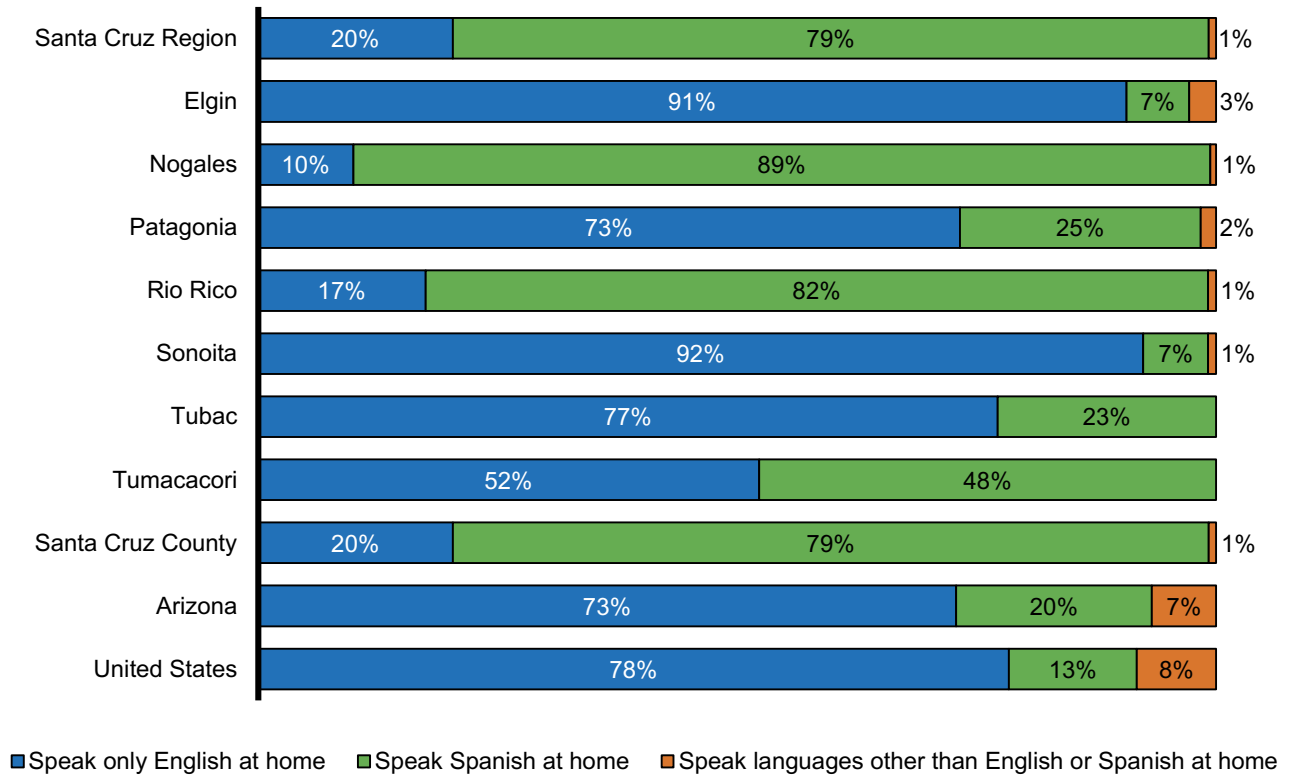


Source: U.S. Census Bureau. (2021). American Community Survey five-year estimates 2015-2019, Table B05009

Note: The term "parent" here includes stepparents. Reliable data are not available for the Elgin, Sonoita, Tubac, or Tumacacori sub-regions due to sample size limitations.

Households with multiple languages spoken pose a unique balance of benefits for child learning and potential barriers to caregiver engagement (e.g. when interacting with schools or health care providers).<sup>37</sup> The ACS estimates that about 8 in 10 (79%) of the Santa Cruz Region’s residents speak Spanish at home, and that 20% speak only English at home (Figure 5). The remaining 1% speak other languages.

Figure 5. 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 bar 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%).

A majority of the residents who speak a language other than English at home report that they speak English “very well,”<sup>iii</sup> meaning they are proficiently bilingual or multilingual. This is the case for 52% of Santa Cruz Region residents ages 5 and older (Figure 6). Young children can benefit from this

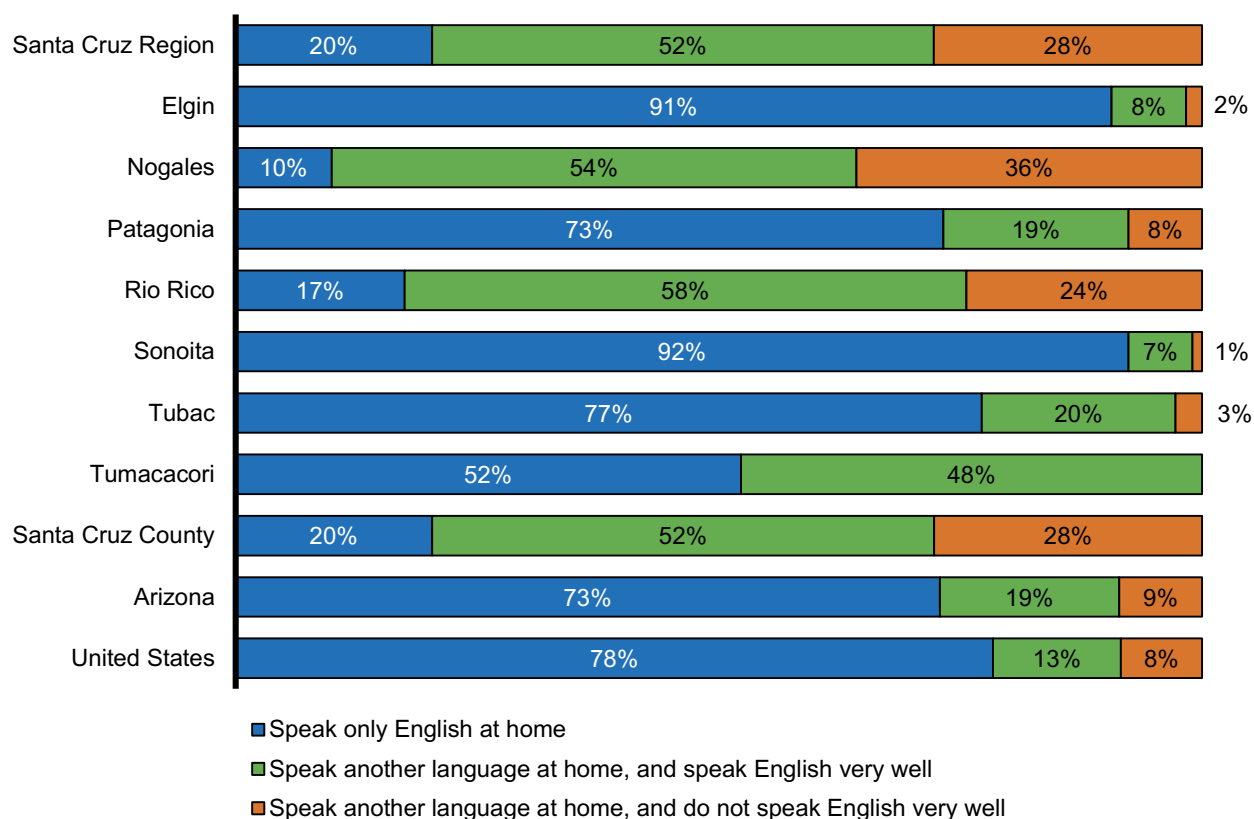
<sup>iii</sup> “Very well” refers to the self-rated ability to speak English in response to the American Community Survey question “How well does this person speak English?” Other response options include: “well” “not well” and “not at all.” See <https://www.census.gov/topics/population/language-use/about.html>



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.<sup>38,39,40,41</sup> 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.

In addition to those who are multilingual, over a quarter (28%) of Santa Cruz Region residents speak a language other than English at home and do not consider themselves as speaking English “very well” (Figure 6). In the Nogales subregion, this is true for over 1 in 3 of residents (36%). 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.<sup>42,43</sup>

Figure 6. English-language proficiency (for persons ages 5 and older), 2015-2019 ACS

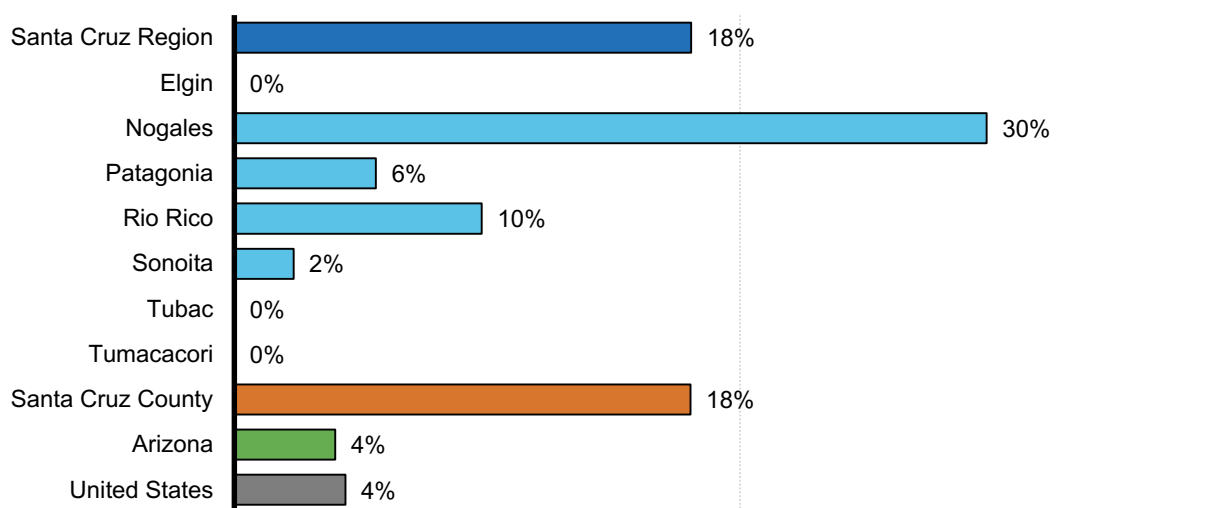


Source: U.S. Census Bureau. (2021). American Community Survey five-year estimates 2015-2019, Table C16001

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

At the household level, 18% of the households in the Santa Cruz Region – representing over 2,800 households – are identified as "limited-English-speaking," which means that no adult or teenager in the household speaks English very well (Figure 7). This proportion rises to 30% in the Nogales subregion where there are about 2,200 families who would likely struggle to understand information conveyed only in English. There are also about 600 such families in Rio Rico, making up 10% of the households there.

Figure 7. Share of households that are limited-English-speaking, 2015-2019 ACS

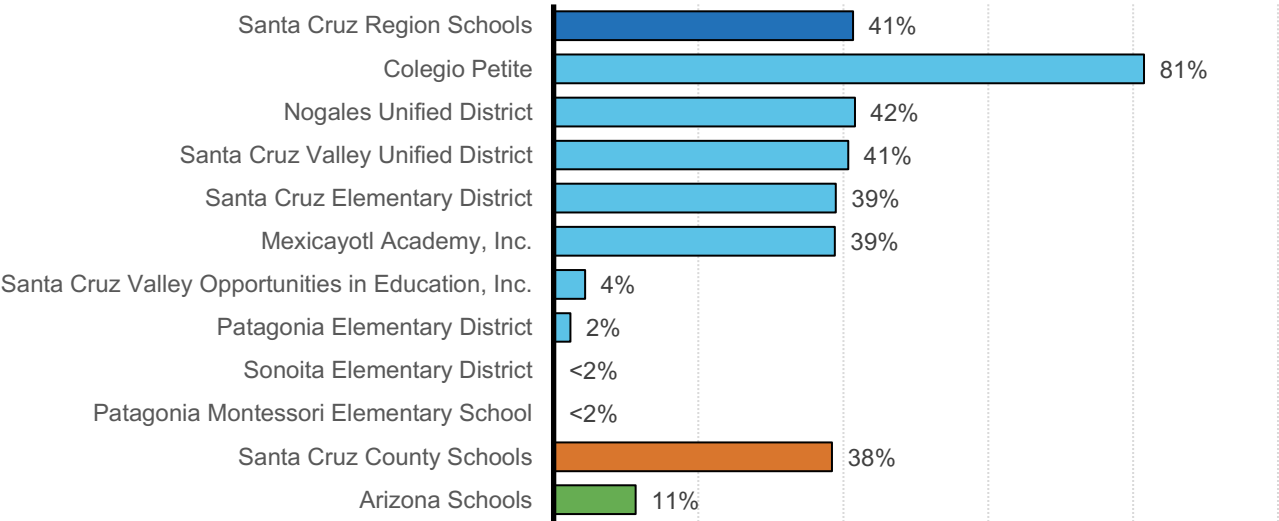


Source: U.S. Census Bureau. (2021). American Community Survey five-year estimates 2015-2019, Table C16002

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

Schools dedicate resources and programming for students who do not speak English as their first language and need additional support to become proficient in English. These students are identified via caregiver report on a home language survey, and subsequently by a sub-proficient score on the Arizona English Language Learner Assessment (AZELLA).<sup>44</sup> In the Santa Cruz Region schools overall, 41% of students are classified as English Learners (EL), compared to 11% statewide. The Colegio Petite charter school has a very high (81%) proportion of EL students (Figure 8).

**Figure 8. 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 are not deemed ‘proficient’ in the English language and thus eligible for additional supportive services for English language acquisition.

Note that the difference between the region and county is due to charters, specifically Colegio Petite. Colegio Petite is based in Phoenix but has a Nogales campus. Due to how the Arizona Department of Education handles assigning schools to counties, all Colegio Petite students, including those in Nogales, get assigned to Maricopa County. The customized regional data assigns the Nogales campus students to the Santa Cruz Region. Santa Cruz Valley Opportunities in Education operates Montessori de Santa Cruz in Tubac.

**Family and Household Composition**

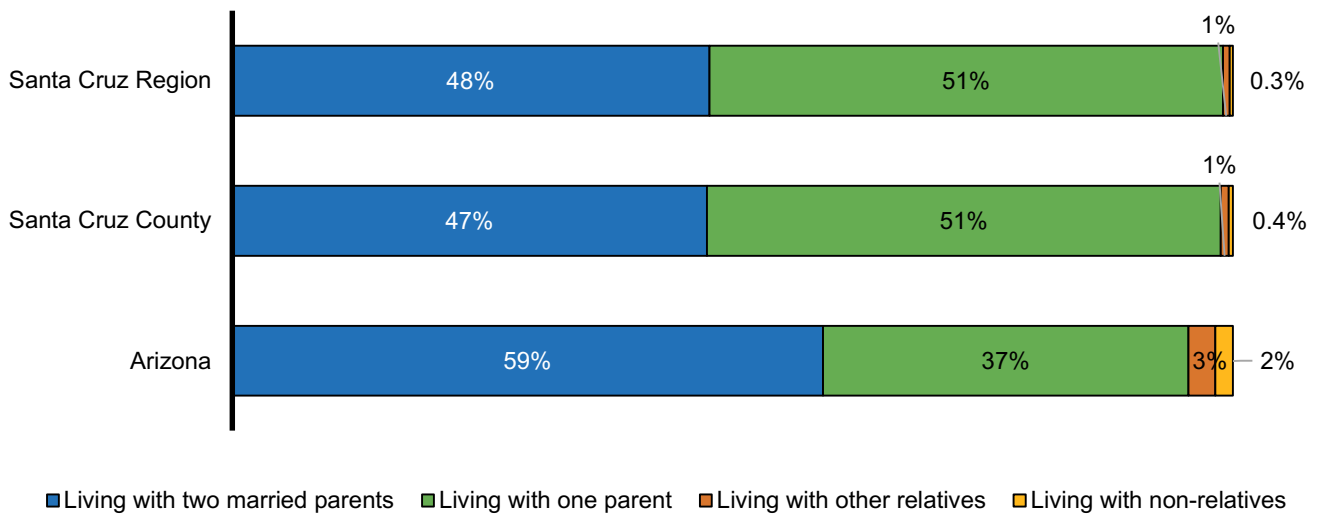
Fewer than half (48%) of the children under 6 in the Santa Cruz Region live with two parents (or a parent and a stepparent); the majority (51%) reportedly live with a single parent<sup>iv</sup> (Figure 9). This contrasts with the distribution statewide and nationally, where the majority (59% and 63%, respectively) live with two parents. A small proportion (1%) live with relatives other than parents (such as

<sup>iv</sup> It should be noted that due to the way the ACS asks about family relationships, children living with two cohabitating but unmarried parents are not counted as living with two parents (these children are counted in the ‘one parent’ category).

grandparents, uncles, and aunts) or in the household of an unrelated person (such as a foster parent; 0.3%).

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.<sup>45,46,47</sup> 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).<sup>48</sup> These additional hardships may impact the many young children living in the Santa Cruz Region with a single parent.

Figure 9. Living arrangements for children ages birth to 5, 2015-2019 ACS



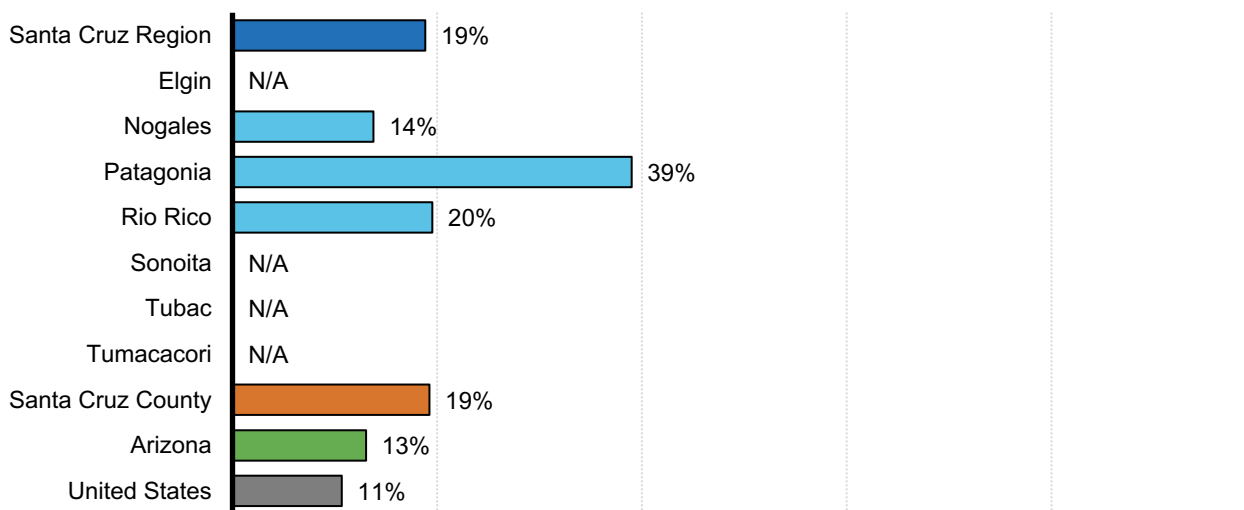
Source: U.S. Census Bureau. (2021). American Community Survey five-year estimates 2015-2019, Tables B05009, B09001, & B17001

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 cohabitating but unmarried parents are not counted as living with two parents (these children are counted in the 'one parent' category).

The ACS estimates that 19% of young children in the Santa Cruz Region live in their grandparent's household, compared to 13% across Arizona (Figure 10). 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. Many of the subregions are estimated to have an even higher proportion of these multigenerational families.

Understanding the circumstances of grandparents living with 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.<sup>49,50,51,52</sup> 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.<sup>53</sup>

Figure 10. Grandchildren ages birth to 5 living in a grandparent's household, 2015-2019 ACS



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. Reliable data are not available for the Elgin, Sonoita, Tubac, or Tumacacori sub-regions due to sample size limitations.

Children living in “kinship care” don’t live with a parent, but instead live with a relative (like a grandparent) or close family friend. Parents may be unable to care for their children for a variety of reasons, including military service or other work that requires long-term travel, deportation, chronic illness, drug abuse, or incarceration. Children may also end up in kinship care arrangements due to abuse, neglect or homelessness. Although the proportion of children living in kinship-care arrangements in the region is small, these families can face unique challenges, including navigating the logistics of informal guardianship (e.g., difficulties in registering children for school), coping with parental absence and addressing the challenges of being an ageing caregiver for a young child. In some situations, children in kinship-care may also face special needs as a result of trauma and could benefit from additional support and assistance to help them adjust and to ensure they have a stable and nurturing home environment.<sup>54</sup>

According to ACS data, grandparents are considered responsible for their 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. An estimated 852 grandparents in the Santa Cruz Region are responsible for raising one or more grandchildren (up to age 17) who live with them. However, most of these grandparents appear to be in multigenerational households, with only 18% raising those children without the child's parents also in the household (Table 4). Comparatively, 31% of grandparents statewide are raising grandchildren on their own, without parents present. Furthermore, of these 852 grandparents, 55% are female, 51% are in their sixties or older, 36% have incomes below the poverty level, and 58% are not proficient English speakers. 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.

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

Geography	Estimated number of grandparents who live with and are responsible for grandchildren under 18 years old	Percent of these grandparents who:				
		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
<b>Santa Cruz Region</b>	<b>852</b>	<b>55%</b>	<b>51%</b>	<b>36%</b>	<b>58%</b>	<b>18%</b>
Elgin	N/A	N/A	N/A	N/A	N/A	N/A
Nogales	560	55%	61%	32%	58%	24%
Patagonia	N/A	N/A	N/A	N/A	N/A	N/A
Rio Rico	283	56%	30%	47%	61%	2%
Sonoita	N/A	N/A	N/A	N/A	N/A	N/A
Tubac	N/A	N/A	N/A	N/A	N/A	N/A
Tumacacori	N/A	N/A	N/A	N/A	N/A	N/A
Santa Cruz County	854	54%	51%	36%	58%	18%
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. Reliable data are not available for the Elgin, Patagonia, Sonoita, Tubac, or Tumacacori sub-regions due to sample size limitations.

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.<sup>55</sup> Poverty can affect the way children grow and develop, even including changes to their brains.<sup>56,57</sup> 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.<sup>58,59,60,61,62,63,64</sup> They are also more likely to remain poor later in life, passing along these challenges to future generations.<sup>65,66</sup> 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.<sup>67,68,69,70</sup>

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”<sup>71</sup> 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%).<sup>72</sup> Safety-net programs aim to minimize the impacts of poverty on child and family well-being.<sup>73,74,75</sup> These programs include:

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

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

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

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

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

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

<sup>x</sup> For more information see: <https://www.azahcccs.gov/Members/GetCovered/Categories/KidsCare.html>

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

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



Other factors related to economic stability include employment and housing.<sup>76</sup> Unemployment (and underemployment<sup>xiii</sup>) 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.<sup>77,78</sup> Similarly, housing instability can harm the physical, social-emotional and cognitive development of young children.<sup>79</sup> High housing costs, relative to family income, are associated with increased risk for overcrowding, frequent moving, poor nutrition, declines in mental health and homelessness.<sup>80,81</sup> This high relative cost leaves inadequate funds for other necessities, such as food and utilities.<sup>82</sup>

## What the Data Tell Us

### Income and Poverty

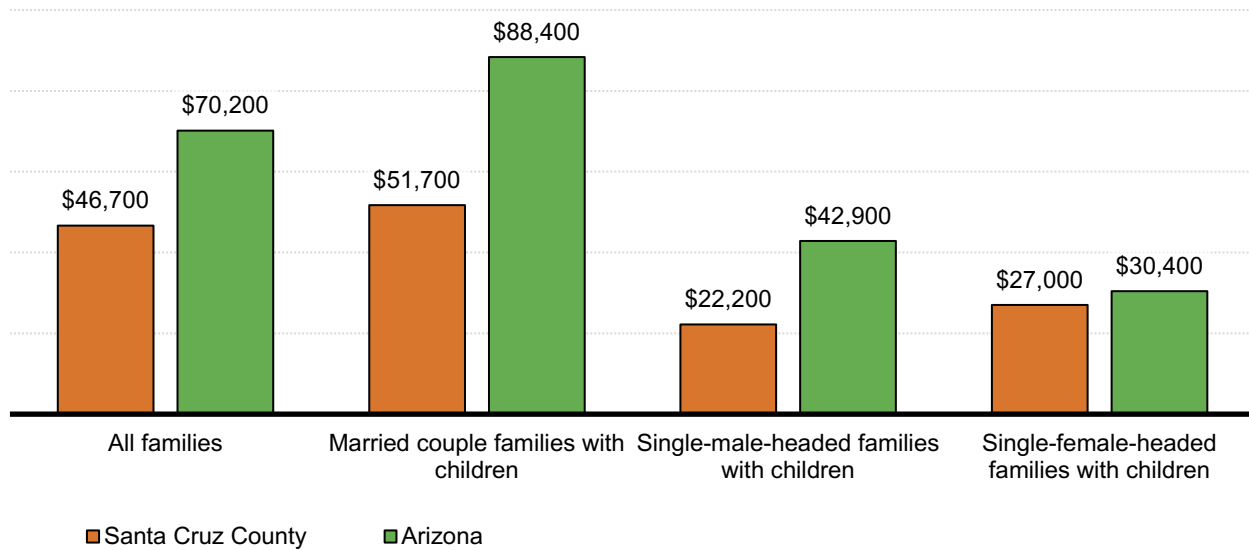
Incomes in Santa Cruz County are substantially lower than elsewhere in Arizona. The median family income for Santa Cruz County is estimated to be \$46,700 (Figure 11) which means that half of the county’s families have incomes lower than that amount, and the other half have incomes above it. This includes all families of at least two people, whether or not they have children. For married-couple families who have at least one child (up to 17 years old), the median income (\$51,700) is higher than that of all families, likely because many such families are dual-income families. Single-parent headed families earn much less - a mere \$22,200 for single-male-headed families and \$27,000 for single-female-headed families.

Furthermore, the COVID-19 pandemic had a sudden and dramatic impact on income for many families nationwide. In Arizona, typically at least half of surveyed adults reported that someone in their household had lost employment income, with one week spiking up to two-thirds of respondents. Arizona generally mirrors the trends seen nationwide.<sup>83</sup>

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<sup>xiii</sup> *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*

Figure 11. Median family income for families with children ages birth to 17, 2015-2019 ACS

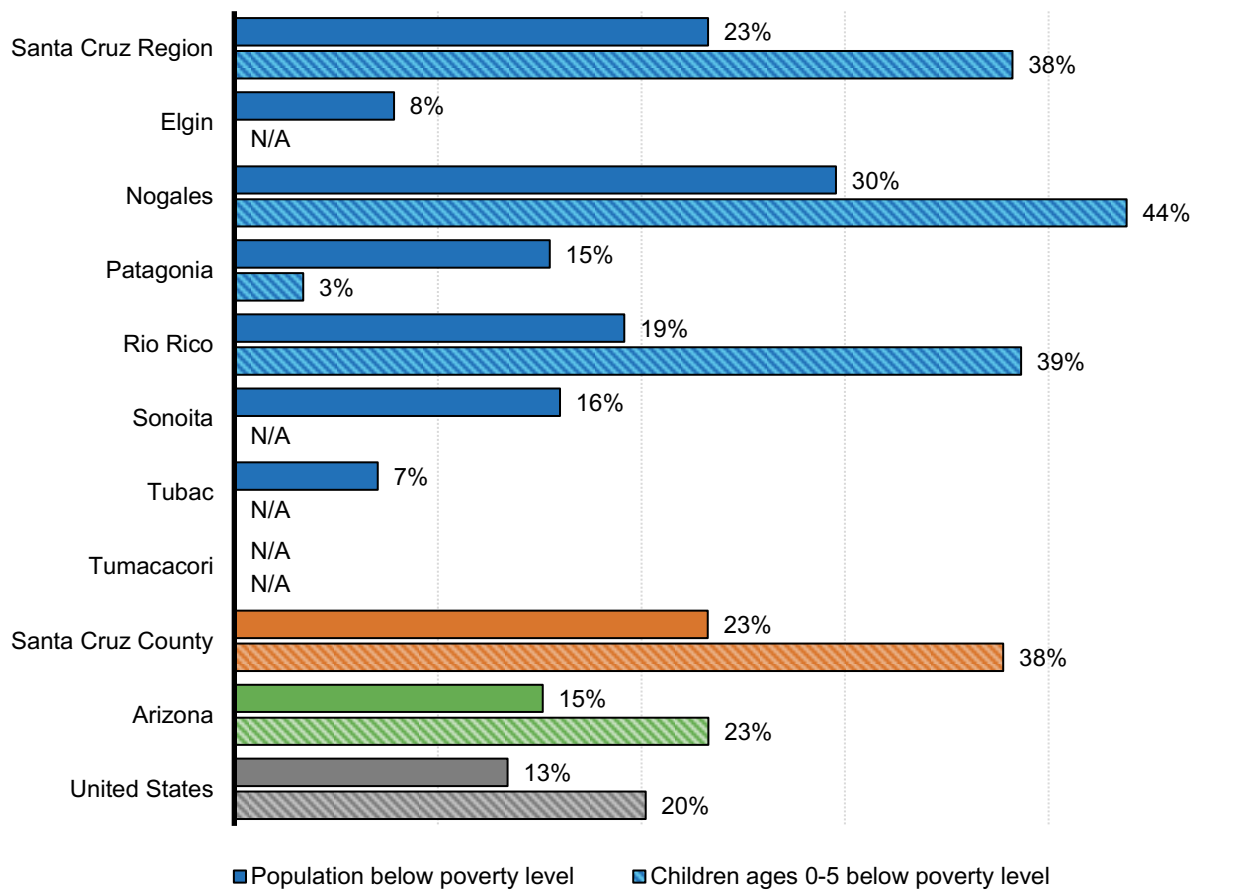


Source: U.S. Census Bureau. (2021). American Community Survey five-year estimates 2015-2019, Table B19126

Note: Half of the families in the population are estimated to have 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.

In the Santa Cruz Region, the rate of poverty in the population is estimated to be 23%, or about one out of every four persons (Figure 12). Among young children, the rate is higher; over one out of every three children under the age of six (38%) live in families with incomes below the poverty level. In both cases, Santa Cruz Region residents are more likely to live in poverty than others statewide (15% overall, 23% of young children). Note that these rates represent averages over the five years spanning 2015 to 2019; data reflecting the COVID-19 pandemic era and its effects on poverty in the region are not yet available.

Figure 12. Rates of poverty for persons of all ages and for children ages birth to 5, 2015-2019 ACS



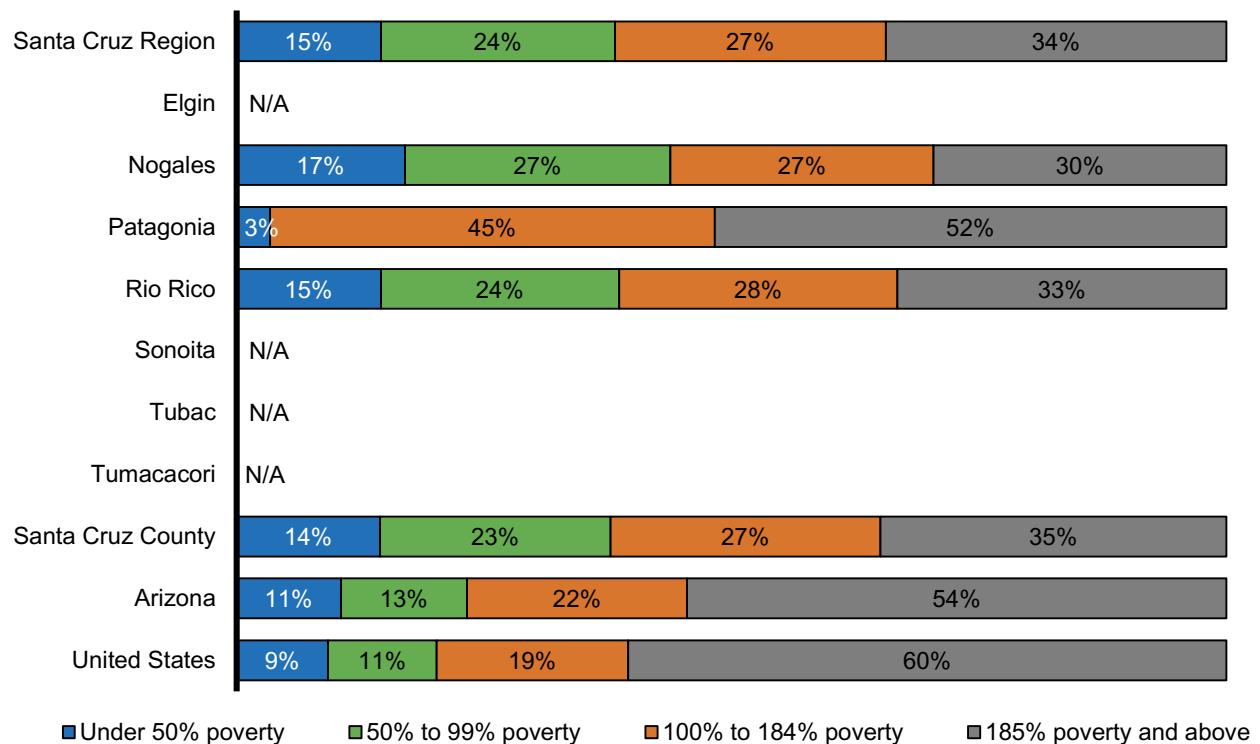
Source: U.S. Census Bureau. (2020). American Community Survey five-year estimates 2015-2019, Table B17001

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. Reliable poverty data for young children were not available for the Elgin, Sonoita, Tubac, or Tumacacori sub-regions due to small sample sizes.

In the Santa Cruz Region, an estimated 15% of children under 6 years old live in a household whose income is less than the half of the federal poverty level (Figure 13). A total of 66% of young children live in households with incomes of under 185% of the poverty level, a commonly used threshold for safety net benefits such as the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) and reduced-price school meals. Rates vary substantially by subregion. Over two-thirds of young children in the Nogales (70%) and Rio Rico (67%) subregions live below 185% of the poverty line. On the other hand, the smaller subregions appear to have a majority of children living above 185% of the poverty level, which is also true for Arizona as a whole (Figure 13).

It is important to note that the number of families and young children who live in poverty according to official definitions like this one 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.<sup>84,85</sup> 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.<sup>86</sup> Although Santa Cruz County has the lowest cost of living in the state, the 2021 self-sufficiency standard in Santa Cruz County for a family comprised of *two parents, one infant and one preschooler* is \$53,954,<sup>87</sup> which is higher than the median income for two-parent families with children in Santa Cruz County - \$51,700. The 2021 self-sufficiency standard in Santa Cruz County for a family comprised of a *single parent and one preschooler* is \$34,415, which is substantially higher than the median incomes of \$22,200 for single-male-headed families and \$27,000 for single-female-headed families. Given that by definition, half of families earn less than the median income, many families in the county are likely to be struggling to fully support themselves.

Figure 13. 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 bar 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. Reliable poverty data for young children were not available for the Tumacacori sub-region due to small sample sizes.

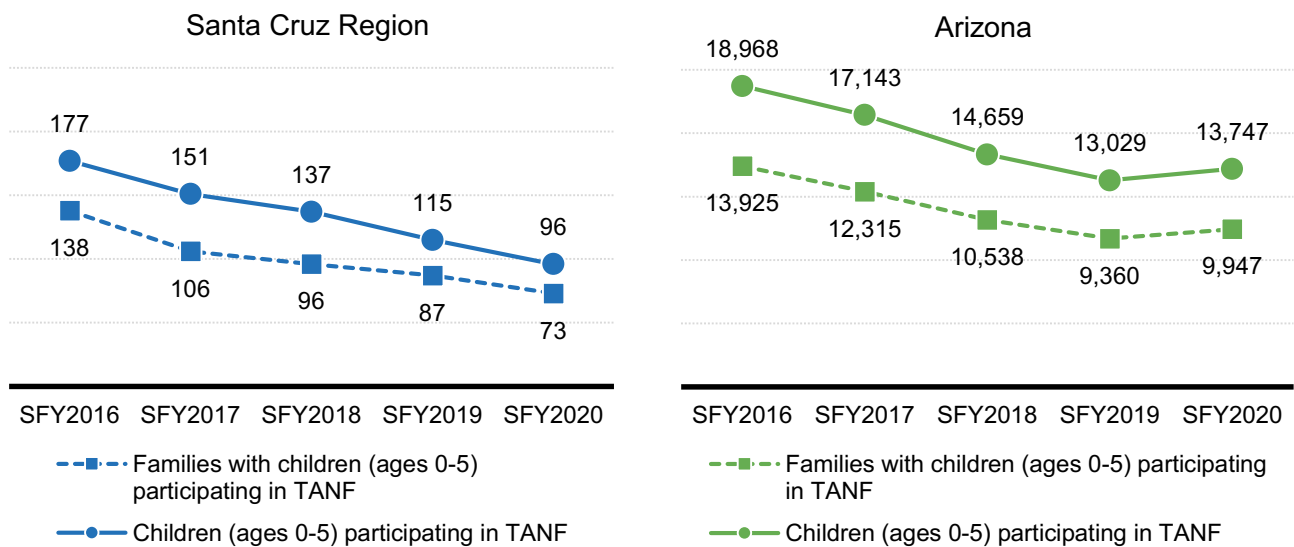
Public assistance programs are one way of counteracting the effects of poverty and providing supports to children and families in need. The Temporary Assistance for Needy Families (TANF) Cash Assistance program provides temporary cash benefits and supportive services to children and families. Eligibility is based on citizenship or qualified resident status, Arizona residency and limits on resources and monthly income. The number of young children supported by TANF and the number of families with children under 6 receiving TANF has been declining in the Santa Cruz Region and state in recent years (Figure 14). Overall, the percentage of young children in the Santa Cruz Region (2%) and state (3%) participating in TANF in SFY2020 remains low.

Moreover, despite changes to the TANF program during the state of emergency order,<sup>xiv,88,89,90</sup> which enabled more families to tap into these emergency funds, there was no uptick in TANF usage in Santa

<sup>xiv</sup> During the state of emergency order for the COVID-19 pandemic, Arizona suspended the TANF work requirement and lifetime eligibility limit of 12 months, which had been the shortest in the nation.

Cruz in state fiscal year 2020 (SFY2020), which is different from Arizona as a whole (Figure 14). Statewide, between February and July 2020, the number of families using TANF rose 35% in Arizona, likely reflecting the immediate, widespread economic hardship induced by the pandemic. It may be that families in Santa Cruz were unaware of the changes to TANF eligibility rules during the pandemic, or hesitant to tap into public benefits. Notably, cash assistance under the TANF program is considered a public benefit that could deem green card or visa applications ineligible on “public charge grounds,”<sup>91</sup> which may deter immigrant families from accessing this support.

Figure 14. Number of children ages birth to 5 and households 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.

To combat 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.<sup>92</sup> 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.<sup>93</sup>

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.<sup>94</sup> Although a subsequent bill allowed for retroactive payments if one parent had an SSN, these had to be claimed

through 2020 tax returns.<sup>95,96</sup> 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.

## **Food Insecurity**

Many families struggle with consistent access to “enough food for an active, healthy life,” a problem known as food insecurity.<sup>97</sup> 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 delays<sup>98</sup> and being overweight or obese.<sup>99</sup> To help reduce food insecurity, there are a variety of federally-funded programs including the Supplemental Nutrition Assistance Program (SNAP),<sup>100</sup> the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC),<sup>101</sup> the National School Lunch Program,<sup>102</sup> the School Breakfast Program,<sup>103</sup> the Summer Food Service Program<sup>104</sup> and the Child and Adult Care Food Program (CACFP).<sup>105</sup> These programs are outline below. An additional food resource in the 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 2 TEFAP sites in the Santa Cruz Region; both are in Nogales.<sup>xv</sup> Notably, only about 58% of food insecure households nationwide report participating in federally funded nutrition assistance programs.<sup>106</sup>

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.

### *SNAP.*

Administered by the Arizona Department of Economic Security and also referred to as “Nutrition Assistance” and “food stamps,” SNAP is designed to combat food insecurity. It has been shown to help reduce hunger and improve access to healthier food.<sup>107</sup> In the years prior to the pandemic, the proportion of families with young children who participate in SNAP has steadily declined across the region and state (Figure 15). This decline likely reflects the continuing economic recovery from the Great Recession.<sup>108</sup> Despite the proportion of young children who receive SNAP benefits declining between 2016 and 2020, in the region, still nearly half (48%) of all children ages birth to 5 in the Santa Cruz Region received SNAP benefits in SFY2020 (Figure 16), underscoring how important this support is for childhood food security.

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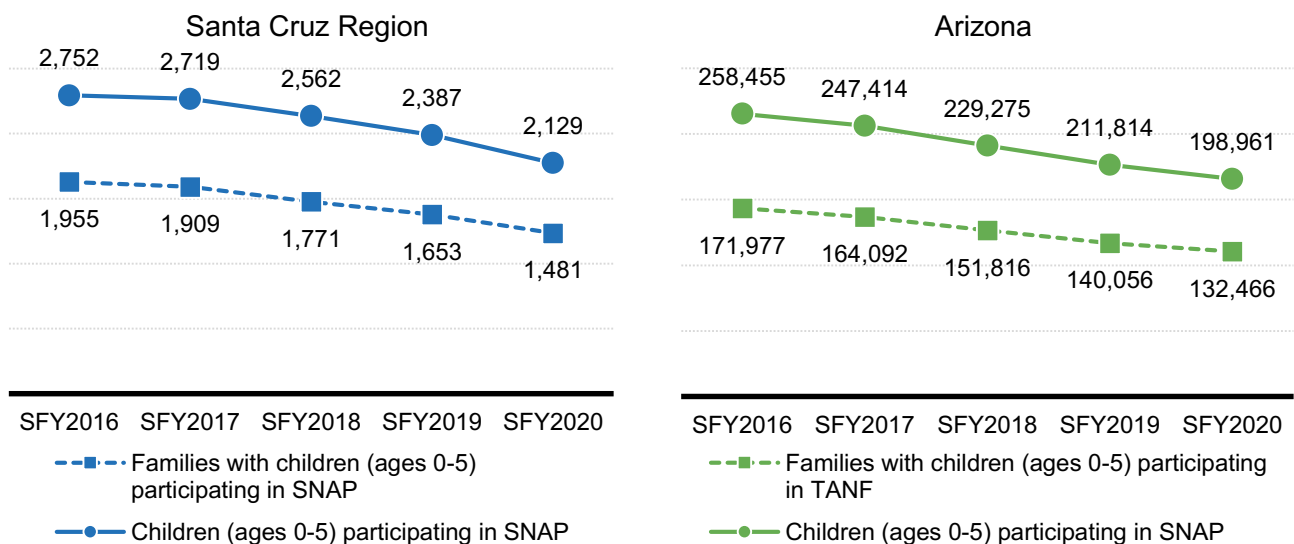
<sup>xv</sup> For more information on TEFAP please visit: <https://des.az.gov/services/basic-needs/food-assistance/emergency-food-assistance>

SNAP benefits support working families whose incomes simply do not provide for all their needs. For low-income working families, the additional funds available to access food from SNAP can help make a meaningful difference. For example, for a three-person family with one person who earns a minimum wage, SNAP benefits can boost take-home income by 10-20 percent.<sup>109</sup> However, even among those accessing SNAP benefits, nearly half of households in poverty still struggle with food security.<sup>110</sup>

During the 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 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.

Despite these efforts to adapt SNAP benefits to the pandemic, in a survey of SNAP users in Arizona, nearly half (46%) of respondents found their benefits insufficient to meet their family’s needs, due to barriers such as issues paying for online groceries and not being able to use a full month’s benefit due to COVID-19 related shopping difficulties, such as stores running out of food items. Individuals with fewer financial resources are less able to stock up on necessities in order to be supplied for a quarantine, and formula stocking shortages were a particular concern for families with young children.<sup>111,112</sup>

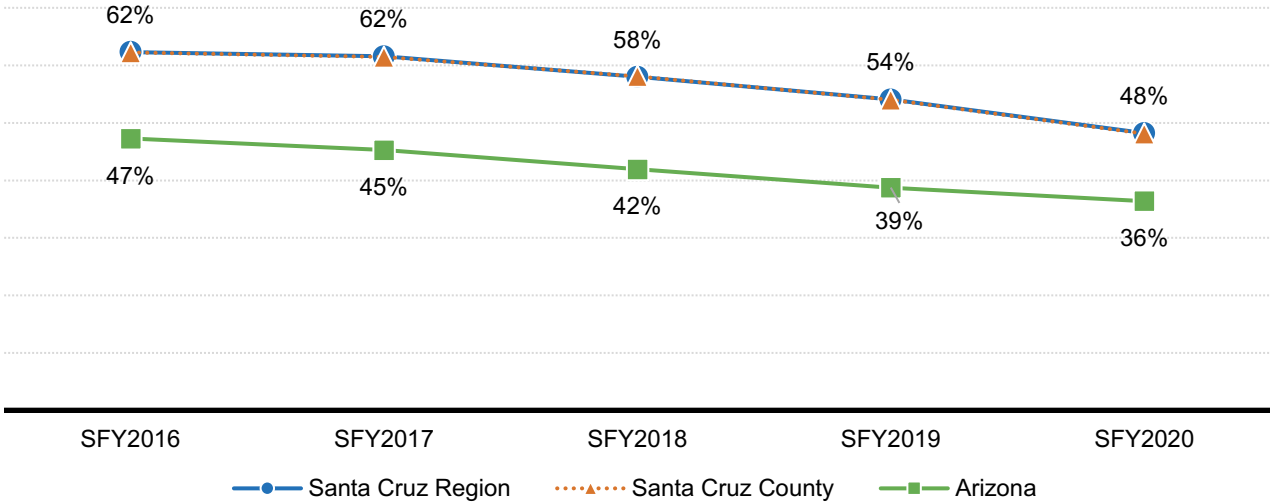
Figure 15. Number of children ages birth to 5 and households with children birth to 5 participating in SNAP, state fiscal years 2016 to 2020



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



Figure 16. Estimated percent of children ages birth to 5 participating in SNAP, state fiscal years 2016 to 2020

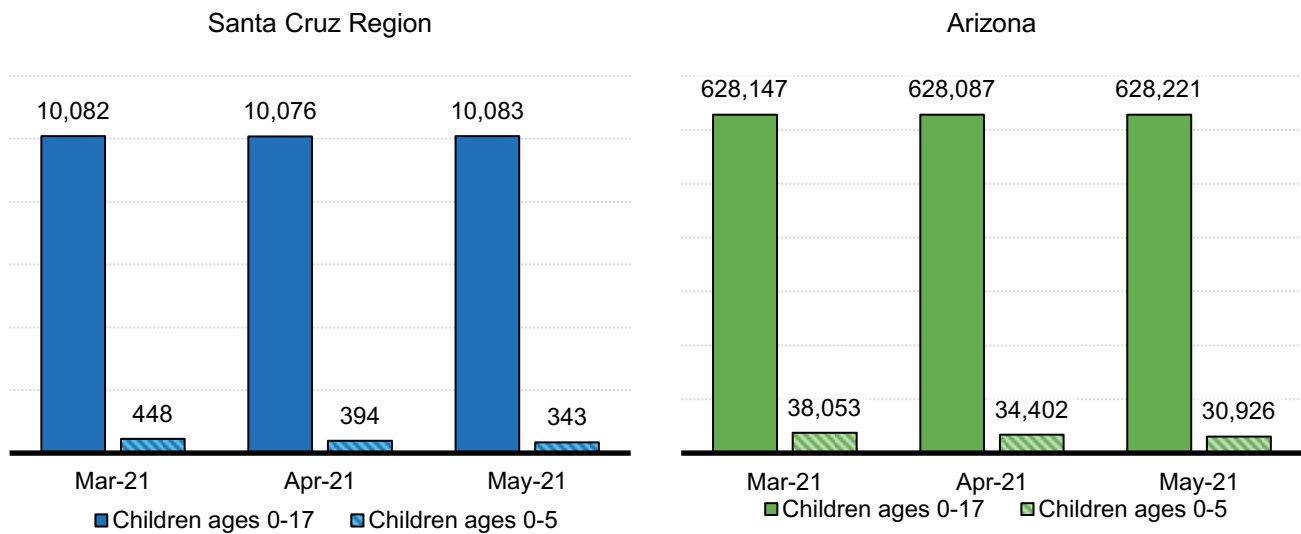


Sources: Arizona Department of Economic Security (2021). [Division of Benefits and Medical Eligibility dataset]. Unpublished data. & U.S. Census Bureau (2010). 2010 Decennial Census, SF 1, Table P14 & P20.  
 Note: The region and county values are identical.

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 vast majority of the children who received P-EBT in the Santa Cruz 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 May 2021, only 343 of the 10,083 children aged birth to 17 receiving P-EBT were under 6 years of age; similar patterns were seen statewide (Figure 17). In contrast, in 2020, over 2,000 children under the age of 6 were participating in SNAP in the region (Figure 15) suggesting that only about a sixth of eligible young children were enrolled in Pandemic EBT. In addition, while receipt of P-EBT remained nearly constant across all children aged birth to 17, receipt for children aged birth to 5 decreased between March and May 2021 in the region and state (Figure 17).

Figure 17. 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.

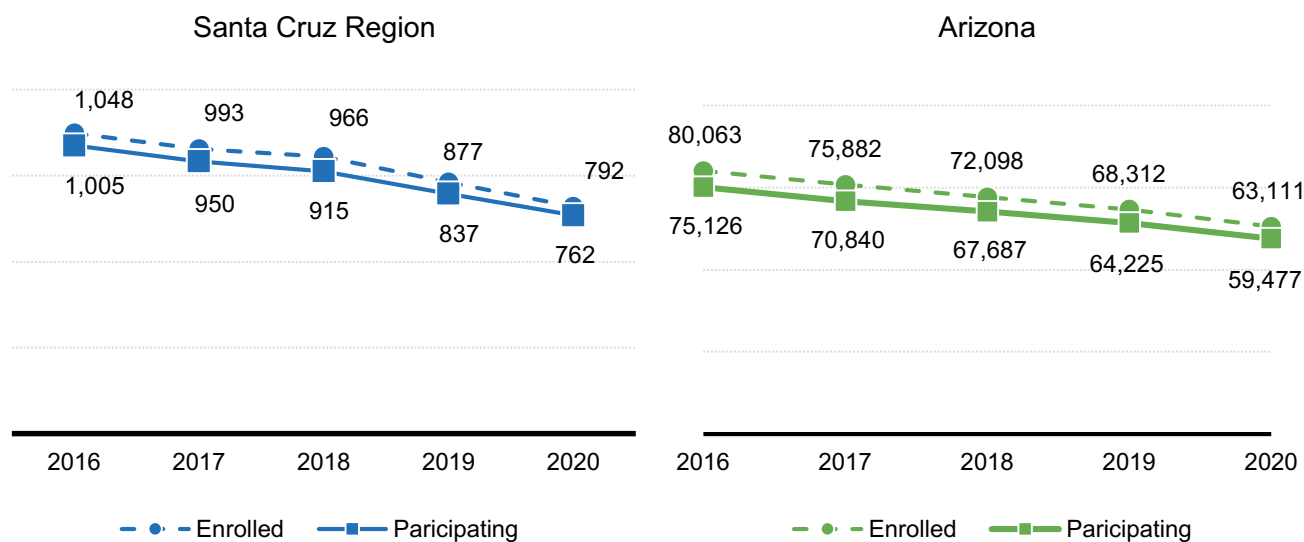
An additional resource to address food insecurity is the Special Supplemental Nutrition Program for Women, Infants and Children (WIC) program administered by the Arizona Department of Health Services. WIC serves pregnant, postpartum and breastfeeding women, as well as infants and young children (under the age of 5) 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.<sup>113</sup> 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.<sup>114</sup>

The number of women enrolled and participating in WIC declined in the region and across the state between 2016 and 2020 (Figure 18). In 2020, there were just under 800 women enrolled in WIC in the region. The number of young children participating in WIC is three times higher than the number of women participating but has also declined in recent years (Figure 19). In spite of these declines, participation rates among enrolled women in the region have remained high, with 96% of women, along with 99% of infants and 94% of children who are enrolled in WIC receiving benefits in 2020 (Figure 20). Changes in WIC policy may have made it easier for enrolled families to participate. The USDA required all WIC programs transition to providing benefits through an electronic benefit transfer (EBT) card by October 1, 2020, and ADHS began transitioning WIC benefits from paper checks to an EBT card called “eWIC” in 2017.<sup>115</sup> National research has shown that providing WIC benefits through an EBT card instead of paper checks is associated with a sustained and significant increase in WIC participation rates for women, infants and children by making WIC benefits easier to access and use.<sup>116</sup>

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.<sup>117</sup>

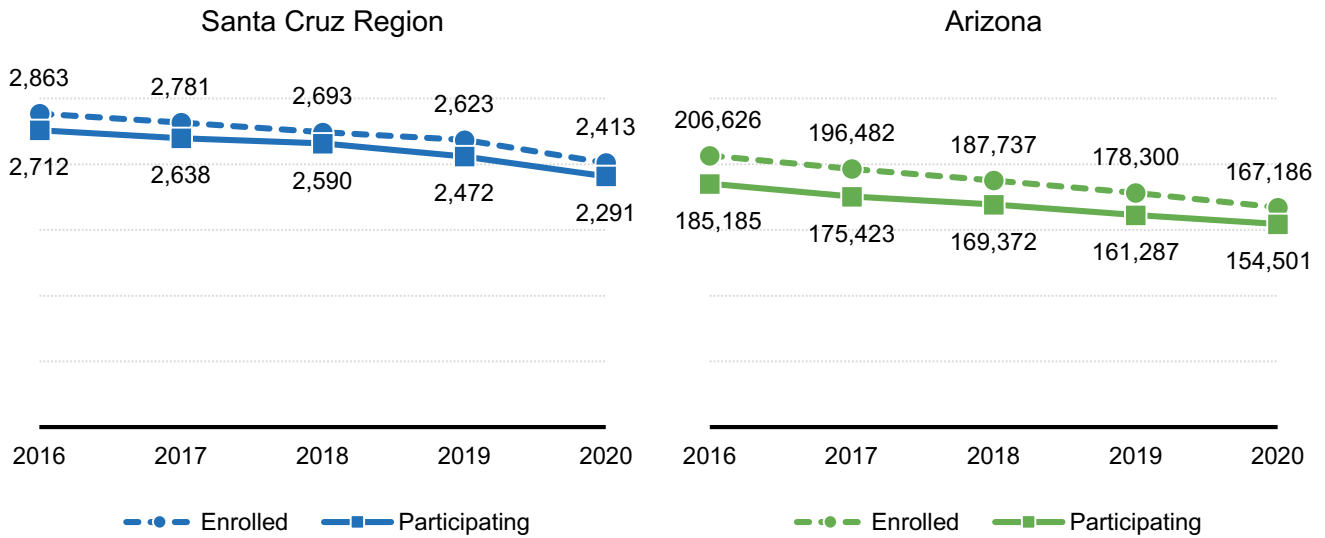
Figure 18. Women enrolled and women participating in WIC, 2016 to 2020



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.

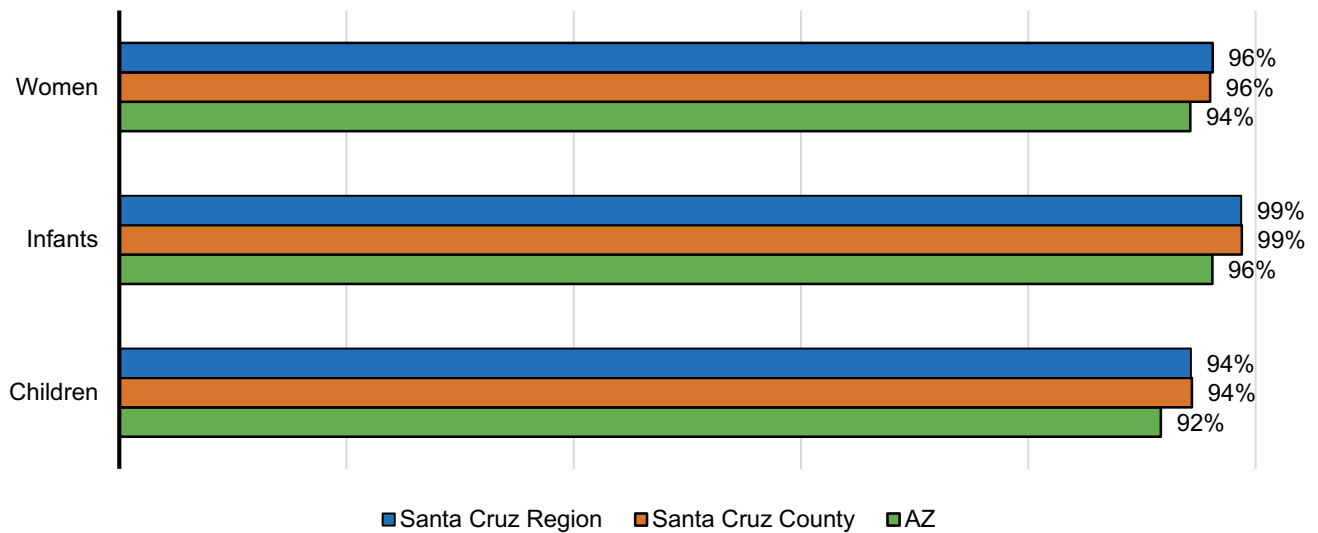
Figure 19. Children ages birth to 4 enrolled and participating in WIC, 2016 to 2020



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 20. WIC participation rates by category, 2020



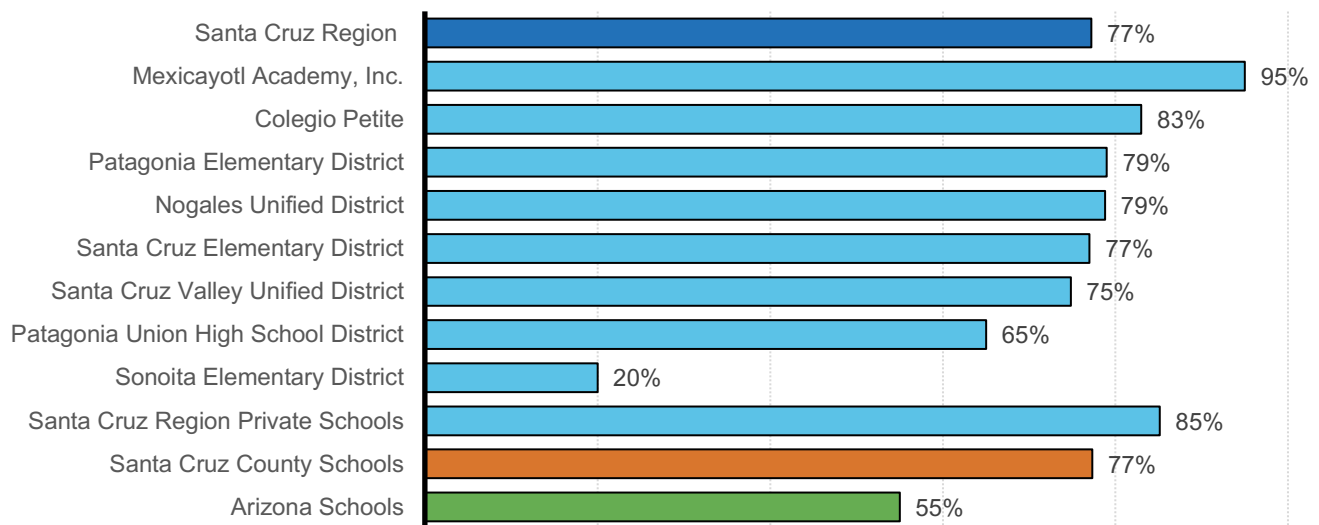
Source: Arizona Department of Health Services (2021). [WIC Dataset]. Unpublished data.

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

Schools play an important role in the nutrition assistance system, especially for children who are 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. Over three-quarters (77%) of students in the Santa Cruz Region were eligible for free or reduced-price lunch in recent years, which is higher than the proportion eligible statewide (55% in 2019-20). Sonoita Elementary District is the only entity where a majority of children aren't eligible (Figure 21). The Mexicayotl Academy has the largest proportion of eligible children (95%). The private schools represented here include Lourdes Catholic School and Sacred Heart School, both in Nogales. District schools must participate in the NSLP, but charter and private schools choose whether to participate. Given the administrative burdens of participation, there are likely private and charter schools that choose to not participate in NSLP even if they have some students who would be eligible.

Figure 21. Free and reduced-price lunch eligibility, 2019-20



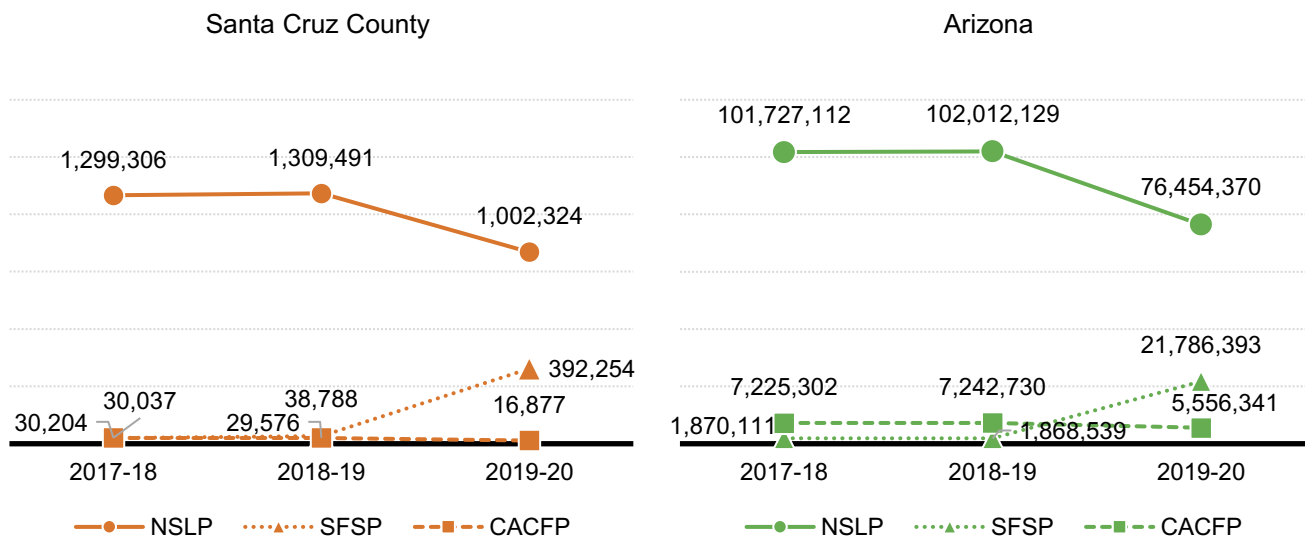
Source: Arizona Department of Education (2021). [Health and Nutrition Dataset]. Custom tabulation of unpublished data by the UArizona CRED Team.

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)<sup>118</sup> 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.<sup>119</sup> Also funded by the USDA, the Summer Food Service Program (SFSP)<sup>120</sup> 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.<sup>121</sup>

Figure 22 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 approved year-round operation of SFSP during the pandemic with no free or reduced-price lunch eligibility criteria applied, allowing more children to receive food during quarantines. These patterns in Santa Cruz County mirror those seen statewide.

Figure 22. 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: <https://www.azed.gov/hns/covid19>

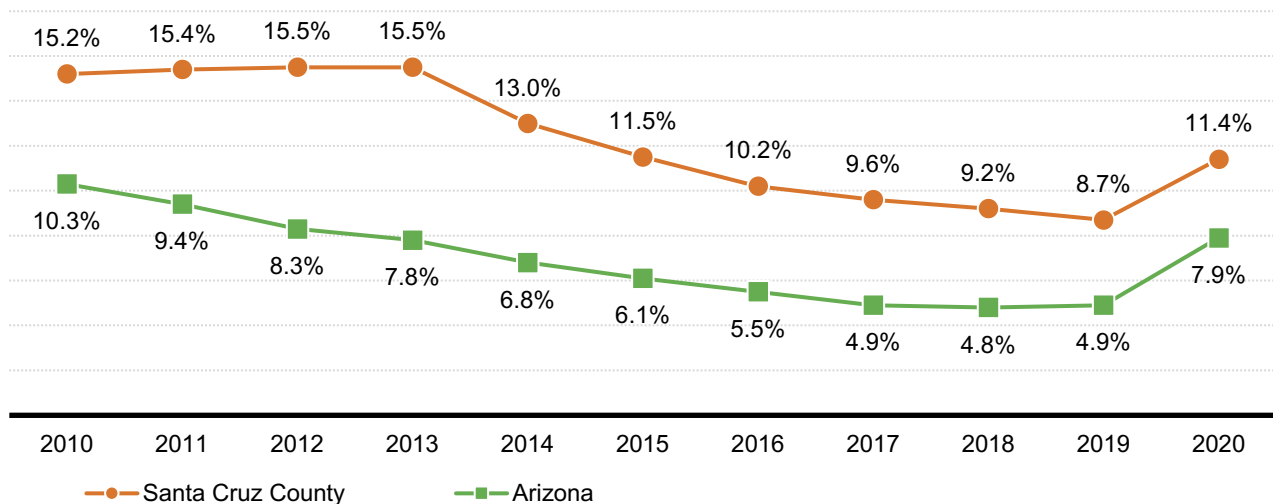
## Employment

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 poor attendance, lower test scores, and higher risk of grade repetition, suspension or expulsion.<sup>122</sup> Unemployment can also put families at greater risk for stress, family conflict and homelessness.<sup>123</sup>

The unemployment rate is the proportion of the total number of people in the civilian labor force who are unemployed and looking for work. 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.<sup>124</sup>

Pre-pandemic, nationwide, unemployment rates had been on a steady decline since the end of the Great Recession in 2009. Santa Cruz County residents have struggled more with unemployment, compared to other Arizonans. One, the county’s recovery from the Great Recession did not appear to begin until 2014, and the unemployment rate in the county has been nearly twice as high as the rate in Arizona as a whole (Figure 23). In the year prior to the pandemic, 2019, the unemployment rate in Santa Cruz County was 8.7% compared to 4.9% statewide (Figure 23). 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 (7.9%) and Santa Cruz County as well (11.4%).

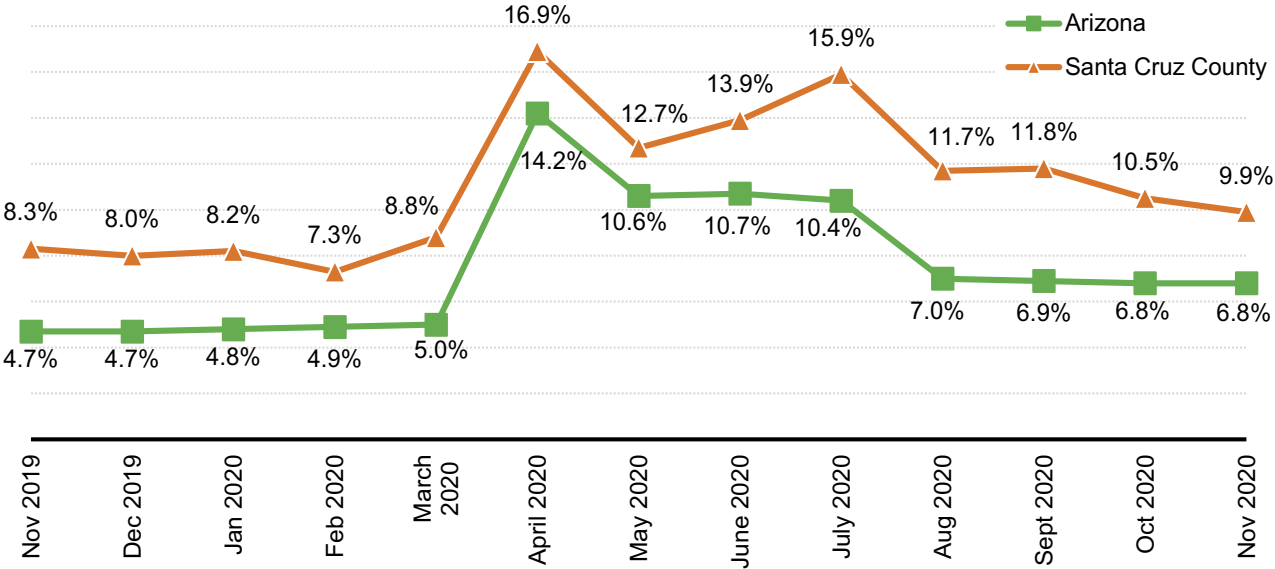
Figure 23. Average annual unemployment rates (not seasonally adjusted), 2010 to 2020



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

The effect of the pandemic on unemployment rates is highlighted in monthly rates shown in Figure 24. Unemployment rates in the county (16.9%) and across the state (14.2%) peaked in April 2020. Santa Cruz County then saw a second spike (15.9%) in unemployment in July 2020. Although unemployment rates decreased in both the county and state overall in the fall of 2020, Santa Cruz County continues to have a higher unemployment rate than the state as a whole.

Figure 24. Monthly unemployment rates (seasonally adjusted), 2019 to 2020



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).



An additional metric of employment is the labor-force participation rate. This rate is the fraction of the population who are in the labor force, whether employed or unemployed. The American Community Survey estimates that the average labor-force participation rate for Arizona over the five years from 2015 to 2019 is 60%, and 23% in the Santa Cruz Region. In other words, over half of the adult population in the Santa Cruz Region is in the labor force (either working or looking for work) and just under half (47%) is not (which includes students, retirees, stay-at-home parents and others).

As with many economic indicators, the labor-force participation rates and unemployment rates vary dramatically across subregions (Table 5). Labor force participation is highest in the Rio Rico (59%) and Nogales (51%) subregions, but these areas also have relatively high rates of unemployment (6% and 10%, respectively). The estimated unemployment rate is highest in Sonoita (12%; Figure 25).

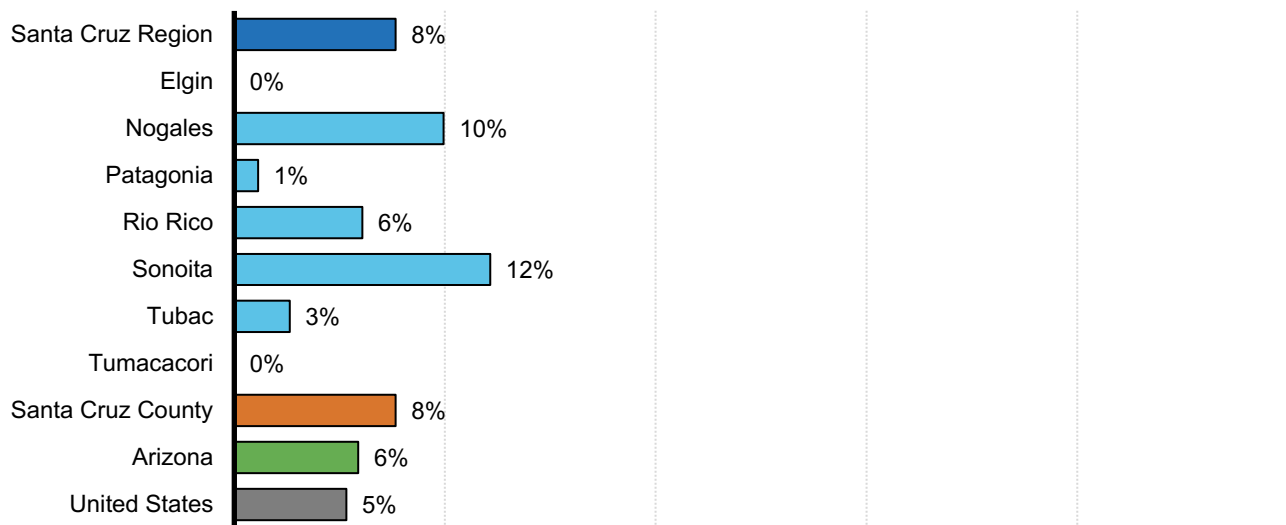
Table 5. Unemployment and labor-force participation for the adult population (ages 16 and older), 2015-2019 ACS

Geography	Estimated working-age population (age 16 and older)	Unemployment rate	Labor-force participation rate	Percent of working-age population in the labor force and employed	Percent of working-age population in the labor force but unemployed	Percent of working-age population not in the labor force
<b>Santa Cruz Region</b>	<b>35,363</b>	<b>8%</b>	<b>53%</b>	<b>49%</b>	<b>4%</b>	<b>47%</b>
Elgin	710	0%	42%	42%	0%	58%
Nogales	16,627	10%	51%	46%	5%	49%
Patagonia	1,024	1%	37%	36%	0.4%	63%
Rio Rico	14,645	6%	59%	56%	4%	41%
Sonoita	917	12%	36%	32%	4%	64%
Tubac	1,266	3%	37%	36%	1%	63%
Tumacacori	174	0%	19%	19%	0%	81%
Santa Cruz County	35,419	8%	53%	49%	4%	47%
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.

Figure 25. Unemployment rates for the adult population (ages 16 and older), 2015-2019 ACS



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). The "unemployment rate" is the fraction of the civilian labor force which are unemployed.

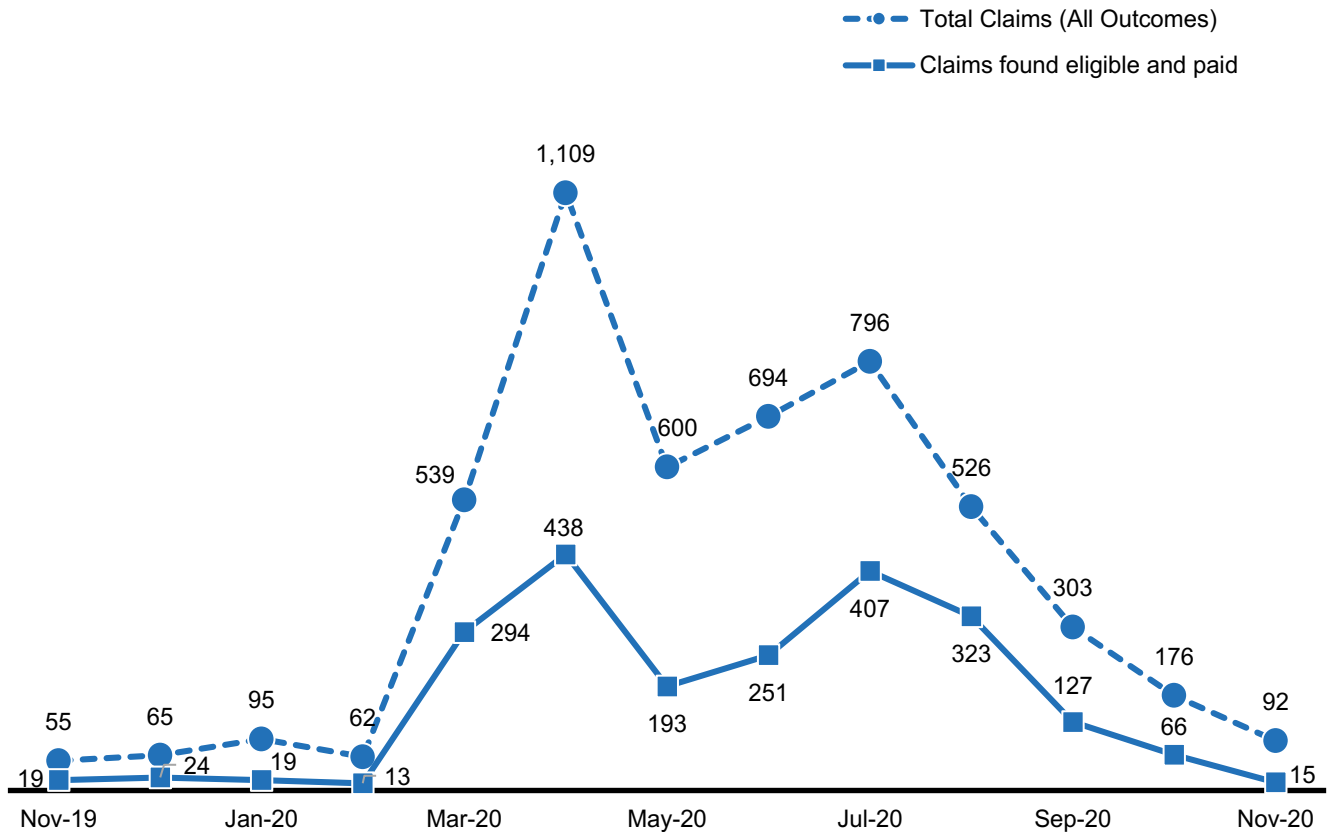
The COVID-19 pandemic shocked the labor market. Statewide, unemployment insurance claims peaked at 262,523 the week of May 16, 2020. This is over twice the number of claims at the peak of the Great Recession in 2009.<sup>125</sup> In March 2020, the Pandemic Unemployment Assistance (PUA) program temporarily 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.<sup>126</sup> 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.<sup>127</sup>

The demand for these programs in the Santa Cruz Region is highlighted in Figure 26. The number of unemployment claims increased nearly 20-fold, from a pre-pandemic low of 62 in February 2020, to a high of 1,109 in April 2020. Claims remained elevated above pre-pandemic levels through November 2020. Notably, even as claims surged during the pandemic, there is a consistent and wide gap between the number of claims filed and the number of claims found eligible and paid. In the region, in the months preceding the pandemic, 20% to 37% of claims were paid, depending on the month. During some months of the pandemic, including March, July, and August 2020, a higher proportion of claims were found valid (55%, 51%, 61%, respectively) and paid, but by the fall, a higher proportion of claims were denied, with only 16% of claims paid in November 2020 (Table 6). This suggests there may be

widespread economic challenges in families with lost incomes who requested but did not receive unemployment benefits.

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.<sup>128,129</sup>

Figure 26. Monthly unemployment claims in the Santa Cruz Region, Nov 2019 to Nov 2020



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

Table 6. Monthly unemployment insurance claims, Nov 2019 to Nov 2020

Geography	Santa Cruz Region			Arizona		
	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	55	19	35%	7,787	2,275	29%
Dec 2019	65	24	37%	7,906	2,312	29%
Jan 2020	95	19	20%	9,892	2,712	27%
Feb 2020	62	13	21%	7,185	1,919	27%
Mar 2020	539	294	55%	110,129	66,655	61%
Apr 2020	1,109	438	39%	186,217	93,529	50%
May 2020	600	193	32%	98,786	33,481	34%
Jun 2020	694	251	36%	94,720	30,465	32%
July 2020	796	407	51%	78,744	26,081	33%
Aug 2020	526	323	61%	46,360	16,028	35%
Sept 2020	303	127	42%	39,660	9,464	24%
Oct 2020	176	66	38%	30,032	7,807	26%
Nov 2020	92	15	16%	15,835	1,812	11%

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

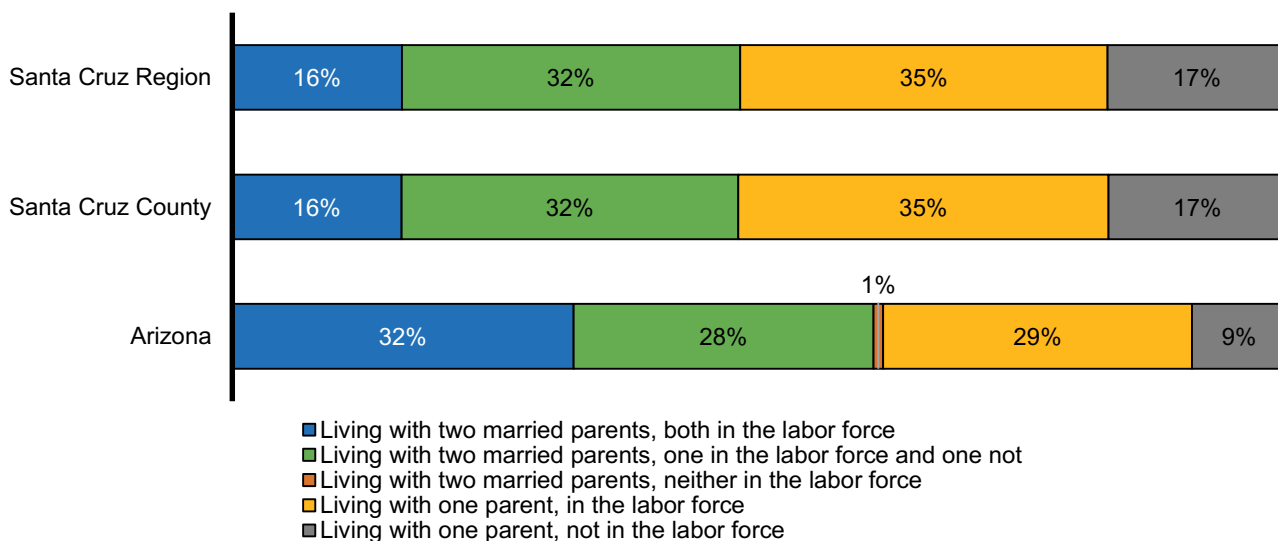
About half (51%) of young children in the Santa Cruz Region live in households where all present parents are in the workforce (that is, are employed, or actively seeking paying work). This includes children in households with a single-parent in the labor force (35%) and two-parent households where both parents work (16%) (Figure 27). In other words, the majority of Santa Cruz Region households with young children 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.<sup>130</sup> 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.<sup>131</sup> 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.

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. This suggests that access to child care is essential for parents and other caregivers in Arizona to access employment opportunities.

During the pandemic (through September 2021), DES offered the Essential Workers’ Scholarship Program which offered essential workers child care scholarships that could be used for children through age 12.<sup>132</sup> Arizona’s Back To Work Program, announced in May 2021, can provide eligible parents returning to work between June and September 2021 with funding assistance for three months of child care.

Figure 27. Parents of children ages birth to 5 who are or are not in the labor force, 2015-2019 ACS



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

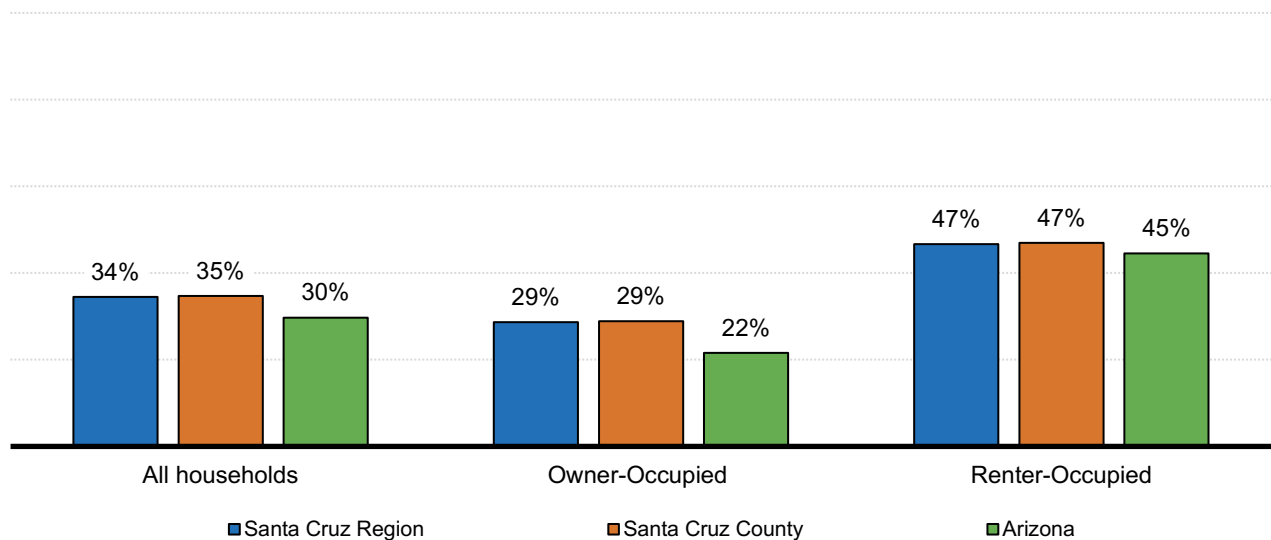
Note: The labor force is all persons who are working (employed) or looking for work (unemployed). Persons not in the labor force are mostly students, stay-at-home parents, retirees, and institutionalized people. The term "parent" here includes stepparents. The five percentages in each row should sum 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.<sup>133</sup>

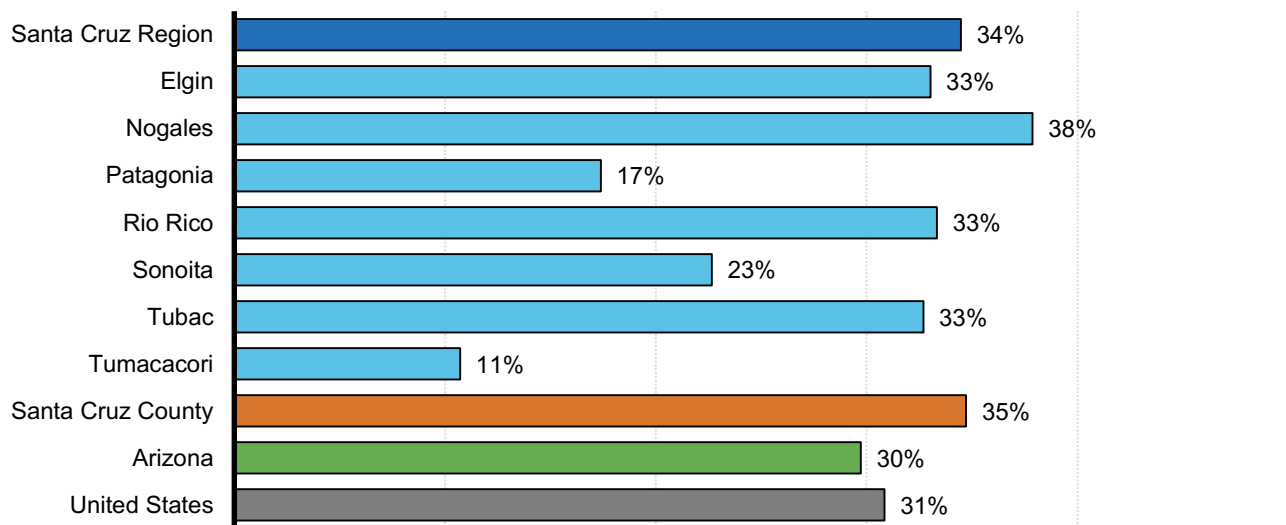
The most recent data available on housing affordability predates the COVID-19 pandemic. Traditionally, housing has been deemed affordable if it costs less than 30% of annual household income.<sup>134</sup> According to ACS five-year estimates, of the estimated 15,818 households in the Santa Cruz Region, over a third (34%) are housing-cost burdened, i.e., spending more than 30% of their household income on housing. Those renting are even more likely to be housing-cost burdened, with 47% of renter-occupied housing units in the region costing more than 30% of household income compared to 29% of homeowners (Figure 28). Looking across subregions, housing stock Tumacacori, Patagonia and Sonoita is relatively more affordable, with only 11%, 17%, and 23% of households paying more than 30% of their income (Figure 29). 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.<sup>135,136</sup>

Figure 28. 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 29. Percent of households with housing costs of 30 percent or more of household income, 2015-2019 ACS



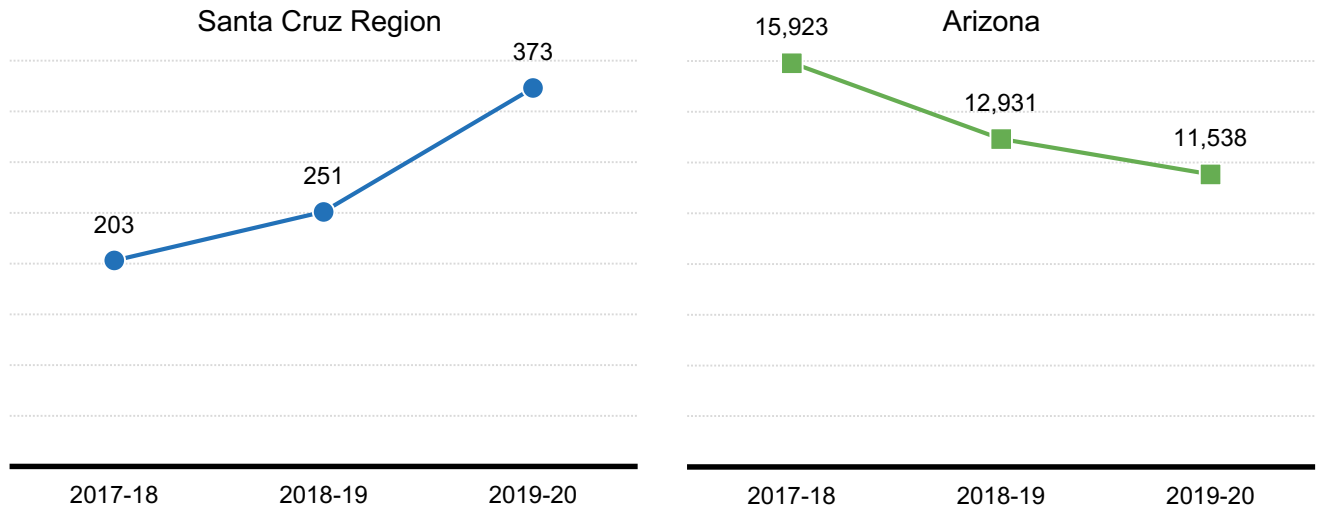
Source: U.S. Census Bureau. (2021). American Community Survey five-year estimates 2015-2019, Table B25106

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. The number of students experiencing homelessness in Santa Cruz Region school has risen considerably in recent years (Figure 30). This is stark contrast to declining numbers statewide. Just before the pandemic, in October 2019, the Santa Cruz Region had 373 students experiencing homelessness enrolled in public and charter schools.<sup>137</sup> 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. Although data on this for 2020 and 2021 are not yet available, the economic upheaval brought on by the pandemic could raise that number.

In an effort to mitigate housing disruptions, 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.<sup>138</sup> The American Rescue Plan provided additional assistance for both homeowners and renters with the aim of preventing eviction and foreclosure.<sup>139</sup> 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.<sup>140</sup> 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.<sup>141</sup>

Figure 30. Number of students experiencing homelessness (all grades) enrolled in public and charter schools, 2017-18 to 2019-20



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>



Table 7. Students experiencing homelessness (all grades) enrolled in public and charter schools, 2017-18 to 2019-20

Geography	Number of students experiencing homelessness			Percent of students who were experiencing homelessness		
	2017-18	2018-19	2019-20	2017-18	2018-19	2019-20
<b>Santa Cruz Region</b>	<b>203</b>	<b>251</b>	<b>373</b>	<b>2%</b>	<b>3%</b>	<b>4%</b>
Nogales Unified District	DS	231	263	DS	4%	5%
Santa Cruz Valley Unified District	74	DS	93	1%	DS	3%
Santa Cruz Elementary District	103	DS	DS	3%	DS	DS
Patagonia Elementary District	DS	DS	DS	DS	DS	DS
Sonoita Elementary District	DS	DS	DS	DS	DS	DS
Patagonia Union High School District	DS	DS	DS	DS	DS	DS
Mexicayotl Academy, Inc.	DS	DS	DS	DS	DS	DS
Santa Cruz Valley Opportunities in Education, Inc.	DS	DS	DS	DS	DS	DS
Patagonia Montessori Elementary School	DS	DS	DS	DS	DS	DS
Pinnacle Education-Kino, Inc.	DS	DS	DS	DS	DS	DS
Educational Options Foundation	DS	DS	DS	DS	DS	DS
Colegio Petite	12	DS	13	9%	DS	6%
Santa Cruz County schools	189	248	360	2%	4%	4%
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>

### 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 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

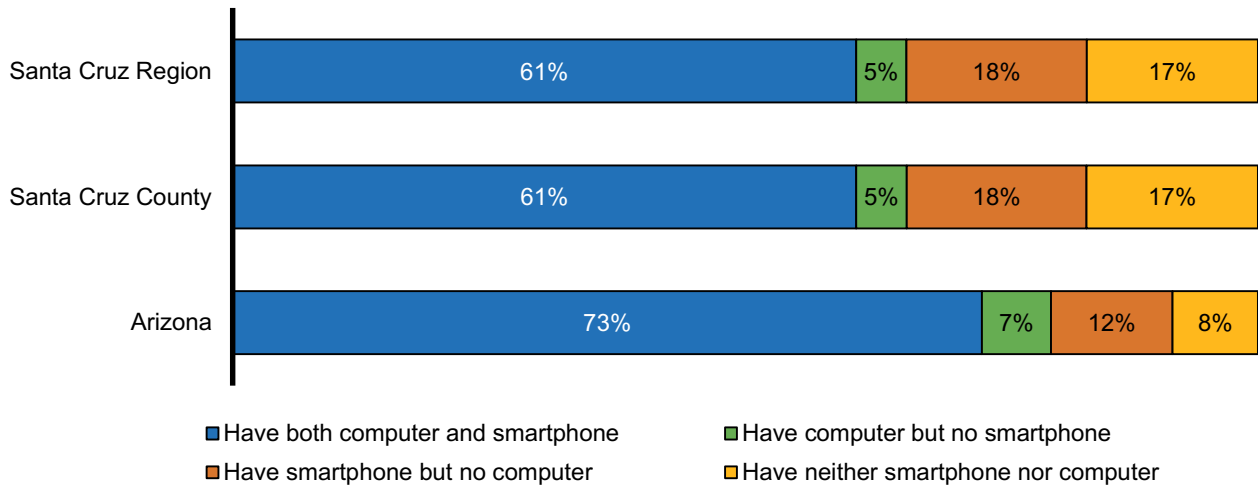
sensitive parenting topics including bonding, separation anxiety and managing parenting challenges.<sup>142</sup> The term “digital divide” refers to disparities in communication and information technologies,<sup>143</sup> and the lack of sustained access to information and communication technologies in low-income communities is associated with economic and social inequality.<sup>144</sup> 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).<sup>145</sup>

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.<sup>146</sup>

A majority (61%) of the households in the Santa Cruz Region have both a computer and a smartphone in their home, but 17% have neither a smartphone nor a computer at home. An estimated 18% have a smartphone but no computer, and the remaining 5% have a computer but no smartphone (Figure 31). While these rates are similar to those seen across the state and nation, certain communities have a much different landscape of access. Nearly 1 in 4 households (24%) in the Nogales subregion lacks a smartphone or a computer, suggesting they have no access to the internet while at home (Figure 32). This is also true for 24% of households in Tumacacori subregion, although the small population there can mean a less accurate estimate from ACS data. Thus, despite trends toward online communications and social media announcements, it is important for state and local agencies to recognize that there are disparities in internet access and ensure that families can be reached and can obtain information about services through other means, including telephone or mail. Similarly, making sure that web-based materials are readily accessible on mobile devices will also help ensure access across the region.

Furthermore, in many rural areas, even those families with internet access and a computer may find connectivity frustratingly slow or inconsistent.<sup>147</sup> 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.<sup>148,149,150,151</sup> 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.

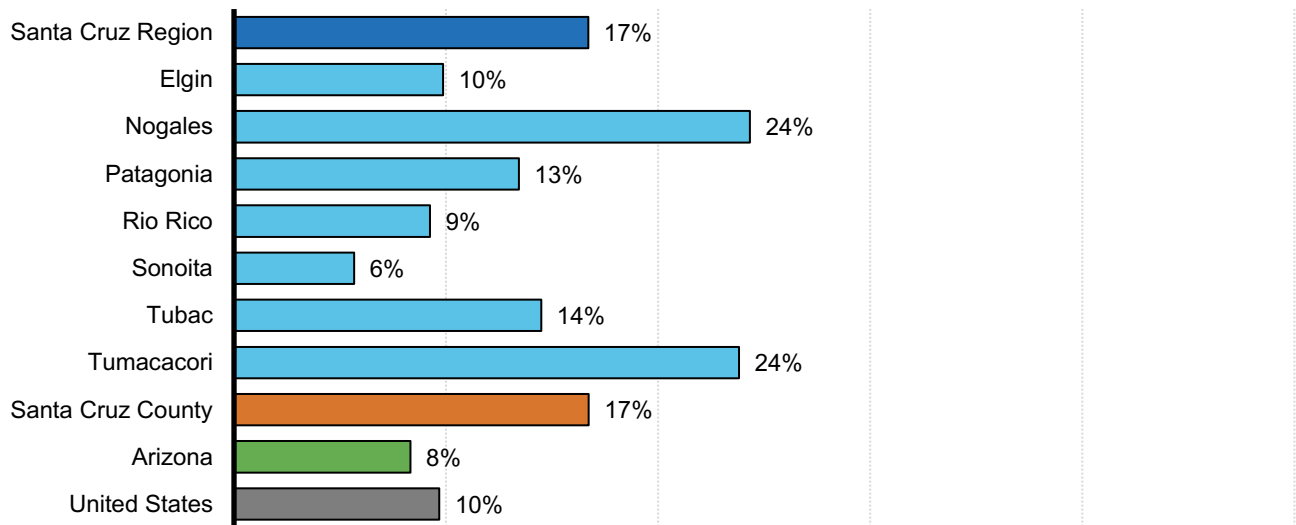
Figure 31. Households with and without computers and smartphones, 2015-2019 ACS



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

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

Figure 32. Percent of household with neither a smartphone nor a computer, 2015-2019 ACS

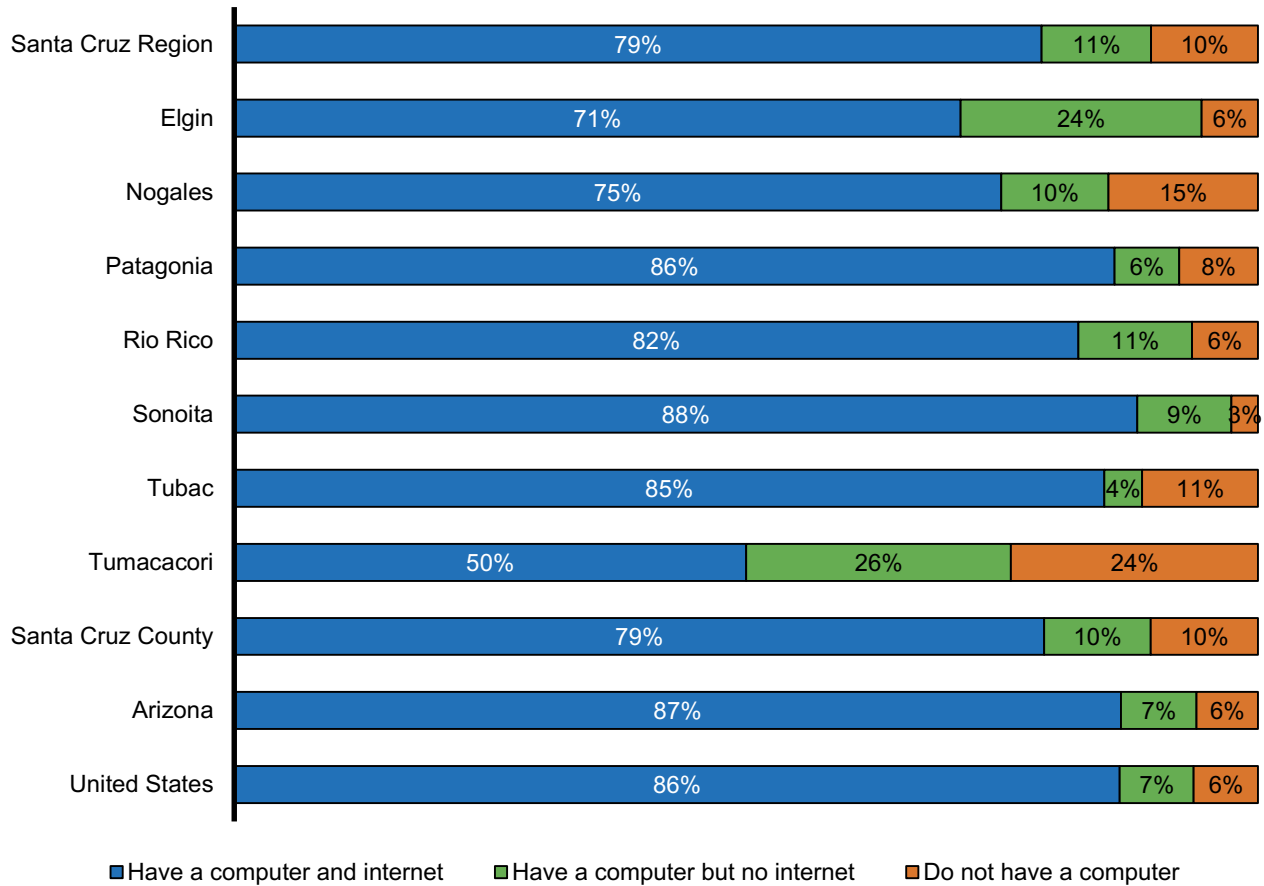


Source: U.S. Census Bureau. (2021). American Community Survey five-year estimates 2015-2019, Table B28010

Note: In this figure, "computer" includes both desktops and laptops; "smartphone" includes tablets and other portable wireless devices.

Looking at individuals rather than households, even though the majority of Santa Cruz Region residents have access to a computer connected to the internet (79%), Santa Cruz is lagging behind the state (87%) and nation (86%) in terms of internet access (Figure 33). About 11% of households in the region have a computer without internet and about 10% have no computer.

Figure 33. 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 bar should sum to 100% but may not because of rounding.

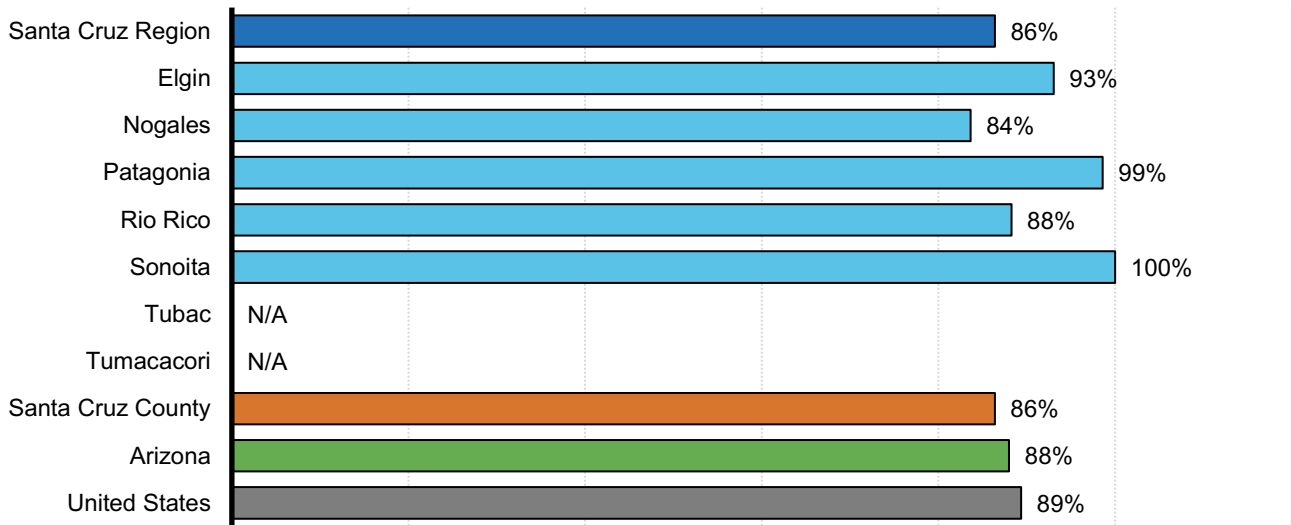
Computers and internet access are increasingly important for children in completing school assignments and projects, particularly during the later years of primary education and beyond.<sup>152</sup> Statewide, 88% of children birth to 17 have access to a computer and internet at home; this is true for 86% of children in the Santa Cruz Region (Figure 34).

As schools closed and transitioned to remote learning during the COVID-19 pandemic, 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, including 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.<sup>153</sup> 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.<sup>154</sup> Even as schools return to in-person learning, investments in closing the digital divide remain essential to ensuring equity in outcomes for all students.

Figure 34. 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: Reliable data were not available for the Tubac and Tumacacori sub-regions due to small sample sizes.

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.<sup>155</sup> 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.<sup>156,157</sup> 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.<sup>158,159</sup> 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.<sup>160</sup> Participation in high-quality early education has been linked to better school performance in elementary and high school.<sup>161</sup> 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.<sup>162</sup> 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

In the 2019-20 school year a reported 2,945 children were enrolled in preschool through third grade in Santa Cruz Region public and charter schools, including 99 preschool students (Table 8). About half of the students in grade K-3 in the region are in the Nogales Unified School District.

Table 8. Preschool to 3rd grade students enrolled in public and charter schools, 2019-20

Geography	Preschool	Kindergarten	1st Grade	2nd Grade	3rd Grade
<b>Santa Cruz Region schools</b>	<b>99</b>	<b>689</b>	<b>691</b>	<b>716</b>	<b>750</b>
Nogales Unified District	14	359	345	371	428
Santa Cruz Valley Unified District	81	213	221	227	207
Santa Cruz Elementary District	N/A	16	21	19	21
Patagonia Elementary District	DS	18	DS	DS	DS
Sonoita Elementary District	N/A	DS	16	15	DS
Mexicayotl Academy, Inc.	N/A	24	20	23	18
Santa Cruz Valley Opportunities in Education, Inc.	N/A	13	DS	DS	14
Patagonia Montessori Elementary School	N/A	DS	DS	DS	DS
Colegio Petite	N/A	36	48	42	36
Santa Cruz County schools	97	674	661	679	720
Arizona schools	21,867	81,606	82,386	82,305	83,003

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

Note: Santa Cruz Valley Opportunities in Education, Inc. (Montessori de Santa Cruz) has a preschool classroom, but enrollment in this program is not captured in the ADE enrollment system.

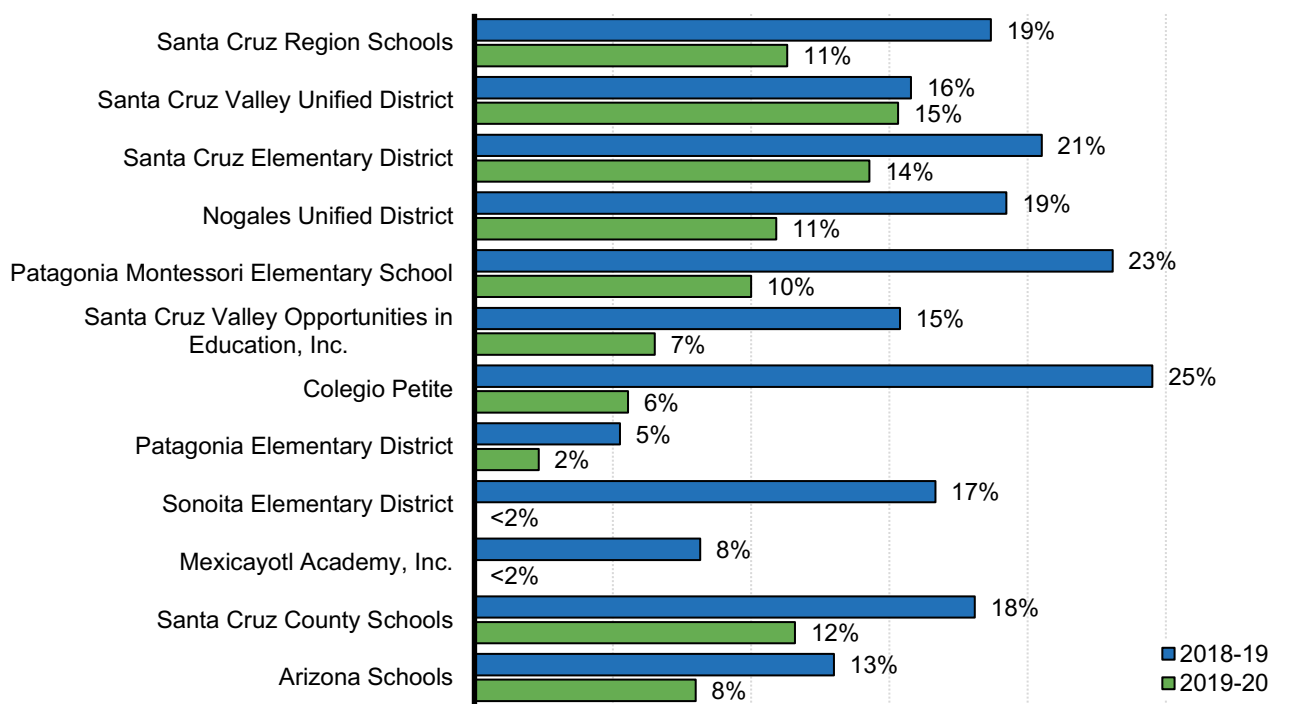
School attendance and academic engagement early in life can significantly impact the direction of a child’s schooling. Chronic absenteeism is defined as missing more than 10% of the school days within a school year (including for reasons of chronic illness), and it affects even the youngest children, with more than 10% of U.S. kindergarteners and first graders considered chronically absent.<sup>163</sup> Nearly one in 5 (19%) children enrolled in kindergarten through third grade in the Santa Cruz Region in the 2018-19 school year were considered chronically absent. This was higher than the percentage seen across the state (13%), with substantial variability across school districts (Figure 35). Rates were highest at the Colegio Petite school (25%) and lowest at the Patagonia Elementary District (5%). 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.<sup>164</sup> Chronic absenteeism also negatively impacts the development of key social-emotional skills, including self-management, self-efficacy and social awareness.<sup>165</sup> Consistent school attendance is particularly important for children from economically disadvantaged backgrounds, the group of children most at risk for chronic absenteeism.<sup>166,167</sup>

In the 2019-20 school year, chronic absences dropped everywhere – all subregions, the region overall, and the state overall (Figure 35). The sharp drops in chronic absenteeism are likely driven by changes due to the pandemic including changes in how attendance was tracked by schools in the spring of 2020.

Figure 35. 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.

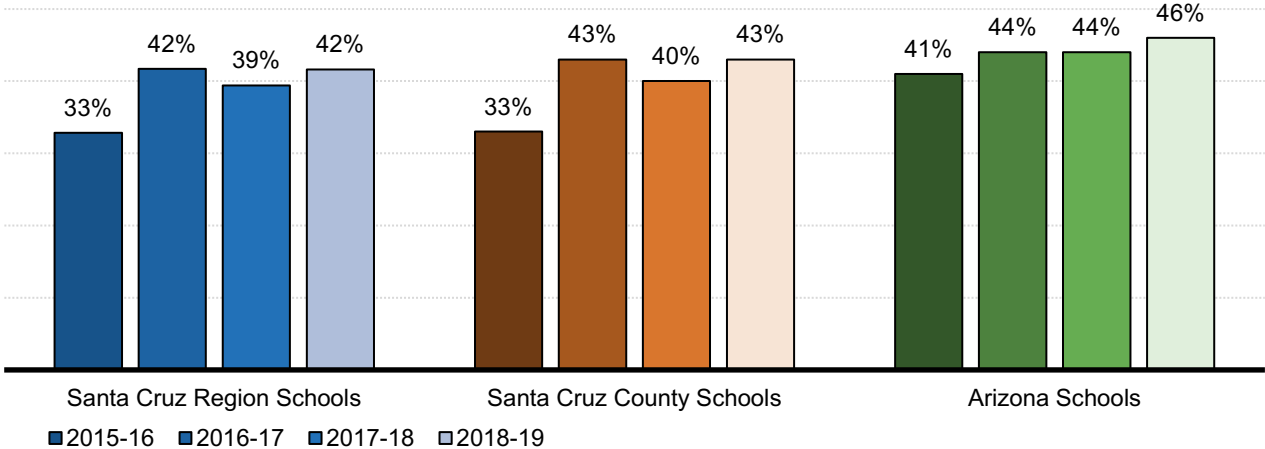
### Achievement on Standardized Testing

A child’s third grade reading skills have been identified as a critical indicator of future academic success.<sup>168</sup> 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.<sup>169</sup> 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.<sup>170</sup>

As of 2019, the 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).<sup>xvi,171,172</sup> In March 2020, Arizona cancelled statewide AzM2 testing and other statewide assessments for the 2019-20 school year.<sup>173</sup> Thus, the most recent data available is from the 2018-19 school year, when the AzMERIT assessment was administered. Only 42% of Santa Cruz Region students achieved passing scores on the third grade ELA assessment, which was lower than across Arizona as a whole (46%) (Figure 36). 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. Variation also was present across schools and districts in the region, with the Mexicayotl Academy having a large majority of their third graders passing the ELA assessment (79%) (Figure 37). On the other hand, Colegio Petite had a mere 5% of students with passing scores.

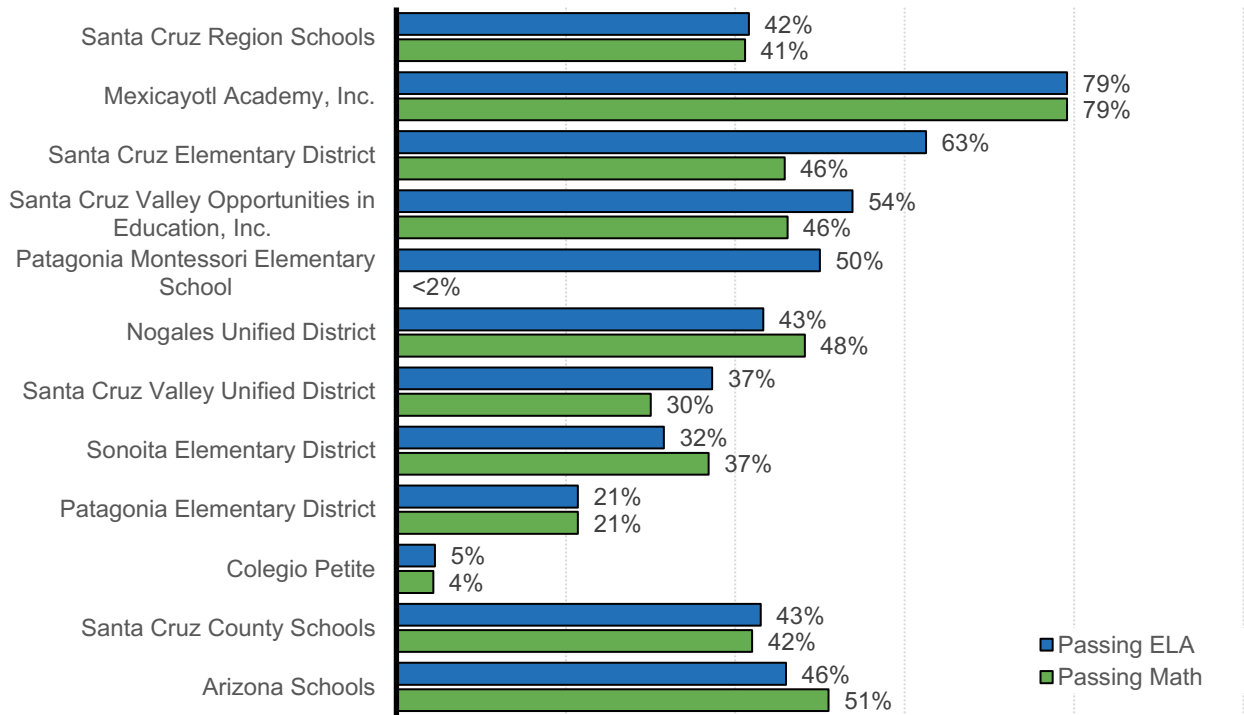
Figure 36. Trends in passing rates for AzMERIT 3rd grade English Language Arts, 2015-16 to 2018-19



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

<sup>xvi</sup> AzMERIT was renamed to AzM2 during the 2019-2020 school year. In 2022, AzM2 will be replaced by AASA (Arizona’s Academic Standards Assessment).

Figure 37. Passing rates for 3rd grade AzMERIT assessments, 2018-19

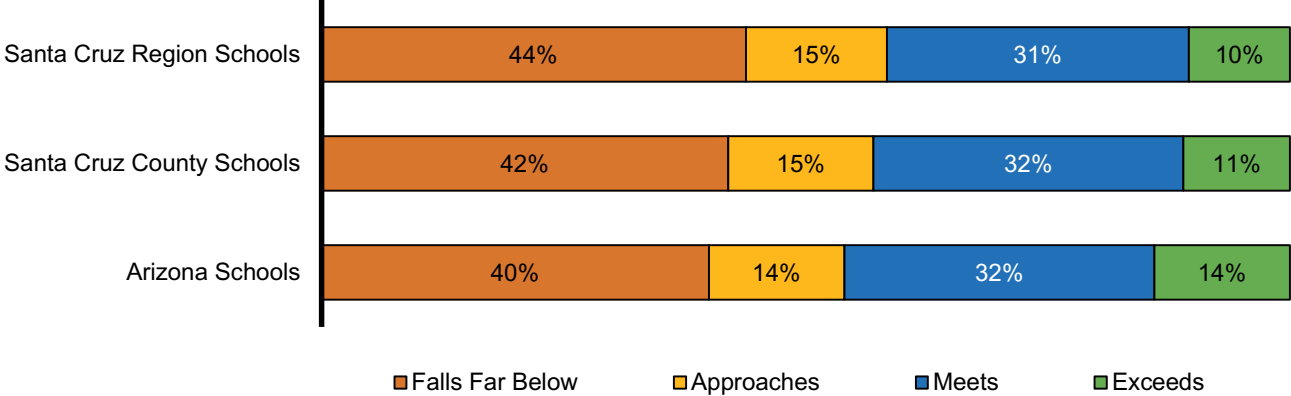


Source: Arizona Department of Education (2021). [AzMERIT Dataset]. Custom tabulation of unpublished data by the UArizona CRED Team.

In 2010, the Arizona legislature, recognizing the importance of early identification and targeted intervention for struggling readers, enacted *Move on When Reading* legislation. 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.<sup>174</sup> 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. Students who tested in the far below range can also be promoted to 4<sup>th</sup> grade if they complete summer school and then demonstrate reading at a proficient level.

In the Santa Cruz Region in 2018-19, 44% of 3<sup>rd</sup> grade students scored in the “falls far below” range on the ELA assessment, suggesting that many may struggle with basic literacy (Figure 38). It is important to note that the ELA scores in the table below include a writing and language section in addition to the reading score, but only the reading score is used for the *Move on When Reading* policy. Thus, some of those testing in the “falls far below” category here may still surpass the reading cut score. While the data suggest high rates of students who struggle with English and language arts skills, only a tiny fraction (less than 1%) of students statewide are typically retained because of the *Move on When Reading* policy.<sup>175</sup>

Figure 38. AzMERIT assessment results: 3rd grade English Language Arts, 2018-19

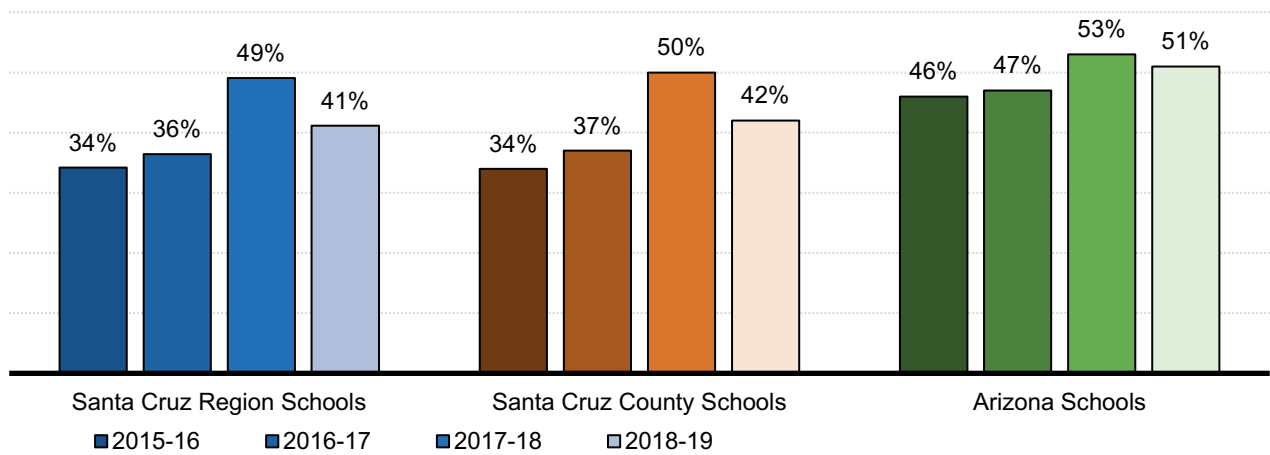


Source: Arizona Department of Education (2021). [AzMERIT Dataset]. Custom tabulation of unpublished data by the UArizona CRED Team.

Passing rates on the AzMERIT math test were similar to those for the ELA portion, with 41% of Santa Cruz Region third grade students achieving passing scores in the 2018-19 school year. This is, however, still lower than the passing rate across the state (51%) (Figure 39; additional details available in the appendix). The passing rate for math jumped 13 percentage points between a low of 34% in 2015-16 to a high of 49% in 2017-18 (Figure 39). Again, variation in passing rates was present across districts in the region (Figure 37). Mexicayotl Academy again has the largest proportion of third graders passing the ELA assessment (79%), and Colegio Petite again has the lowest (4%).

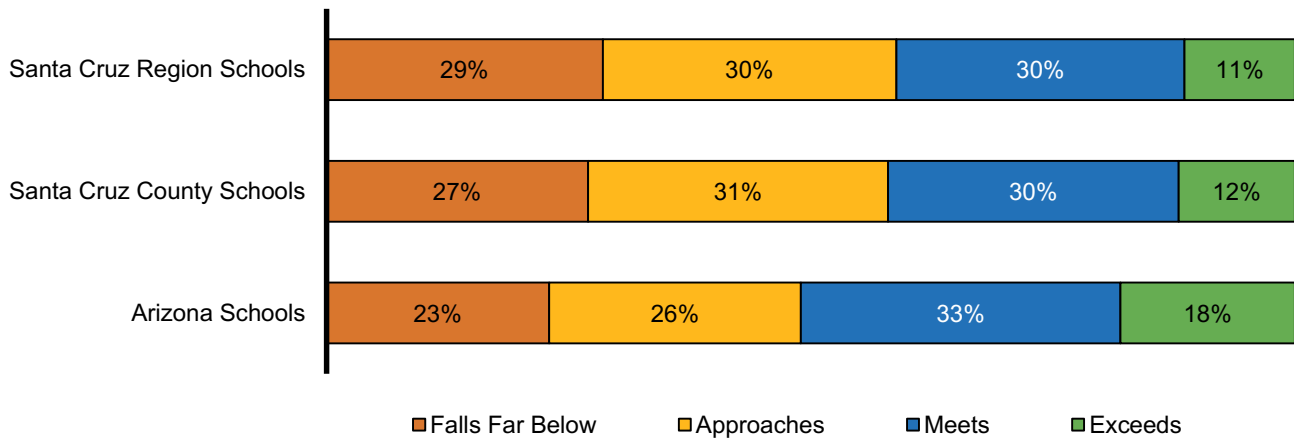
Furthermore, while passing rates were similar, students tended to fare better on the math portion, with only 29% of third grade students in the region scoring in the “falls far below” range, compared to the 44% for the ELA portion (Figure 40; Figure 38).

Figure 39. Trends in passing rates for AzMERIT 3rd grade Math, 2015-16 to 2018-19



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

Figure 40. AzMERIT assessment results: 3rd Grade Math, 2018-19



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

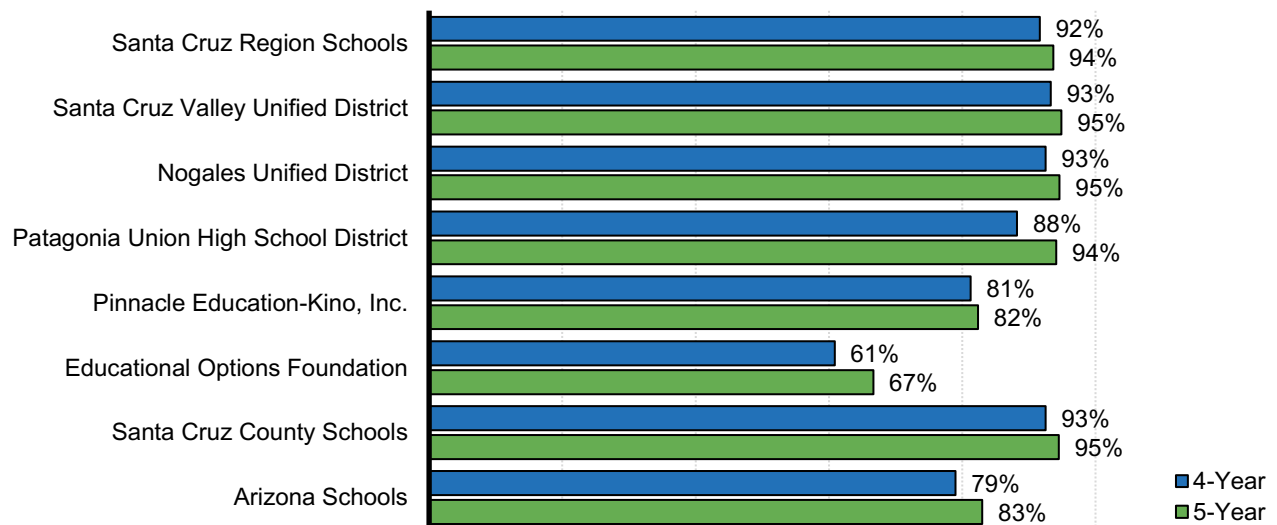
## Graduation Rates and Adult Educational Attainment

Understanding current high school graduation and dropout rates in an area 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.<sup>176,177</sup> Increasingly, a high school education is necessary for employment in the US, with nearly two-thirds of all jobs in 2020 requiring more than a high school education.<sup>178</sup> Adults with lower educational attainment also tended to experience more 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.<sup>179</sup>

The four and five-year graduation rates in the Santa Cruz Region in 2019 (92% and 94%) were substantially higher than across Arizona as whole (79% and 83%). Rates were similar across the three major school districts (Figure 41). Rates are lower for the Educational Options Foundation schools (including EdOptions Preparatory Academy in Nogales and the Rio Rico Learning Center) which are alternative hybrid (web-based and in-person) schools that tend to serve students who may have struggled in traditional school settings.

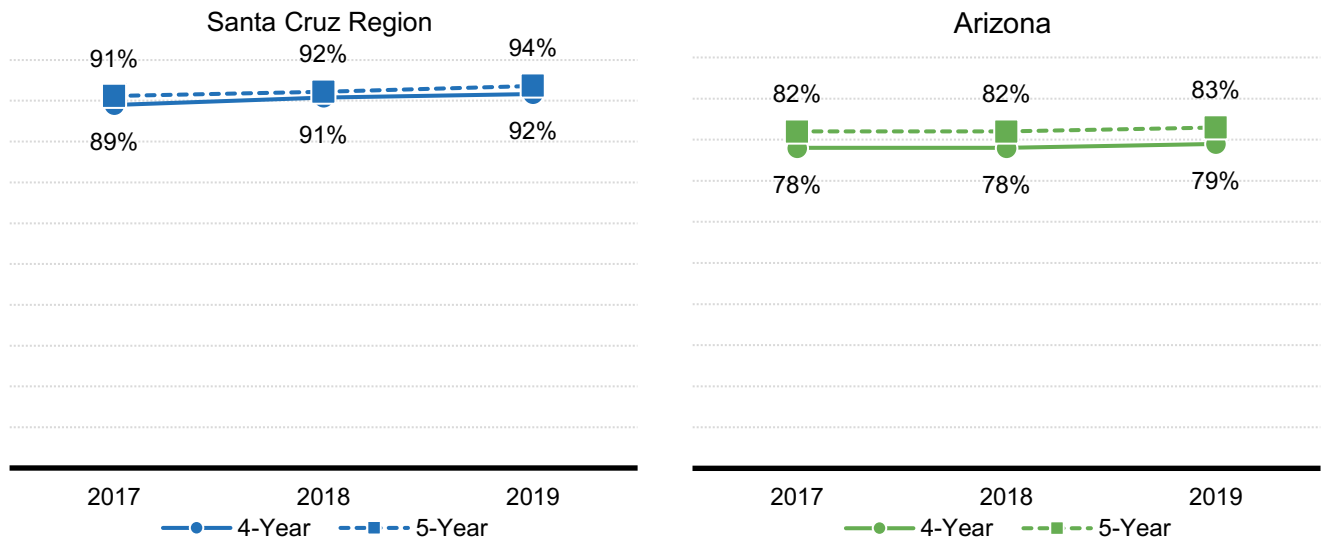
In the region, overall graduation rates increased slightly between 2017 and 2019 in the region (Figure 42).

Figure 41. 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

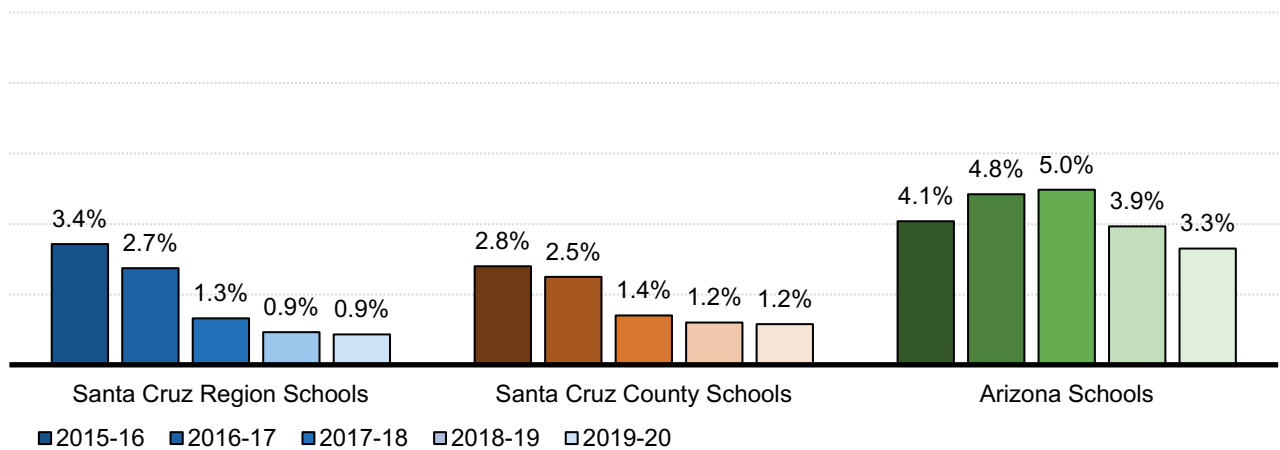
Figure 42. Trends in 4-year and 5-year graduation rates, 2017 to 2019



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

As graduation rates have climbed, dropout rates have declined in recent years. Specifically, in the Santa Cruz Region they dropped from a recent high of 3.4% in 2015-16 to a low of 0.9% in 2019-20. Schools statewide have not seen the same consistent decline in rates in recent years (Figure 43).

Figure 43. Trends in 7th to 12th grade dropout rates, 2015-16 to 2019-20

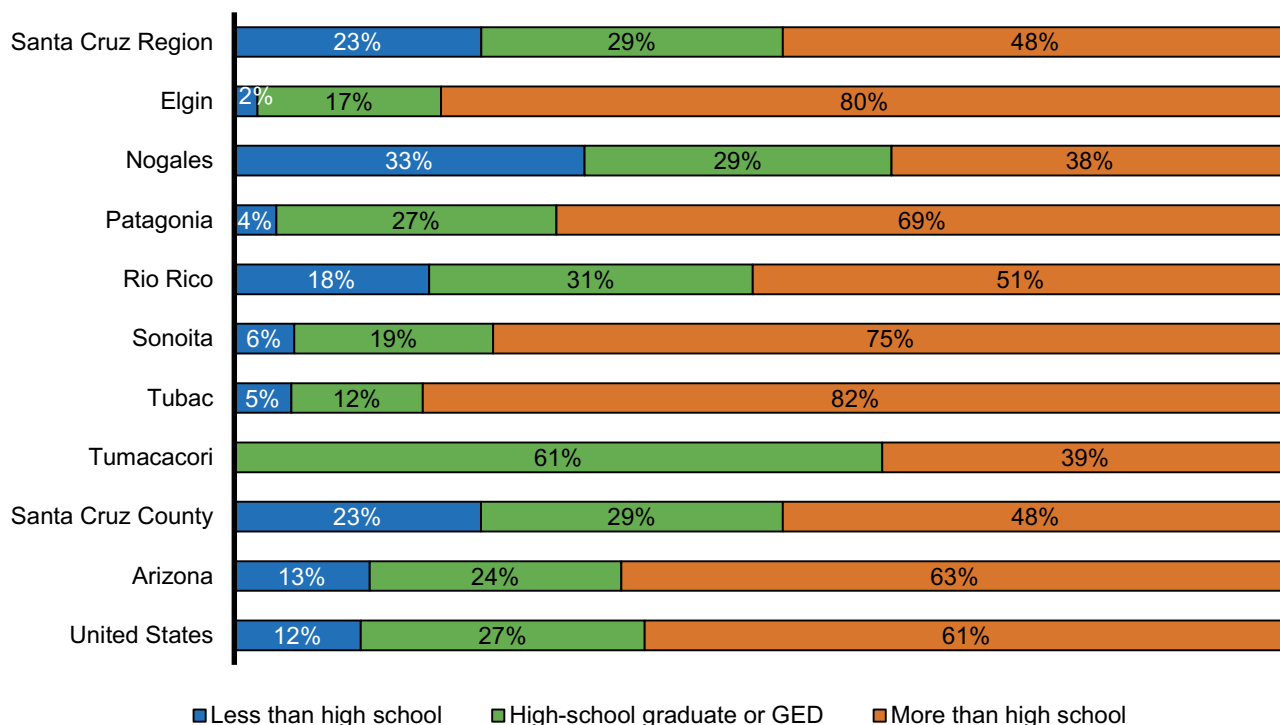


Source: Arizona Department of Education (2021). [Graduation Dataset]. Custom tabulation of unpublished data by the UArizona CRED Team

According to the American Community Survey, nearly a quarter (23%) of Santa Cruz Region adults (ages 25 and older) have less than a high-school education. An additional 29% have a high-school diploma or a GED equivalent. The remaining 48% have at least some education beyond the high-school level. The Santa Cruz Region as a whole has a lower proportion (77%) of adults aged 25 and older with at least a high school education than the state (87%) or nation (88%) (Figure 44). In the Nogales subregion, one-third of adults (33%) did not complete high school. This area may especially 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.<sup>180,181</sup> Providing resources and programming to support parental and youth education can help grow the human capital of both.<sup>182,183</sup>

The greatest proportions of more highly educated residents, i.e., those with some post-secondary education, reside in the Tubac (82%), Elgin (80%) and Sonoita (75%) subregions.

Figure 44. Level of education for the adult population (ages 25 and older)



Source: U.S. Census Bureau. (2021). American Community Survey five-year estimates 2015-2019, Table B15002

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

Parental educational attainment has been shown to influence child educational outcomes.<sup>184</sup> Education is also a key mechanism for upward mobility; parents with higher educational levels typically secure



higher incomes to support their families.<sup>185</sup> Higher maternal education, in particular, is linked to both cognitive and socio-emotional development as well as general health in young children.<sup>186</sup> Fewer than half of babies in the region in 2018 (47%) and 2019 (45%) were born to mothers who had more than a high-school education, less than across the state (57% both years) (Table 9). Compared to Arizona overall, the Santa Cruz region also has a higher proportion of babies were born to mothers who lack a high-school education (22% in 2018, 26% in 2019).

Table 9. Level of education for the mothers of babies born in 2018 and 2019

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
<b>Santa Cruz Region</b>	<b>2018</b>	<b>606</b>	<b>22%</b>	<b>30%</b>	<b>47%</b>
	<b>2019</b>	<b>596</b>	<b>26%</b>	<b>29%</b>	<b>45%</b>
Santa Cruz County	2018	617	22%	30%	47%
	2019	599	26%	29%	45%
Arizona	2018	80,539	17%	26%	57%
	2019	79,183	16%	27%	57%

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.<sup>187,188</sup> 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;<sup>189</sup> those disparities that persist until kindergarten tend to predict later academic problems.<sup>190</sup>

Quality early care and education can positively influence children's overall development.<sup>191,192</sup> This is particularly true for children in poverty.<sup>193</sup> 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.<sup>194</sup> 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.<sup>195, 196</sup> Children with special health care needs may particularly benefit from high quality teacher-child interactions in classrooms,<sup>197,198</sup> as they are more likely to experience more adverse childhood experiences than typically developing children,<sup>199</sup> and are at an increased risk for maltreatment and neglect.<sup>200,201</sup>

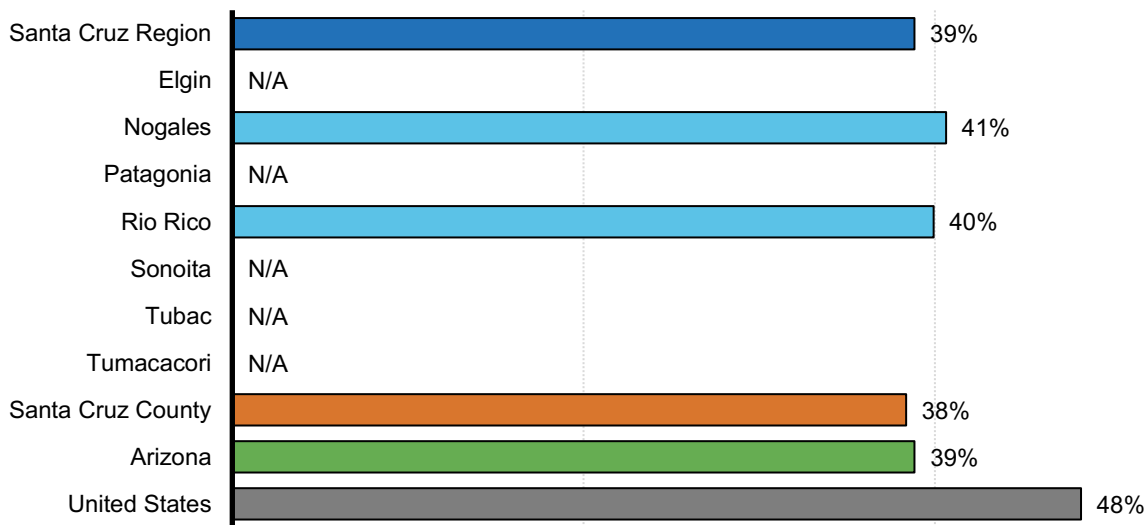
A statewide early care and education system that is accessible, affordable and high-quality is essential for the social and economic health of Arizona. Not only does access to affordable, quality child care make a positive difference for children's health and development, it also allows parents to keep steady jobs and support their families.<sup>202</sup> Investment in programs for young children leads to increased education and employment, reduced crime and better overall health.<sup>203,204</sup> 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.<sup>205</sup>

## What the Data Tell Us

### Early Care and Education Enrollment

American Community Survey (ACS) data indicate that about 39% of the region’s estimated 1,449 3- and 4-year-old children<sup>xvii</sup> in the Santa Cruz Region were enrolled in some type of school, such as nursery school, preschool or kindergarten. This is the same across Arizona overall (39%), but lower than the proportion across the nation, where nearly half of children (48%) are in preschool (Figure 45).

Figure 45. School enrollment for children ages 3 to 4, 2015-2019 ACS



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. Due to sample size limitations, data can only be reliably reported for the Nogales and Rio Rico sub-regions.

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.<sup>206,207,208,209</sup> 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.<sup>210</sup> This highlights the need for additional, high-quality, affordable early care and education providers in Arizona.

<sup>xvii</sup> The ACS does not report enrollment estimates for children younger than 3.

In the Santa Cruz Region, there are 46 registered child care providers approved to serve up to 997 children (Table 10).<sup>xviii</sup> A majority of child care providers in the region are small, home-based providers (n=30). While these providers are the most common, due to their low capacities, they account for only 14% of overall capacity in the region. The 9 child care centers contribute a substantial number of slots (425). Additionally, there are 6 Head Start programs with capacity to serve 306 children. While there is only 1 public school (Calabasas) with a preschool program, it can serve 102 children. There are no registered child care providers within Elgin, Sonoita or Tumacacori subregions. Approximate provider locations are illustrated in Figure 46.

Table 10. Estimated number and capacity of early care & education providers, 2020-2021

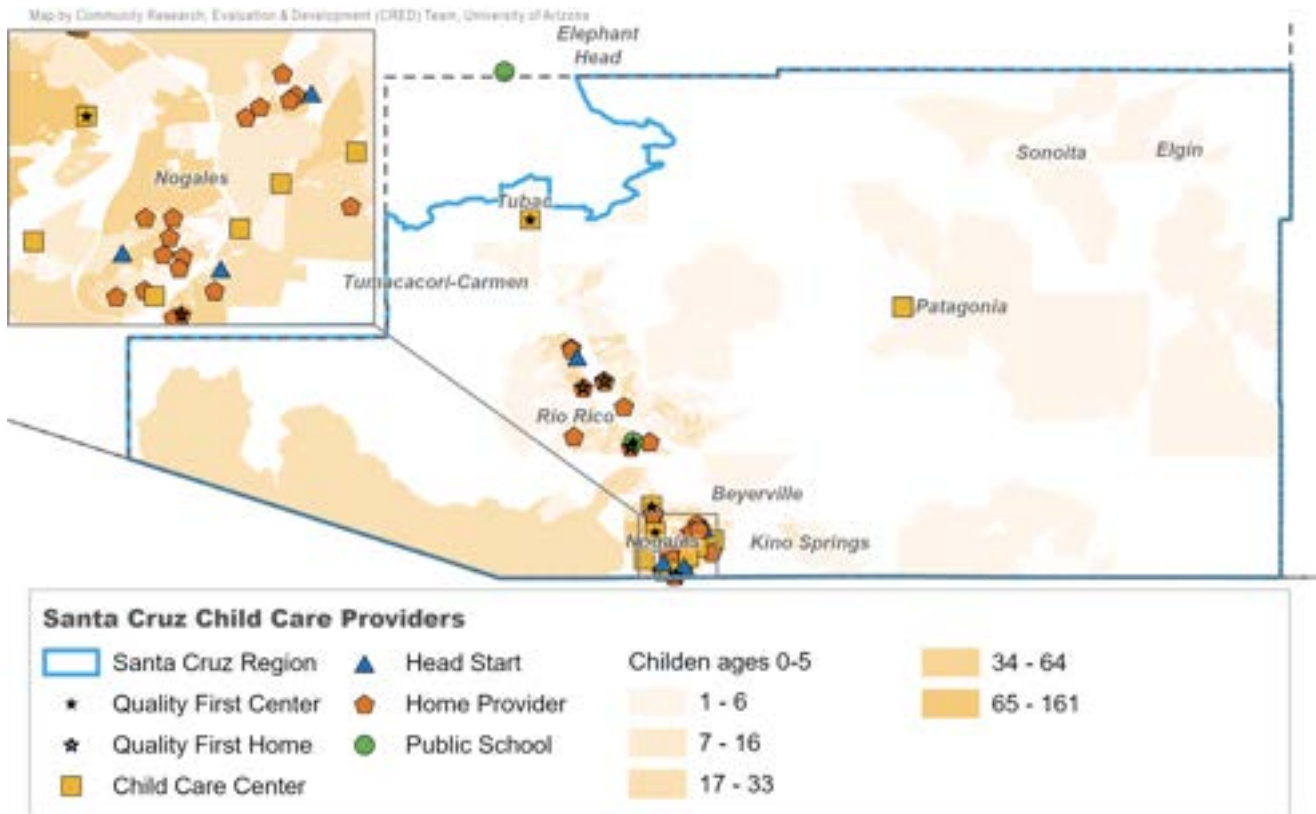
Geography	Total ECE providers		Child care centers		Head Start		Public schools		Home providers	
	No.	Capacity	No.	Capacity	No.	Capacity	No.	Capacity	No.	Capacity
<b>Santa Cruz Region</b>	46	977	9	425	6	316	1	102	30	134
Elgin	0	0	0	0	0	0	0	0	0	0
Nogales	33	669	7	314	5	257	0	0	21	98
Patagonia	1	65	1	65	0	0	0	0	0	0
Rio Rico	11	197	0	0	1	59	1	102	9	36
Sonoita	0	0	0	0	0	0	0	0	0	0
Tubac	1	46	1	46	0	0	0	0	0	0
Tumacacori	0	0	0	0	0	0	0	0	0	0
Santa Cruz County	48	1,002	9	425	6	316	2	127	30	134
Arizona	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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]. Child Parent Centers (2021). Head Start Program Data [Dataset]. Data received by request. Data received by request. Analyses conducted by the UArizona CRED Team.

Note: This table was compiled by merging four different licensing and enrollment datasets from ADHS, DES, FTF, and Child Parent Centers Head Start program. 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. Since these data rely on local data requests, comparison data are not available at the state-level. Data for Calabasas preschool reflects the ADHS-listed capacity of 102, per regional request.

<sup>xviii</sup> Please note that these data were compiled by merging four different licensing and enrollment datasets from ADHS, DES, FTF, and Child Parent Centers Head Start program. For a table highlighting only those registered with DES, please see the additional tables in Appendix I.

Figure 46. Map of early care and education providers in the Santa Cruz Region



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]. Child Parent Centers (2021). Head Start Program Data [Dataset]. Data received by request. Analyses conducted by the UArizona CRED Team.

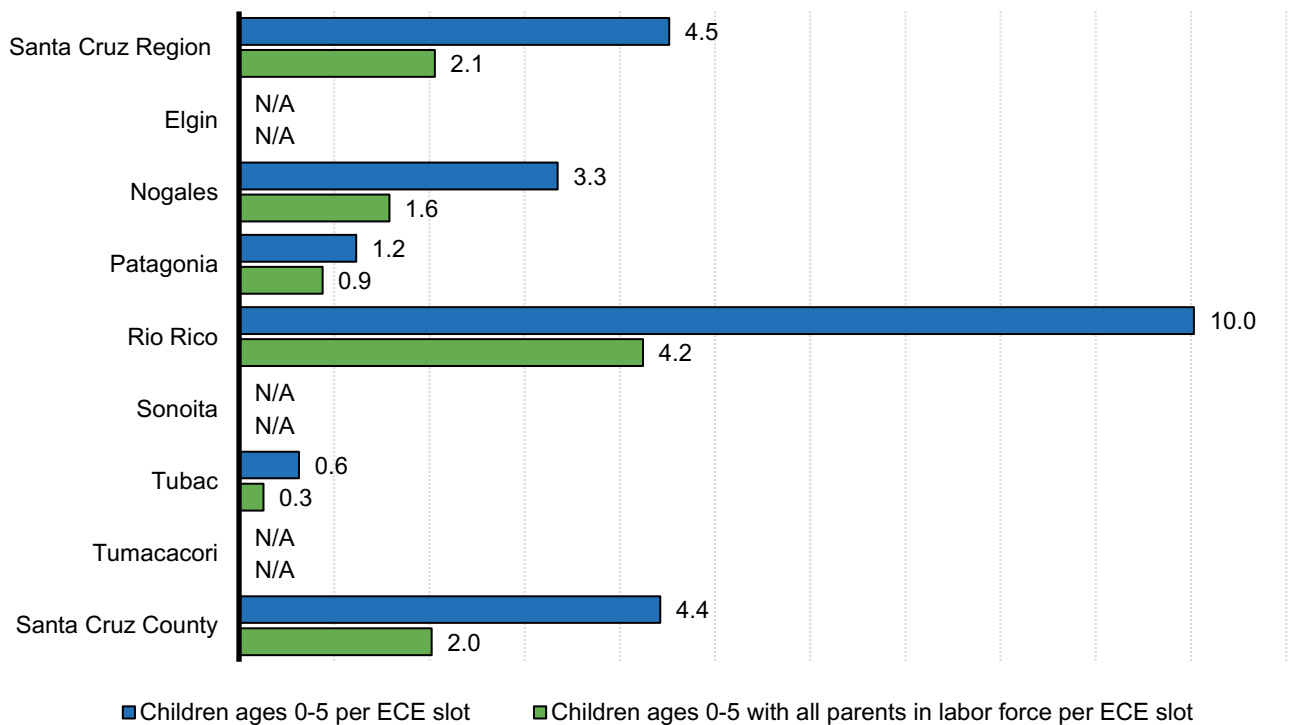
Note: This table was compiled by merging four different licensing and enrollment datasets from ADHS, DES, FTF, and Child Parent Centers Head Start programs. We removed all duplicate programs (based on name, phone number, and address) as well as programs that only serve children ages 5-12, as these are typically before- & after-school programs that only serve school-age children.

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.<sup>211</sup> 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.<sup>212</sup> 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.

The child care shortage is also a clear issue in the Santa Cruz Region, particularly in Rio Rico. Comparing the number of children birth to 5 to the number of available child care slots in the region overall, there are 4.5 times as many children as slots (Figure 47) meaning the region meets the above

definition of a desert. A ratio can't be calculated for Elgin, Sonoita and Tumacacori subregions since there are no ECE providers there. The child care shortage appears to be the worst in the Rio Rico subregion, where there are 10 times as many young children as there are slots. Even if the calculation is altered to only estimate the shortage of slots for families who presumably have the greatest need – those with all present parents in the labor force – there are still 4.2 times as many young children as there are slots in the Rio Rico subregion.

Figure 47. Estimated ratio of children ages birth to 5 to early care and education slots



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]. Child Parent Centers (2021). Head Start Program Data [Dataset]. Data received by request. Data received by request. U.S. Census Bureau. (2010). 2010 Decennial Census, Table P14. U.S. Census Bureau. (2021). American Community Survey five-year estimates 2015-2019, Table B23008. Analyses conducted by the UArizona CRED Team.

Note: N/A appears where there are no child care providers.

### Quality First

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.<sup>213</sup> Quality First is Arizona's Quality Rating and Improvement System (QRIS) for early child care and

preschool providers.<sup>214</sup> The Quality First program describes quality settings as those that 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.<sup>215</sup> 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.<sup>216</sup>

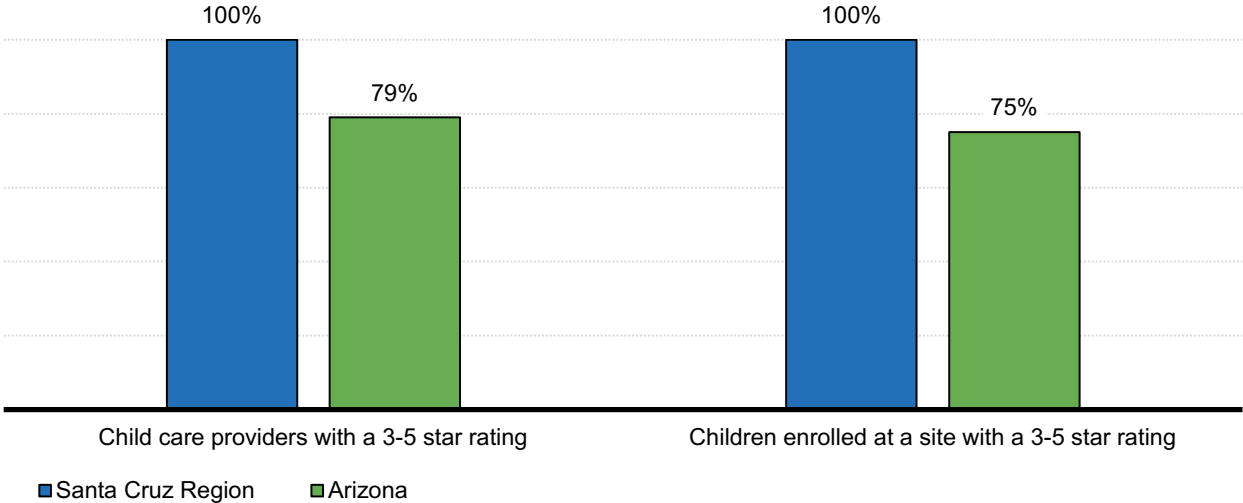
In 2020, the Santa Cruz Region had 8 programs in the Quality First System, all of which (100%) had achieved a 3-star rating or higher, indicating that they meet quality standards. This is a higher proportion than participating Quality First programs statewide, where 79% have achieved a 3-star rating or higher (Figure 48). In the Santa Cruz Region, the 8 Quality First programs served 266 children, a small fraction of the over 4,400 young children in the region (Table 1). The relative capacity of these Quality First providers is highlighted in Figure 49. Key informants noted that working parents struggle to find an available spot in Quality First programs.

Quality First also offers scholarships; 82 children were served through these in state fiscal year 2020.

Looking forward, 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 statewide over the next three years. This investment is particularly important for access to high quality early education due to 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).<sup>217,218</sup> ECE providers who have received PDG funding in the Santa Cruz Region include Santa Cruz Valley Unified School District and Child-Parent Centers.<sup>219</sup> Loss of this funding could lead to greater shortages in available care, especially high quality care, without the offset of increased investment in Quality First.



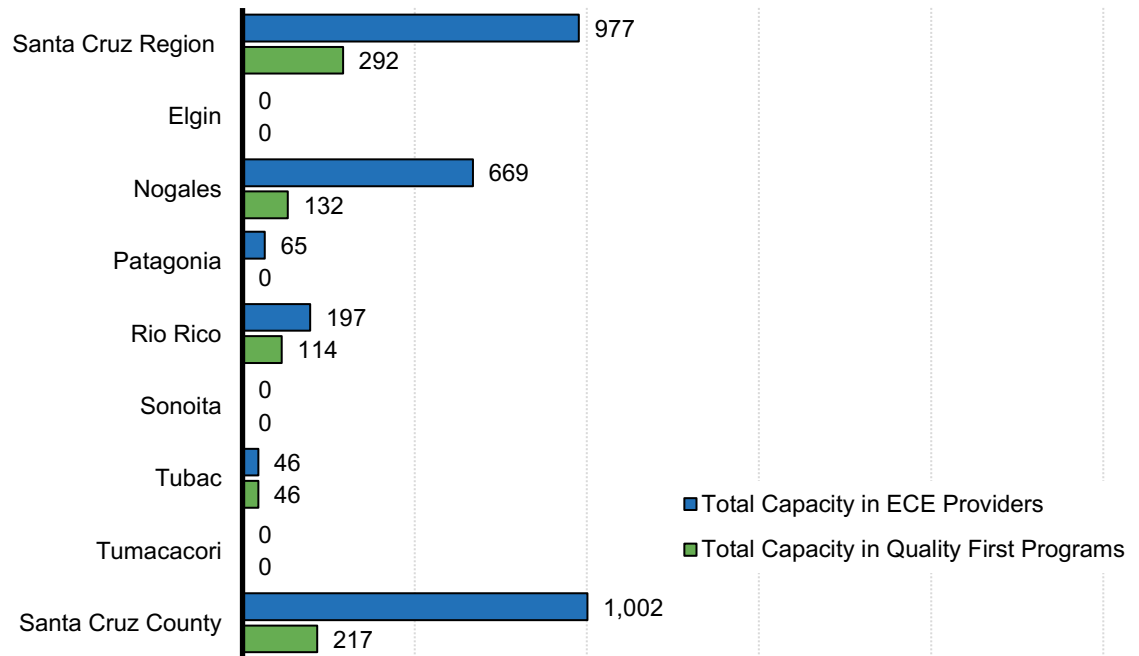
Figure 48. Percent of Quality First programs with a 3-to-5-star rating and children enrolled in quality-level programs, state fiscal year 2020



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.'

Figure 49. Estimated number and capacity of early care & education providers, 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]. Child Parent Centers (2021). Head Start Program Data [Dataset]. Data received by request. Data received by request. Analyses conducted by the UArizona CRED Team.

Note: This table was compiled by merging four different licensing and enrollment datasets from ADHS, DES, FTF, and Child Parent Centers Head Start program. 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.

Providers are considered quality educational environments by DES if they 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),<sup>220</sup> or if they receive a Quality First 3-star rating or higher (see below). In the Santa Cruz Region, 4 providers (9%) have attained national accreditation. These accredited providers provide 78 total child care slots. Two of these providers are in the Nogales subregion, and two are in the Rio Rico subregion (Table 11).

Table 11. Number and licensed capacity of accredited child care providers, December 2020

Geography	Number of accredited providers	Percent of providers who are accredited	Capacity in accredited providers	Percent of provider capacity which is with accredited providers
<b>Santa Cruz Region</b>	4	9%	78	9%
Elgin	0	0%	N/A	N/A
Nogales	2	7%	47	8%
Patagonia	0	0%	0	0%
Rio Rico	2	18%	31	25%
Sonoita	0	0%	N/A	N/A
Tubac	0	0%	0	0%
Tumacacori	0	0%	N/A	N/A
Santa Cruz County	4	9%	78	9%
Arizona	233	9%	24,824	12%

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

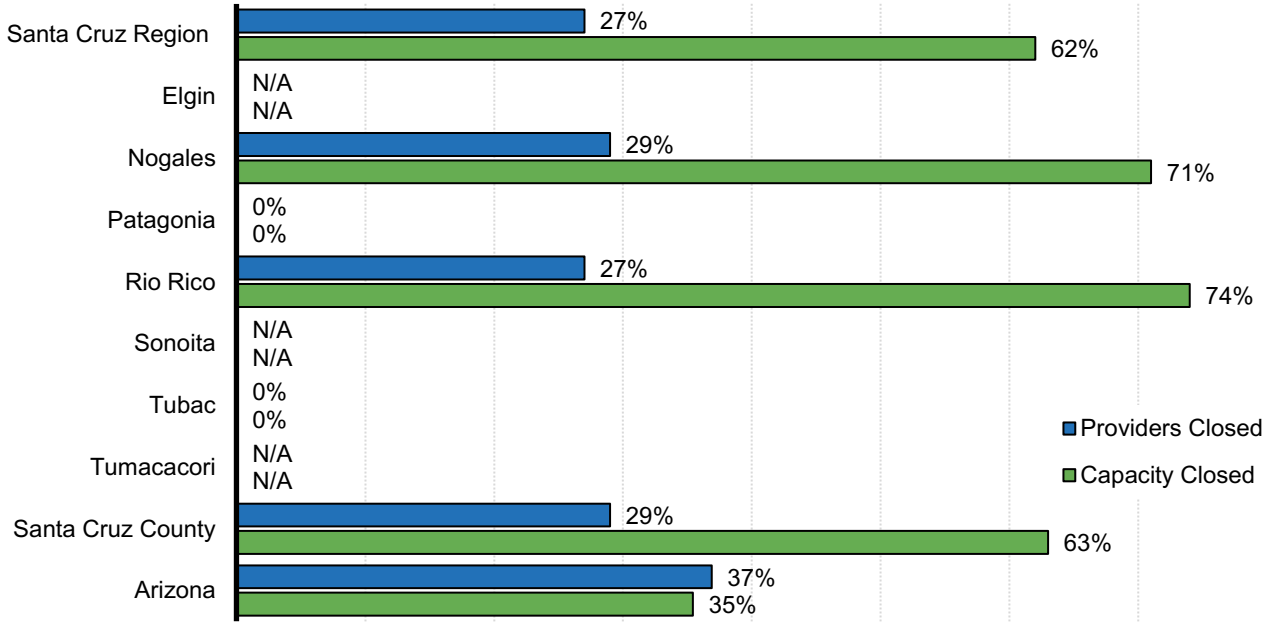
Note: This table only includes data for providers listed in the National Data System for Child Care NACCRRAware database. These providers are listed through the Child Care Resource & Referral Guide to allow parents and caregivers to find child care and early education providers. Providers that only provide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

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.<sup>221,222</sup> 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 a nationally representative survey in the summer of 2020, about half of families with young children (47%) 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.<sup>223</sup>

During the month of December 2020, statewide, 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 Santa Cruz Region, of 44 DES-registered providers, 12 (27%)

were closed in December 2020, representing a loss of 538 slots or 62% of the previous capacity (Figure 50). Closures of large providers meant that the Rio Rico and Nogales subregions lost 74% and 71% of their child care capacity, respectively. Key informants noted that when the COVID-19 pandemic began, some older child care providers stopped caring for children due to health concerns. Among facilities that remained open, staffing has been a challenge. As a result, key informants also described the challenges and frustrations that parents faced as they tried to secure child care, moving as providers closed, and facing difficulties in even accessing information about which providers were open with spots available. On a more positive note, key informants relayed stories about how some providers stayed open to support the front-line workers in the region, knowing that child care would help healthcare professionals and other essential workers do their critical jobs.

Figure 50. 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.

To help communities during the pandemic, First Things First helped recruit providers to become Arizona Enrichment Centers.<sup>224</sup> 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.<sup>225, xix</sup> Two-thirds of all Arizona Enrichment Centers were Quality First participating providers (334 of 506 total enrichment centers).<sup>226</sup> However, in the Santa Cruz Region, no providers became Arizona Enrichment Centers.

Notably, 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.<sup>227</sup> 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).<sup>228</sup> 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.<sup>229</sup>

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.<sup>230</sup> 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.<sup>231</sup> DES also offered a Child Care COVID-19 grant program 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.<sup>xx</sup> In the Santa Cruz Region, the vast majority (41) of providers enrolled in this grant program offered through DES (Table 12).

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<sup>xix</sup> 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: <https://des.az.gov/services/child-and-family/child-care/emergency-child-care-scholarship-program>

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

Table 12. ECE providers who received COVID-19 grants, December 2020

Geography	Number of providers enrolled in COVID-19 grant program
<b>Santa Cruz Region</b>	41
Elgin	0
Nogales	28
Patagonia	1
Rio Rico	11
Sonoita	0
Tubac	1
Tumacacori	0
Santa Cruz County	41
Arizona	1,808

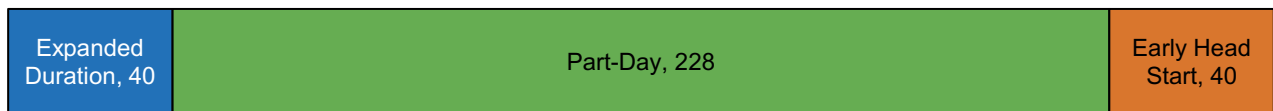
Source: Arizona Department of Economic Security (2021). [Child Care Administration dataset]. Unpublished data.

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 Santa Cruz Region, operates 4 Head Start sites, 2 of which also run an Early Head Start program in addition to traditional Head Start. Head start slots, also known as *funded enrollment*, represents a program's capacity to serve children at a point in time.<sup>232</sup> Santa Cruz Region Head Start programs had a funded enrollment of 308 in 2019-20. Of the funded slots in traditional Head Start, the majority were in part day programs (n=228) with the remainder in expanded duration programs (n=40) (Figure 51). Additionally, 40 slots existed for Early Head Start programs.

Figure 51. Funded enrollment in Santa Cruz Region Head Start programs by type, 2020-21

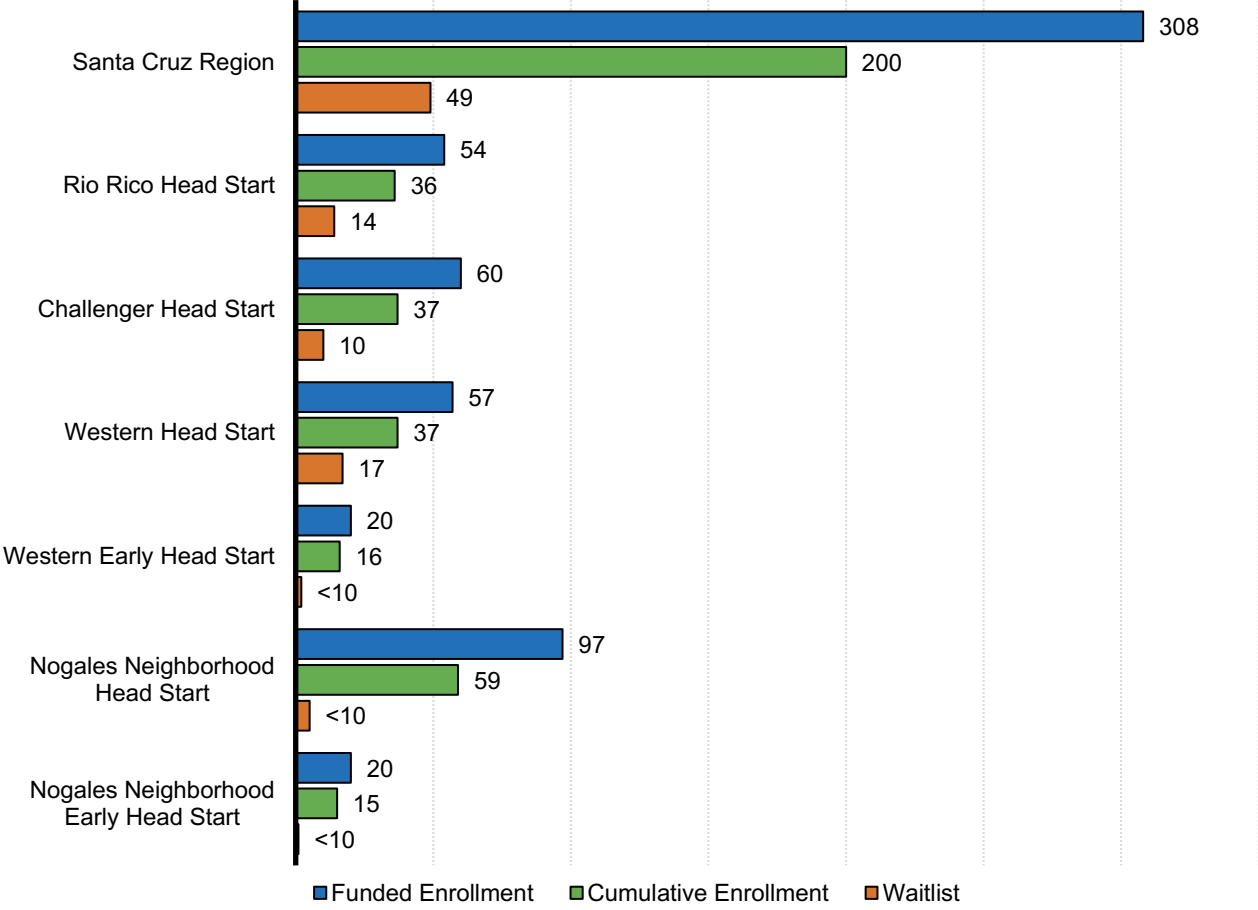


Source: Child-Parent Centers (2021). *Head Start Program Data [Dataset]*. Data received by request.

Note: "Expanded Day" refers to lengthening the hours of services that Head Start offers individual children and their families, with the goal of increasing children's learning and developmental outcomes by providing more hours of high-quality learning experiences. Longer hours also support families who are working or in school to pursue self-sufficiency while their children are in safe and nurturing early learning environments. Read more about this effort here: <https://www.nhsa.org/knowledge-center/center-advocacy/top-issues/extended-duration/>

Cumulative enrollment encompasses the total number of individuals that Head Start programs serve across the program year and can surpass funded enrollment due to families staying part of a year and then being replaced by a new family. Programs had a cumulative enrollment of 200 in the Santa Cruz Region in 2020-21, with a waitlist of 49. Details by center are illustrated in Figure 52.

Figure 52. Funded and cumulative enrollment in Santa Cruz Region Head Start programs, 2020-21



Source: Child Parent Centers Services (2021). Head Start Program Data [Dataset]. Data received by request.

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.



## Early Care and Education Affordability

In addition to issues of availability, 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.<sup>233,234</sup>

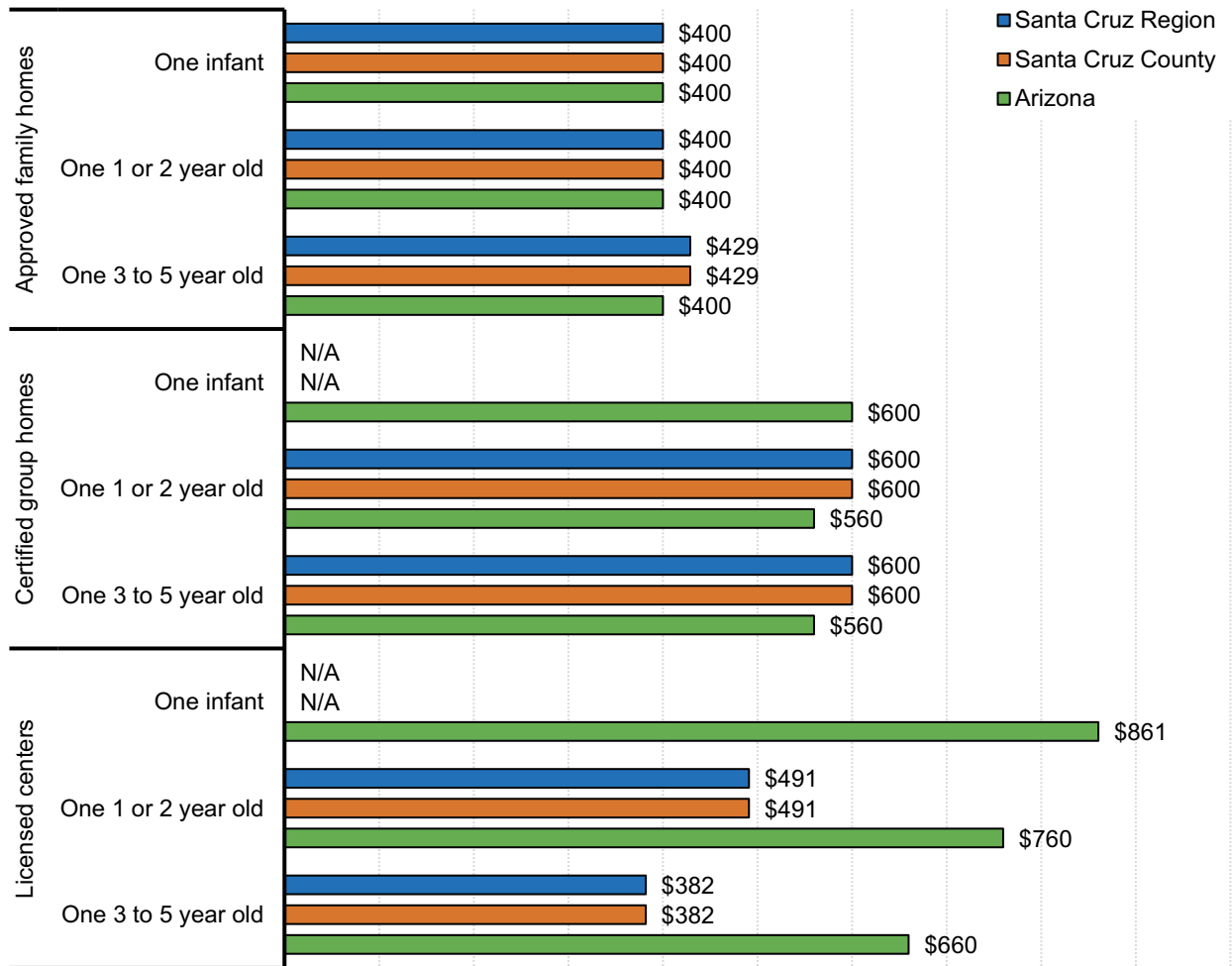
The cost of care varies by the type of care and the age of the child receiving care. Family home providers are typically the least expensive in Arizona overall (Figure 53). Care is typically more expensive for infants, because the lower teacher-to-child ratio needed for infant care often necessitates a higher cost of care. Infant care can also be harder to find, with some ECE providers not accepting infants. In 2018, in approved family homes and certified group homes in the Santa Cruz Region, the median cost of full-time care across all age groups was the same as or slightly higher than the cost of similar care across the state (e.g., \$429 per month vs. \$400/month for a 3-year-old in a family home; Figure 53). However, child care centers in the region tends to be less expensive than elsewhere. For example, residents in Santa Cruz Region pay lower prices than parents statewide for preschool-aged children in child care centers (\$382 per month vs. \$660/month).

As a point of comparison, the median rent in Santa Cruz County is \$675,<sup>235</sup> meaning that formal child care arrangements can easily exceed what many families pay per month on housing. This can create financial challenges that are further compounded for families with multiple children under the age of 5.<sup>xxi,236,237</sup>

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<sup>xxi</sup> 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 <https://cscce.berkeley.edu/workforce-index-2020/the-early-educator-workforce/early-educator-pay-economic-insecurity-across-the-states/>

Figure 53. Median monthly charge for full-time child care, 2018

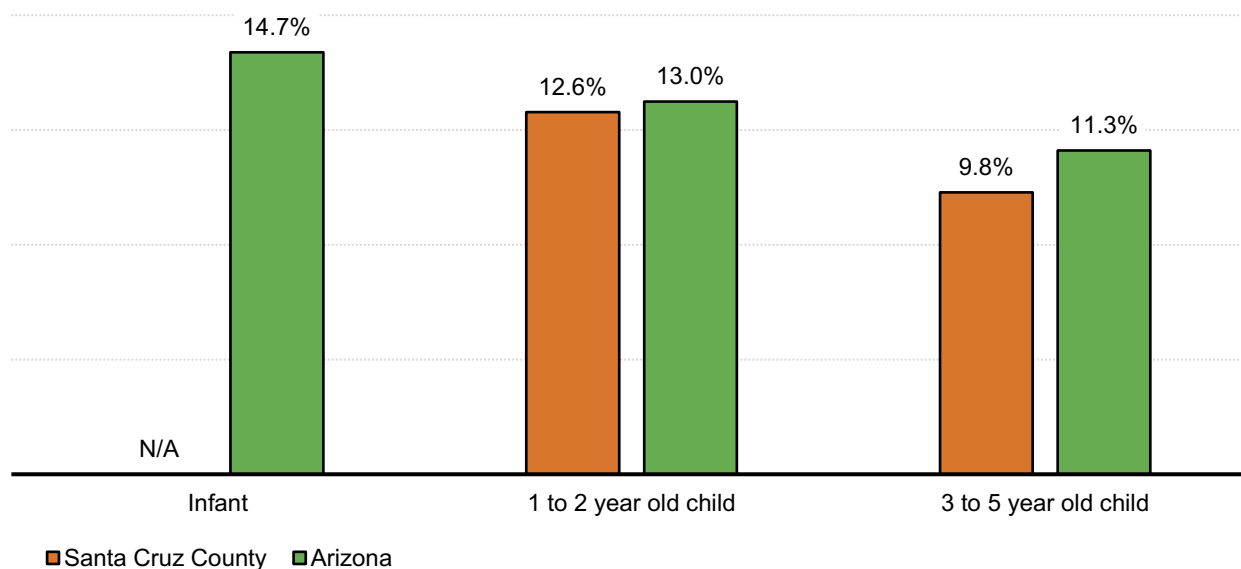


Source: Arizona Department of Economic Security (2021). [Child Care Administration dataset]. Unpublished data.

Note: Median monthly charges are calculated by multiplying the daily median cost of care by 20 to approximate a full month of care. N/A indicates that cost is not reported for infants because among respondents to the child care provider survey, not enough facilities of a particular type in the region indicated that they accept infants to allow calculation of a median cost.

Based on a median family income of \$46,700, families in Santa Cruz County pay about 10-13% of their income for child care in center-based programs, depending on the child’s age (Figure 54). Although this is slightly more affordable relative to other situations statewide (11-13% of a median \$70,200 income), it still puts child care as a substantial cost for families, especially for families with multiple young children needing care. The United States Department of Health and Human Services recommends that parents spend no more than 10% of their family income on child care to avoid being overburdened.<sup>238</sup> Furthermore, 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 Table 34) resulting in a higher proportion of their income being spent on child care.

Figure 54. Cost of center-based child care as a percent of income, 2018



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. N/A indicates that not enough centers in the region who responded to the 2018 rate survey indicated that they accept infant to allow calculation of median costs.

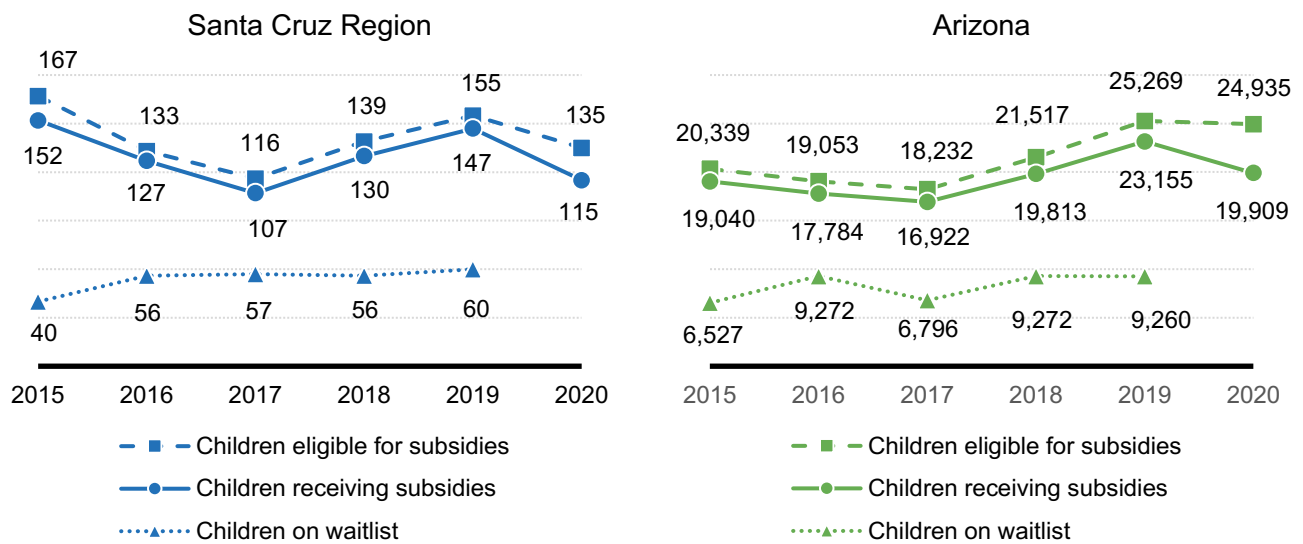
Child care subsidies provided by government agencies can help to offset families’ child care costs, reducing financial barriers to accessing child care and ensuring parents can remain employed and provide for their family’s needs.<sup>239</sup>

The number of children birth to 5 years eligible for DES child care subsidies in the Santa Cruz Region had been increasing in recent years, from 116 in 2017 to 155 in 2019 (Figure 55). In 2020, the number eligible dropped to 135, and the proportion of unused subsidies among those eligible jumped to 14% (Figure 56), presumably for pandemic-related reasons including fewer parents seeking out of home care<sup>240</sup> while quarantines were in effect. In a nationally representative survey in the summer of 2020,

about half of families with young children (47%) 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.<sup>241</sup> The number of children receiving DES child care subsidies closely tracks with the number eligible.

Figure 55 also illustrates the suspension of the DES child care subsidy waitlist in June 2019. 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. Prior to that, there had annually been about 60 young children in the region who were interested in the subsidy program but unable to promptly access that source of support. The suspension meant that for the first time since the start of the waitlist in 2009 during the Great Recession, all children who qualify for subsidies are able to receive them, assuming that they are able to find a provider.<sup>242</sup> Had it not been for the pandemic, the numbers in 2020 would likely have reflected a greater number of children using subsidies. 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.<sup>243</sup>

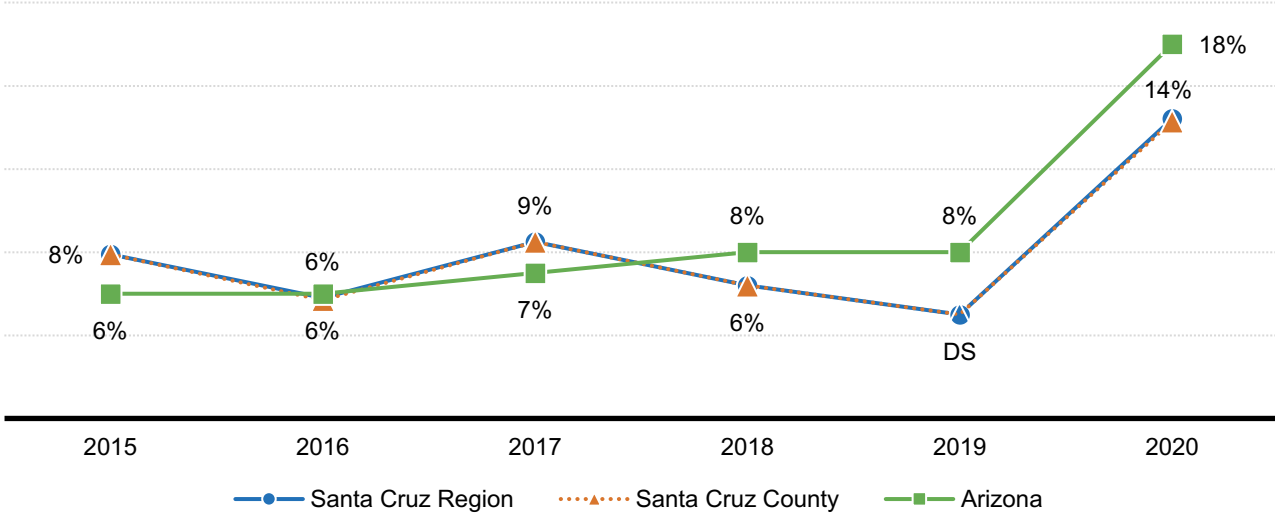
Figure 55. Children eligible for, receiving, and on waitlist for DES child care subsidies, 2015 to 2019



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

Note: The DES child care waitlist was suspended in June 2019, so there are no waitlist numbers for 2020.

Figure 56. Eligible families not using DES child care subsidies, 2015 to 2020



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

The Department of Child Safety (DCS) has a special arrangement with DES to prioritize child care subsidies to DCS-involved families. This partnership aims to help protect children from abuse and neglect by reducing caregiver stress and providing opportunities for children to interact with adults outside of the family who could help alert DCS to potential concerns.<sup>244</sup> The number of DCS-involved children receiving DES child care subsidies had been between 20 and 30 annually in the years prior to the pandemic (Table 13; note that these DCS-involved children are in addition to the non-DCS subsidy recipients). The 25 DCS-involved children who used DES child care subsidies in 2020 represent 89% of those eligible. These children are in especially fragile families, where the stress of the pandemic coupled with the lack of outside support during mass quarantines could leave them particularly vulnerable. Nationwide, during the pandemic, reports of child maltreatment dropped – even as severity appeared to increase – as children were isolated at home, away from mandated reporters.<sup>245,246</sup> In the wake of the pandemic, additional efforts to support DCS-involved families may be warranted.

Table 13. DCS-involved children receiving DES child care subsidies

Geography	Number of DCS children receiving subsidy						Percent of DCS eligible children receiving subsidy					
	2015	2016	2017	2018	2019	2020	2015	2016	2017	2018	2019	2020
<b>Santa Cruz Region</b>	<b>23</b>	<b>22</b>	<b>20</b>	<b>25</b>	<b>29</b>	<b>25</b>	<b>88%</b>	<b>81%</b>	<b>95%</b>	<b>93%</b>	<b>85%</b>	<b>89%</b>
Santa Cruz County	23	22	20	25	29	25	88%	81%	95%	93%	85%	89%
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.

## Young Children with Special Needs

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.<sup>247,248</sup> It also reduces educational costs by decreasing the need for special education.<sup>249</sup> In Arizona, services available to families with children with special needs include those provided through the Arizona Early Intervention Program (AZEIP),<sup>xxii</sup> the Division of Developmental Disabilities (DDD),<sup>xxiii</sup> and the Arizona Department of Education Early Childhood Special Education Program.<sup>xxiv</sup>

<sup>xxii</sup> For more information on AZEIP, visit <https://www.azdes.gov/azeip/>

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

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

The Arizona Early Intervention Program (AzEIP)<sup>xxv</sup> is an interagency system of services and supports for families of young children (birth to 3) with disabilities or developmental delays in Arizona. The number of young children referred to AzEIP in the Santa Cruz Region has ranged from a low of 75 to a high of 98 in recent years (Figure 57). Counts from 2020 may be lower than they would have been otherwise as a result of constraints of the COVID-19 pandemic.

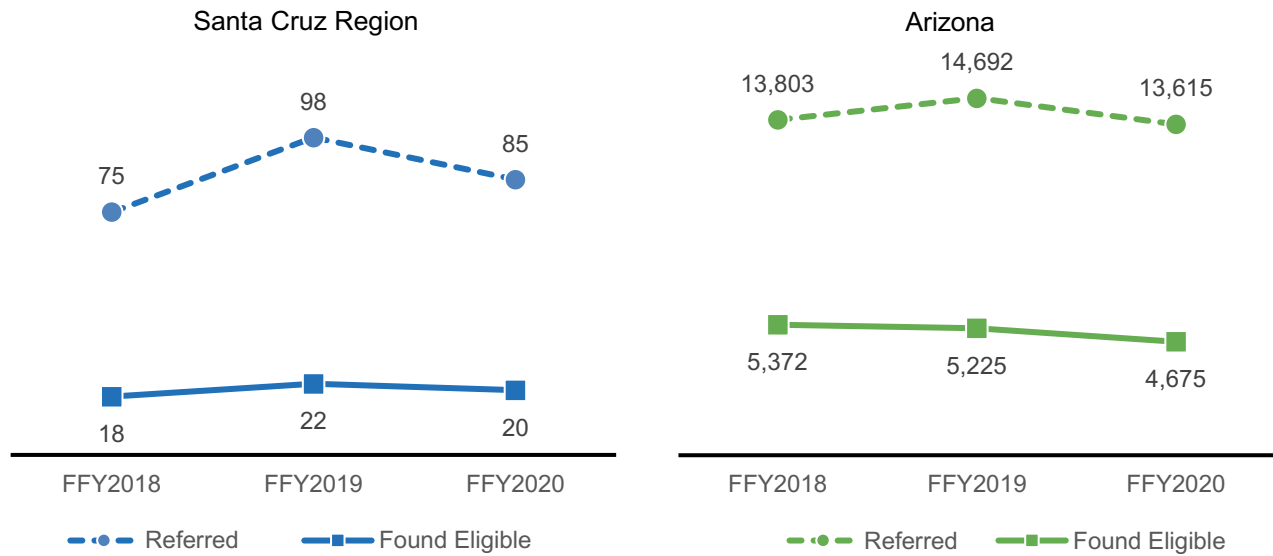
The number of children found eligible has averaged about 20 in recent years, which is less than a quarter (22-24%, depending on the year) of those referred within a given year (Figure 57). This is a lower than the state overall (34-39%), and likely means there are many families with concerns about their children's development who are not receiving services. Notably, Arizona has some of the strictest eligibility requirements for early intervention services compared to other states in the U.S.<sup>250</sup> Providing early intervention services for young children has been shown to reduce the need for special education services later in childhood,<sup>251</sup> so assuring that children have access to timely and adequate screening and intervention services from birth to five can be key for helping children to be ready for kindergarten.

As a result of the pandemic, there was widespread disruption in services. In spring 2020, AzEIP halted in-home and community services and switched to virtual visits (computer-or phone-based).<sup>252</sup> 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.<sup>253</sup> 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.<sup>254,255</sup>

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

Figure 57. 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.

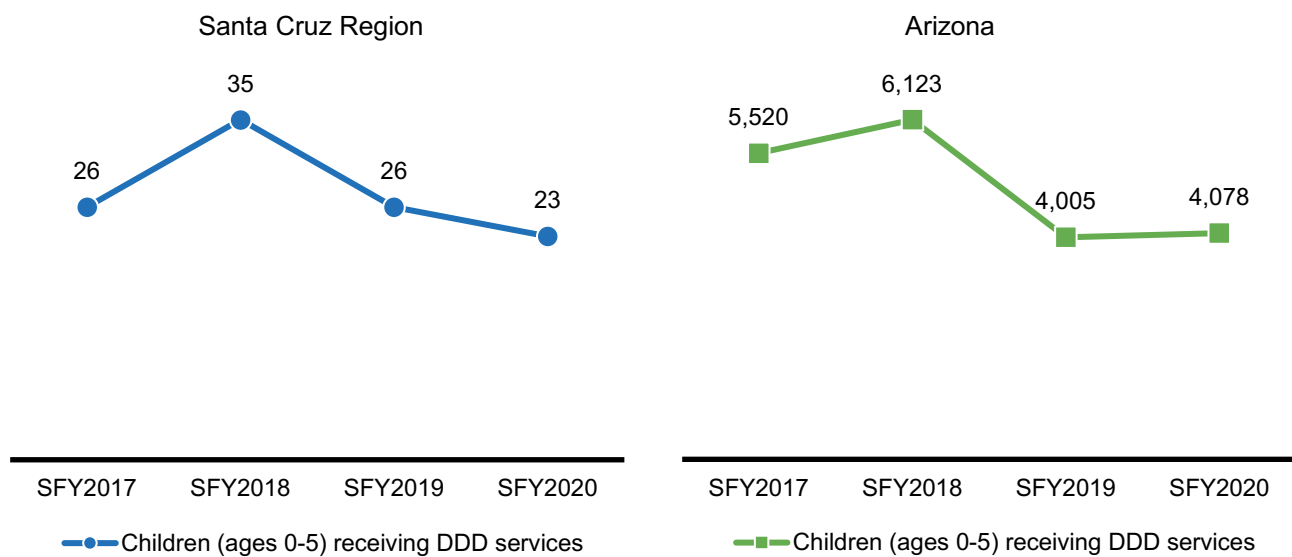
Note: These data reflect the Oct 1 snapshot of AzEIP services, not a cumulative total throughout the year.



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.<sup>xxvi</sup> DDD can provide services to individuals with qualifying disabilities through adulthood. Qualifying children may receive services from both AzEIP and DDD.

The number of children in the Santa Cruz Region receiving DDD services has ranged from a low of 23 in SFY2020 to a high of 35 in SFY2018 (Figure 58). This pattern is similar to that seen across the state as a whole, and the reasons for the decline before the pandemic are unknown.

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.

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.<sup>256</sup> Furthermore, Arizona has been among the bottom five states in terms of young children receiving early intervention services.<sup>257</sup> In the Santa Cruz Region, the proportion of children receiving services is even lower than that national estimate. An estimated 1.1% of children birth to 2 years<sup>xxvii</sup> were receiving services from AzEIP or DDD in 2020, which is also lower

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

<sup>xxvii</sup> These estimates rely on 2010 Census data, so in areas with large growth in the population of families with young children in the last decade, these percents would be an underestimate.

than the proportion statewide (2.1%) (Table 14). These data suggest that there are likely many children in the Santa Cruz Region who would benefit from early intervention services but are not receiving them.

Table 14. Numbers of children (ages 0-2) receiving services from AzEIP, DDD, or both; state fiscal years 2019 and 2020

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
<b>Santa Cruz Region</b>	<b>34</b>	<b>23</b>	<b>-32%</b>	<b>2,185</b>	<b>1.1%</b>
Elgin	0	[1-11]	DS	18	DS
Nogales	22	[1-11]	DS	1,098	DS
Patagonia	0	0	0%	42	0.0%
Rio Rico	12	11	-8%	981	1.1%
Sonoita	0	0	0%	16	0.0%
Tubac	0	0	0%	17	0.0%
Tumacacori	0	0	0%	13	0.0%
Santa Cruz County	34	23	-32%	2,196	1.0%
Arizona	6,376	5,721	-10%	270,519	2.1%

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.

Head Start programs also serve young children with special needs. In 2020-21, Head Start programs served 36 Head Start participants through individualized education plans (IEPs), and 0 Early Head Start participants with individualized family service plans (IFSPs)<sup>xxviii</sup> Among the children with disabilities served by Head Start, the majority (75%) had a speech impairment (Table 15).

Table 15. Children with disabilities enrolled in Santa Cruz Region Head Start programs, 2020-21

Geography	Children with an IEP	Children with an ISFP	Children with health impairment	Children with speech impairment	Children with developmental delay
<b>Santa Cruz Region</b>	<b>36</b>	<b>0</b>	<b>0</b>	<b>27</b>	<10
Rio Rico Head Start	<10	0	0	<10	<10
Challenger Head Start	<10	0	0	<10	<10
Western Head Start	11	0	0	<10	<10
Western Early Head Start	0	0	0	0	0
Nogales Neighborhood Head Start	<10	0	0	<10	<10
Nogales Neighborhood Early Head Start	0	0	0	0	0

Source: Child Parent Centers (2021). Head Start Program Data [Dataset]. Data received by request.

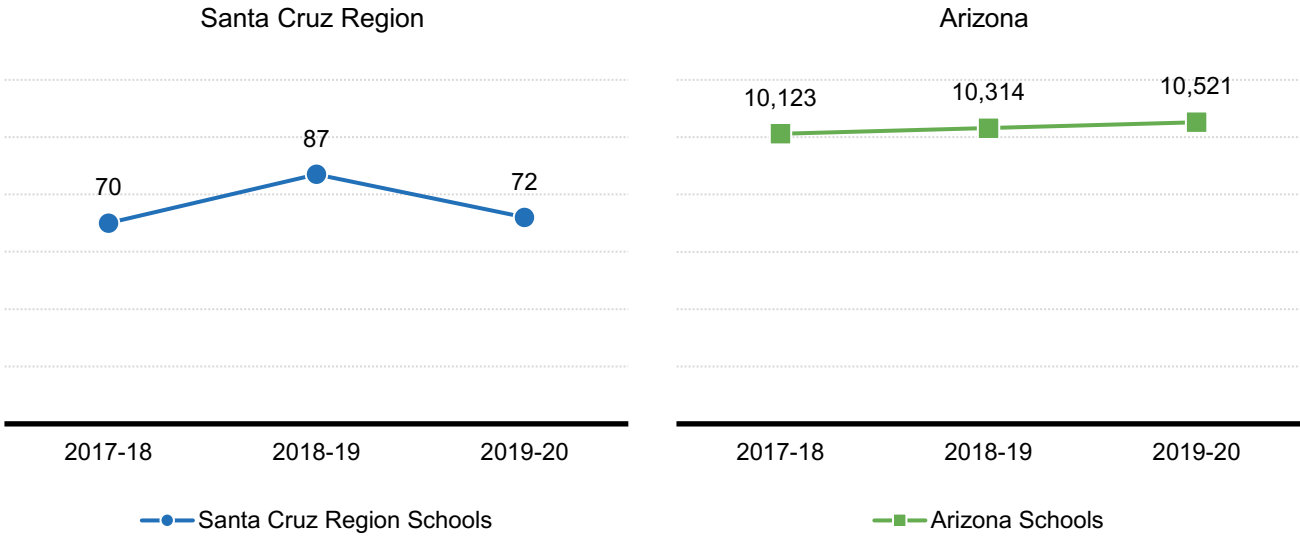
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<sup>xxviii</sup> For more information on IEPs vs IFSPs: <https://eclkc.ohs.acf.hhs.gov/publication/services-children-who-do-not-qualify-idea-fact-sheet>

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 Santa Cruz Region has ranged from a low of 70 students in the 2017-18 school year to a high of 87 students in the 2018-19 school year, with 72 children receiving services in 2019-20 (Figure 59). Of all districts, the Santa Cruz Valley Unified District serves the largest number of preschoolers in special education (Table 16).

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. Adding to the existing challenges in serving these students, pandemic-related school closures further impacted children with special needs. In-person services for children through LEAs were disrupted and required transitions to remote modalities.<sup>258</sup> Young children with special needs may need additional supports to compensate for the challenges faced during the pandemic.

Figure 59. 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

Table 16. 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
<b>Santa Cruz Region schools</b>	<b>70</b>	<b>87</b>	<b>72</b>
Nogales Unified District	16	15	15
Santa Cruz Valley Unified District	21	30	30
Santa Cruz Elementary District	DS	DS	DS
Patagonia Elementary District	DS	DS	DS
Sonoita Elementary District	DS	DS	DS
Santa Cruz Region Head Start Centers	[22-32]	[30-40]	[16-26]
Santa Cruz County schools	38	47	46
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

Among 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 has increased in recent years. As of October 1 in the 2019-20 school year, there were 289 kindergarten to 3rd grade students enrolled in special education in public and charter schools in the Santa Cruz Region. This is more than 12 times the number of children birth to 2 in the region being served by early intervention services (23 served by AzEIP and DDD in 2020). Even accounting for the wider age range served in elementary school, there are relatively more students being served through schools than early intervention programs. It may be that children with delays are being identified and diagnosed when they are older, potentially missing the opportunity for earlier intervention which can be more effective and less costly.

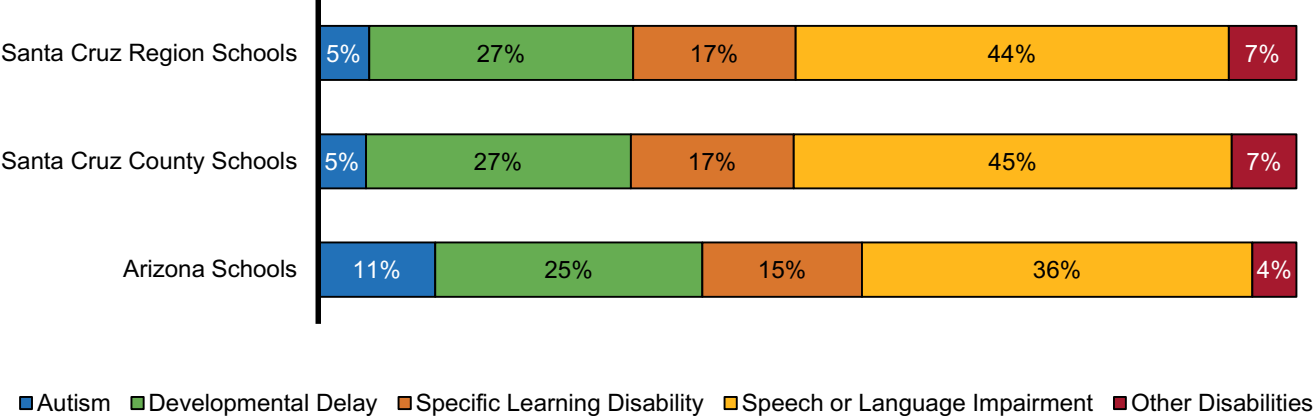
Of those kindergarten through third grade students enrolled in special education in public and charter schools in the Santa Cruz Region, most have a primary disability of a speech or language impairment (44%) or developmental delay (27%) (Figure 60). Less often these children have a primary disability of specific learning disability (17%), other disability (7%) or autism (5%).

Just under 300 kindergarten through 3<sup>rd</sup> grade students are enrolled in special education; the majority of these students are in the Nogales Unified School District (Table 17).

School-based services for children with special needs were also significantly impacted during the pandemic, 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.<sup>259</sup> 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. Kindergarten to 3rd grade students enrolled in special education in public and charter schools by primary disability, 2019-20



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

Table 17. 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, 2019-20
<b>Santa Cruz Region schools</b>	262	268	289
Nogales Unified District	149	141	154
Santa Cruz Valley Unified District	87	95	99
Santa Cruz Elementary District	DS	DS	DS
Patagonia Elementary District	DS	DS	DS
Sonoita Elementary District	DS	[13-23]	DS
Mexicayotl Academy, Inc.	DS	DS	DS
Santa Cruz Valley Opportunities in Education, Inc.	DS	DS	DS
Santa Cruz County schools	267	266	288
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

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.<sup>260,261</sup> Experiences during the prenatal and early childhood period can result in lifelong impacts on immune functioning, brain development, and risk for chronic diseases.<sup>262,263</sup> 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.<sup>264,265</sup> 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.<sup>266,267,268</sup>

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)<sup>xxix,269</sup> 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.<sup>270</sup>

## 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, i.e., prenatal care, can reduce maternal and infant mortality and complications during pregnancy.<sup>271,272</sup> 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.<sup>273</sup> 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.<sup>274,275</sup> 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.<sup>276</sup>

In the Santa Cruz Region, according to American Community Survey (ACS) data averaged over the five years from 2015 to 2019, an estimated 10% of the overall population do not have health insurance

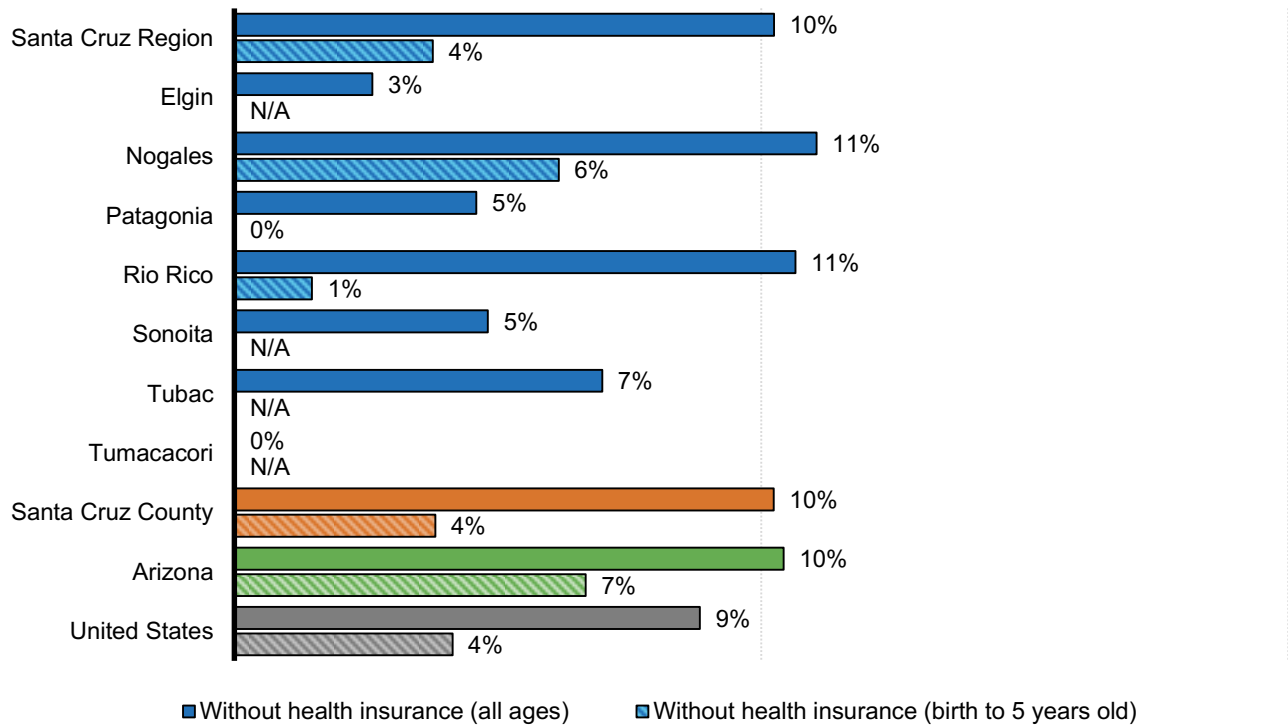
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<sup>xxix</sup> Data included in this report are presented alongside Healthy People 2020 benchmarks because data are available through 2019.

coverage, the same as across the state as a whole (10%) (Figure 61). Coverage is slightly higher for young children under 6, with only 4% of young children in the region uninsured, which is better than the state overall (7%) and the same as across the U.S. as a whole (4%). The Rio Rico subregion has one of highest percentages of the whole population uninsured (11%), but one of the lowest percentages of uninsured young children (1%).

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.<sup>277</sup> 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.<sup>278</sup>

Figure 61. 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. Reliable data for insurance rates for young children were not available in the Elgin, Sonoita, Tubac, or Tumacacori sub-regions due to small sample sizes.

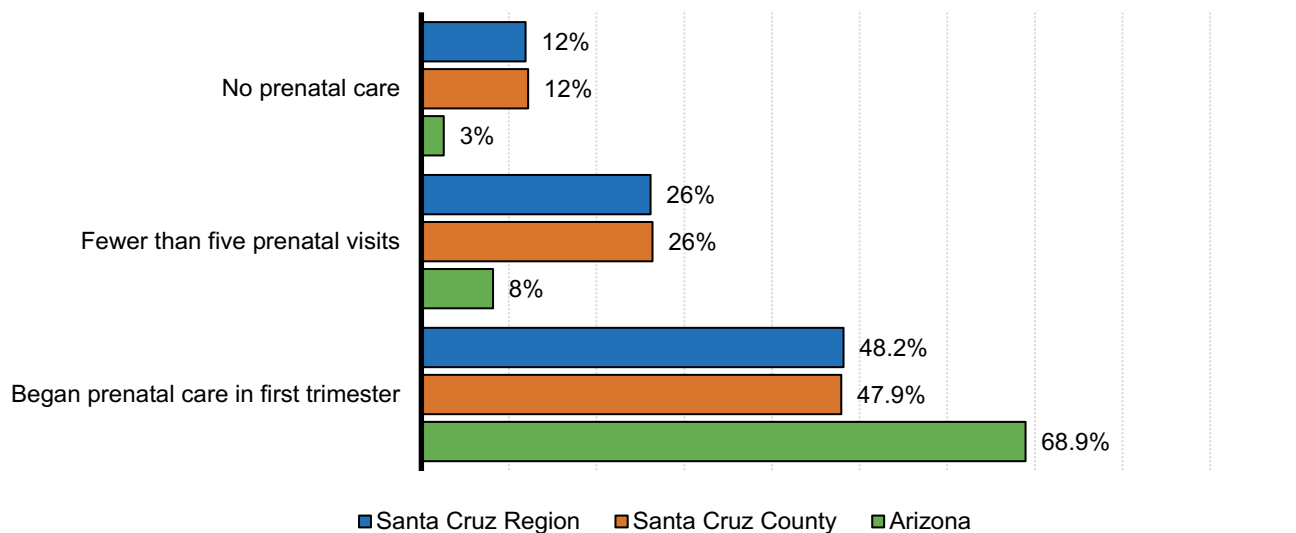
### Prenatal Care

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.<sup>279,280,281,282</sup>

In 2019, there were 596 babies born to mothers living in the Santa Cruz Region (Table 80, appendix). Among these mothers, 53.8% began prenatal care in their first trimester, which is lower than the state overall (68.9%) and well below the Healthy People 2020 target of 84.8% (Figure 62). Concerningly, the proportion of women who receive no prenatal care or minimal prenatal care (fewer than 5 visits) has increased in the region since 2014. In recent years, over a quarter (26% in 2019) of babies were born to mothers who had fewer than 5 total prenatal visits, and about 1 in every 8 babies (12% in 2019) was born to a mother who had received no prenatal care at all (Figure 62). These rates are much higher than those statewide. However, the upward trend is also happening statewide, possibly pointing to factors beyond the Santa Cruz Region (Figure 63). 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 mothers and babies.

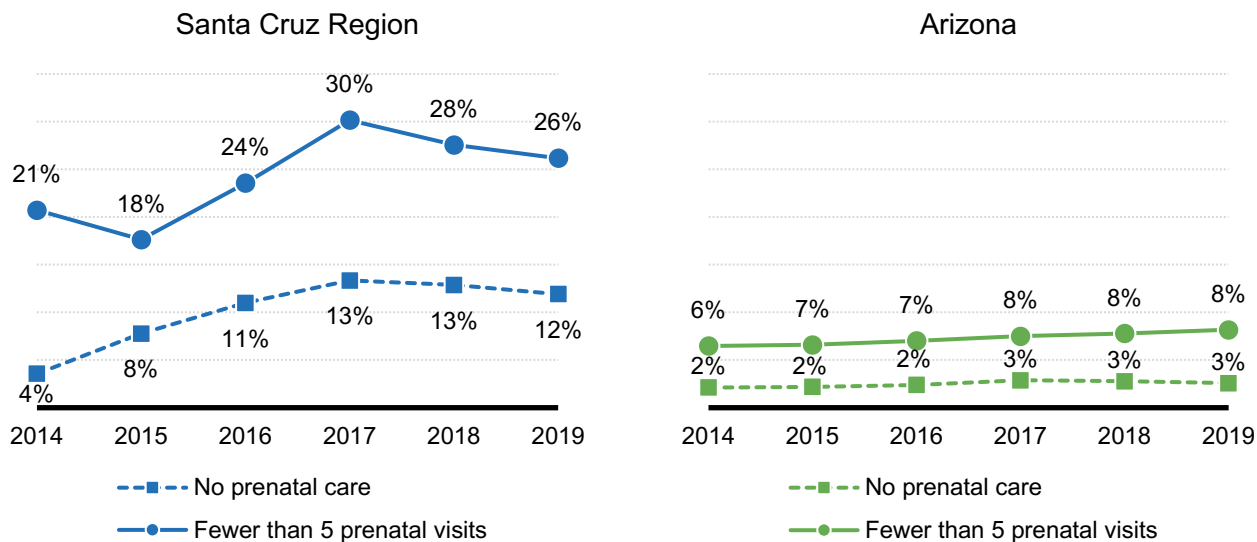
Figure 62. Prenatal care for the mothers of babies born in 2019



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

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

Figure 63. 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

### Maternal Characteristics

A mother’s health status before, during and after pregnancy influences her child’s health. Two-thirds (68%) of mothers used a public insurance system (AHCCCS or Indian Health Service (IHS) coverage) to cover their birthing costs in 2019 (Table 18) that the access to preconception and prenatal care provided through these programs critical to safe guarding the health of young children and their mothers.

Certain maternal characteristics can increase the risk of poor health outcomes for both mothers and their babies. Tobacco use during pregnancy increases the risk of complications and can harm the baby’s development. The Santa Cruz region has notably low rates of maternal tobacco use during pregnancy; fewer than 1% of mothers report using tobacco while pregnant (Table 18).

Maternal obesity is associated with increased risk of birth complications and neonatal and infant mortality.<sup>283,284</sup> 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.<sup>285</sup> In the region, 27% of babies were born to mothers who had pre-pregnancy obesity (Table 18). Among mothers enrolled in the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), about one-third had pre-pregnancy obesity in recent years (Figure 64).

Quality preconception counseling and early-onset prenatal care can help reduce some of these risks for poor prenatal and postnatal outcomes by providing information, conducting screenings, and supporting an expectant mother’s health and nutrition.<sup>286</sup>

Table 18. Selected characteristics of mothers giving birth, 2018 to 2019

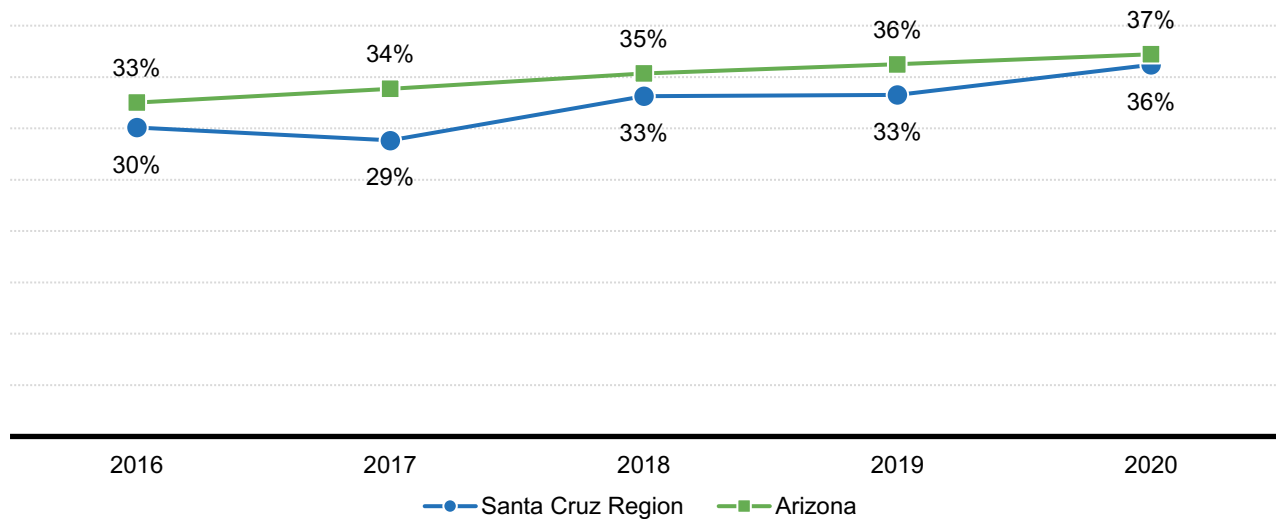
Geography	Calendar year	Number of births	Mother was younger than 18	Mother was younger than 20	Birth was covered by IHS or AHCCCS	Mother had gestational diabetes	Mother had pre-pregnancy obesity	Mother used tobacco during pregnancy
Santa Cruz Region	2018	606	1%	8%	67%	4%	30%	[0% to 1%]
	2019	596	3%	7%	68%	6%	27%	[0% to 1%]
Santa Cruz County	2018	617	1%	8%	66%	4%	24%	0.5%
	2019	599	3%	7%	68%	6%	27%	0.7%
Arizona	2018	80,539	2%	6%	51%	8%	35%	4.5%
	2019	79,183	1%	5%	50%	9%	36%	4.3%
Healthy People 2020 Target								1.4%

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.

Note: The Healthy People 2030 target for maternal use of tobacco during pregnancy was increased to no more than 4.3% of females giving birth reporting smoking during pregnancy, or alternatively 95.7% of females reporting abstaining from smoking during pregnancy.

Figure 64. Pre-pregnancy obesity rate for WIC-enrolled women, 2016 to 2020

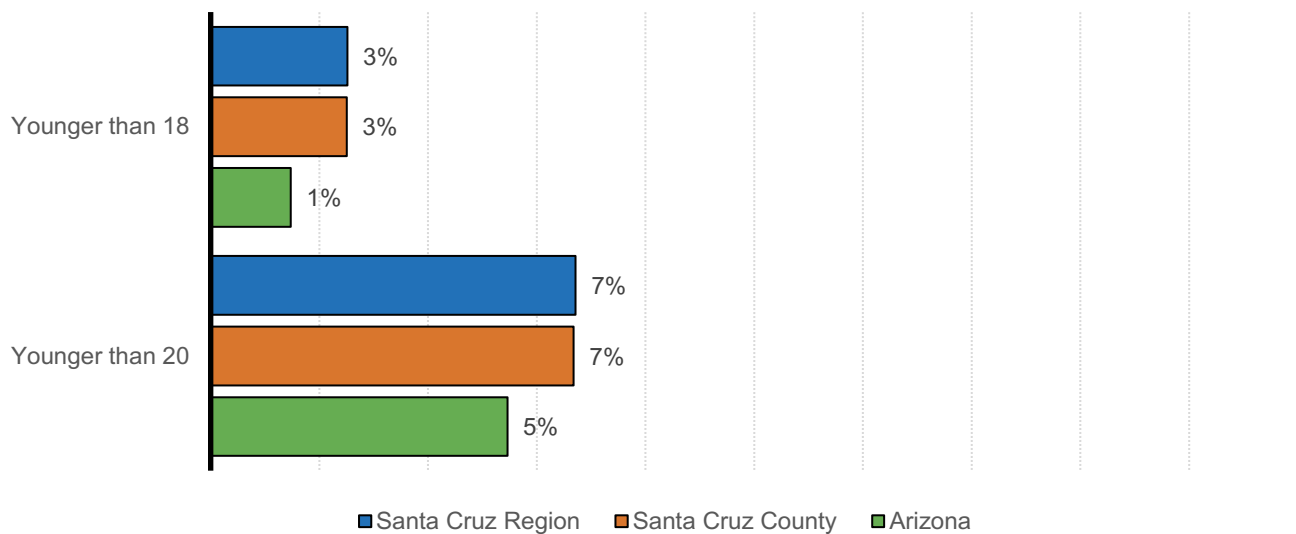


Source: Arizona Department of Health Services (2021). [WIC dataset]. Unpublished data.

## Teen Parents

Pregnancy during the teen years can be associated with a number of health concerns for the babies, including neonatal death, sudden infant death syndrome and child abuse and neglect.<sup>287</sup> In 2019, 7% of mothers giving birth in the Santa Cruz Region were in their teens, with 3% under age 18 (Figure 65). These rates are higher than those statewide. Looking by subregion, the proportion of teen parents is highest in Nogales (9%), but both Nogales and Rio Rico had 2% of births to mothers under age 18% (Figure 66). Key informants suggest that as a result of the cultural realities of a largely Catholic community, teens in Santa Cruz may be more likely than teens elsewhere in Arizona to continue a pregnancy, rather than seeking termination.

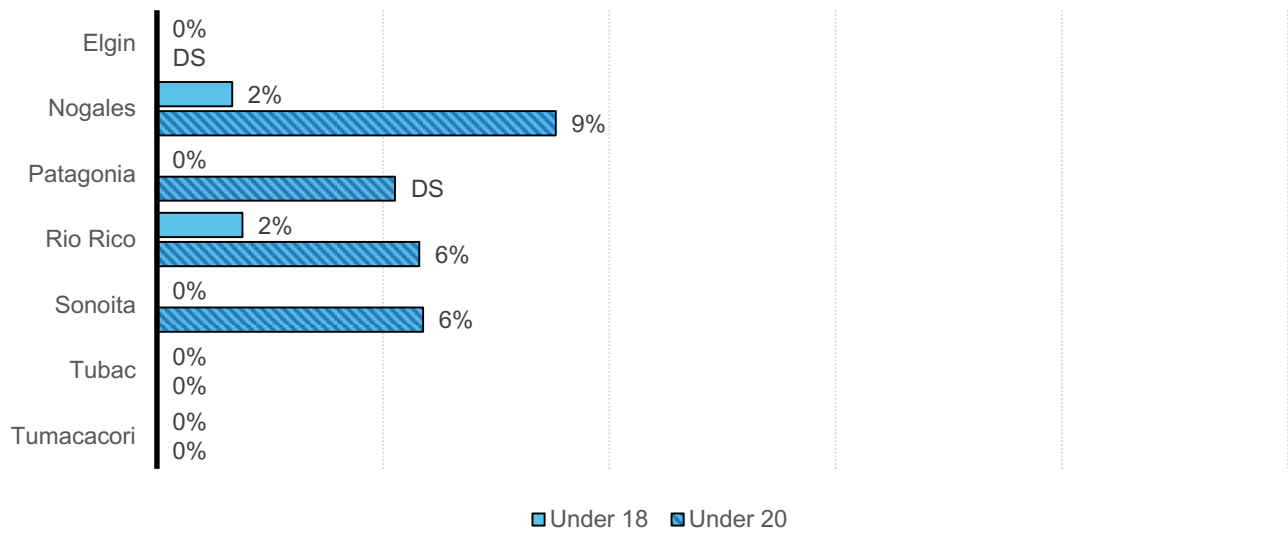
Figure 65. Births to teenaged mothers, 2019



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

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

Figure 66. Births to teenaged mothers by sub-region, 2017-2019 combined

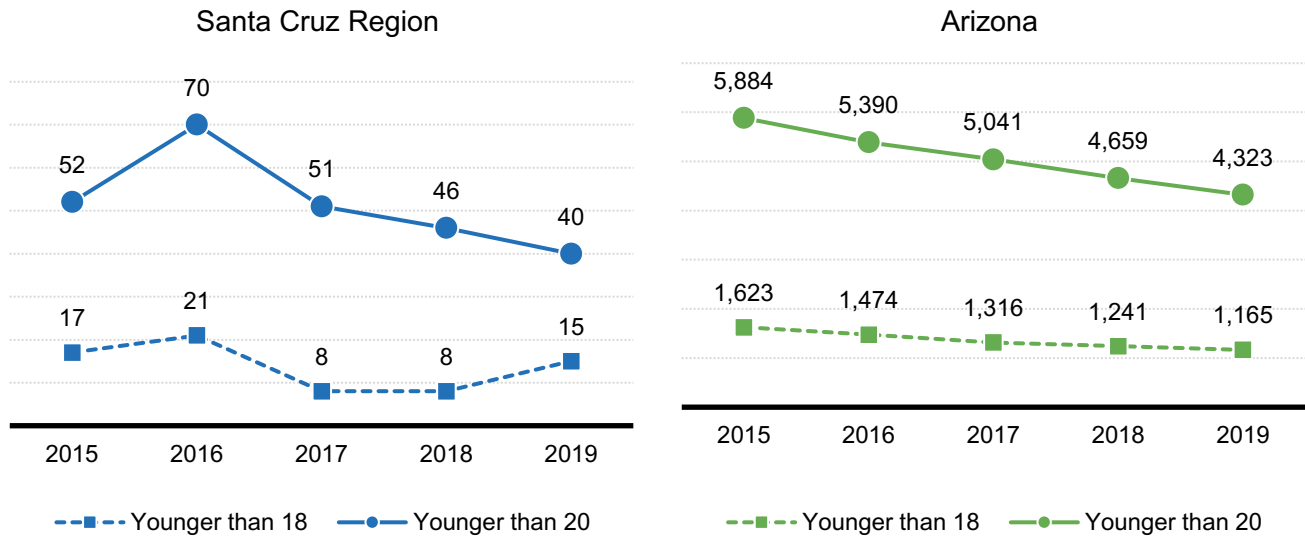


Source: Arizona Department of Health Services (2021). [Vital Statistics Births dataset]. Unpublished data.

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

Births to teen mothers have generally declined in the region and state in recent years (Figure 67). However, 2019 saw an uptick in the number of births to younger teen mothers (under 18) in the region, doubling from 8 births in 2018 to 15 births in 2019.

Figure 67. Births to teenaged mothers, 2015 to 2019



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

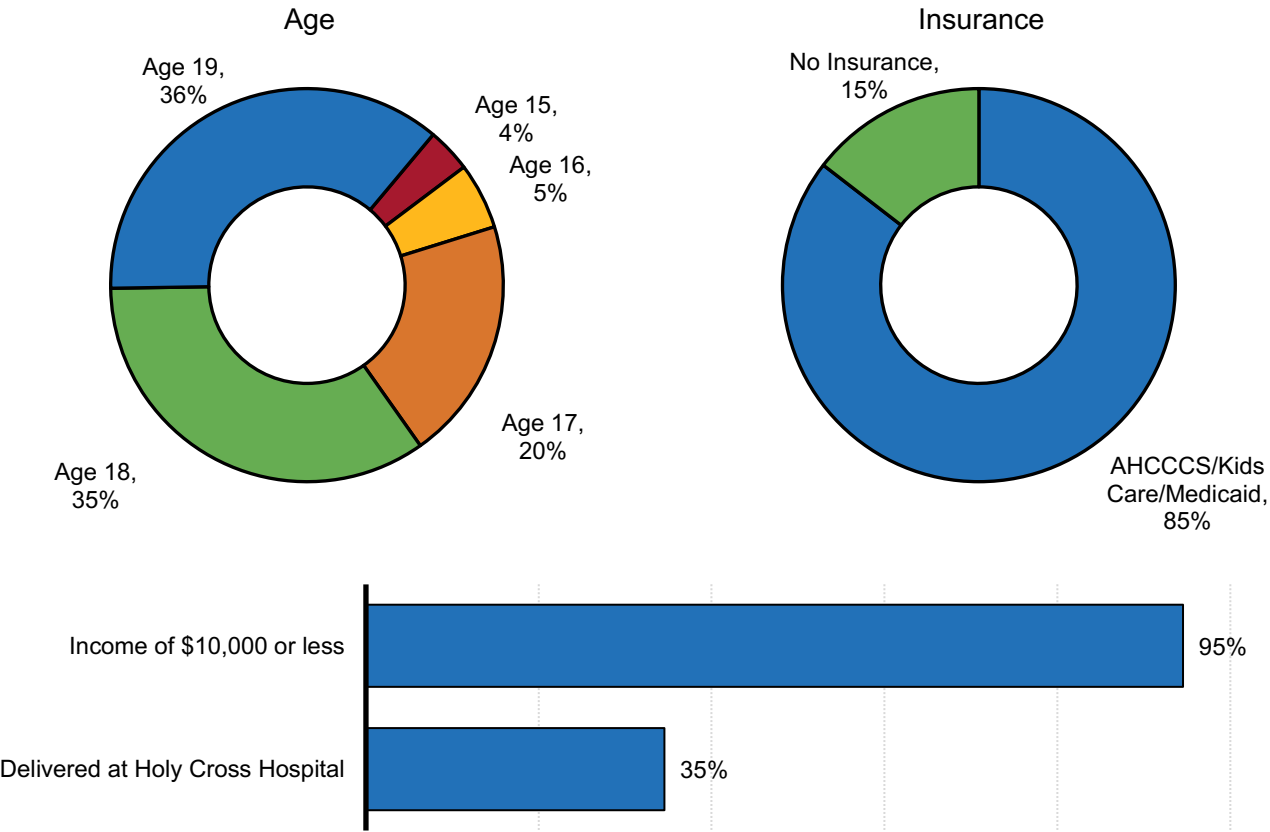
Note: Mothers of twins are counted twice in these figures

Mariposa Community Health Center is the largest provider of medical and health promotion services (among others) in Santa Cruz County, with offices in Nogales, Rio Rico, Tubac, and Patagonia. Among the teen parents served by Mariposa Community Health Center in 2020, about a third (36%) were 19 years old, another third (35%) were 18 years old, and the remainder were ages 15-17 (Figure 68). Most pregnant teens were insured through public insurance, but 15% were uninsured. The vast majority (95%) reported an annual income of under \$10,000.

A key informant also noted that the Family Learning Center at the Mariposa Community Health Center has developed programming to support high school students who find out they are pregnant. These programs also seek to engage the fathers. The Santa Cruz Valley School District also offers the ability to have a telemedicine appointment at the high school, thus minimizing the disruptions to their academic schedule while supporting pregnant students in receiving prenatal care. This is part of the district's larger efforts to support all students, including student parents, as they meet challenges along the way to graduation.



Figure 68. Selected characteristics of teen parents served by Mariposa Community Health Center, 2020



Source: Maricopa Community Health Center (2021). [Custom dataset on teen parents]. Unpublished data received by request.

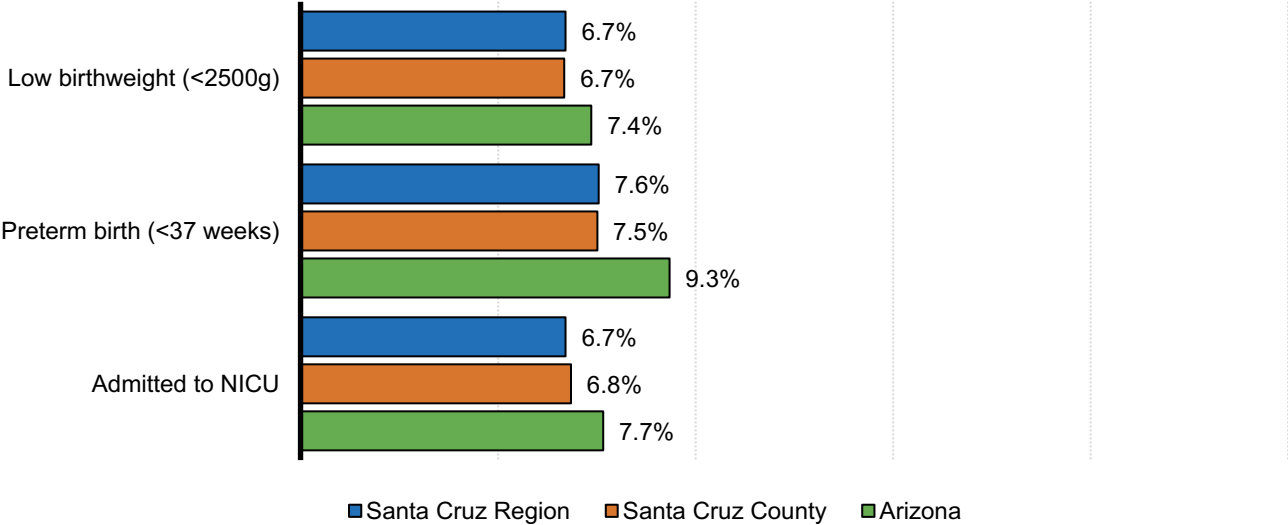
**Birth Outcomes**

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.<sup>288,289</sup> 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.<sup>290,291</sup> On these indicators, the region appears to be doing well compared to the state as a whole. In the Santa Cruz Region in 2019, 6.7% of babies were born at low birth weight, and 7.6% were preterm (Figure 69). This is lower than the rates for state as a whole (7.4% and 9.3% respectively). Healthy People 2020 set targets of less than 7.8% of babies born at low birth weight and less than 9.4% born preterm, both of which the region achieved.

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 and families.<sup>292</sup> NICU stays can take a large emotional and financial toll on families, especially families living far from the hospital. However, although 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.<sup>293</sup> The Santa Cruz Region saw 5% of new babies admitted to the NICU, again lower than the proportion statewide (Figure 69).

Figure 69. Selected birth outcomes, 2019



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

A mother’s use of substances such as drugs and alcohol also has 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.<sup>294</sup> 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.<sup>295</sup> In the Santa Cruz Region, there were 15 newborns hospitalized because of maternal drug use during pregnancy between 2016 and 2020, with an average stay of 11.9 days in the hospital (Table 19). This length of stay is about twice as long as the average stay for similar newborns statewide.

Table 19. Newborns hospitalized because of maternal drug use during pregnancy, January 2016 to June 2020

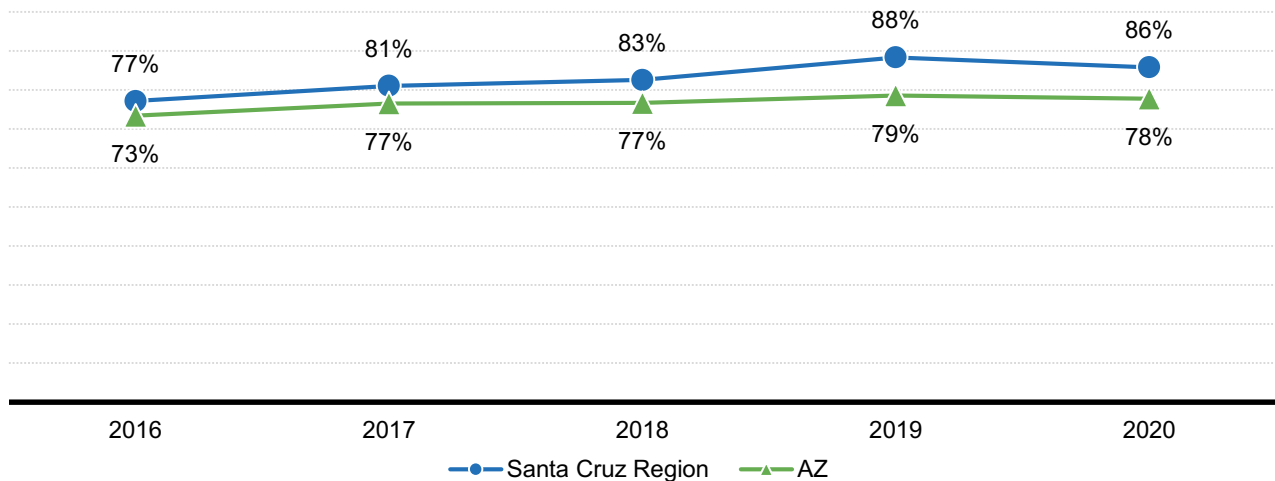
Geography	Newborns hospitalized	Average length of stay (days)
<b>Santa Cruz Region</b>	<b>15</b>	<b>11.9</b>
Santa Cruz County	17	11.4
Arizona	11,027	6.0

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

## Nutrition and Weight Status<sup>xxx</sup>

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.<sup>296</sup> The American Academy of Pediatrics recommends exclusive breastfeeding for about 6 months, and as new foods are introduced continuing to breastfeed for 1 year or longer.<sup>297</sup> The percent of WIC-enrolled infants ever breastfed in the Santa Cruz Region has increased from 77% in 2016 to 86% in 2020 (Figure 70). The proportion of WIC-enrolled infants ever breastfed in the region is consistently higher than that statewide.

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



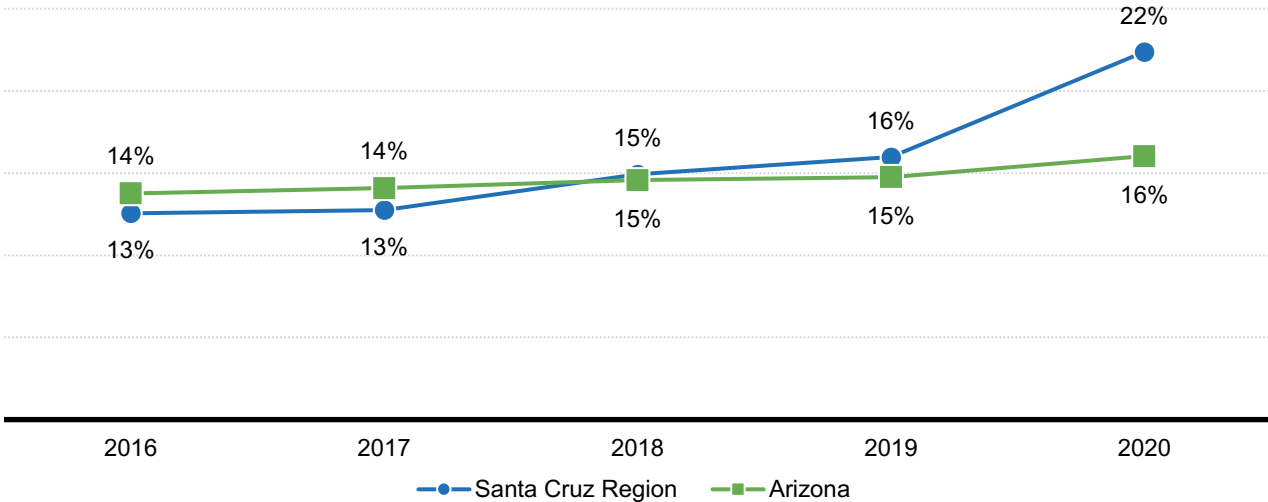
Source: Arizona Department of Health Services (2021). [WIC dataset]. Unpublished data.

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.<sup>298,299</sup> Obesity can have negative consequences on physical, social and psychological well-being that begin in childhood and continue into and throughout adulthood.<sup>300</sup> 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).<sup>301, 302</sup> 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.<sup>303</sup>

<sup>xxx</sup> Due to limitations in existing data systems, data on breastfeeding and child weight status are not available at the population level. Such data are available from the WIC program, and they are presented here, but it should be noted that families served by WIC are only one segment of the families in the Santa Cruz Region.

Pre-pandemic, the obesity rate in this population was on a gradual upward trend in the region (Figure 71). The 2020 jump should be interpreted with caution because far fewer children had known weight status in 2020, likely due to fewer health visits during the pandemic.

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.

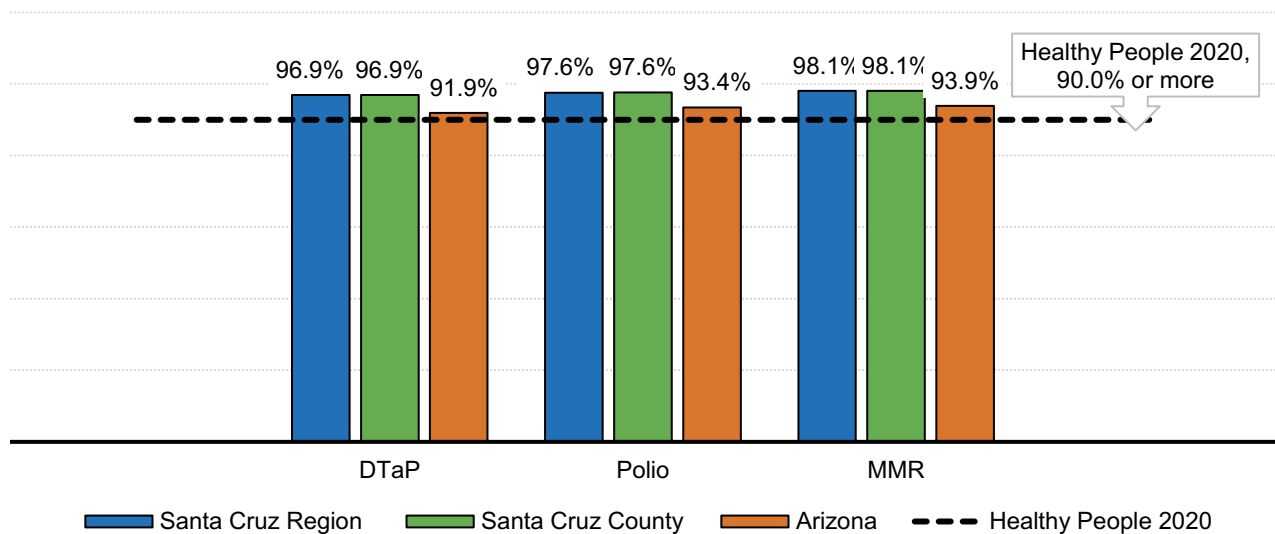
Note: The number of children for whom weight status was determined in 2020 dropped substantially, so changes in the obesity rate in 2020 may be more reflective of interruptions in WIC-related health visits rather than actual increase in the obesity rate.

## Immunizations and Infectious Disease

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.<sup>304</sup> Vaccination against preventable diseases protects children and the surrounding community from illness and potentially death.<sup>305</sup>

Although immunization rates vary by specific vaccine, coverage in the region is generally quite good. Over 95% of children in child care in the Santa Cruz Region had completed each of the three major (DTaP, polio, and MMR) vaccine series (Figure 72). Regional rates were slightly higher than rates in Arizona overall. The Healthy People 2020 target for vaccination coverage for children ages 19-35 months for these vaccines is 90 percent.<sup>306</sup> Given that these rates only reflect those children in child care, where vaccination is required, the proportion of all young children who have completed these vaccine series in the region is likely lower. Depending on how dramatic that difference is, the rates for the entire population of children in these areas may be lower than the Healthy People 2020 goal.

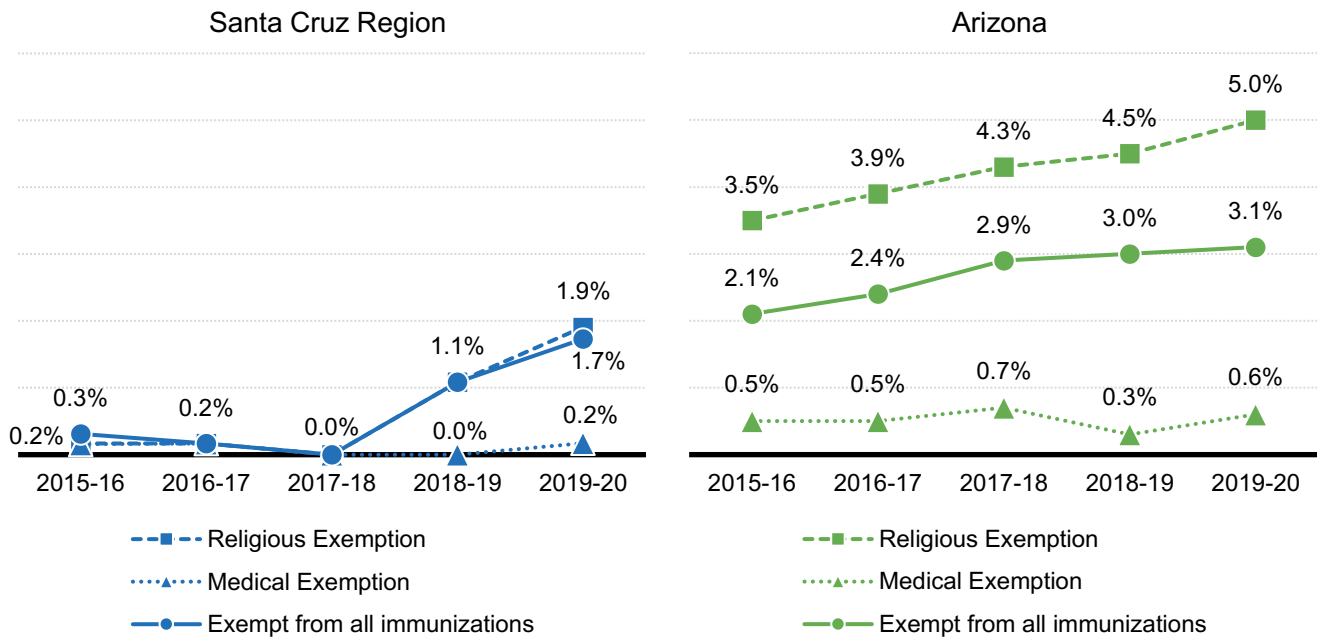
Figure 72. Children in child care with selected required immunizations, 2019-20



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.azdhs.gov/preparedness/epidemiology-disease-control/immunization/index.php#reports-immunization-coverage>

If medical conditions or religious beliefs stand in the way of a young child receiving a required vaccine, parents are able to file for an exemption. In the Santa Cruz Region, 1.7% of children in child care have been exempted from all vaccines, which is lower than the 3.1% statewide (Figure 73). The proportion of children seeking religious exemptions has risen in the past few years at both the regional and state level.

Figure 73. 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>

To enroll a child in kindergarten, whether in a district, charter, private or parochial school, Arizona law requires that parents provide proof of certain required immunizations. As with child care vaccination requirements, compliance in the region is high. Rates for the three major (DTaP, polio, and MMR) vaccine series for children in kindergarten (97.3%, 97.2%, 97.1%) meet the Healthy People target of 95% of kindergarteners. As with child care, parents can request exemptions from the law. Medical exemptions were rare (0.3%), but personal belief exemptions (which replaces religious exemptions available in child care settings) were slightly more common, being on file for 1.5% of children (Table 20).

There are some interesting variations among the subregions, although the small populations in some subregions do mean that the vaccination status of a handful of children can have a big impact. In Patagonia, parents appear to be avoiding the MMR vaccine. Parents in Tubac appear to be less likely to vaccinate their children with any of the required immunizations. Finally, Rio Rico has accomplished a 100% participation rate on each of the three major vaccine series.

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

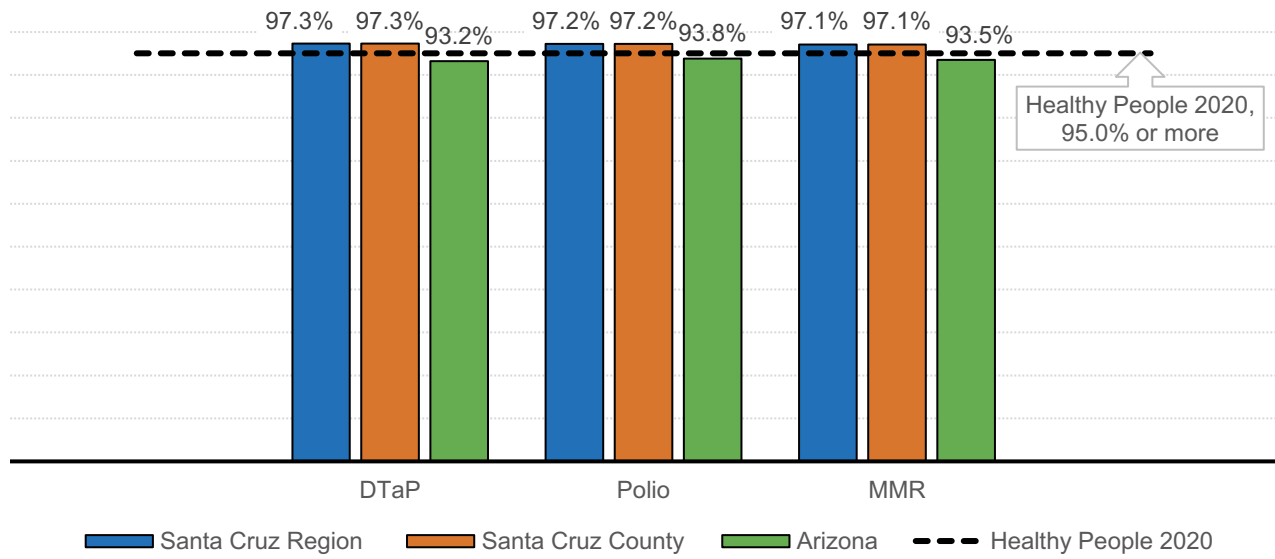
Geography	Number enrolled	DTaP	Polio	MMR	Personal Belief exemption	Medical exemption	Exempt from every required vaccine
<b>Santa Cruz Region</b>	<b>750</b>	<b>97.3%</b>	<b>97.2%</b>	<b>97.1%</b>	<b>1.5%</b>	<b>0.3%</b>	<b>1.3%</b>
Elgin	0	N/A	N/A	N/A	N/A	N/A	N/A
Nogales	508	97.2%	97.0%	97.4%	1.0%	0.4%	0.8%
Patagonia	17	94.1%	94.1%	76.5%	5.9%	0.0%	5.9%
Rio Rico	212	100.0%	100.0%	100.0%	0.0%	0.0%	0.0%
Sonoita	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tubac	13	61.5%	61.5%	61.5%	38.5%	0.0%	38.5%
Tumacacori	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Santa Cruz County	750	97.3%	97.2%	97.1%	1.5%	0.3%	1.3%
Arizona	82,358	93.2%	93.8%	93.5%	5.4%	0.3%	3.4%
Healthy People 2020 Targets		90.0%	90.0%	90.0%			

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%.



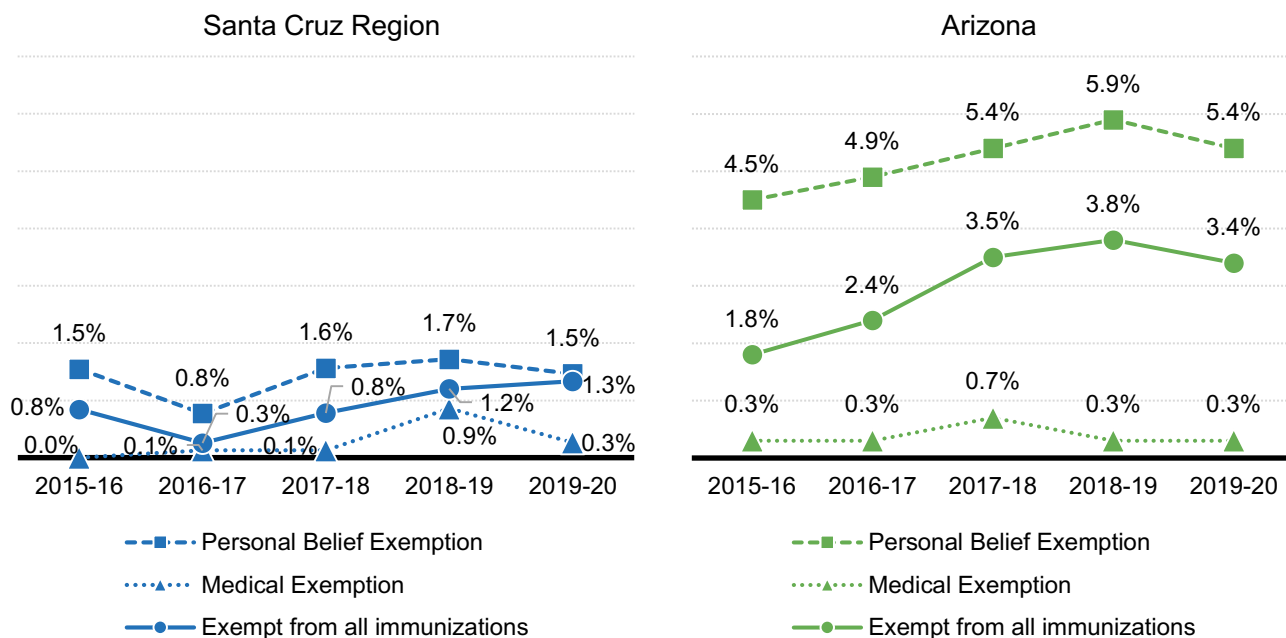
Figure 74. Kindergarteners with selected required immunizations, 2019-20



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>

Although the proportion remains very low, the Santa Cruz Region is seeing a slight increase in parents seeking exemptions from all immunizations for their kindergarten students. The proportion rose steadily between 2016-17 (0.3%) and 2019-20 (1.3%) (Figure 75). The state also saw an overall increase in exemptions during this period. 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.<sup>307</sup> 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.<sup>308</sup>

Figure 75. 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>

Although the COVID-19 virus has dominated headlines in recent years, there are other widely circulating viruses that commonly infect young children including influenza (“the flu”) and Respiratory Syncytial Virus (RSV). Across Arizona, the 2017–18 flu season broke records for reported flu and RSV cases.<sup>309</sup> Identified cases of RSV and flu in 2019-20 appeared to break those records in both the region and state (Table 21). Young children are at an elevated risk for complication from the flu,<sup>310</sup> and while many cases of RSV are mild, for some children the infection becomes a more serious lower respiratory infection, requiring emergency care and/or hospitalization. Note that these case numbers likely represent more severe cases, and that the Centers for Disease Control and Prevention (CDC) notes that by the time they turn 2 years old, most children will have had an RSV infection.<sup>311</sup>

Table 21. 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
Santa Cruz County	2017-18	99	32
	2018-19	160	16
	2019-20 (preliminary)	215	46
Arizona	2017-18	5,319	4,530
	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.

## Illness, Injury and Mortality

Asthma is the most common chronic illness affecting children,<sup>312</sup> and it is more prevalent among boys, Black children, American Indian or Alaska Native children, and children in low-income households.<sup>313,314</sup> The total healthcare costs of childhood asthma in the United States are estimated to be between \$1.4 billion and \$6.4 billion, but these costs could be reduced through better management of asthma to prevent hospitalizations.<sup>315</sup>

In the Santa Cruz Region, between 2016 and 2020, there were 290 emergency room visits due to asthma for children up to age 14 (Table 22). A smaller set of children presented with cases severe enough to need hospitalization. In the region, there were 62 hospitalizations of children aged birth-14, of which 30 were children aged birth-4 (both excluding newborns), due to asthma during the same 5-year period. The average length of a child’s hospital stay was 2.2 days.

Table 22. Hospitalizations and emergency room visits due to asthma, 2016-2020 combined

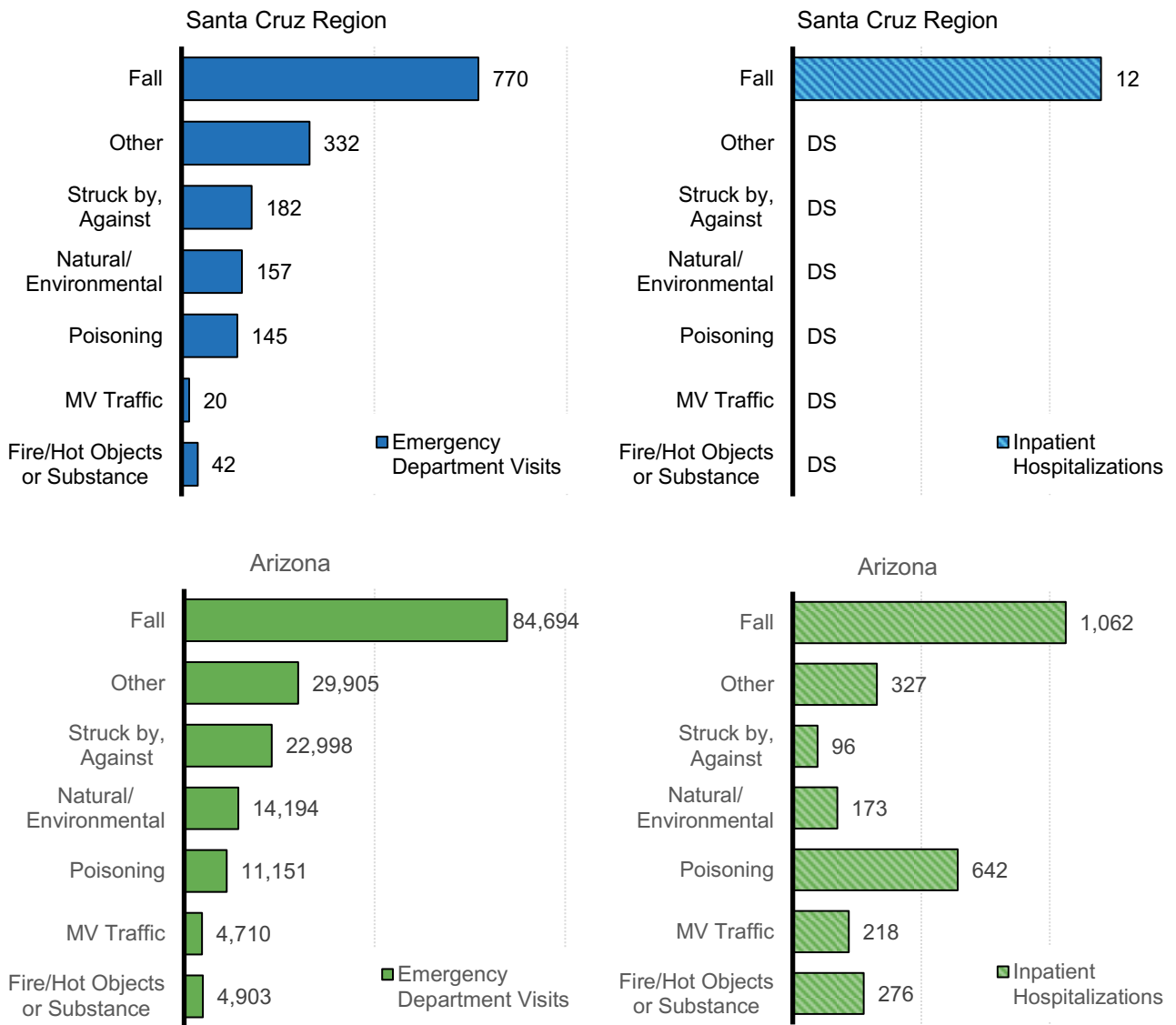
Geography	Number of inpatient asthma hospitalizations for children ages birth to 4 (except newborns)	Number of inpatient asthma hospitalizations for children ages birth to 14 (except newborns)	Average length of stay for asthma hospitalization for children ages birth to 14	Number of emergency department visits for asthma, children ages birth to 14
<b>Santa Cruz Region</b>	<b>30</b>	<b>62</b>	<b>2.2</b>	<b>290</b>
Santa Cruz County	30	62	2.2	295
Arizona	2,214	5,672	2.0	41,103

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.<sup>316,317</sup> 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 (i.e., car seats) in vehicles and supervision of children around water, including pools.<sup>318</sup> Research has shown that 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.<sup>319,320</sup>

Between 2016 and 2020, there were 1,720 non-fatal emergency department visits, and 24 non-fatal inpatient hospitalizations for unintentional injuries in the Santa Cruz Region among children aged birth to 4. The most common reason for emergency departments visits was falls, accounting for nearly half of emergency department visits (Figure 76). Given the large numbers of falls, they were unsurprisingly also the most common cause of hospitalizations. The pattern of unintentional injuries and hospitalizations in the region closely resembles the same pattern seen statewide.

Figure 76. 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 20<sup>th</sup> lowest infant mortality rate nationwide in 2019.<sup>321</sup> 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.<sup>322,323</sup>

In the Santa Cruz Region, 7 children (ages 0-17) died in 2018 and 8 in 2019 (data on the cause of these deaths was not available) (Table 23). The number of infant deaths was under 6 each of those years, and the number of deaths of young children was 6 in each of those years. Given the population of young children, this put the young child mortality rate in Santa Cruz County at 163.5 per 100,000 in 2019, which is higher than the 117.4 per 100,000 for the state of Arizona as a whole (Table 23).

Table 23. 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)
<b>Santa Cruz Region</b>	<b>2018</b>	<6	DS	<b>6</b>	<b>N/A</b>	<b>7</b>	<b>N/A</b>
	<b>2019</b>	<6	DS	<b>6</b>	<b>N/A</b>	<b>8</b>	<b>N/A</b>
Santa Cruz County	2018	<6	DS	6	165.6	7	64.1
	2019	<6	DS	6	163.5	8	73.6
Arizona	2018	447	5.6	562	127.4	824	65.2
	2019	430	5.4	513	117.4	777	61.6
Healthy People 2020 Target			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.

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.<sup>324,325,326,327,328</sup> 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.<sup>329</sup> 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.<sup>xxxii,330</sup>

Unfortunately, not all children are able to begin their lives in positive, stable, nurturing environments. Adverse childhood experiences (ACEs)<sup>xxxii</sup> have been associated with developmental disruption, mental illness, drug and alcohol use and overall increased healthcare utilization.<sup>331,332</sup> 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.<sup>333</sup> Future poor health outcomes are more likely as an individual's ACE score increases.<sup>334</sup> 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%).<sup>335</sup> 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.<sup>336</sup> These children and their families may require specific, targeted resources and interventions in order to reduce harm and prevent future risk.<sup>337</sup>

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.<sup>338</sup> Strategies for preventing ACEs include: strengthening economic supports for families; promoting social norms that protect against violence and adversity; 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.<sup>339</sup>

## What the Data Tell Us

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

<sup>xxxiii</sup> 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.



## Home Visitation

A child's reading skills when entering elementary school have been shown to strongly predict academic performance in later grades, emphasizing the importance of early literacy for future academic success.<sup>340,341</sup> Home-based literacy practices between parents and caregivers and young children, specifically, have been shown to improve children's reading and comprehension, as well as children's motivation to learn.<sup>342,343</sup> However, low-income families may face additional barriers to home-based literacy practices, including limited free time with children, limited access to books at home, and a lack of knowledge of kindergarten readiness.<sup>344</sup> Communities may employ many resources to support families in engaging with their children, including through targeted programs like home visitation programs and "stay and play" programs, or participating in larger initiatives like Read On Arizona or the national "Reach Out & Read" program.<sup>345</sup> Home visitation has been a funding priority for the Santa Cruz Region in recent years; the goal for SFY2022 is to serve 62 families.<sup>346</sup> The grantee, Santa Cruz County Superintendent's Office, runs the Los Padres son Los Primeros Profesores (Parents are the First Teachers) program. Mariposa Community Health Center runs the Health Start home visitation program for pregnant women and women with children under the age of 2.

The Santa Cruz Region also has 3 Family Resource Centers run by University of Arizona Cooperative Extension in Nogales, Rio Rico, and Patagonia. These centers provide free classes in parenting, child development, child enrichment, and more.

## Mental Health

The foundation for sound mental health is built early in life, as early experiences shape the architecture of the developing brain. Sound mental health provides an essential foundation of stability that supports all other aspects of human development—from the formation of friendships and the ability to cope with adversity to the achievement of success in school, work, and community life.<sup>347</sup> When young children experience stress and trauma, they often suffer physical, psychological and behavioral consequences and have limited responses available to react to those experiences. Mental health supports, both for children and caregivers, are often needed to address exposure to adverse childhood experiences. Understanding the mental health of mothers is also 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.<sup>348</sup> Improving supports available through coordinated, collaborative efforts are key to early identification and intervention with young children and their families.<sup>349,350</sup>

The COVID-19 pandemic has caused heightened stress, anxiety and depression in both children and caregivers.<sup>351</sup> While the average stress level for U.S. adults as a whole was significantly higher than pre-pandemic, according to the *Stress in America*<sup>TM</sup> 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).<sup>352</sup> 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 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).<sup>353</sup> 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. 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.<sup>354,355,356</sup> 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.<sup>357</sup> Access to family support services will be all the more critical for young children and their families as the pandemic continues.

### **Substance Use Disorders**

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 (preterm), have low birth weight, die from sudden infant death syndrome (SIDS) and have weaker lungs than babies born to mothers who do not smoke.<sup>358,359</sup> 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.<sup>360</sup> This can create longer hospital stays, increase health care costs and increase complications for infants born with NAS. Infants whose mothers use cannabis (marijuana) while pregnant often have lower birth weights and are more likely to be placed in neonatal intensive care compared to infants whose mothers had not used cannabis during pregnancy.<sup>361</sup> As noted previously (Table 19) between 2016 and 2020, there were 15 newborns in the Santa Cruz Region hospitalized because of maternal drug use during pregnancy.

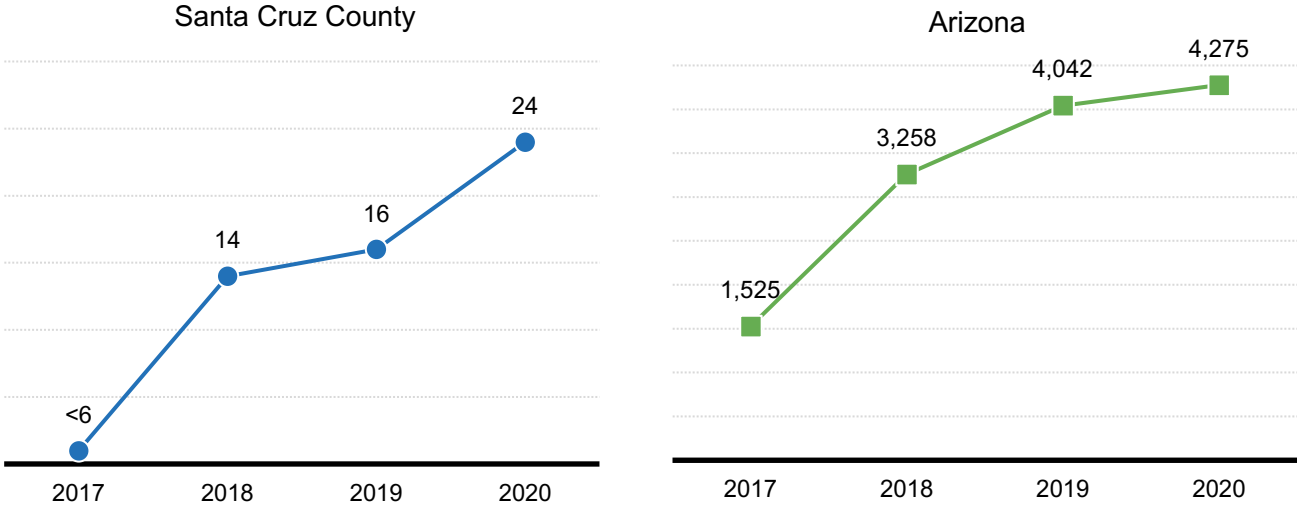
Parental substance abuse also has other impacts on family wellbeing. According to the National Survey of Children's Health, young children in Arizona are more than twice as likely to live with someone with a problem with alcohol or drugs than children in the US as a whole (9.8% compared to 4.5%).<sup>362</sup> 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.<sup>363,364</sup> 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.<sup>365</sup>

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 COVID-19 pandemic.<sup>366</sup> 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.<sup>367</sup> 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.<sup>368</sup> This rise in substance use issues coincides with a time when people of color have disproportionately dealt with negative effects of the pandemic, including stress, job loss, illness, and death.

In Santa Cruz County, the number of non-fatal overdoses involving opioids or opiates steadily increased between 2017 and 2020, rising to a high of 24 overdoses in 2020 (Figure 77). These rising numbers may reflect both a rise in opioid use, but also a rise in the prevention of opioid-related deaths, thanks to a 2017 public health initiative. In November 2017, the Director of Arizona Department of Health Services (ADHS) issued a standing order allowing any Arizona-licensed pharmacist in any pharmacy to dispense naloxone (which goes by the brand name Narcan) to anyone.<sup>369</sup> Naloxone is a life-saving medication that counters the effects of an opioid overdose. During the same time period, 2017-2020, there were 35 deaths with opioids or opiates as a contributing factor in Santa Cruz County.

Figure 77. Number of non-fatal overdoses with opioids or opiates contributing to the overdose, 2017 to 2020



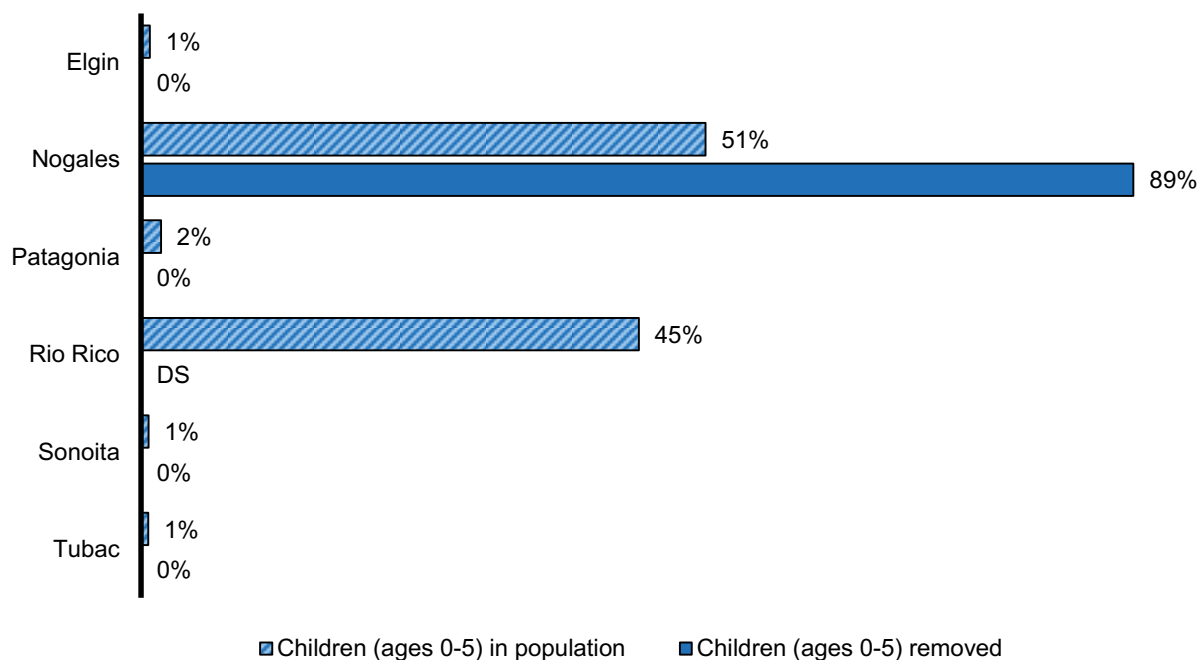
Source: Arizona Department of Health Services (2021). [Hospital Discharge dataset]. Unpublished data.

### Child Removals and Foster Care

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.<sup>370</sup>

In the Santa Cruz Region, DCS has removed 21 children ages birth to 5 from their homes in SFY2019 and 16 in SFY2020. Of these children, 89% lived in the Nogales subregion (Figure 78). Given that about 51% of young children live in the Nogales subregion, the area has a level of removals higher than would be expected (although again, given such small numbers overall, just a few children can make a relatively big difference).

Figure 78. Share of children ages birth to 5 removed by DCS in the Santa Cruz Region by sub-region 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 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.

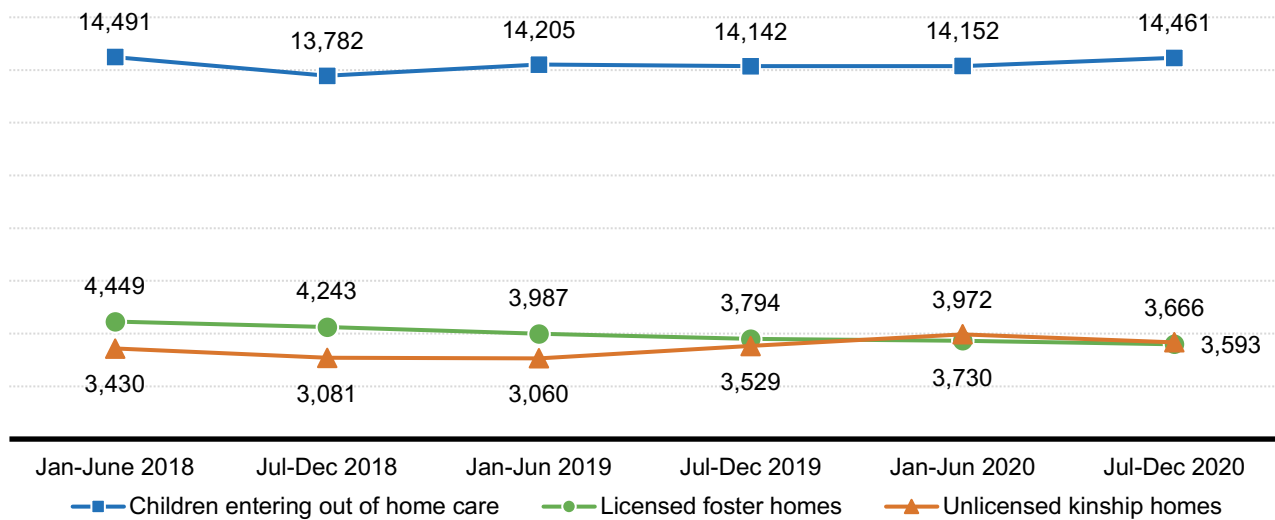
The Arizona Department of Child Safety (DCS) produces a semi-annual report on child welfare services which includes types of maltreatment experienced by children involved with DCS. In 2020, there were 168 maltreatment reports for children aged birth to 17 made in Santa Cruz County that were assigned for investigation. Of the 15 substantiated reports, 13 (87%) were due to neglect and 2 (13%) were due to physical abuse.<sup>371</sup>

Across Arizona, there is a large gap between the number of children needing placements and the number of licensed foster homes and unlicensed kinship homes available (Figure 79). Statewide, the number of licensed foster homes has been steadily declining since 2018, whereas the number of unlicensed kinship homes appeared to have been on an increasing trend since 2019, until the pandemic. Key informants in the Santa Cruz region note that there are no local agencies to certify foster families, which makes it

challenging to address this need. Key informants also noted that low reimbursement rates also offer little in the way of an incentive to formalize any kinship care that may be happening informally.

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.<sup>372</sup> Research shows that children in kinship care placements have better wellbeing, fewer mental health disorders, fewer behavioral problems and less placement disruption than children in non-relative foster care.<sup>373</sup> Kinship families may however need additional supports navigating the child welfare system and accessing resources as they support children who may have experienced trauma.<sup>374</sup> Such families may benefit from nearly \$15 million in CARES Act funding for the state of Arizona for child welfare agencies,<sup>375</sup> issued as part of the federal response to the pandemic.

Figure 79. Children entering out-of-home care compared to the number of licensed foster homes and unlicensed kinship homes in Arizona, January 2018 to December 2020



Source: Department of Child Safety (2021). *Semiannual child welfare reports, Sept 2018 to March 2021*. Retrieved from <https://dcs.az.gov/reports>

Additional data tables related to *Family Support and Literacy* 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 Santa Cruz 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 subregions and school districts when available.

The quantitative data reported here, as well as qualitative information provided by key informants during a data interpretation session held in September 2021, highlight some of the Santa Cruz Region's many strengths. A summary of identified regional assets is included below.

## *Population Characteristics*

- Supportive extended-family households and networks are helping to raise children.
- A majority (52%) of all residents in the region are proficiently multilingual.

## *Economic Circumstances*

- Pre-pandemic, county unemployment rates had been steadily declining (from 15.5% in 2010-2013 to 8.7% in 2019)
- The Summer Food Service Program was used to support families during school closures during the COVID-19 pandemic, serving nearly 400,000 meals in 2019-20.

## *Educational Indicators*

- The four and five-year graduation rates in the region have been increasing and are substantially higher than across Arizona as a whole.
- The drop-out rate has steadily declined and was under 1% in the 2019-20 school year.

## *Early Learning*

- All 8 providers who participate in Arizona's Quality First program have achieved a 3-star rating or higher, indicating that they meet quality standards.
- Speaking to the sense of community in the region, key informants relayed stories about how some providers stayed open during the peak of the pandemic to support the front-line workers in the region.
- DES's Child Care COVID-19 grant program helped 41 Santa Cruz Region 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.
- In June 2019, the DES child care subsidy waitlist was suspended, meaning that instead of a waitlist of about 60 children in recent years, all children who qualify for subsidies are able to receive them, assuming that they are able to find a provider.

## *Child Health*

- The region is performing better than the state overall and is meeting Healthy People 2020 goals for minimizing low birthweight births (6.7%) and prematurity (7.6%).
- The Santa Cruz region has notably low rates of maternal tobacco use during pregnancy; fewer than 1% of mothers report using tobacco while pregnant.
- The Santa Cruz Valley Unified School District offers telehealth visits at the high school to support physical well-being of their students. This resource is especially valuable in supporting pregnant students accessing prenatal care.
- The percent of WIC-enrolled infants ever breastfed in the region has increased from 77% in 2016 to 86% in 2020 and is consistently higher than that statewide.
- Children in the region are well-protected against diseases prevented by required vaccinations, including measles, mumps, rubella, polio, diphtheria, tetanus, and pertussis (whooping cough).

## *Family Support and Literacy*

- Active home visiting programs in the region help reach families with young children where they are living to provide accessible parenting advice and support.
- Family Resource Centers are active hubs of parent engagement.

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 more extensive list of regional challenges follows, but we first summarize key needs in the region based on available data. The Santa Cruz Regional Partnership Council supports multiple efforts that aim to address these major challenges, and many of these challenges are challenges seen statewide as well. These include:

- **A need for affordable, high quality and accessible child care** – The capacity of early care and education slots available compared to the number of young children in the region point to a shortage of early care and learning opportunities in the region. While all 8 locally participating providers in the Quality First program have achieved a quality rating, these providers can only provide care for 266 children if operating at full capacity. Key informants noted that working parents struggle to find an available spot in Quality First programs. Furthermore, none of the centers that participated in the cost survey accepted infants at their center, suggesting that parents who need infant care may face especially limited options.
- **A need for an improved educational pipeline** – Young children in the Santa Cruz Region are often progressing into an educational setting that is not performing at an optimal level. Chronic absenteeism and low passing rates on AzMERIT suggest that schools are struggling to prepare all students for a successful future. Nearly a quarter of adults lack a high school degree; this is true for 1 in every 3 adults in Nogales. Parenting education and home visitation programs may

help parents feel confident in their abilities to be their child's first teacher, regardless of their own education level.

- **The need for additional early intervention services** –Approximately 1% of young children in the region are receiving services from Arizona Early Intervention Program or the Division of Developmental Disabilities, which is half the proportion seen statewide, and far lower than the estimated 13% of children ages 0-2 in the U.S. who have developmental delays that could benefit from early intervention services. Less than a quarter of those referred for evaluation have been found eligible in recent years, suggesting there are many families with concerns about their children's development who are not receiving services. Arizona as a whole has been among the bottom five states in terms of young children receiving early intervention services.<sup>376</sup> These services can be an important tool in reducing the need for special educational supports in later school years.
- **Support for grandparents raising grandchildren and other kinship caregivers** – High percentages of children in some communities live with relatives or grandparents who are responsible for their care. Grandfamilies and kinship caregivers often have unique needs related to raising young children in all parts of the region. Additional services for kinship caregivers, particularly kinship care navigation services, could help support these families.

Additional regional challenges highlighted in this report include:

### *Population Characteristics*

- About 1 in 5 households are identified as "limited-English-speaking," which means that no adult or teenager in the household speaks English very well.
- Over half (58%) of grandparents responsible for raising their grandchildren speak a language other than English at home and do not speak English "very well," meaning that bilingual resources and service providers are a must in the region.

### *Economic Characteristics*

- Incomes in Santa Cruz County are substantially lower than elsewhere in Arizona.  
More than one out of every three children under the age of 6 (38%) live in families with incomes below the poverty level.
- Measures designed to support economically vulnerable families during the pandemic may have been less accessible or underutilized in the region. Specifically, only about a sixth of eligible young children were enrolled in Pandemic EBT, and the federally issued Economic Impact Payments were not initially available to families where at least one parent files taxes using an Individual Taxpayer Identification Number (ITIN) (as a resident or nonresident immigrant) instead of a Social Security Number (SSN).
- Unemployment in the county remains relatively high compared to the rest of Arizona.



- Rental units are relatively expensive for families, with 47% of renter-occupied housing units in the region costing more than 30% of household income, the benchmark for being housing-cost burdened.
- In stark contrast to declining numbers statewide, the number of students experiencing homelessness in Santa Cruz Region school has risen considerably in recent years. In October 2019, the Santa Cruz Region had 373 students experiencing homelessness enrolled in public and charter schools. Although more recent data are not yet available, the economic upheaval brought on by the pandemic will likely raise that number.
- About 1 in 6 households lacks access to a smartphone or computer at home and thus likely have limited ability to interact with digital resources, which likely presented additional challenges in accessing the remote and virtual platforms that arose during the COVID-19 pandemic.

### ***Educational Indicators***

- Nearly one in 5 (19%) children enrolled in kindergarten through third grade in the Santa Cruz Region in the 2018-19 school year were considered chronically absent.
- The majority of third-grade students are not passing the math (59%) or ELA (58%) AzMERIT assessments.

### ***Early Learning***

- There are 4.5 times as many children as there are child care slots in the region, meaning the region meets the definition of a “child care desert.” The child care shortage appears to be the worst in the Rio Rico subregion, where there are 10 times as many young children as there are slots.
- Closures of large providers meant that the Rio Rico and Nogales subregions lost 74% and 71% of their child care capacity, respectively, during the pandemic.
- There are limited infant care options in the region.

### ***Child Health***

- In recent years, over a quarter (26% in 2019) of babies were born to mothers who had fewer than 5 total prenatal visits, and about 1 in every 8 babies (12% in 2019) was born to a mother who had received no prenatal care at all.
- Although still low overall, the rate of exemptions from required vaccines for young children in child care has risen in recent years.

### ***Family Support and Literacy***

- In Santa Cruz County, the number of non-fatal overdoses involving opioids or opiates steadily increased between 2017 and 2020, rising to a high of 24 overdoses in 2020.

These needs are complex issues that have root causes that no single organization can tackle alone. 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 Santa Cruz Regional Partnership Council and staff, local providers, and other community stakeholders in the region. Families are drawn to the Santa Cruz 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 Santa Cruz Region.

# APPENDIX 1: ADDITIONAL DATA TABLES

## Population Characteristics

Table 24. Number of babies born, 2015 to 2019

Geography	CY 2014	CY 2015	CY 2016	CY 2017	CY 2018	CY 2019
<b>Santa Cruz Region</b>	<b>589</b>	<b>618</b>	<b>637</b>	<b>630</b>	<b>606</b>	<b>596</b>
Santa Cruz County	599	621	642	633	617	599
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 25. Race and ethnicity for the mothers of babies born in 2018 and 2019

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
<b>Santa Cruz Region</b>	<b>2018</b>	<b>606</b>	<b>6%</b>	<b>93%</b>	<b>0%</b>	<b>0%</b>	<b>0%</b>
	<b>2019</b>	<b>596</b>	<b>5%</b>	<b>94%</b>	<b>0.2%</b>	<b>0.2%</b>	<b>0.2%</b>
Santa Cruz County	2018	617	6%	93%	0.2%	0.3%	0.3%
	2019	599	5%	94%	0.2%	0.2%	0.2%
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.

Table 26. 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 with one or two foreign-born parents	
		Number	Percent
<b>Santa Cruz Region</b>	<b>3,943</b>	<b>1,856</b>	<b>47%</b>
Elgin	N/A	N/A	N/A
Nogales	1,576	952	60%
Patagonia	118	6	5%
Rio Rico	2,106	891	42%
Sonoita	N/A	N/A	N/A
Tubac	N/A	N/A	N/A
Tumacacori	N/A	N/A	N/A
Santa Cruz County	3,963	1,858	47%
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 stepparents. Reliable data are not available for the Elgin, Sonoita, Tubac, or Tumacacori sub-regions due to sample size limitations.

Table 27. Language spoken at home (by persons ages 5 and older), 2015-2019 ACS

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
<b>Santa Cruz Region</b>	<b>43,134</b>	<b>20%</b>	<b>79%</b>	<b>1%</b>
Elgin	769	91%	7%	3%
Nogales	20,838	10%	89%	1%
Patagonia	1,184	73%	25%	2%
Rio Rico	17,895	17%	82%	1%
Sonoita	995	92%	7%	1%
Tubac	1,279	77%	23%	0%
Tumacacori	174	52%	48%	0%
Santa Cruz County	43,169	20%	79%	1%
Arizona	6,616,331	73%	20%	7%
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 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 28. 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
<b>Santa Cruz Region</b>	<b>43,134</b>	<b>20%</b>	<b>52%</b>	<b>28%</b>
Elgin	769	91%	8%	2%
Nogales	20,838	10%	54%	36%
Patagonia	1,184	73%	19%	8%
Rio Rico	17,895	17%	58%	24%
Sonoita	995	92%	7%	1%
Tubac	1,279	77%	20%	3%
Tumacacori	174	52%	48%	0%
Santa Cruz County	43,169	20%	52%	28%
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 29. Limited-English-speaking households, 2015-2019 ACS

Geography	Estimated number of households	Number and percent of limited-English-speaking households	
		Number	Percent
<b>Santa Cruz Region</b>	<b>15,818</b>	<b>2,857</b>	<b>18%</b>
Elgin	351	0	0%
Nogales	7,419	2,206	30%
Patagonia	538	30	6%
Rio Rico	6,243	611	10%
Sonoita	431	10	2%
Tubac	752	0	0%
Tumacacori	84	0	0%
Santa Cruz County	15,853	2,859	18%
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 30. Number of English Language Learners enrolled in 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
<b>Santa Cruz Region schools</b>	<b>1,121</b>	<b>812</b>	<b>1,176</b>
Santa Cruz County schools	1,038	684	1,051
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 on the Arizona English Language Learner Assessment and thus eligible for additional supportive services for English language acquisition. Please note that the difference between the region and county is due to charters, specifically Colegio Petite. Colegio Petite is based in Phoenix but has a Nogales campus. Due to how the Arizona Department of Education handles assigning schools to counties, all Colegio Petite students, including those in Nogales, get assigned to Maricopa. The customized regional data assigns the Nogales campus students to the Santa Cruz Region. Additionally, there were reporting anomalies in the data reported by the Santa Cruz Valley Unified School District in the 2018-19 school year that led to a very low number of students reported enrolled in that district and affected overall regional enrollment counts in that year.

Table 31. 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
<b>Santa Cruz Region schools</b>	<b>39%</b>	<b>39%</b>	<b>41%</b>
Santa Cruz County schools	37%	35%	38%
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 are not deemed 'proficient' in the English language and thus eligible for additional supportive services for English language acquisition. The difference between the region and county is due to charters, specifically Colegio Petite. Colegio Petite is based in Phoenix but has a Nogales campus. Due to how the Arizona Department of Education handles assigning schools to counties, all Colegio Petite students, including those in Nogales, get assigned to Maricopa. The customized regional data assigns the Nogales campus students to the Santa Cruz Region.



Table 32. Living arrangements for children ages birth to 5, 2015-2019 ACS

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
<b>Santa Cruz Region</b>	<b>3,982</b>	<b>48%</b>	<b>51%</b>	<b>1%</b>	<b>0.3%</b>
Elgin	N/A	N/A	N/A	N/A	N/A
Nogales	1,576	45%	55%	0%	0%
Patagonia	118	58%	42%	0%	0%
Rio Rico	2,106	49%	51%	0%	0%
Sonoita	N/A	N/A	N/A	N/A	N/A
Tubac	N/A	N/A	N/A	N/A	N/A
Tumacacori	N/A	N/A	N/A	N/A	N/A
Santa Cruz County	4,011	47%	51%	1%	0.4%
Arizona	517,483	59%	37%	3%	2%
United States	23,640,563	63%	33%	2%	2%

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. Reliable data are not available for the Elgin, Sonoita, Tubac, or Tumacacori sub-regions due to sample size limitations. 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)

Table 33. Grandchildren ages birth to 5 living in a grandparent’s household, 2015-2019 ACS

Geography	Estimated number of children (birth to 5 years old) living in households	Number and percent living in their grandparent’s household	
		Number	Percent
<b>Santa Cruz Region</b>	<b>3,982</b>	<b>750</b>	<b>19%</b>
Elgin	N/A	N/A	N/A
Nogales	1,576	217	14%
Patagonia	118	46	39%
Rio Rico	2,106	411	20%
Sonoita	N/A	N/A	N/A
Tubac	N/A	N/A	N/A
Tumacacori	N/A	N/A	N/A
Santa Cruz County	4,011	771	19%
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. Reliable data are not available for the Elgin, Sonoita, Tubac, or Tumacacori sub-regions due to sample size limitations.

## Economic Circumstances

Table 34. 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
Santa Cruz County	\$46,700	\$51,700	\$22,200	\$27,000
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. The medians have been rounded to the nearest hundred dollars.

Figure 80. Rates of poverty for persons of all ages and for children ages birth to 5, 2015-2019 ACS

Geography	Estimated population for whom poverty status can be determined (all ages)	Percent of the population below the poverty level	Estimated number of children for whom poverty status can be determined (birth to 5 years old)	Percent of children below the poverty level
<b>Santa Cruz Region</b>	<b>46,076</b>	<b>23%</b>	<b>3,970</b>	<b>38%</b>
Elgin	796	8%	N/A	N/A
Nogales	21,759	30%	1,576	44%
Patagonia	1,285	15%	118	3%
Rio Rico	19,681	19%	2,106	39%
Sonoita	1,039	16%	N/A	N/A
Tubac	1,342	7%	N/A	N/A
Tumacacori	174	0%	N/A	N/A
Santa Cruz County	46,120	23%	3,994	38%
Arizona	6,891,224	15%	508,453	23%
United States	316,715,051	13%	23,253,254	20%

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

Note: This table 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. Reliable data for young children in poverty are not available for the Elgin, Sonoita, Tubac, or Tumacacori sub-regions due to sample size limitations.

Table 35. Children ages birth to 5 living at selected poverty thresholds, 2015-2019 ACS

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
<b>Santa Cruz Region</b>	<b>3,970</b>	<b>15%</b>	<b>24%</b>	<b>27%</b>	<b>34%</b>
Elgin	N/A	N/A	N/A	N/A	N/A
Nogales	1,576	17%	27%	27%	30%
Patagonia	118	3%	0%	45%	52%
Rio Rico	2,106	15%	24%	28%	33%
Sonoita	N/A	N/A	N/A	N/A	N/A
Tubac	N/A	N/A	N/A	N/A	N/A
Tumacacori	N/A	N/A	N/A	N/A	N/A
Santa Cruz County	3,994	14%	23%	27%	35%
Arizona	508,453	11%	13%	22%	54%
United States	23,253,254	9%	11%	19%	60%

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. Reliable data are not available for the Elgin, Sonoita, Tubac, or Tumacacori sub-regions due to sample size limitations.

Table 36. Families with children ages birth to 5 receiving TANF, state fiscal years 2016 to 2020

Geography	Households with one or more children (ages 0-5)	Number of families with children (ages 0-5) participating in TANF					Percent of households with young children (ages 0-5) participating in TANF in SFY 2020
		SFY 2016	SFY 2017	SFY 2018	SFY 2019	SFY 2020	
<b>Santa Cruz Region</b>	<b>3,219</b>	<b>138</b>	<b>106</b>	<b>96</b>	<b>87</b>	<b>73</b>	<b>3%</b>
Santa Cruz County	3,231	138	106	96	88	73	3%
Arizona	384,441	13,925	12,315	10,538	9,360	9,947	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 P20.

Table 37. Children ages birth to 5 receiving TANF, state fiscal years 2016 to 2020

Geography	Number of young children (ages 0-5) in the population	Number of young children (ages 0-5) participating in TANF					Percent of young children (ages 0-5) participating in TANF in SFY 2020
		SFY 2016	SFY 2017	SFY 2018	SFY 2019	SFY 2020	
<b>Santa Cruz Region</b>	<b>4,416</b>	<b>177</b>	<b>151</b>	<b>137</b>	<b>115</b>	<b>96</b>	<b>2%</b>
Santa Cruz County	4,435	177	151	137	117	96	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.

Table 38. Families participating in SNAP, state fiscal years 2016 to 2020

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
		SFY 2016	SFY 2017	SFY 2018	SFY 2019	SFY 2020	
<b>Santa Cruz Region</b>	<b>3,219</b>	<b>1,955</b>	<b>1,909</b>	<b>1,771</b>	<b>1,653</b>	<b>1,481</b>	<b>46%</b>
Santa Cruz County	3,231	1,960	1,913	1,780	1,659	1,485	46%
Arizona	384,441	171,977	164,092	151,816	140,056	132,466	34%

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

Geography	Number of young children (ages 0-5) in the population	Number of children (0-5) participating in SNAP					Percent of young children (0-5) participating in SNAP in SFY 2020
		SFY 2016	SFY 2017	SFY 2018	SFY 2019	SFY 2020	
<b>Santa Cruz Region</b>	<b>4,416</b>	<b>2,752</b>	<b>2,719</b>	<b>2,562</b>	<b>2,387</b>	<b>2,129</b>	<b>48%</b>
Santa Cruz County	4,435	2,760	2,726	2,576	2,395	2,133	48%
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 40. Children ages birth to 17 and birth to 5 receiving Pandemic EBT, March to May 2021

Geography	Children ages 0-17 receiving P-EBT			Children ages 0-5 receiving P-EBT		
	March 2021	April 2021	May 2021	March 2021	April 2021	May 2021
<b>Santa Cruz Region</b>	<b>10,082</b>	<b>10,076</b>	<b>10,083</b>	<b>448</b>	<b>394</b>	<b>343</b>
Santa Cruz County	10,103	10,097	10,104	449	395	344
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.

Table 41. Women enrolled in WIC, 2016 to 2020

Geography	Enrolled women, 2016	Enrolled women, 2017	Enrolled women, 2018	Enrolled women, 2019	Enrolled women, 2020
<b>Santa Cruz Region</b>	<b>1,048</b>	<b>993</b>	<b>966</b>	<b>877</b>	<b>792</b>
Santa Cruz County	1,077	1,022	1,003	906	822
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 42. Women participating in WIC, 2016 to 2020

Geography	Participating women, 2016	Participating women, 2017	Participating women, 2018	Participating women, 2019	Participating women, 2020
<b>Santa Cruz Region</b>	<b>1,005</b>	<b>950</b>	<b>915</b>	<b>837</b>	<b>762</b>
Santa Cruz County	1,034	979	952	866	789
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 43. Children ages birth to 4 enrolled in WIC, 2016 to 2020

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
<b>Santa Cruz Region</b>	2,863	2,781	2,693	2,623	2,413
Santa Cruz County	2,929	2,853	2,765	2,697	2,484
Arizona	206,626	196,482	187,737	178,300	167,186

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

Table 44. 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
<b>Santa Cruz Region</b>	<b>2,712</b>	<b>2,638</b>	<b>2,590</b>	<b>2,472</b>	<b>2,291</b>
Santa Cruz County	2,774	2,708	2,657	2,546	2,361
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 45. Free and reduced-price lunch eligibility, 2017-18 to 2019-20

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
<b>Santa Cruz Region</b>	<b>78%</b>	<b>77%</b>	<b>77%</b>
Nogales Unified District	79%	79%	79%
Santa Cruz Valley Unified District	75%	75%	75%
Santa Cruz Elementary District	80%	75%	77%
Patagonia Elementary District	87%	79%	79%
Sonoita Elementary District	27%	24%	20%
Patagonia Union High School District	74%	65%	65%
Mexicayotl Academy, Inc.	92%	96%	95%
Colegio Petite	95%	78%	83%
Santa Cruz Region private schools	83%	84%	85%
Santa Cruz County schools	78%	77%	77%
Arizona schools	57%	56%	55%

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

Table 46. Lunches served through the National School Lunch Program, 2017-18 to 2019-20

Geography	Number of schools			Number of lunches served		
	2017-18	2018-19	2019-20	2017-18	2018-19	2019-20
<b>Santa Cruz Region schools</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
Santa Cruz County schools	23	23	23	1,299,306	1,309,491	1,002,324
Arizona schools	1,767	1,765	1,805	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 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: <https://www.azed.gov/hns/covid19>

Table 47. Lunches served through the Child and Adult Care Feeding Program, 2017-18 to 2019-20

Geography	Number of schools			Number of lunches served		
	2017-18	2018-19	2019-20	2017-18	2018-19	2019-20
<b>Santa Cruz Region schools</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
Santa Cruz County schools	5	4	4	30,204	29,576	16,877
Arizona schools	1,011	1,090	920	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 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: <https://www.azed.gov/hns/covid19>

Table 48. Lunches served through the Summer Food Service Program, 2017-18 to 2019-20

Geography	Number of schools			Number of lunches served		
	2017-18	2018-19	2019-20	2017-18	2018-19	2019-20
<b>Santa Cruz Region schools</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
Santa Cruz County schools	30	23	42	30,037	38,788	392,254
Arizona schools	1,207	1,076	2,520	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 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: <https://www.azed.gov/hns/covid19>

Table 49. 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
<b>Santa Cruz Region</b>	<b>3,943</b>	<b>16%</b>	<b>32%</b>	<b>0%</b>	<b>35%</b>	<b>17%</b>
Elgin	N/A	N/A	N/A	N/A	N/A	N/A
Nogales	1,576	21%	24%	0%	46%	9%
Patagonia	118	45%	13%	0%	3%	39%
Rio Rico	2,106	12%	38%	0%	28%	23%
Sonoita	N/A	N/A	N/A	N/A	N/A	N/A
Tubac	N/A	N/A	N/A	N/A	N/A	N/A
Tumacacori	N/A	N/A	N/A	N/A	N/A	N/A
Santa Cruz County	3,963	16%	32%	0%	35%	17%
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 stepparents. The five percentages in each row should sum to 100% but may not because of rounding. Reliable data are not available for the Elgin, Sonoita, Tubac, or Tumacacori sub-regions due to sample size limitations. 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)

Table 50. 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
<b>Santa Cruz Region</b>	<b>15,818</b>	<b>34%</b>	<b>10,707</b>	<b>29%</b>	<b>5,112</b>	<b>47%</b>
Elgin	351	33%	327	31%	23	59%
Nogales	7,419	38%	3,966	26%	3,453	51%
Patagonia	538	17%	368	16%	170	20%
Rio Rico	6,243	33%	4,902	31%	1,341	42%
Sonoita	431	23%	402	24%	29	0%
Tubac	752	33%	658	35%	95	14%
Tumacacori	84	11%	84	11%	0	N/A
Santa Cruz County	15,853	35%	10,725	29%	5,128	47%
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 51. Households with and without computers and smartphones, 2015-2019 ACS

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
<b>Santa Cruz Region</b>	<b>15,818</b>	<b>61%</b>	<b>5%</b>	<b>18%</b>	<b>17%</b>
Elgin	351	74%	8%	8%	10%
Nogales	7,419	51%	4%	21%	24%
Patagonia	538	67%	11%	9%	13%
Rio Rico	6,243	69%	5%	17%	9%
Sonoita	431	83%	4%	8%	6%
Tubac	752	75%	8%	3%	14%
Tumacacori	84	0%	18%	58%	24%
Santa Cruz County	15,853	61%	5%	18%	17%
Arizona	2,571,268	73%	7%	12%	8%
United States	120,756,048	71%	7%	13%	10%

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 52. 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
<b>Santa Cruz Region</b>	<b>45,990</b>	<b>79%</b>	<b>11%</b>	<b>10%</b>
Elgin	826	71%	24%	6%
Nogales	21,685	75%	10%	15%
Patagonia	1,260	86%	6%	8%
Rio Rico	19,681	82%	11%	6%
Sonoita	1,022	88%	9%	3%
Tubac	1,342	85%	4%	11%
Tumacacori	174	50%	26%	24%
Santa Cruz County	46,058	79%	10%	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 53. 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
<b>Santa Cruz Region</b>	<b>12,681</b>	<b>86%</b>	<b>9%</b>	<b>5%</b>
Elgin	108	93%	7%	0%
Nogales	6,436	84%	9%	7%
Patagonia	286	99%	1%	0%
Rio Rico	5,633	88%	10%	2%
Sonoita	135	100%	0%	0%
Tubac	N/A	N/A	N/A	N/A
Tumacacori	N/A	N/A	N/A	N/A
Santa Cruz County	12,685	86%	9%	5%
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. Reliable data are not available for the Tubac or Tumacacori sub-regions due to sample size limitations.

Table 54. 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
<b>Santa Cruz Region</b>	<b>36,269</b>	<b>84%</b>	<b>74%</b>	<b>0.27%</b>
Elgin	586	84%	75%	3%
Nogales	16,243	76%	75%	0.2%
Patagonia	1,084	89%	60%	1%
Rio Rico	16,227	90%	74%	0.2%
Sonoita	902	95%	80%	0%
Tubac	1,140	97%	51%	0%
Tumacacori	87	86%	57%	14%
Santa Cruz County	36,432	84%	73%	0.28%
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

Table 55. Kindergarten to 3rd grade students with chronic absences, 2018-19 to 2019-20

Geography	K-3 students enrolled, 2018-19	K-3 students with chronic absences, 2018-19	Chronic absence rate, 2018-19	K-3 students enrolled, 2019-20	K-3 students with chronic absences, 2019-20	Chronic absence rate, 2019-20
<b>Santa Cruz Region schools</b>	<b>2,056</b>	<b>384</b>	<b>19%</b>	<b>2,846</b>	<b>322</b>	<b>11%</b>
Nogales Unified District	1,518	292	19%	1,503	164	11%
Santa Cruz Valley Unified District	DS	DS	16%	868	133	15%
Santa Cruz Elementary District	78	16	21%	DS	DS	14%
Patagonia Elementary District	DS	DS	5%	DS	DS	2%
Sonoita Elementary District	DS	DS	17%	DS	DS	<2%
Mexicayotl Academy, Inc.	DS	DS	8%	DS	DS	<2%
Santa Cruz Valley Opportunities in Education, Inc.	DS	DS	15%	DS	DS	7%
Patagonia Montessori Elementary School	DS	DS	23%	DS	DS	10%
Colegio Petite	155	38	25%	DS	DS	6%
Santa Cruz County schools	1,934	350	18%	2,734	317	12%
Arizona schools	326,891	43,773	13%	329,300	25,382	8%

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 56. AzMERIT assessment results: 3rd grade English Language Arts, 2018-19

Geography	Students tested	Falls far below	Approaches	Meets	Exceeds	Passing
<b>Santa Cruz Region schools</b>	<b>728</b>	<b>44%</b>	<b>15%</b>	<b>31%</b>	<b>10%</b>	<b>42%</b>
Nogales Unified District	DS	41%	15%	32%	11%	43%
Santa Cruz Valley Unified District	DS	48%	15%	31%	6%	37%
Santa Cruz Elementary District	DS	25%	13%	42%	21%	63%
Patagonia Elementary District	DS	43%	36%	14%	7%	21%
Sonoita Elementary District	DS	47%	21%	32%	<2%	32%
Mexicayotl Academy, Inc.	DS	17%	4%	38%	42%	79%
Santa Cruz Valley Opportunities in Education, Inc.	DS	46%	<2%	31%	23%	54%
Patagonia Montessori Elementary School	DS	50%	<2%	50%	<2%	50%
Colegio Petite	DS	95%	<2%	5%	<2%	5%
Santa Cruz County schools	710	42%	15%	32%	11%	43%
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.

Table 57. AzMERIT assessment results: 3rd grade Math, 2018-19

Geography	Students tested	Falls far below	Approaches	Meets	Exceeds	Passing
<b>Santa Cruz Region schools</b>	<b>729</b>	<b>29%</b>	<b>30%</b>	<b>30%</b>	<b>11%</b>	<b>41%</b>
Nogales Unified District	DS	24%	28%	34%	14%	48%
Santa Cruz Valley Unified District	DS	33%	37%	23%	7%	30%
Santa Cruz Elementary District	DS	17%	38%	33%	13%	46%
Patagonia Elementary District	DS	50%	29%	14%	7%	21%
Sonoita Elementary District	DS	32%	32%	32%	5%	37%
Mexicayotl Academy, Inc.	DS	<2%	21%	58%	21%	79%
Santa Cruz Valley Opportunities in Education, Inc.	DS	23%	31%	23%	23%	46%
Patagonia Montessori Elementary School	DS	50%	50%	<2%	<2%	<2%
Colegio Petite	DS	87%	9%	4%	<2%	4%
Santa Cruz County schools	710	27%	31%	30%	12%	42%
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.

Table 58. 4-year and 5-year graduation rates, 2019

Geography	4-year senior cohort	4-year graduates	4-year graduation rate	5-year graduates	5-year graduation rate
<b>Santa Cruz Region schools</b>	<b>825</b>	<b>756</b>	<b>92%</b>	<b>782</b>	<b>94%</b>
Nogales Unified District	441	408	93%	421	95%
Santa Cruz Valley Unified District	328	306	93%	315	95%
Patagonia Union High School District	17	15	88%	16	94%
Pinnacle Education-Kino, Inc.	16	13	81%	14	82%
Educational Options Foundation	23	14	61%	16	67%
Santa Cruz County schools	802	742	93%	766	95%
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 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 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 59. Trends in 4-year and 5-year graduation rates, 2017 to 2019

Geography	4-year graduation rates			5-year graduation rates		
	2017	2018	2019	2017	2018	2019
<b>Santa Cruz Region schools</b>	<b>89%</b>	<b>91%</b>	<b>92%</b>	<b>91%</b>	<b>92%</b>	<b>94%</b>
Nogales Unified District	91%	92%	93%	93%	94%	95%
Santa Cruz Valley Unified District	92%	95%	93%	94%	96%	95%
Patagonia Union High School District	94%	95%	88%	94%	100%	94%
Pinnacle Education-Kino, Inc.	50%	61%	81%	58%	73%	82%
Educational Options Foundation	56%	47%	61%	70%	53%	67%
Santa Cruz County schools	91%	93%	93%	92%	94%	95%
Arizona schools	78%	78%	79%	82%	82%	83%

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

Table 60. 7<sup>th</sup> to 12<sup>th</sup> grade dropout rates, 2017-18 to 2019-20

Geography	Dropout rate, 2017-18	Dropout rate, 2018-19	Dropout rate, 2019-20
<b>Santa Cruz Region schools</b>	<b>1%</b>	<b>1%</b>	<b>1%</b>
Nogales Unified District	1%	1%	1%
Santa Cruz Valley Unified District	1%	1%	1%
Patagonia Union High School District	1%	0%	5%
Mexicayotl Academy, Inc.	0%	3%	0%
Pinnacle Education-Kino, Inc.	13%	1%	4%
Santa Cruz County schools	1%	1%	1%
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.

## Early Learning

Table 61. School enrollment for children ages 3 to 4, 2015-2019 ACS

Geography	Estimated number of children (3 or 4 years old)	Number and percent enrolled in school	
<b>Santa Cruz Region</b>	<b>1,449</b>	<b>563</b>	<b>39%</b>
Elgin	N/A	N/A	N/A
Nogales	470	191	41%
Patagonia	N/A	N/A	N/A
Rio Rico	849	339	40%
Sonoita	N/A	N/A	N/A
Tubac	N/A	N/A	N/A
Tumacacori	N/A	N/A	N/A
Santa Cruz County	1,473	565	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. Due to sample size limitations, sub-regional estimates are only available for the Nogales and Rio Rico sub-regions.

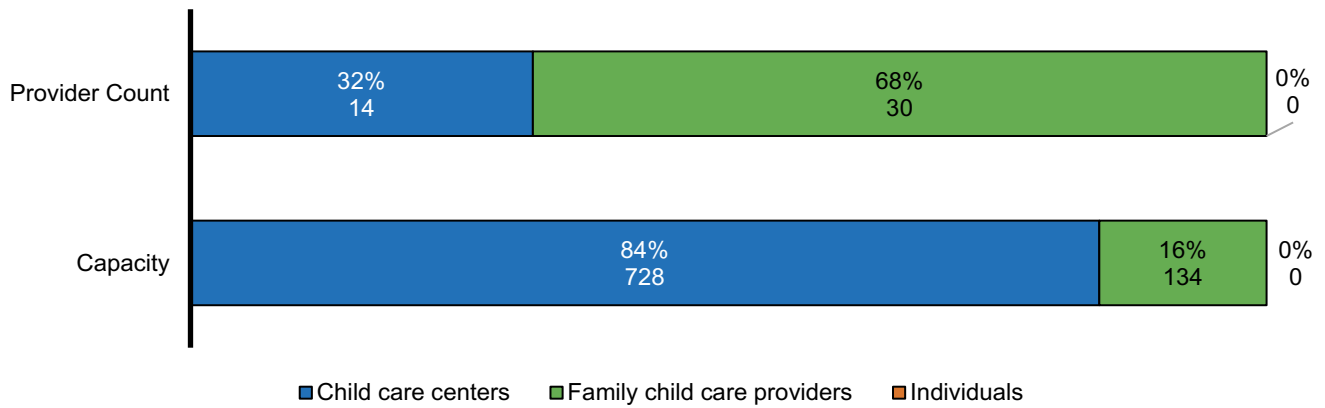
Table 62. Number and licensed capacity of licensed or registered child care providers by type, December 2020

Geography	All providers		Nannies or individual providers		Child care centers		Family child care providers	
	Number	Capacity	Number	Capacity	Number	Capacity	Number	Capacity
<b>Santa Cruz Region</b>	44	862	0	0	14	728	30	134
Elgin	0	0	0	0	0	0	0	0
Nogales	31	629	0	0	10	531	21	98
Patagonia	1	65	0	0	1	65	0	0
Rio Rico	11	122	0	0	2	86	9	36
Sonoita	0	0	0	0	0	0	0	0
Tubac	1	46	0	0	1	46	0	0
Tumacacori	0	0	0	0	0	0	0	0
Santa Cruz County	45	887	0	0	15	753	30	134
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: These are DES data and thus reflects DES capacity numbers for Calabasas preschool during the pandemic (27), rather than the ADHS capacity, which is listed as 102. 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 81. Number and capacity of providers listed in the Child Care Resource & Referral guide in the Santa Cruz Region by type



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

Note: 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.

Table 63. Quality First programs, state fiscal year 2020

Geography	Child care providers served	Child care providers with a 3-to-5-star rating	Percent of child care providers with a 3-to-5-star rating
<b>Santa Cruz Region</b>	<b>8</b>	<b>8</b>	<b>100%</b>
Santa Cruz County	N/A	N/A	N/A
Arizona	1,045	824	79%

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

Table 64. 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-to-5-star rating	Percent of children in a quality-level setting (3 to 5 stars)
<b>Santa Cruz Region</b>	<b>266</b>	<b>266</b>	<b>100%</b>
Santa Cruz County	N/A	N/A	N/A
Arizona	60,927	45,822	75%

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



Table 65. Number and capacity of Quality First programs, January 2021

Geography	Total Programs		2-Star Programs		3-Star Programs		4-Star Programs		5-Star Programs		Programs not publicly rated	
	No.	Capacity	No.	Capacity	No.	Capacity	No.	Capacity	No.	Capacity	No.	Capacity
<b>Santa Cruz Region</b>	8	292	0	0	4	139	2	41	2	112	0	0
Elgin	0	0	0	0	0	0	0	0	0	0	0	0
Nogales	3	132	0	0	1	85	1	37	1	10	0	0
Patagonia	0	0	0	0	0	0	0	0	0	0	0	0
Rio Rico	4	114	0	0	2	8	1	4	1	102	0	0
Sonoita	0	0	0	0	0	0	0	0	0	0	0	0
Tubac	1	46	0	0	1	46	0	0	0	0	0	0
Tumacacori	0	0	0	0	0	0	0	0	0	0	0	0
Santa Cruz County	8	217	0	0	4	139	2	41	2	37	0	0
Arizona	925	84,921	141	15,042	334	31,428	250	22,443	70	4,200	130	11,808

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

Geography	All providers		Providers closed		Providers open		Percent closed	
	Number	Capacity	Number	Capacity	Number	Capacity	Number	Capacity
<b>Santa Cruz Region</b>	44	862	12	538	32	324	27%	62%
Elgin	0	0	0	0	0	0	N/A	N/A
Nogales	31	629	9	448	22	181	29%	71%
Patagonia	1	65	0	0	1	65	0%	0%
Rio Rico	11	122	3	90	8	32	27%	74%
Sonoita	0	0	0	0	0	0	N/A	N/A
Tubac	1	46	0	0	1	46	0%	0%
Tumacacori	0	0	0	0	0	0	N/A	N/A
Santa Cruz County	45	887	13	563	32	324	29%	63%
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. These are DES data and thus reflects DES capacity numbers for Calabasas preschool during the pandemic (27), rather than the ADHS licensed capacity, which is listed as 102.

Table 67. Funded and cumulative enrollment in Santa Cruz Region Head Start programs, 2020-21

Center name	Funded enrollment	Cumulative enrollment	Waitlist
<b>Santa Cruz Region</b>	<b>308</b>	<b>200</b>	<b>49</b>
Rio Rico Head Start	54	36	14
Challenger Head Start	60	37	10
Western Head Start	57	37	17
Western Early Head Start	20	16	<10
Nogales Neighborhood Head Start	97	59	<10
Nogales Neighborhood Early Head Start	20	15	<10

Source: Child Parent Centers (2021). Head Start Program Data [Dataset]. Data received by request.

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.

Table 68. Funded enrollment in Santa Cruz Region Head Start programs by type, 2020-21

Center name	Expanded day	Part day	Early Head Start	Center-based enrollment	Home-based enrollment
<b>Santa Cruz Region</b>	<b>40</b>	<b>228</b>	<b>40</b>	<b>268</b>	<b>40</b>
Rio Rico Head Start	20	34	N/A	54	N/A
Challenger Head Start	0	60	N/A	60	N/A
Western Head Start	0	57	N/A	57	N/A
Western Early Head Start	N/A	N/A	20	0	20
Nogales Neighborhood Head Start	20	77	N/A	97	N/A
Nogales Neighborhood Early Head Start	N/A	N/A	20	0	20

Source: Child Parent Centers (2021). Head Start Program Data [Dataset]. Data received by request.

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. CCP stands for Child Care Partnership. Child Care Partnership is a program of Early Head Start that pairs 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.

Table 69. Cumulative enrollment in Santa Cruz Region Head Start programs by race, 2019-20

Center name	Hispanic or Latino origin	Non-Hispanic or Latino origin	American Indian or Alaska Native	Asian	Black	Pacific Islander	White	Multi-racial
<b>Santa Cruz Region</b>	<b>198</b>	<b>&lt;10</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>&lt;10</b>	<b>199</b>	<b>0</b>
Rio Rico Head Start	34	<10	0	0	0	0	36	0
Challenger Head Start	37	0	0	0	0	0	37	0
Western Head Start	37	0	0	0	0	<10	36	0
Western Early Head Start	16	0	0	0	0	0	16	0
Nogales Neighborhood Head Start	59	0	0	0	0	0	59	0
Nogales Neighborhood Early Head Start	15	0	0	0	0	0	15	0

Source: Child Parent Centers (2021). Head Start Program Data [Dataset]. Data received by request.

Table 70. Median daily charge for full-time child care, 2018

Geography	Approved family homes			Certified group homes			Licensed centers		
	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
<b>Santa Cruz Region</b>	<b>\$20.00</b>	<b>\$20.00</b>	<b>\$21.43</b>	<b>N/A</b>	<b>\$30.00</b>	<b>\$30.00</b>	<b>N/A</b>	<b>\$24.56</b>	<b>\$19.12</b>
Elgin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nogales	\$20.00	\$20.00	\$20.00	N/A	\$30.00	\$30.00	N/A	\$24.56	\$17.33
Patagonia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Rio Rico	\$20.00	N/A	\$27.00	N/A	N/A	N/A	N/A	N/A	N/A
Sonoita	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tubac	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$28.69
Tumacacori	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Santa Cruz County	\$20.00	\$20.00	\$21.43	N/A	\$30.00	\$30.00	N/A	\$24.56	\$19.12
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.

Table 71. Median monthly charge for full-time child care, 2018

Geography	Approved family homes			Certified group homes			Licensed centers		
	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
<b>Santa Cruz Region</b>	<b>\$400</b>	<b>\$400</b>	<b>\$429</b>	<b>N/A</b>	<b>\$600</b>	<b>\$600</b>	<b>N/A</b>	<b>\$491</b>	<b>\$382</b>
Elgin	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nogales	\$480	\$480	\$480	N/A	\$720	\$720	N/A	\$589	\$416
Patagonia	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Rio Rico	\$480	N/A	\$648	N/A	N/A	N/A	N/A	N/A	N/A
Sonoita	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tubac	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	\$688
Tumacacori	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Santa Cruz County	\$400	\$400	\$429	N/A	\$600	\$600	N/A	\$491	\$382
<b>Santa Cruz Region</b>	<b>\$400</b>	<b>\$400</b>	<b>\$429</b>	<b>N/A</b>	<b>\$600</b>	<b>\$600</b>	<b>N/A</b>	<b>\$491</b>	<b>\$382</b>
Arizona	\$400	\$400	\$400	\$600	\$560	\$560	\$861	\$760	\$660

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

Table 72. Cost of center-based child care for one child as a percentage of income, 2018

Geography	Median family income	Cost for an infant	Cost for a 1- to 2-year-old child	Cost for a 3- to 5-year-old child
<b>Santa Cruz Region</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
Santa Cruz County	\$46,700	N/A	12.6%	9.8%
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.

Table 73. Children receiving DES child care subsidies

Geography	Number of children receiving subsidy						Percent of eligible children receiving subsidy					
	2015	2016	2017	2018	2019	2020	2015	2016	2017	2018	2019	2020
<b>Santa Cruz Region</b>	<b>152</b>	<b>127</b>	<b>107</b>	<b>130</b>	<b>147</b>	<b>115</b>	91%	95%	92%	94%	95%	85%
Elgin	0	0	0	[1-9]	[1-9]	0	<b>91%</b>	<b>95%</b>	<b>92%</b>	<b>94%</b>	<b>95%</b>	<b>85%</b>
Nogales	94	74	72	82	111	85	N/A	N/A	N/A	DS	DS	N/A
Patagonia	0	[1-9]	[1-9]	0	0	0	89%	95%	91%	92%	93%	89%
Rio Rico	[49-57]	49	[26-34]	[39-47]	[27-35]	[21-29]	N/A	DS	DS	N/A	N/A	N/A
Sonoita	0	0	0	0	0	[1-9]	DS	96%	DS	DS	DS	DS
Tubac	0	0	0	0	0	0	N/A	N/A	N/A	N/A	N/A	DS
Tumacacori	[1-9]	[1-9]	0	0	0	0	N/A	N/A	N/A	N/A	N/A	N/A
Santa Cruz County	154	129	107	130	149	116	91%	96%	92%	94%	95%	85%
Arizona	19,040	17,784	16,922	19,813	23,155	19,909	94%	93%	93%	92%	92%	80%

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

Table 74. Eligible families not using DES child care subsidies, 2015 to 2020

Geography	2015	2016	2017	2018	2019	2020
<b>Santa Cruz Region</b>	<b>8%</b>	<b>6%</b>	<b>9%</b>	<b>6%</b>	<b>DS</b>	<b>14%</b>
Santa Cruz County	8%	6%	9%	6%	DS	14%
Arizona	6%	6%	7%	8%	8%	18%

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

Table 75. Children ages birth to 2 referred to and found eligible for AzEIP, federal fiscal years 2018 to 2020

Geography	Number of children (ages 0-2) referred to AzEIP			Number of children (ages 0-2) eligible for AzEIP			Percent of referrals found eligible		
	FFY 2018	FFY 2019	FFY 2020	FFY 2018	FFY 2019	FFY 2020	FFY 2018	FFY 2019	FFY 2020
<b>Santa Cruz Region</b>	<b>75</b>	<b>98</b>	<b>85</b>	<b>18</b>	<b>22</b>	<b>20</b>	<b>24%</b>	<b>22%</b>	<b>24%</b>
Santa Cruz County	75	98	85	18	22	20	24%	22%	24%
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 76. 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
<b>Santa Cruz Region</b>	<b>26</b>	<b>35</b>	<b>26</b>	<b>23</b>	<b>-12%</b>
Santa Cruz County	27	36	26	23	-15%
Arizona	5,520	6,123	4,005	4,078	-26%

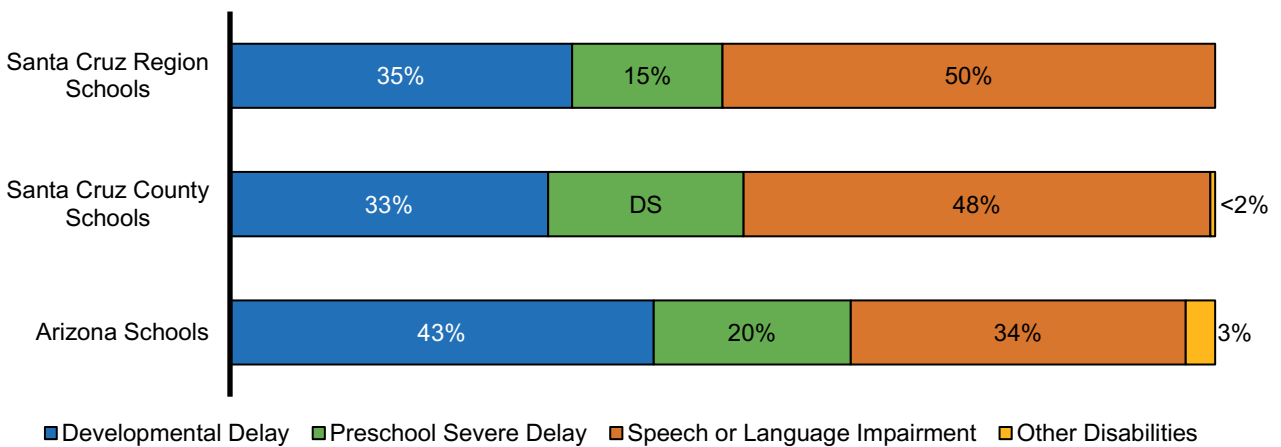
Source: Arizona Department of Economic Security (2021). [Division of Developmental Disabilities dataset]. Unpublished data.

Table 77. 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
<b>Santa Cruz Region schools</b>	<b>72</b>	<b>35%</b>	<b>15%</b>	<b>50%</b>	<b>&lt;2%</b>
Nogales Unified District	15	33%	40%	27%	<2%
Santa Cruz Valley Unified District	30	33%	10%	57%	<2%
Santa Cruz Elementary District	DS	<2%	<2%	>98%	<2%
Patagonia Elementary District	DS	N/A	N/A	N/A	N/A
Santa Cruz Region Head Start Centers	DS	38%	8%	54%	<2%
Santa Cruz County schools	46	33%	DS	48%	DS
Arizona schools	10,521	43%	20%	34%	3%

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

Figure 82. Preschoolers with disabilities receiving services through Local Education Authorities (LEAs) by type of disability, 2019-20



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



Table 78. Kindergarten to 3<sup>rd</sup> 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
<b>Santa Cruz Region schools</b>	289	<b>5%</b>	<b>27%</b>	<b>17%</b>	<b>44%</b>	<b>7%</b>
Nogales Unified District	154	8%	23%	21%	42%	5%
Santa Cruz Valley Unified District	99	<2%	35%	8%	48%	7%
Santa Cruz Elementary District	DS	DS	DS	DS	DS	DS
Patagonia Elementary District	DS	<2%	30%	20%	50%	<2%
Sonoita Elementary District	DS	<2%	18%	27%	36%	18%
Mexicayotl Academy, Inc.	DS	<2%	<2%	>98%	<2%	<2%
Santa Cruz Valley Opportunities in Education, Inc.	DS	<2%	33%	<2%	67%	<2%
Colegio Petite	DS	14%	<2%	14%	29%	43%
Santa Cruz County schools	288	5%	27%	17%	45%	7%
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

## Child Health

Table 79. Health insurance coverage, 2015-2019 ACS

Geography	Estimated civilian non-institutionalized population (all ages)	Without health insurance (all ages)	Estimated number of children (ages 0-5)	Without health insurance (ages 0-5)
<b>Santa Cruz Region</b>	<b>46,007</b>	<b>10%</b>	<b>3,982</b>	<b>4%</b>
Elgin	826	3%	N/A	N/A
Nogales	21,762	11%	1,576	6%
Patagonia	1,293	5%	118	0%
Rio Rico	19,574	11%	2,106	1%
Sonoita	1,037	5%	N/A	N/A
Tubac	1,342	7%	N/A	N/A
Tumacacori	174	0%	N/A	N/A
Santa Cruz County	46,061	10%	4,011	4%
Arizona	6,941,028	10%	517,639	7%
United States	319,706,872	9%	23,653,661	4%

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 (HIS) are considered "uninsured" by the U.S. Census Bureau. Reliable data are not available for the Elgin, Sonoita, Tubac, and Tumacacori sub-regions due to sample size limitations.

Table 80. Prenatal care for the mothers of babies born in 2018 and 2019

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
<b>Santa Cruz Region</b>	<b>2018</b>	<b>606</b>	<b>13%</b>	<b>28%</b>	<b>53.8%</b>
	<b>2019</b>	<b>596</b>	<b>12%</b>	<b>26%</b>	<b>48.2%</b>
Santa Cruz County	2018	617	13%	27%	53.5%
	2019	599	12%	26%	47.9%
Arizona	2018	80,539	3%	8%	68.8%
	2019	79,183	3%	8%	68.9%
Healthy People 2020 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.

Table 81. WIC-enrolled women with pre-pregnancy obesity, 2019 to 2020

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
<b>Santa Cruz Region</b>	<b>490</b>	<b>163</b>	<b>33%</b>	<b>221</b>	<b>80</b>	<b>36%</b>
Santa Cruz County	505	169	33%	225	83	37%
Arizona	32,816	11,893	36%	14,640	5,449	37%

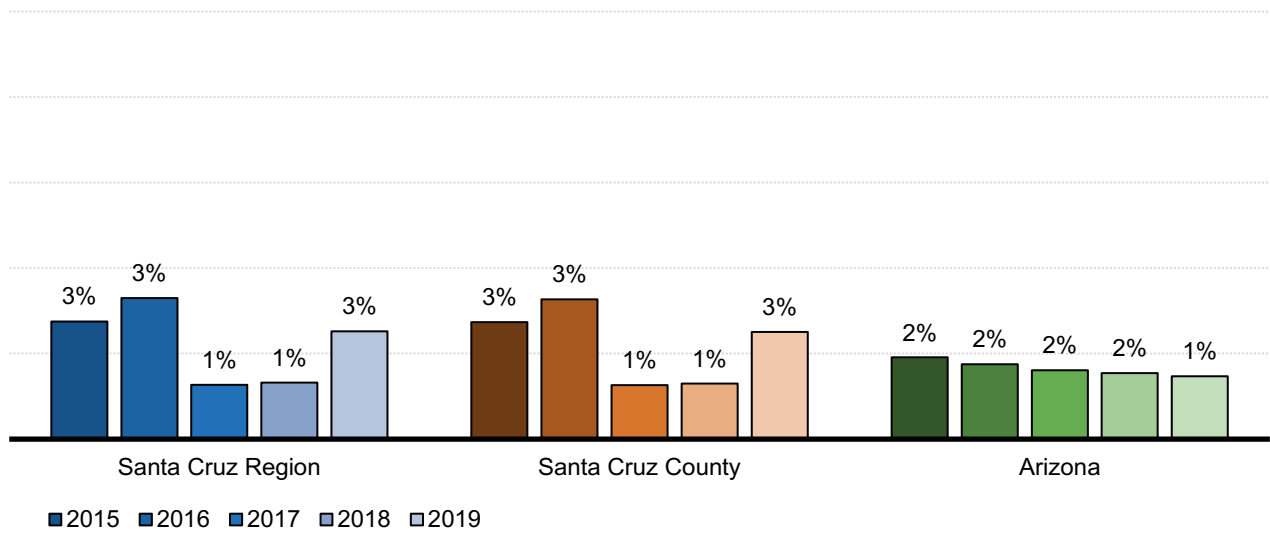
Source: Arizona Department of Health Services (2021). [WIC dataset]. Unpublished data.

Table 82. 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
<b>Santa Cruz Region</b>	<b>30%</b>	<b>29%</b>	<b>33%</b>	<b>33%</b>	<b>36%</b>
Santa Cruz County	30%	29%	33%	33%	37%
Arizona	33%	34%	35%	36%	37%

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

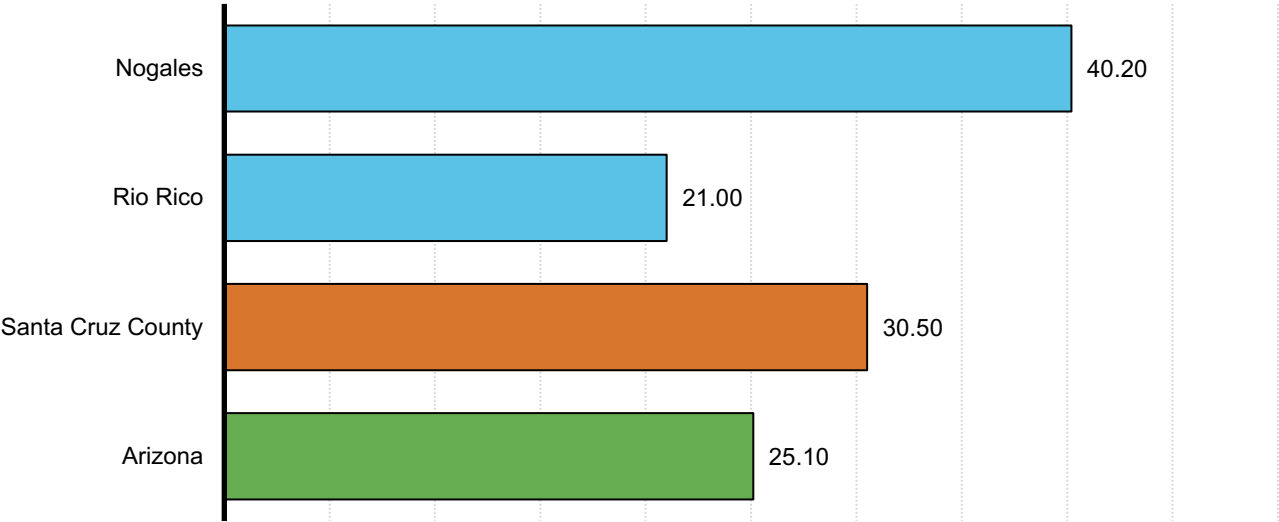
Figure 83. Births to mothers younger than 18, 2015 to 2019



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

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

Figure 84. Teen birth rate\* by Primary Care Area, 2019



Source: Arizona Department of Health Services (2020). 2019 Primary Care Area Statistical Profiles, Nogales & Rio Rico. Retrieved from <https://www.azdhs.gov/prevention/health-systems-development/data-reports-maps/index.php#statistical-profiles-pca>

Note: The teen birth rate is the number of births to mothers ages 14-19 per 1,000 women ages 14-19 in the area. Primary Care Areas (PCAs) are geographic areas defined by the Arizona Department of Health Services for reporting on access to medical care and medical providers. There are 2 PCAs in the Santa Cruz Region—Nogales (which encompasses the city of Nogales) and Rio Rico (which encompasses all of Santa Cruz County not including Nogales).

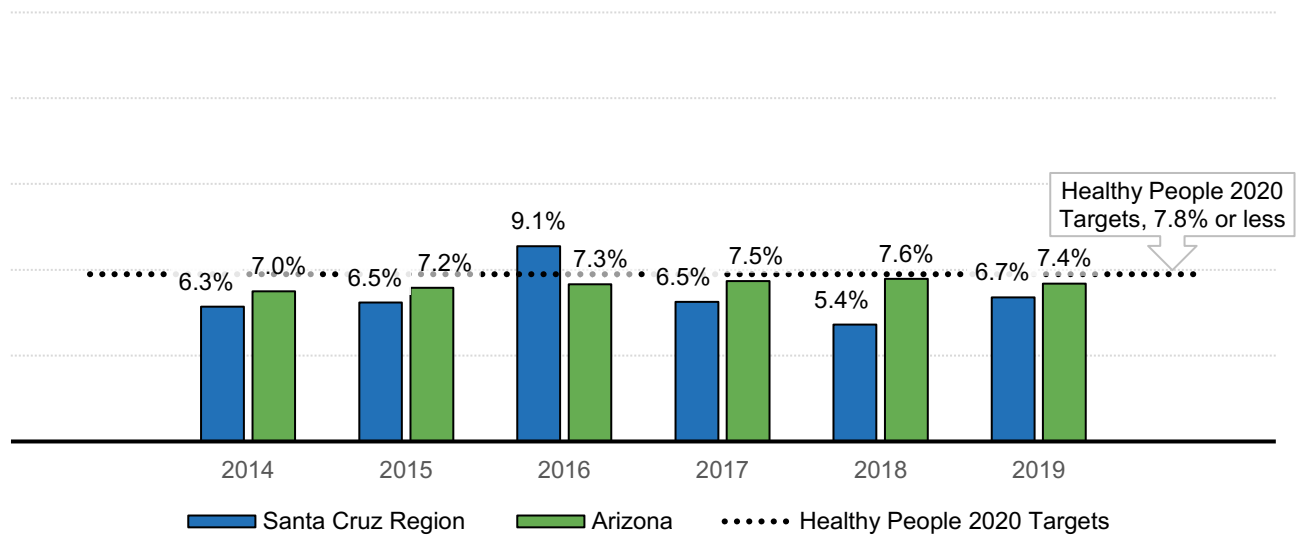
Table 83. Selected birth outcomes, 2018 to 2019

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
Santa Cruz Region	2018	606	5.4%	8.6%	5%
	2019	596	6.7%	7.6%	7%
Santa Cruz County	2018	617	5.3%	8.4%	5%
	2019	599	6.7%	7.5%	7%
Arizona	2018	80,539	7.6%	9.5%	8%
	2019	79,183	7.4%	9.3%	8%
Healthy People 2020 Targets			7.8%	9.4%	

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

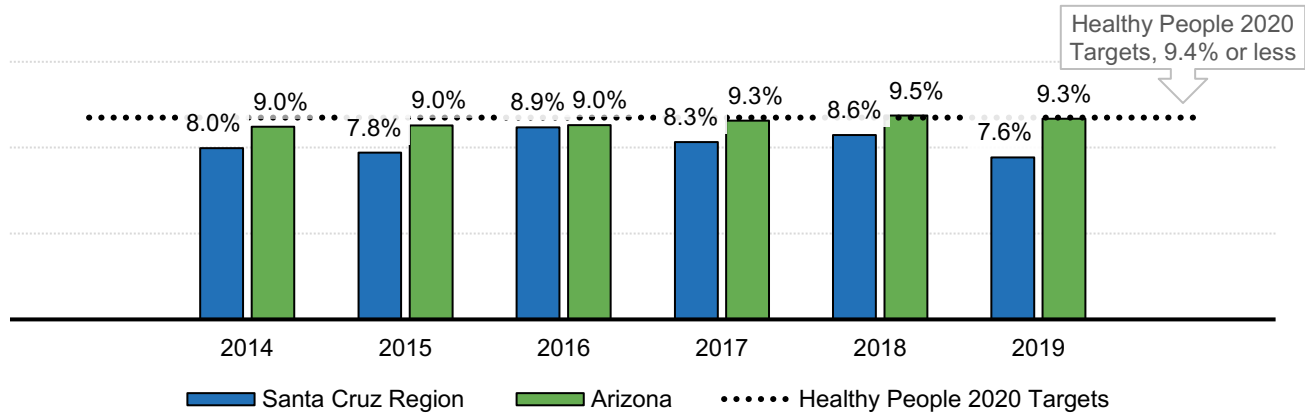
Note: The Healthy People 2030 target for preterm births remains 9.4% or fewer of live births.

Figure 85. Low birthweight births (less than 2,500 grams), 2014 to 2019



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

Figure 86. Preterm births (less than 37 weeks gestation), 2014 to 2020



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

Table 84. WIC-enrolled infants ever breastfed, 2020

Geography	Infants for whom breastfeeding status is determined	Infants ever breastfed	Percent of infants ever breastfed
<b>Santa Cruz Region</b>	<b>409</b>	<b>333</b>	<b>86%</b>
Santa Cruz County	418	344	86%
Arizona	32,545	25,322	78%

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

Table 85. Percent of WIC-enrolled infants ever breastfed, 2016 to 2020

Geography	Breastfeeding rate, 2016	Breastfeeding rate, 2017	Breastfeeding rate, 2018	Breastfeeding rate, 2019	Breastfeeding rate, 2020
<b>Santa Cruz Region</b>	<b>77%</b>	<b>81%</b>	<b>83%</b>	<b>88%</b>	<b>86%</b>
Santa Cruz County	77%	81%	82%	88%	86%
Arizona	73%	77%	77%	79%	78%

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

Table 86. Weight status of WIC-enrolled children ages 2-4, 2020

Geography	Children ages 2-4 with known weight status	Number of children who are underweight	Percent underweight	Number of children with obesity	Percent obese
<b>Santa Cruz Region</b>	<b>563</b>	<b>27</b>	<b>5%</b>	<b>126</b>	<b>22%</b>
Santa Cruz County	579	27	5%	127	22%
Arizona	26,929	1,148	4%	4,318	16%

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

Table 87. Children ages 2-4 with obesity 2016 to 2020

Geography	Number of children ages 2-4 with obesity					Percent of children ages 2-4 with obesity				
	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020
<b>Santa Cruz Region</b>	<b>170</b>	<b>171</b>	<b>197</b>	<b>204</b>	<b>126</b>	<b>13%</b>	<b>13%</b>	<b>15%</b>	<b>16%</b>	<b>22%</b>
Santa Cruz County	173	177	201	208	127	13%	13%	15%	16%	22%
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.



Table 88. Children in child care with selected required immunizations, 2019-20

Geography	Number enrolled	DtaP	Polio	MMR	Religious exemption	Medical exemption	Exempt from every required vaccine
<b>Santa Cruz Region</b>	<b>577</b>	<b>96.9%</b>	<b>97.6%</b>	<b>98.1%</b>	<b>1.9%</b>	<b>0.2%</b>	<b>1.7%</b>
Elgin	0	N/A	N/A	N/A	N/A	N/A	N/A
Nogales	429	97.2%	97.7%	98.4%	1.6%	0.2%	1.6%
Patagonia	12	83.3%	91.7%	83.3%	8.3%	0.0%	8.3%
Rio Rico	136	97.1%	97.8%	98.5%	2.2%	0.0%	1.5%
Sonoita	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tubac	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tumacacori	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Santa Cruz County	577	96.9%	97.6%	98.1%	1.9%	0.2%	1.7%
Arizona	83,851	91.9%	93.4%	93.9%	5.0%	0.6%	3.1%
Healthy People 2020 Targets		90.0%	90.0%	90.0%			

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.azdhs.gov/preparedness/epidemiology-disease-control/immunization/index.php#reports-immunization-coverage>

Table 89. Child care immunization exemption rates, 2015-16 to 2019-20

Geography	Children in child care with religious exemptions					Children in child care exempt from all vaccines				
	2015-16	2016-17	2017-18	2018-19	2019-20	2015-16	2016-17	2017-18	2018-19	2019-20
<b>Santa Cruz Region</b>	<b>0.2%</b>	<b>0.2%</b>	<b>0.0%</b>	<b>1.1%</b>	<b>1.9%</b>	<b>0.3%</b>	<b>0.2%</b>	<b>0.0%</b>	<b>1.1%</b>	<b>1.7%</b>
Elgin	0.0%	0.0%	N/A	0.0%	N/A	0.0%	0.0%	N/A	0.0%	N/A
Nogales	0.0%	0.0%	0.5%	1.0%	1.6%	0.2%	0.0%	0.2%	1.0%	1.6%
Patagonia	0.0%	0.0%	N/A	0.0%	8.3%	0.0%	0.0%	N/A	0.0%	8.3%
Rio Rico	0.0%	0.0%	0.0%	1.4%	2.2%	0.0%	0.0%	0.0%	1.4%	1.5%
Sonoita	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tubac	9.1%	9.1%	38.5%	N/A	N/A	12.5%	9.1%	38.5%	N/A	N/A
Tumacacori	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Santa Cruz County	0.5%	0.2%	1.2%	1.2%	1.9%	0.3%	0.2%	1.1%	1.2%	1.7%
Arizona	3.5%	3.9%	4.3%	4.5%	5.0%	2.1%	2.4%	2.9%	3.0%	3.1%

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>

Table 90. Kindergarten immunization exemption rates, 2015-16 to 2019-20

Geography	Kindergarteners with personal belief exemptions					Kindergarteners exempt from all vaccines				
	2015-16	2016-17	2017-18	2018-19	2019-20	2015-16	2016-17	2017-18	2018-19	2019-20
<b>Santa Cruz Region</b>	<b>1.5%</b>	<b>0.8%</b>	<b>1.6%</b>	<b>1.7%</b>	<b>1.5%</b>	<b>0.8%</b>	<b>0.3%</b>	<b>0.8%</b>	<b>1.2%</b>	<b>1.3%</b>
Elgin	10.0%	8.3%	17.6%	13.3%	N/A	0.0%	8.3%	5.9%	6.7%	N/A
Nogales	0.4%	0.7%	0.7%	0.6%	1.0%	0.2%	0.0%	0.4%	0.0%	0.8%
Patagonia	20.0%	0.0%	N/A	N/A	5.9%	10.0%	0.0%	N/A	N/A	5.9%
Rio Rico	0.0%	0.0%	1.5%	1.0%	0.0%	0.0%	0.0%	0.5%	1.0%	0.0%
Sonoita	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Tubac	25.0%	8.3%	20.0%	26.7%	38.5%	16.7%	8.3%	20.0%	26.7%	38.5%
Tumacacori	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Santa Cruz County	1.1%	0.8%	1.3%	1.7%	1.5%	0.3%	0.3%	0.5%	1.2%	1.3%
Arizona	4.5%	4.9%	5.4%	5.9%	5.4%	1.8%	2.4%	3.5%	3.8%	3.4%

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 91. 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
<b>Santa Cruz Region</b>	<b>24</b>	<b>1,720</b>
Santa Cruz County	29	1,724
Arizona	2,890	181,0135

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

## Family Support and Literacy

Table 92. Number of deaths with opiates or opioids contributing, 2017 through 2020

Geography	Number of deaths with opiates or opioids contributing, 2017 through 2020
<b>Santa Cruz Region</b>	<b>20</b>
Santa Cruz County	35
Arizona	5,455

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

Note: Over a third (35%) of overdose deaths were missing address information, so they could not be accurately assigned to a First Things First region. These deaths are reflected in county numbers.

Table 93. 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 (state fiscal years 2019 and 2020)	Children (ages 0-5) in the population
<b>Santa Cruz Region</b>	<b>21</b>	<b>16</b>	<b>37</b>	<b>4,416</b>
Elgin	0%	0%	0%	1%
Nogales	90%	88%	89%	51%
Patagonia	0%	0%	0%	2%
Rio Rico	DS	DS	DS	45%
Sonoita	0%	0%	0%	1%
Tubac	0%	0%	0%	1%
Tumacacori	DS	0%	DS	1%
Santa Cruz County	N/A	N/A	N/A	N/A
Arizona	3,989	4,124	8,113	546,649

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

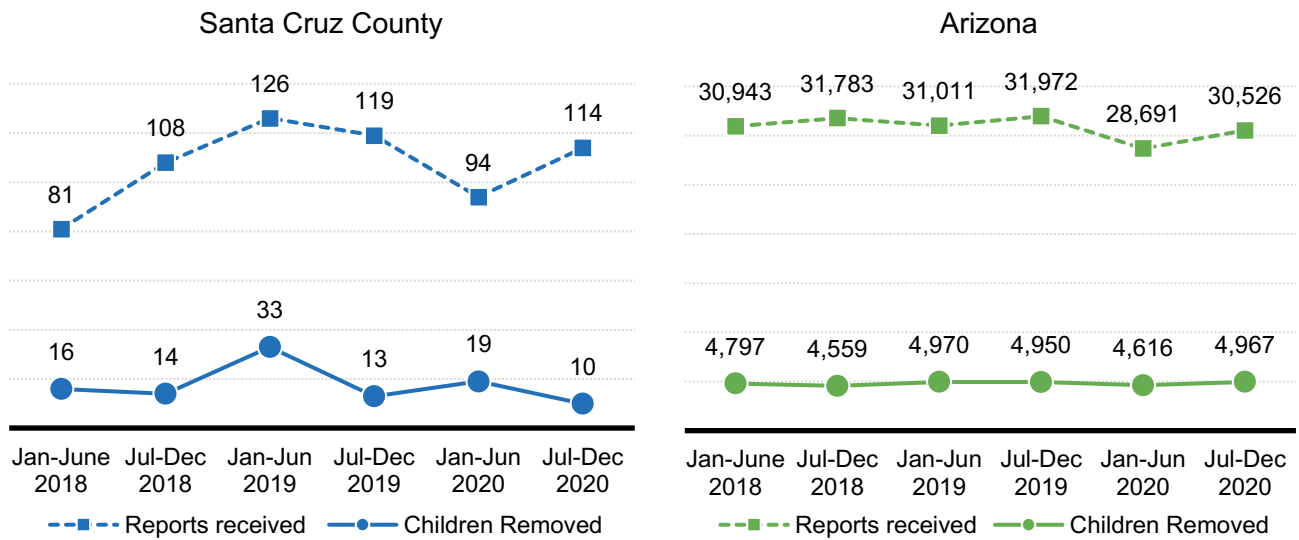
Note: These data were received by zip code and geocoded to the region by the UArizona CRED team. The data reflect the last known address of the caregiver from whose custody the child was removed, not the location where the removal took place.

Table 94. Substantiated maltreatment reports by type for children ages birth to 17, June-Dec 2020

Geography	Total substantiated maltreatment reports	Neglect	Physical abuse	Sexual abuse	Emotional abuse
<b>Santa Cruz Region</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>	<b>N/A</b>
Santa Cruz County	5	100%	0%	0%	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>

Figure 87. Children reported to and removed by DCS, Jan 2018 to Dec 2020



Source: Department of Child Safety (2021). Semiannual child welfare reports, Sept 2018 to 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, including publicly available datasets and data requested from Arizona state agencies. Specific sources and methods used in this report are enumerated below.

***U.S. Census and American Community Survey Data.*** The U.S. Census<sup>377</sup> 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 Santa Cruz 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 in 2023.

The American Community Survey (ACS)<sup>378</sup> 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 Santa Cruz 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.

***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 providers in the region. The estimated supply may also over-estimate availability in regulated 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).

**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.

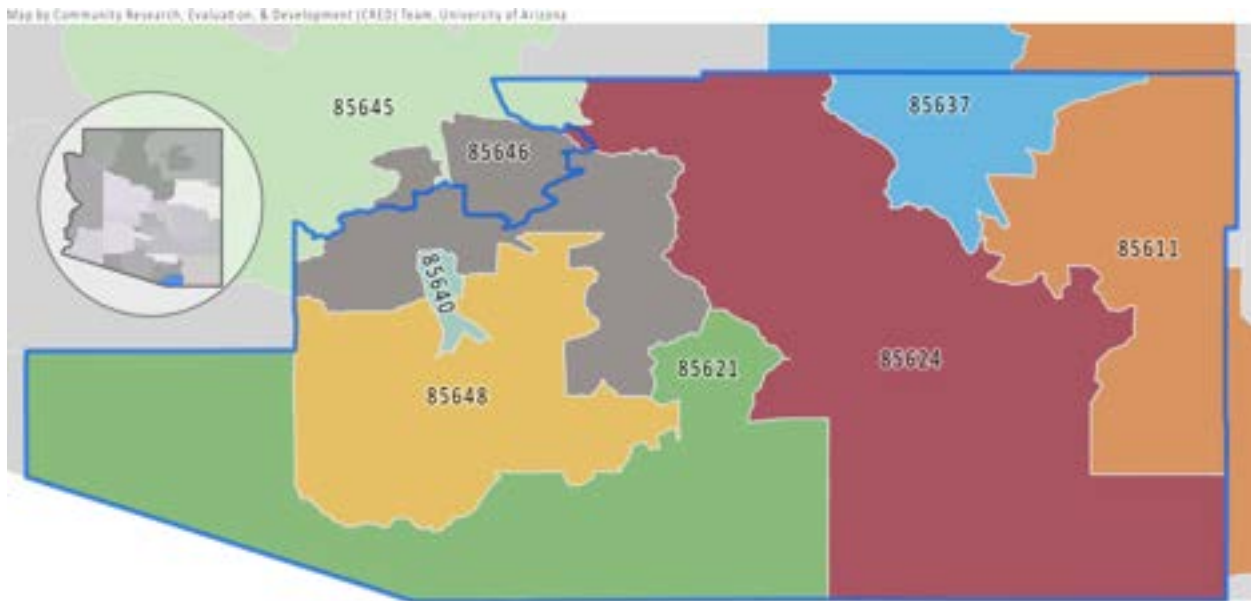
**The Report Process.** This report was the product of collaboration between the vendor, the regional director, the regional partnership council and the FTF Evaluation team. The vendor worked with the FTF Evaluation team to identify and review indicators for the report and prepare data requests to submit 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 SANTA CRUZ REGION

Figure 88. Zip Code Tabulation Areas (ZCTAs) in the Santa Cruz 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>)

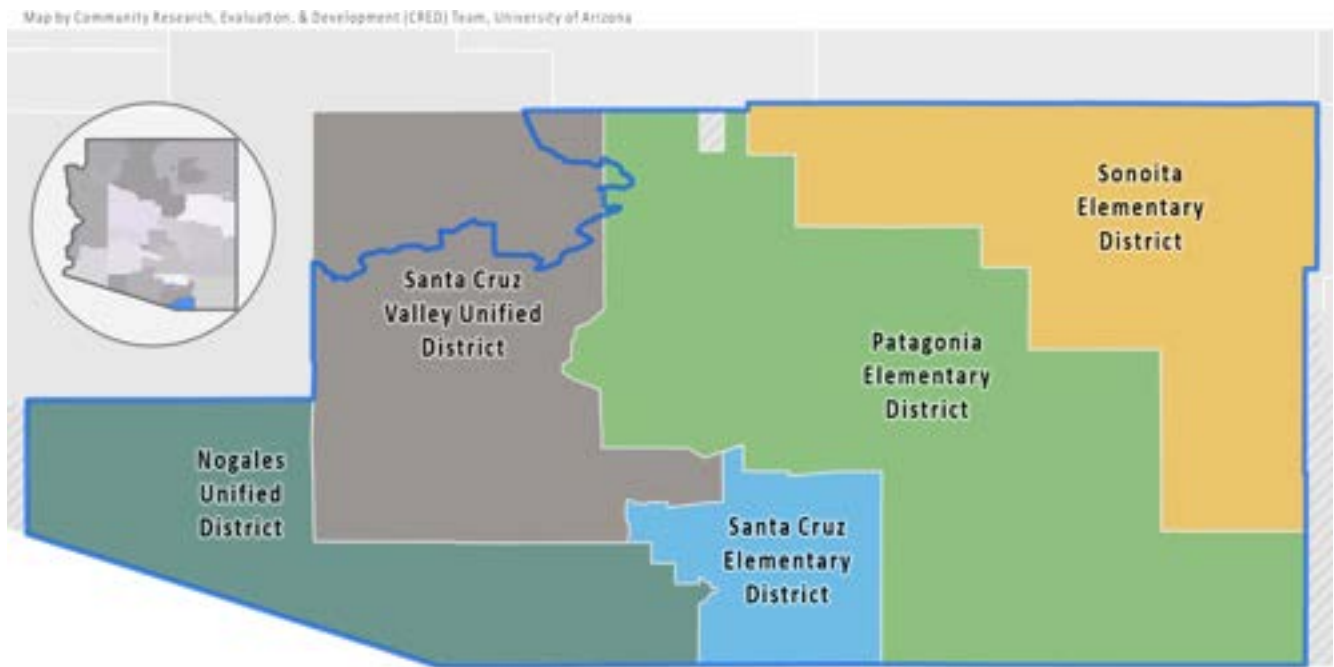
Table 95. Zip Code Tabulation Areas (ZCTAs) in the Santa Cruz Region

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 Santa Cruz Region	This ZCTA is shared with
<b>Santa Cruz Region</b>	<b>47,084</b>	<b>4,416</b>	<b>15,287</b>	<b>3,219</b>		
85611	772	36	341	26	80.0%	Cochise, Pima South
85621	23,054	2,240	7,297	1,607	100.0%	
85624	1,426	80	667	58	100.0%	
85645	4	0	2	0	0.2%	Pima South
85648	19,080	1,976	5,672	1,468	100.0%	
85637	1,054	30	490	23	83.1%	Pima South
85646	1,253	29	656	25	95.6%	Pima South
85640	441	25	162	12	100.0%	

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

# APPENDIX 4: SCHOOL DISTRICTS OF THE SANTA CRUZ REGION

Figure 89. School Districts in the Santa Cruz 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>)

Table 96. School Districts and Local Education Authorities (LEAs) in the Santa Cruz Region

Name of district or Local Education Agency (LEA)	Number of schools	Number of students in kindergarten through third grade
<b>Santa Cruz Region</b>	30	2,846
Nogales Unified District	11	1,503
Santa Cruz Valley Unified District	6	868
Santa Cruz Elementary District	1	77
Patagonia Elementary District	1	43
Sonoita Elementary District	1	52
Patagonia Union High School District	1	N/A
Mexicayotl Academy, Inc.	1	85
Santa Cruz Valley Opportunities in Education, Inc.	1	46
Patagonia Montessori Elementary School	1	DS
Pinnacle Education-Kino, Inc.	1	N/A
Kaizen Education Foundation dba Colegio Petite*	1	162
Santa Cruz Region Head Start Centers	4	DS

Source: Arizona Department of Education. [Enrollment dataset]. Custom tabulation of agency data.

Note: Kaizen Education Foundation operates other charter schools in the state of Arizona. These numbers only reflect enrollment on the Colegio Petite campus in Nogales.

# 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 <https://des.az.gov/file/14277/download>

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 <https://pub.azdhs.gov/health-stats/report/ahs/index.php>

Arizona Office of Economic Opportunity. (2020). Arizona Population Projections: 2018 to 2055, Medium Series. Retrieved from <https://www.azcommerce.com/oeo/population/population-projections/>

Arizona Office of Economic Opportunity. (2021). Local area unemployment statistics (LAUS). Retrieved from <https://www.azcommerce.com/oeo/labor-market/>

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 <http://www.census.gov/geo/maps-data/data/tiger-line.html>

# REFERENCES

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- <sup>1</sup> National Academies of Sciences, Engineering, and Medicine. (2016). *Parenting Matters: Supporting Parents of Children Ages 0-8*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/21868>.
- <sup>2</sup> 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.
- <sup>3</sup> 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.
- <sup>4</sup> 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
- <sup>5</sup> 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.
- <sup>6</sup> 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.
- <sup>7</sup> 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.
- <sup>8</sup> 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
- <sup>9</sup> 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.
- <sup>10</sup> 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/>
- <sup>11</sup> National Academies of Sciences, Engineering, and Medicine. (2016). *Parenting Matters: Supporting Parents of Children Ages 0-8*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/21868>.
- <sup>12</sup> Halgunseth, L. (2009). Family engagement, diverse families and early childhood education programs: An integrated review of the literature. *Young Children*, *64*(5), 56-68.
- <sup>13</sup> National Academies of Sciences, Engineering, and Medicine. (2016). *Parenting Matters: Supporting Parents of Children Ages 0-8*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/21868>.
- <sup>14</sup> 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/>
- <sup>15</sup> 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 <http://aspe.hhs.gov/basic-report/children-nonparental-care-review-literature-and-analysis-data-gaps>
- <sup>16</sup> 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>
- <sup>17</sup> Shonkoff, J. P., & Phillips, D. A. (Eds.). (2000). *From Neurons to Neighborhoods: The Science of Early Childhood Development*. Washington, DC, US: National Academy Press.
- <sup>18</sup> 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.
- <sup>19</sup> Coles, R. L. (2015). Single-father families: A review of the literature. *Journal of Family Theory & Review*, *7*(2), 144-166.

- 
- <sup>20</sup> Ellis, R. R., & Simmons, T. (2014). Coresident grandparents and their grandchildren: 2012. *Current Population Reports*, pp. 20-576. U.S. Census Bureau: Washington, DC.
- <sup>21</sup> 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.
- <sup>22</sup> Ibid
- <sup>23</sup> 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/](http://developingchild.harvard.edu/resources/multimedia/videos/three_core_concepts/serve_and_return/)
- <sup>24</sup> 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.
- <sup>25</sup> Centers for Disease Control and Prevention. (2021, July 16). *Risk for COVID-19 infection, hospitalization, and death by race/ethnicity*. Retrieved August 24, 2021 from <https://www.cdc.gov/coronavirus/2019-ncov/covid-data/investigations-discovery/hospitalization-death-by-race-ethnicity.html>
- <sup>26</sup> Indian Health Service. (2021, August 23). *Coronavirus (COVID-19)*. Retrieved August 24, 2021 from <https://www.ihs.gov/coronavirus/>
- <sup>27</sup> 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 <https://www.urban.org/research/publication/young-children-immigrants-leading-edge-americas-future>
- <sup>28</sup> 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 <https://www.urban.org/research/publication/young-children-immigrants-leading-edge-americas-future>
- <sup>29</sup> 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.
- <sup>30</sup> 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.
- <sup>31</sup> 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 <https://www.urban.org/research/publication/oneseven-adults-immigrant-families-reported-avoiding-public-benefitprograms-2018>
- <sup>32</sup> 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 <https://www.kff.org/report-section/living-in-an-immigrant-family-in-america-issue-brief/>
- <sup>33</sup> Ferreira, 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>
- <sup>34</sup> 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](https://www.urban.org/sites/default/files/publication/100754/safety_net_access_in_the_context_of_the_public_charge_rule_1.pdf)
- <sup>35</sup> 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 <https://www.healthaffairs.org/doi/10.1377/hblog20191008.70483/full/>
- <sup>36</sup> 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 <https://www.migrationpolicy.org/research/covid-19-testing-treatment-immigrants-health-insurance>
- <sup>37</sup> National Academies of Sciences, Engineering, and Medicine. (2017). *Promoting the Educational Success of Children and Youth Learning English: Promising Futures*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/24677>.
- <sup>38</sup> 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 <https://eclkc.ohs.acf.hhs.gov/hslc/ta-system/cultural-linguistic/docs/benefits-of-being-bilingual.pdf>



- 
- <sup>39</sup> National Academies of Sciences, Engineering, and Medicine. (2017). Promoting the Educational Success of Children and Youth Learning English: Promising Futures. Washington, DC: The National Academies Press. <https://doi.org/10.17226/24677>.
- <sup>40</sup> 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 <https://eclkc.ohs.acf.hhs.gov/hslc/tta-system/cultural-linguistic/docs/benefits-of-being-bilingual.pdf>
- <sup>41</sup> National Academies of Sciences, Engineering, and Medicine. (2017). Promoting the Educational Success of Children and Youth Learning English: Promising Futures. Washington, DC: The National Academies Press. <https://doi.org/10.17226/24677>.
- <sup>42</sup> National Academies of Sciences, Engineering, and Medicine. (2017). Promoting the Educational Success of Children and Youth Learning English: Promising Futures. Washington, DC: The National Academies Press. <https://doi.org/10.17226/24677>.
- <sup>43</sup> National Academies of Sciences, Engineering, and Medicine 2016. *Parenting Matters: Supporting Parents of Children Ages 0-8*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/21868>.
- <sup>44</sup> Arizona Department of Education. (2021). SEI Program Model Implementation Guide | School Year 2020-2021. Retrieved November 14, 2021 from [https://www.azed.gov/sites/default/files/2020/04/SEI%20Program%20Model%20Implementation%20Guide%204-24-20\\_FINAL.pdf?id=5ea84cbf03e2b3109cb101d9](https://www.azed.gov/sites/default/files/2020/04/SEI%20Program%20Model%20Implementation%20Guide%204-24-20_FINAL.pdf?id=5ea84cbf03e2b3109cb101d9)
- <sup>45</sup> Center for Translational Neuroscience. (2020, November 11). *Home alone: The pandemic is overloading single-parent families*. Medium. Retrieved August 18, 2021 from <https://medium.com/rapid-ec-project/home-alone-the-pandemic-is-overloading-single-parent-families-c13d48d86f9e>
- <sup>46</sup> 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 <https://medium.com/rapid-ec-project/facing-hunger-the-weight-of-the-pandemic-is-falling-on-american-families-1cbeb047a955>
- <sup>47</sup> 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 <https://medium.com/rapid-ec-project/flattening-the-other-curve-7be1e574b340>
- <sup>48</sup> 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>
- <sup>49</sup> 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>
- <sup>50</sup> Ellis, R., & Simmons, T. (2014). Co-resident Grandparents and Their Grandchildren: 2012, *Current Population Reports, P20-576*, U.S. Census Bureau: Washington, DC.
- <sup>51</sup> 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.
- <sup>52</sup> 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.
- <sup>53</sup> American Association for Marriage and Family Therapy. (2015). Grandparents raising grandchildren. Retrieved from [http://www.aamft.org/imis15/AAMFT/Content/Consumer\\_Updates/Grandparents\\_Raising\\_Grandchildren.aspx](http://www.aamft.org/imis15/AAMFT/Content/Consumer_Updates/Grandparents_Raising_Grandchildren.aspx)
- <sup>54</sup> Department of Health and Human Services, Administration for Children and Families, and Children's Bureau. (2016). Site visit report: Arizona Kinship Navigator Project. Retrieved September 14, 2021 from <https://www.childwelfare.gov/pubPDFs/azkinship.pdf>
- <sup>55</sup> 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 <https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health>
- <sup>56</sup> Child Trends. (2014, January 8). *5 Ways Poverty Harms Children*. Retrieved September 14, 2021 from <https://www.childtrends.org/child-trends-5/5-ways-poverty-harms-children>
- <sup>57</sup> 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.
- <sup>58</sup> Brooks-Gunn, J. & Duncan, G. (1997). The effects of poverty on children. *Children and Poverty*, 7(2), 55-71.

- 
- <sup>59</sup> McLoyd, V. (1998). Socioeconomic disadvantage and child development. *American Psychologist*, *53*(2), 185-204. doi:10.1037/0003-066X.53.2.185
- <sup>60</sup> Ratcliffe, C. & McKernan, S. (2012). Child poverty and its lasting consequences. *Low-Income Working Families Series*, The Urban Institute. Retrieved September 14, 2021 from [http://www.urban.org/research/publication/child-poverty-and-its-lasting-consequence/view/full\\_report](http://www.urban.org/research/publication/child-poverty-and-its-lasting-consequence/view/full_report)
- <sup>61</sup> 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 <http://onlinelibrary.wiley.com/doi/10.1111/j.1467-8624.2009.01396.x/full>
- <sup>62</sup> 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.
- <sup>63</sup> 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. [https://doi.org/10.1016/s2352-4642\(17\)30024-x](https://doi.org/10.1016/s2352-4642(17)30024-x)
- <sup>64</sup> 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.
- <sup>65</sup> 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](http://www.nccp.org/publications/pub_909.html)
- <sup>66</sup> 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 <http://onlinelibrary.wiley.com/doi/10.1111/j.1467-8624.2009.01396.x/full>
- <sup>67</sup> 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.
- <sup>68</sup> 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.
- <sup>69</sup> 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.
- <sup>70</sup> 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.
- <sup>71</sup> 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*.
- <sup>72</sup> 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*.
- <sup>73</sup> Food Research and Action Center. (2013). SNAP and Public Health: The role of the Supplemental Nutrition Assistance Program in improving the health and well-being of Americans. Retrieved September 14, 2021 from [http://frac.org/pdf/snap\\_and\\_public\\_health\\_2013.pdf](http://frac.org/pdf/snap_and_public_health_2013.pdf)
- <sup>74</sup> 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>
- <sup>75</sup> 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 <http://www.cbpp.org/research/food-assistance/wic-works-addressing-the-nutrition-and-health-needs-of-low-income-families>
- <sup>76</sup> 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 <https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health>
- <sup>77</sup> 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>
- <sup>78</sup> Isaacs, J. (2013). Unemployment from a child's perspective. Retrieved September 14, 2021 from <http://www.urban.org/UploadedPDF/1001671-Unemployment-from-a-Childs-Perspective.pdf>

- 
- <sup>79</sup> 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 <http://www.childtrends.org/wp-content/uploads/2012/02/2012-08EffectHomelessnessChildren.pdf>
- <sup>80</sup> 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: <https://www.aei.org/wp-content/uploads/2017/04/CHA-Panel-1.pdf>
- <sup>81</sup> 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](https://www.childstats.gov/pdf/ac2015/ac_15.pdf)
- <sup>82</sup> 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. Retrieved September 14, 2021 from <https://www.census.gov/housing/census/publications/who-can-afford.pdf>
- <sup>83</sup> U.S. Census Bureau (2021). Household Pulse Survey Data, Phases 1, 2, & 3. Retrieved from <https://www.census.gov/programs-surveys/household-pulse-survey.html>
- <sup>84</sup> 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 <https://aspe.hhs.gov/2019-poverty-guidelines>
- <sup>85</sup> 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 <https://aspe.hhs.gov/topics/poverty-economic-mobility/poverty-guidelines/prior-hhs-poverty-guidelines-federal-register-references/2020-poverty-guidelines>
- <sup>86</sup> Pearce, D. (2019) The Self-Sufficiency Standard. Retrieved September 14, 2021 from <http://www.selfsufficiencystandard.org/the-standard>
- <sup>87</sup> Center for Women’s Welfare. (2021). *Arizona | Self Sufficiency Standard* (Version 2021) [Dataset]. Retrieved September 14, 2021 from <http://www.selfsufficiencystandard.org/arizona>
- <sup>88</sup> Arizona Department of Economic Security. (2021). *TANF Jobs Program*. Arizona Department of Economic Security. Retrieved September 2, 2021 from <https://des.az.gov/services/employment/job-seekers/tanf-jobs-program>
- <sup>89</sup> <https://www.azleg.gov/legtext/54leg/2R/bills/HB2904H.htm>
- <sup>90</sup> Floyd, I. (2016, July 5). *Arizona Cuts TANF Time Limit to Shortest Nationwide*. Center on Budget and Policy Priorities. Retrieved September 2, 2021 from: <https://www.cbpp.org/blog/arizona-cuts-tanf-time-limit-to-shortest-nationwide>
- <sup>91</sup> U.S. Citizenship and Immigration Services. (2021, March 10). *Public Charge Fact Sheet*. Retrieved September 14, 2021, from <https://www.uscis.gov/archive/public-charge-fact-sheet>
- <sup>92</sup> 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>
- <sup>93</sup> 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>
- <sup>94</sup> Children’s Action Alliance. (2021, January 27). *Immigrant families should not be excluded from COVID-19 response*. Retrieved September 14, 2021 from <https://azchildren.org/news-and-events/immigrant-families-should-not-be-excluded-from-covid-19-response/>
- <sup>95</sup> Congressional Research Service. (2021, January 19). *Noncitizen eligibility for the second round of direct payments to individuals* (No. IN11579). Retrieved September 14, 2021 from <https://www.aila.org/File/Related/20030201cn.pdf>
- <sup>96</sup> Protecting Immigrant Families. (2021, March 26). *Immigrant eligibility for public programs during COVID-19*. Retrieved August 24, 2021 from <https://protectingimmigrantfamilies.org/immigrant-eligibility-for-public-programs-during-covid-19/>
- <sup>97</sup> 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/>
- <sup>98</sup> Rose-Jacobs, R., Black, M., Casey, P., Cook, J., Cutts, D., Chilton, M., Heeren, T., Levenson, S., Meyers, A., & Frank, D. (2008). Household food insecurity: Associations with at-risk infant and toddler development. *Pediatrics*, 121(1), 65-72. Retrieved from <http://pediatrics.aappublications.org/content/121/1/65.full.pdf>
- <sup>99</sup> 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-residence/div/4BEE4D6C09F9FFCABEE404F9E313BE7C>

- <sup>100</sup> Food and Nutrition Service, U.S. Department of Agriculture. (n.d.). *Supplemental Nutrition Assistance Program (SNAP)*. Retrieved from <https://www.fns.usda.gov/snap/supplemental-nutrition-assistance-program>
- <sup>101</sup> Food and Nutrition Service, U.S. Department of Agriculture. (n.d.). *Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)*. Retrieved from <https://www.fns.usda.gov/wic>
- <sup>102</sup> Food and Nutrition Service, U.S. Department of Agriculture. (n.d.). *National School Lunch Program*. Retrieved from <https://www.fns.usda.gov/nslp>
- <sup>103</sup> Food and Nutrition Service, U.S. Department of Agriculture. (n.d.). *School Breakfast Program*. Retrieved from <https://www.fns.usda.gov/sbp/school-breakfast-program>
- <sup>104</sup> Food and Nutrition Service, U.S. Department of Agriculture. (n.d.). *Summer Food Service Program*. Retrieved from <https://www.fns.usda.gov/sfsp/summer-food-service-program>
- <sup>105</sup> Food and Nutrition Service, U.S. Department of Agriculture. (n.d.). *Child and Adult Care Food Program*. Retrieved from <https://www.fns.usda.gov/cacfp/child-and-adult-care-food-program>
- <sup>106</sup> 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>
- <sup>107</sup> Food Research and Action Center. (2013). *SNAP and Public Health: The role of the Supplemental Nutrition Assistance Program in improving the health and well-being of Americans*. Retrieved from [http://frac.org/pdf/snap\\_and\\_public\\_health\\_2013.pdf](http://frac.org/pdf/snap_and_public_health_2013.pdf)
- <sup>108</sup> 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 <https://www.cbpp.org/research/food-assistance/snap-caseload-and-spending-declines-have-accelerated-in-recent-years>
- <sup>109</sup> Food Research and Action Center. (2013). *SNAP and Public Health: The role of the Supplemental Nutrition Assistance Program in improving the health and well-being of Americans*. Retrieved from [http://frac.org/pdf/snap\\_and\\_public\\_health\\_2013.pdf](http://frac.org/pdf/snap_and_public_health_2013.pdf)
- <sup>110</sup> Prevalence and distribution of food insecurity status by SNAP participation and poverty level, 2019. Retrieved August 25, 2021 from: <https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/interactive-charts-and-highlights/#disability>
- <sup>111</sup> Feeding America. (2020). *The Impact of the Coronavirus on Food Insecurity*. Retrieved March 30, 2021 from [https://www.feedingamerica.org/sites/default/files/2020-04/Brief\\_Impact%20of%20Covid%20on%20Food%20Insecurity%204.22%20%28002%29.pdf](https://www.feedingamerica.org/sites/default/files/2020-04/Brief_Impact%20of%20Covid%20on%20Food%20Insecurity%204.22%20%28002%29.pdf)
- <sup>112</sup> Grose, J. (2020, May 6). Families Scramble to Find Baby Formula, Diapers and Wipes. *The New York Times*. Retrieved September 14, 2021 from <https://www.nytimes.com/2020/03/30/parenting/coronavirus-baby-formula-shortages-wipes-diapers.html>
- <sup>113</sup> For more information on the Arizona WIC Program, visit <http://azdhs.gov/prevention/azwic/>
- <sup>114</sup> Carlson, S., & Neuberger, Z. (2015). *WIC Works: Addressing the nutrition and health needs of low-income families for 40 years*. Washington, DC: Center on Budget and Policy Priorities. Retrieved from <http://www.cbpp.org/research/food-assistance/wic-works-addressing-the-nutrition-and-health-needs-of-low-income-families>
- <sup>115</sup> Arizona Department of Health Services. (2017, April). *Arizona clinic eWIC readiness toolkit*. <https://azdhs.gov/documents/prevention/azwic/agencies/trainers/training-resources/ewic-clinic-readiness-toolkit.pdf>
- <sup>116</sup> Vasan, A., Kenyon, C. C., Feudtner, C., Fiks, A. G., & Venkataramani, A. S. (2021). Association of WIC Participation and Electronic Benefits Transfer Implementation. *JAMA Pediatrics*, 175(6), 609. <https://doi.org/10.1001/jamapediatrics.2020.6973>
- <sup>117</sup> 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.
- <sup>118</sup> For more information see: <https://www.azed.gov/hns/cacfp>
- <sup>119</sup> Arizona Department of Education. (2021, June 14). *Introduction to the CACFP* [Video]. Vimeo. <https://vimeo.com/562872764>
- <sup>120</sup> For more information see: <https://www.azed.gov/hns/sfsp>

- 
- <sup>121</sup> United States Department of Agriculture. (n.d.). *How to participate in summer meals*. Retrieved October 26, 2021, from <https://fns-prod.azureedge.net/sites/default/files/resource-files/SFSP-Fact-Sheet.pdf>
- <sup>122</sup> National Center for Children in Poverty. (2014). *Arizona demographics for low-income children*. Retrieved from [http://www.nccp.org/profiles/AZ\\_profile\\_6.html](http://www.nccp.org/profiles/AZ_profile_6.html)
- <sup>123</sup> Isaacs, J. (2013). *Unemployment from a child's perspective*. Retrieved from <http://www.urban.org/UploadedPDF/1001671-Unemployment-from-a-Childs-Perspective.pdf>
- <sup>124</sup> For a discussion of current trends in labor force participation versus employment, see Uchitelle, L. (July 11, 2019). "Unemployment Is Low, but That's Only Part of the Story." Retrieved from <https://www.nytimes.com/2019/07/11/business/low-unemployment-not-seeking-work.html>
- <sup>125</sup> Arizona Department of Economic Security. (2021, September 4). *Historical context*. Unemployment Insurance Data Dashboard. Retrieved September 9, 2021 from <https://des.az.gov/ui-data-dashboard>
- <sup>126</sup> U.S. Department of Labor. (n.d.). *Unemployment insurance relief during COVID-19 outbreak*. Retrieved September 9, 2021 from <https://www.dol.gov/coronavirus/unemployment-insurance>
- <sup>127</sup> 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 <https://blog.dol.gov/2021/01/11/unemployment-benefits-answering-common-questions>
- <sup>128</sup> Arizona Department of Economic Security. (n.d.). *Arizona's back to work program*. Retrieved September 9, 2021 from <https://des.az.gov/back-to-work-program>
- <sup>129</sup> Office of the Governor. (2021, May 13). *Governor Ducey announces "Arizona Back to Work."* Office of the Arizona Governor. Retrieved September 14, 2021 from <https://azgovernor.gov/governor/news/2021/05/governor-ducey-announces-arizona-back-work>
- <sup>130</sup> Center for American Progress. (2018). *Child Care Access in Arizona*. Retrieved August 31, 2021 from <https://childcaresdeserts.org/2018/index.html?state=AZ>
- <sup>131</sup> Center for American Progress. (2019). *Early learning factsheet 2019 | Arizona*. Retrieved September 14, 2021 from <https://cdn.americanprogress.org/content/uploads/2019/09/12064343/Arizona.pdf>
- <sup>132</sup> Arizona Department of Economic Security. (n.d.). *Essential workers child care relief scholarship program*. Retrieved October 6, 2021, from <https://des.az.gov/services/child-and-family/child-care/emergency-child-care-scholarship-program>
- <sup>133</sup> 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: <http://www.childtrends.org/wp-content/uploads/2012/02/2012-08EffectHomelessnessChildren.pdf>
- <sup>134</sup> 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](https://www.jchs.harvard.edu/sites/default/files/Harvard_JCHS_Herbert_Hermann_McCue_measuring_housing_affordability.pdf)
- <sup>135</sup> 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 <https://www.aei.org/wp-content/uploads/2017/04/CHA-Panel-1.pdf>
- <sup>136</sup> 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](https://www.childstats.gov/pdf/ac2015/ac_15.pdf)
- <sup>137</sup> Arizona Department of Education (2021). [Oct 1 Enrollment Dataset]. Custom tabulation of unpublished data by the UArizona CRED Team.
- <sup>138</sup> 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](https://files.consumerfinance.gov/f/documents/cfpb_Housing_insecurity_and_the_COVID-19_pandemic.pdf)
- <sup>139</sup> 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](https://nlihc.org/sites/default/files/COVID-Relief-Budget_Reconciliation.pdf)
- <sup>140</sup> Aiken, C., Reina, V., Verbrugge, J., Aurand, A., Yae, R., Gould Ellen, I., & Hauptert, T. (2021, March). *Learning from Emergency Rental Assistance Programs: Lessons from fifteen case studies*. National Low Income Housing Coalition. Retrieved September 14, 2021 from <https://nlihc.org/sites/default/files/ERA-Programs-Case-Study.pdf>

- 
- <sup>141</sup> 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>
- <sup>142</sup> Kinsner, K., Parlakian, R., Sanchez, G., Manzano, S., & Baretto, M. (2018). Millennial Connections: Findings from ZERO TO THREE's 2018 Parent Survey Executive Summary. *ZERO TO THREE*. Retrieved from <https://www.zerotothree.org/resources/2475-millennial-connections-executive-summary>
- <sup>143</sup> OECD. (2001). *Understanding the digital divide*. Paris, France: OECD Publications.
- <sup>144</sup> OECD. (2001). *Understanding the digital divide*. Paris, France: OECD Publications.
- <sup>145</sup> 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
- <sup>146</sup> Pew Research Center. (2019, June 12). *Internet/Broadband Fact Sheet*. Retrieved from <https://www.pewresearch.org/internet/fact-sheet/internet-broadband/>
- <sup>147</sup> 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.
- <sup>148</sup> 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.
- <sup>149</sup> Sallet, J. (2017). *Better together: Broadband deployment and broadband competition*. Retrieved from <https://www.brookings.edu/blog/techtank/2017/03/15/better-together-broadband-deployment-and-broadband-competition/>
- <sup>150</sup> 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](https://apps.fcc.gov/edocs_public/attachmatch/DOC-342358A1.pdf)
- <sup>151</sup> 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.
- <sup>152</sup> 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.
- <sup>153</sup> 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
- <sup>154</sup> 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.
- <sup>155</sup> Healthy People 2020. (n.d.). *Social determinants*. Washington, DC: U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. Retrieved from <https://www.healthypeople.gov/2020/leading-health-indicators/2020-lhi-topics/Social-Determinants>
- <sup>156</sup> National Research Council. 2012. *Key National Education Indicators: Workshop Summary*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/13453>
- <sup>157</sup> 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 <https://www.healthypeople.gov/2020/topics-objectives/topic/Adolescent-Health>
- <sup>158</sup> 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](https://web.archive.org/web/20150525195005/http://www.childtrends.org/wp-content/uploads/2012/04/67-Parental_Education.pdf)
- <sup>159</sup> 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/coe\\_tgd.pdf](https://nces.ed.gov/programs/coe/pdf/coe_tgd.pdf)
- <sup>160</sup> 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>
- <sup>161</sup> 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), 32-46.

- 
- <sup>162</sup> 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>
- <sup>163</sup> 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>
- <sup>164</sup> 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 [http://nicer.org/wp-content/uploads/2016/09/ceelo\\_fastfact\\_state\\_ece\\_attendance\\_2016\\_02\\_01\\_final\\_for\\_web.pdf](http://nicer.org/wp-content/uploads/2016/09/ceelo_fastfact_state_ece_attendance_2016_02_01_final_for_web.pdf)
- <sup>165</sup> 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>
- <sup>166</sup> 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.
- <sup>167</sup> 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>
- <sup>168</sup> 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>
- <sup>169</sup> 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>
- <sup>170</sup> 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>
- <sup>171</sup> Arizona Department of Education. (n.d.). *Assessments*. Retrieved August 20, 2021 from <https://www.azed.gov/assessment>
- <sup>172</sup> Altavena, L. (2021, February 8). Testing for Arizona students returns in April, with lots of unanswered questions. *Arizona Republic*. Retrieved August 20, 2021 from <https://www.azcentral.com/story/news/local/arizona-education/2021/02/08/arizona-students-take-standardized-tests-april-lots-questions-unanswered/4251118001/>
- <sup>173</sup> Office of the Governor Doug Ducey. (2020, March 27). *Governor Ducey signs legislation to support schools, teachers and families* [news release]. Retrieved August 20, 2021 from <https://azgovernor.gov/governor/news/2020/03/governor-ducey-signs-legislation-support-schools-teachers-and-families>
- <sup>174</sup> For more information on Move on When Reading, visit <http://www.azed.gov/mowr/>
- <sup>175</sup> Arizona Department of Education. *Move on When Reading Annual Report 2020*. Retrieved December 3, 2021 <https://www.azed.gov/sites/default/files/2020/12/Move%20on%20When%20Reading%20Annual%20Report%202020.pdf>
- <sup>176</sup> National Research Council. 2012. *Key National Education Indicators: Workshop Summary*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/13453>
- <sup>177</sup> 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 <https://www.healthypeople.gov/2020/topics-objectives/topic/Adolescent-Health>
- <sup>178</sup> 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 [https://1gyhoq479ufd3yna29x7ubjnwengine.netdna-ssl.com/wp-content/uploads/2014/11/Recovery2020.ES\\_Web\\_.pdf](https://1gyhoq479ufd3yna29x7ubjnwengine.netdna-ssl.com/wp-content/uploads/2014/11/Recovery2020.ES_Web_.pdf)
- <sup>179</sup> Torpey, E. (2021, June). Education pays, 2020. *Career Outlook*, U.S. Bureau of Labor Statistics. Retrieved September 7, 2021 from <https://www.bls.gov/careeroutlook/2021/data-on-display/education-pays.htm>
- <sup>180</sup> Annie E. Casey Foundation (2014). *Creating Opportunity for Families: A Two-Generation Approach*. Retrieved from <https://www.aecf.org/resources/creating-opportunity-for-families>
- <sup>181</sup> Chase-Lansdale, L. & Brooks-Gunn, J. (2014). Two-generation programs in the twenty-first century. *Future Child*, 24, 13-39.

- 
- <sup>182</sup> 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>
- <sup>183</sup> 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](http://b.3cdn.net/ascend/d3336cff8a154af047_07m6bttk2.pdf)
- <sup>184</sup> 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>
- <sup>185</sup> 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>
- <sup>186</sup> 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.
- <sup>187</sup> Center on the Developing Child at Harvard University. (2010). *The foundations of lifelong health are built in early childhood*. Retrieved August 20, 2021 from <http://developingchild.harvard.edu/wp-content/uploads/2010/05/Foundations-of-Lifelong-Health.pdf>
- <sup>188</sup> Kuhl, P.K. (2011). Early language learning and literacy: Neuroscience implications for education. *Mind, Brain, and Education*, 5(3), 128-142.
- <sup>189</sup> Fernald, A., Marchman, V., & Weisleder, A. (2013). SES differences in language processing skill and vocabulary are evident at 18 months. *Developmental Science*, 16(2), 234-248. Retrieved from: <http://onlinelibrary.wiley.com/doi/10.1111/desc.12019/pdf>
- <sup>190</sup> Lee., V. & Burkam, D. (2002). *Inequality at the Starting Gate: Social background Differences in Achievement as Children Begin School*. Washington, DC: Economic Policy Institute.
- <sup>191</sup> 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>
- <sup>192</sup> 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>
- <sup>193</sup> 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>
- <sup>194</sup> 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>
- <sup>195</sup> Gilliam, W. S., Maupin, A. N., & Reyes, C. R. (2016). Early childhood mental health consultation: Results of a statewide random-controlled evaluation. *Journal of the American Academy of Child & Adolescent Psychiatry*, 55(9), 754-761.
- <sup>196</sup> 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>
- <sup>197</sup> 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.
- <sup>198</sup> 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.
- <sup>199</sup> 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 <https://mchb.hrsa.gov/data-research-epidemiology/research-epidemiology/national-survey-publications-and-chartbooks>



- 
- <sup>200</sup> 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/nmc.77.1.30. Retrieved August 20, 2021 from <http://www.ncmedicaljournal.com/content/77/1/30.full.pdf+html>
- <sup>201</sup> 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
- <sup>202</sup> 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.
- <sup>203</sup> 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](https://obamawhitehouse.archives.gov/sites/default/files/docs/early_childhood_report_update_final_non-embargo.pdf)
- <sup>204</sup> 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>
- <sup>205</sup> 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](https://obamawhitehouse.archives.gov/sites/default/files/docs/early_childhood_report_update_final_non-embargo.pdf)
- <sup>206</sup> 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 <https://www.americanprogress.org/issues/early-childhood/reports/2016/10/27/225703/child-care-deserts/>
- <sup>207</sup> 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>
- <sup>208</sup> 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>
- <sup>209</sup> 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](https://bipartisanpolicy.org/wp-content/uploads/2020/10/BPC_Working-Family-Solutions_FinalPDFV4.pdf)
- <sup>210</sup> 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>
- <sup>211</sup> Center for American Progress. (2018). *Child Care Access in Arizona*. Retrieved August 31, 2021 from <https://childcaredeserts.org/2018/index.html?state=AZ>
- <sup>212</sup> Center for American Progress. (2019). *Early learning factsheet 2019 | Arizona*. Retrieved September 14, 2021 from <https://cdn.americanprogress.org/content/uploads/2019/09/12064343/Arizona.pdf>
- <sup>213</sup> 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>
- <sup>214</sup> Epstein, D., Hegseth, D., Friese, S., Miranda, B., Gebhart, T., Partika, A., & Tout, K. (2018). Quality First: Arizona's early learning quality improvement and rating system implementation and validation study. Retrieved from [https://www.firstthingsfirst.org/wp-content/uploads/2018/02/AZ\\_QF\\_Exec-Summary.pdf](https://www.firstthingsfirst.org/wp-content/uploads/2018/02/AZ_QF_Exec-Summary.pdf)
- <sup>215</sup> First Things First. (2020, July 15). *Quality First*. <https://www.firstthingsfirst.org/resources/quality-first/>
- <sup>216</sup> 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>
- <sup>217</sup> 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>
- <sup>218</sup> 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/>
- <sup>219</sup> First Things First (2021). Preschool Development Grant FY19 sub-grantees and legislative districts. Unpublished data received through personal correspondence.

- 
- <sup>220</sup> 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>
- <sup>221</sup> 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 [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](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)
- <sup>222</sup> 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/>
- <sup>223</sup> 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 <https://medium.com/rapid-ec-project/between-a-rock-and-a-hard-place-245857e79d9d>
- <sup>224</sup> Ibid.
- <sup>225</sup> 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 <https://azgovernor.gov/governor/news/2020/04/governor-ducey-and-state-child-care-leaders-announce-launch-childcare-covid-19>
- <sup>226</sup> 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>
- <sup>227</sup> 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 [https://www.naeyc.org/sites/default/files/globally-shared/downloads/PDFs/resources/blog/naeyc\\_july\\_2021\\_survey\\_progressperil\\_final.pdf](https://www.naeyc.org/sites/default/files/globally-shared/downloads/PDFs/resources/blog/naeyc_july_2021_survey_progressperil_final.pdf)
- <sup>228</sup> 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 <https://www.americanprogress.org/issues/early-childhood/reports/2020/09/03/489900/true-cost-providing-safe-child-care-coronavirus-pandemic/>
- <sup>229</sup> 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 [https://www.naeyc.org/sites/default/files/wysiwyg/user-74/statedata\\_july2021\\_gf\\_092321.pdf](https://www.naeyc.org/sites/default/files/wysiwyg/user-74/statedata_july2021_gf_092321.pdf)
- <sup>230</sup> National Association for the Education of Young Children (2020). *Progress and peril: Child care at a crossroads*. Retrieved Oct 6, 2021 from [https://www.naeyc.org/sites/default/files/globally-shared/downloads/PDFs/resources/blog/naeyc\\_july\\_2021\\_survey\\_progressperil\\_final.pdf](https://www.naeyc.org/sites/default/files/globally-shared/downloads/PDFs/resources/blog/naeyc_july_2021_survey_progressperil_final.pdf)
- <sup>231</sup> 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/>
- <sup>232</sup> *Head Start Program Facts: Fiscal Year 2019*. (2021, April 20). Head Start ECLKC. Retrieved December 6, 2021, from <https://eclkc.ohs.acf.hhs.gov/about-us/article/head-start-program-facts-fiscal-year-2019>
- <sup>233</sup> 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](https://www.ncsl.org/documents/cyf/2014_Parents_and_the_High_Cost_of_Child_Care.pdf)
- <sup>234</sup> Child Care Aware® of America. (2018). Arizona Cost of Child Care. Retrieved from <https://usa.childcareaware.org/wp-content/uploads/2018/10/Arizona2018.pdf>
- <sup>235</sup> U.S. Census Bureau (2020) 2015-2019 ACS Estimates, Table B25064. Retrieved from <https://data.census.gov>
- <sup>236</sup> 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>
- <sup>237</sup> Knueven, L. (2020, August 6). The average monthly mortgage payment by state, city, and year. *Business Insider*. Retrieved September 7, 2021 from <https://www.businessinsider.com/personal-finance/average-mortgage-payment>
- <sup>238</sup> 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. Retrieved from <http://www.researchconnections.org/childcare/resources/14784/pdf>
- <sup>239</sup> For more information on child care subsidies see <https://des.az.gov/services/child-and-family/child-care>

- 
- <sup>240</sup> 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 <https://medium.com/rapid-ec-project/between-a-rock-and-a-hard-place-245857e79d9d>
- <sup>241</sup> 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 <https://medium.com/rapid-ec-project/between-a-rock-and-a-hard-place-245857e79d9d>
- <sup>242</sup> Arizona Department of Economic Security. (n.d.). *Child care waiting list*. Retrieved August 20, 2021 from <https://des.az.gov/services/child-and-family/child-care/child-care-waiting-list>
- <sup>243</sup> Machelor, P. (2019, June 17). Arizona suspends child-care waiting list, increases provider reimbursements. *Arizona Daily Star*. Retrieved August 20, 2021 from [https://tucson.com/news/local/arizona-suspends-child-care-waiting-list-increases-provider-reimbursements/article\\_a91a641f-5817-5e0d-a8c5-caaf530551ce.html](https://tucson.com/news/local/arizona-suspends-child-care-waiting-list-increases-provider-reimbursements/article_a91a641f-5817-5e0d-a8c5-caaf530551ce.html)
- <sup>244</sup> Arizona Department of Child Safety. (2021, February 1). *Chapter 3 : Section 8.1 Child care services*. DCS Program Policy. Retrieved December 7, 2021, from [https://extranet.azdcs.gov/DCSPolicy/Content/Program%20Policy/03%20Case%20Planning%20and%20Services/08%20Education%20and%20Development%20Services/CH3\\_S08\\_1%20Child%20Care%20Services.htm](https://extranet.azdcs.gov/DCSPolicy/Content/Program%20Policy/03%20Case%20Planning%20and%20Services/08%20Education%20and%20Development%20Services/CH3_S08_1%20Child%20Care%20Services.htm)
- <sup>245</sup> Welch, M., & Haskins, R. (2020, April 30). *What COVID-19 means for America's child welfare system*. The Brookings Institution. <https://www.brookings.edu/research/what-covid-19-means-for-americas-child-welfare-system/>
- <sup>246</sup> 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*. MMWR Morb Mortal Wkly Rep 2020;69:1841–1847. DOI: <http://dx.doi.org/10.15585/mmwr.mm6949a1>
- <sup>247</sup> 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 <https://whsaonline.org/2011/05/nectac-fact-sheet-on-the-importance-of-early-intervention-and-idea-part-c/#:~:text=The%20National%20Early%20Childhood%20Technical%20Assistance%20Center%20%28NECTAC%29,benefits%20of%20early%20intervention%2C%20and%20current%20unmet%20needs.>
- <sup>248</sup> 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/pdf/neils\\_finalreport\\_200702.pdf](https://www.sri.com/wp-content/uploads/pdf/neils_finalreport_200702.pdf)
- <sup>249</sup> 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 <http://ectacenter.org/~pdfs/pubs/econbene.pdf>
- <sup>250</sup> Greer, M. (2021). 2020 Tipping Points Survey: Demographics and challenges. IDEA Infant & Toddler Coordinators Association. <https://www.ideainfanttoddler.org/pdf/2020-Tipping-Points-Survey.pdf>
- <sup>251</sup> 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.
- <sup>252</sup> Arizona Department of Economic Security (2020). *AzEIP response to COVID-19* [Web]. Retrieved August 20, 2021 from <https://des.az.gov/services/disabilities/early-intervention/azeip-response-covid-19>
- <sup>253</sup> 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>
- <sup>254</sup> 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*. <https://medium.com/rapid-ec-project/overloaded-families-with-children-who-have-special-needs-are-bearing-an-especially-heavy-weight-4e613a7681bd>
- <sup>255</sup> 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 <https://medium.com/rapid-ec-project/the-forgotten-households-dfd2626098c7>

- 
- <sup>256</sup> 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
- <sup>257</sup> U.S. Department of Education, Office of Special Education and Rehabilitative Services (2021). *42nd Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act, 2020*. Retrieved August 20, 2021 from <https://sites.ed.gov/idea/files/42nd-arc-for-idea.pdf>
- <sup>258</sup> Arizona Department of Education (2020). *Special education guidance for COVID-19: Spring 2020 school closure* [Web]. Retrieved August 20, 2021 from <https://www.azed.gov/specialeducation/special-education-guidance-for-covid-19>
- <sup>259</sup> 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>
- <sup>260</sup> 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](https://futureofchildren.princeton.edu/sites/futureofchildren/files/media/policies_to_promote_child_health_25_full_journal.pdf)
- <sup>261</sup> 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>
- <sup>262</sup> 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.
- <sup>263</sup> 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>
- <sup>264</sup> Center on the Developing Child. (n.d.). *Health and learning are deeply interconnected in the body*. Harvard University. Retrieved August 23, 2021 from [https://46y5eh11fhgw3ve3ytpwxt9r-wpengine.netdna-ssl.com/wp-content/uploads/2020/10/2020\\_WP15\\_actionguide\\_FINAL.pdf](https://46y5eh11fhgw3ve3ytpwxt9r-wpengine.netdna-ssl.com/wp-content/uploads/2020/10/2020_WP15_actionguide_FINAL.pdf)
- <sup>265</sup> Case, A., Fertig, A., & Paxson, C. (2005). The lasting impact of childhood health and circumstance. *Journal of health economics*, 24(2), 365-389.
- <sup>266</sup> 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>
- <sup>267</sup> 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/>
- <sup>268</sup> 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.aappublications.org/content/118/1/405.full>
- <sup>269</sup> For more information about the Healthy People 2020 objectives, visit <https://www.healthypeople.gov/2020/>
- <sup>270</sup> 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*. Retrieved September 9, 2021 from <https://pub.azdhs.gov/health-stats/menu/info/status.php>
- <sup>271</sup> 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.
- <sup>272</sup> 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>
- <sup>273</sup> 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 <https://www.cdc.gov/MMWR/pdf/other/su6302.pdf>
- <sup>274</sup> 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>

- 
- <sup>275</sup> 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/>
- <sup>276</sup> Child Trends Databank. (2016). Health care coverage: Indicators on children and youth. *Health Care Coverage, 2016*. Retrieved September 10, 2021 from [https://web.archive.org/web/20161015012130/http://www.childtrends.org/wp-content/uploads/2016/05/26\\_Health\\_Care\\_Coverage.pdf](https://web.archive.org/web/20161015012130/http://www.childtrends.org/wp-content/uploads/2016/05/26_Health_Care_Coverage.pdf)
- <sup>277</sup> 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 <https://www.americanprogress.org/issues/healthcare/reports/2021/03/11/497019/policies-improve-health-insurance-coverage-america-recovers-covid-19/>
- <sup>278</sup> 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. <https://doi.org/10.1056/nejmp2023312>
- <sup>279</sup> 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.
- <sup>280</sup> 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. <https://doi.org/10.1055/s-0032-1316439>
- <sup>281</sup> 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>
- <sup>282</sup> 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.
- <sup>283</sup> 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.0000000000001241. Retrieved September 10, 2021 from <https://www.ncbi.nlm.nih.gov/pubmed/26942355>
- <sup>284</sup> 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>
- <sup>285</sup> 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. [https://doi.org/10.1016/S2213-8587\(16\)30107-3](https://doi.org/10.1016/S2213-8587(16)30107-3)
- <sup>286</sup> 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.
- <sup>287</sup> 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.
- <sup>288</sup> 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.
- <sup>289</sup> 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.
- <sup>290</sup> 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.
- <sup>291</sup> Goldenberg, R. L., & Culhane, J. F. (2007). Low birth weight in the United States. *The American journal of clinical nutrition*, 85(2), 584S–590S.
- <sup>292</sup> Harrison, W., & Goodman, D. (2015). Epidemiologic trends in neonatal intensive care, 2007–2012. *JAMA pediatrics*, 169(9), 855–862.
- <sup>293</sup> 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.
- <sup>294</sup> Arizona Department of Health Services. (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>

- 
- <sup>295</sup> 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.
- <sup>296</sup> 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>
- <sup>297</sup> 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.
- <sup>298</sup> 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>
- <sup>299</sup> 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>
- <sup>300</sup> 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 September 10, 2021 from <http://www.child-encyclopedia.com/sites/default/files/textes-experts/en/789/obesity-at-an-early-age-and-its-impact-on-child-development.pdf>
- <sup>301</sup> 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 [http://healthyeatingresearch.org/wp-content/uploads/2016/03/her\\_1000\\_days\\_final-1.pdf](http://healthyeatingresearch.org/wp-content/uploads/2016/03/her_1000_days_final-1.pdf)
- <sup>302</sup> Center on the Developing Child at Harvard University. (2010). *The foundations of lifelong health are built in early childhood*. Retrieved September 10, 2021 from <http://developingchild.harvard.edu/wp-content/uploads/2010/05/Foundations-of-Lifelong-Health.pdf>
- <sup>303</sup> World Health Organization. (2021, June 9). *Malnutrition*. Retrieved September 13, 2021 from <https://www.who.int/news-room/fact-sheets/detail/malnutrition>
- <sup>304</sup> Arizona Department of Health Services (2019, July). *The Arizona Immunization Handbook for School and Childcare Programs*. Retrieved September 10, 2021 from <https://azdhs.gov/documents/preparedness/epidemiology-disease-control/immunization/school-childcare/nofollow/school-childcare-immunization-guide.pdf>
- <sup>305</sup> 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>
- <sup>306</sup> Healthy People 2020. (2015). Immunization and infectious diseases. Washington, DC: U.S. Department of Health and Human Services. Retrieved from <https://www.healthypeople.gov/2020/topics-objectives/topic/immunization-and-infectious-diseases/objectives>
- <sup>307</sup> 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>
- <sup>308</sup> Office of Disease Prevention and Health Promotion. (2019). IID-10.2 Maintain the vaccination coverage level of 2 doses of measles-mumps-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](https://www.healthypeople.gov/node/4649/data_details)
- <sup>309</sup> Arizona Department of Health Services. (n.d.). *Influenza and RSV Summary (2018-2019)*. Retrieved December 10, 2021 from <https://www.azdhs.gov/documents/preparedness/epidemiology-disease-control/flu/surveillance/2017-2018-influenza-summary.pdf>
- <sup>310</sup> U.S. Department of Health & Human Services. (2021, October 25). *Children & influenza (flu)*. Centers for Disease Control and Prevention. Retrieved December 13, 2021, from <https://www.cdc.gov/flu/highrisk/children.htm>
- <sup>311</sup> U.S. Department of Health & Human Services. (2020, December 18). *Symptoms and care for RSV*. Centers for Disease Control and Prevention. Retrieved December 13, 2021, from <https://www.cdc.gov/rsv/about/symptoms.html>
- <sup>312</sup> 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.
- <sup>313</sup> Zahran, H.S., Bailey, C.M., Damon, S.A., Garbe, P.L., & Breyse, P.N. (2018). Vital Signs: Asthma in Children—United States, 2001–2016. *MMWR Morbidity and Mortality Weekly Report*, 67(5): 149-155.

- 
- <sup>314</sup> 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.
- <sup>315</sup> 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.
- <sup>316</sup> Arizona Department of Health Services. (2019). *Childhood injury fact sheet (2019)*. Retrieved October 22, 2021 from <https://www.azdhs.gov/prevention/womens-childrens-health/reports-fact-sheets/index.php#injury-prevention>
- <sup>317</sup> 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 [https://www.cdc.gov/injury/wisqars/pdf/leading\\_causes\\_of\\_death\\_by\\_age\\_group\\_2018-508.pdf](https://www.cdc.gov/injury/wisqars/pdf/leading_causes_of_death_by_age_group_2018-508.pdf)
- <sup>318</sup> 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
- <sup>319</sup> 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.
- <sup>320</sup> 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.
- <sup>321</sup> 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 [https://www.cdc.gov/nchs/pressroom/sosmap/infant\\_mortality\\_rates/infant\\_mortality.htm](https://www.cdc.gov/nchs/pressroom/sosmap/infant_mortality_rates/infant_mortality.htm)
- <sup>322</sup> Arizona Department of Health Services. (2019). Number of deaths for selected leading causes of infant mortality by year. *Population Health and Vital Statistics*. Retrieved October 11, 2021 from <https://pub.azdhs.gov/health-stats/menu/info/trend/index.php?pg=infant-deaths>
- <sup>323</sup> Ely, D. M. & Driscoll, A. K. (2020, July 16). Infant mortality 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 <https://www.cdc.gov/nchs/data/nvsr/nvsr69/NVSR-69-7-508.pdf>
- <sup>324</sup> 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 [http://www.p2presources.com/uploads/3/2/0/2/32023713/family\\_outcomes.pdf](http://www.p2presources.com/uploads/3/2/0/2/32023713/family_outcomes.pdf)
- <sup>325</sup> 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 <https://srcd.onlinelibrary.wiley.com/doi/full/10.1111/cdep.12013>
- <sup>326</sup> Shonkoff, J.P., & Fisher, P.A. (2013). Rethinking evidence-based practice and two-generation programs to create the future of early childhood policy. *Development and Psychopathology*, *25*, 1635- 1653. Retrieved August 18, 2021 from [http://journals.cambridge.org/download.php?file=%2FDPPP%2FDPPP25\\_4pt2%2FS0954579413000813a.pdf&code=aeb62de3e0ea8214329e7a33e0a9df0e](http://journals.cambridge.org/download.php?file=%2FDPPP%2FDPPP25_4pt2%2FS0954579413000813a.pdf&code=aeb62de3e0ea8214329e7a33e0a9df0e)
- <sup>327</sup> 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.
- <sup>328</sup> Center on the Developing Child at Harvard University. (2010). *The foundations of lifelong health are built in early childhood*. Retrieved August 18, 2021 from <http://developingchild.harvard.edu/wp-content/uploads/2010/05/Foundations-of-Lifelong-Health.pdf>
- <sup>329</sup> American Academy of Pediatrics. (2014). *Literacy promotion: An essential component of primary care pediatric practice*. Retrieved August 18, 2021 from <https://pediatrics.aappublications.org/content/134/2/404>
- <sup>330</sup> 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 <https://cssp.org/wp-content/uploads/2018/11/Branching-Out-and-Reaching-Deeper.pdf>
- <sup>331</sup> 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.
- <sup>332</sup> 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.

- 
- <sup>333</sup> 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? Retrieved October 13, 2021 from [www.childhealthdata.org](http://www.childhealthdata.org)
- <sup>334</sup> 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.
- <sup>335</sup> Keating, K., Cole, P., & Schneider, A. (2021). *State of Babies Yearbook: 2021*. Washington, DC: ZERO TO THREE and Bethesda MD: Child Trends. Retrieved August 18, 2021 from <https://stateofbabies.org/wp-content/uploads/2021/04/State-of-Babies-2021-Full-Yearbook.pdf>
- <sup>336</sup> U.S. Department of Health & Human Services, Administration for Children & Families, Children's Bureau. (2019). *Child Welfare Outcomes Report Data for Arizona*. Retrieved August 18, 2021 from <https://cwoutcomes.acf.hhs.gov/cwodatasite/childrenReports/index>
- <sup>337</sup> 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>
- <sup>338</sup> 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.
- <sup>339</sup> 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 [https://www.cdc.gov/injury/pdfs/priority/ACEs-Strategic-Plan\\_Final\\_508.pdf](https://www.cdc.gov/injury/pdfs/priority/ACEs-Strategic-Plan_Final_508.pdf)
- <sup>340</sup> Duncan, G.J., Dowsett, C.J., Claessens, A., Magnuson, K., Huston, A.C., Klebanov, P., ... Sexton, H. (2007). School readiness and later achievement. *Developmental Psychology*, 43(6), 1428.
- <sup>341</sup> Bernstein, S., West, J., Newsham, R., & Reid, M. (2014). *Kindergartners' skills at school entry: An analysis of the ECLS-K*. Princeton, NJ: Mathematica Policy Research.
- <sup>342</sup> Hood, M., Conlon, E., & Andrews, G. (2008). Preschool home literacy practices and children's literacy development: A longitudinal analysis. *Journal of Educational Psychology*, 100, 252-271.
- <sup>343</sup> Fantuzzo, J., McWayne, C., Perry, M.A., & Childs, S. (2004). Multiple dimensions of family involvement and their relations to behavioral and learning competencies for urban, low-income children. *School Psychology Review*, 33, 467-480.
- <sup>344</sup> Peterson, J., Bruce, J., Patel, N., & Chamberlain, L. (2018). Parental attitudes, behaviors, and barriers to school readiness among parents of low-income Latino children. *International Journal of Environmental Research and Public Health*, 15(2), 188.
- <sup>345</sup> *Reach Out & Read Arizona*. (n.d.). Retrieved August 18, 2021 from <https://azaap.org/programs>
- <sup>346</sup> Santa Cruz Regional Partnership Council. (2021). Regional Allocation and Proposed Funding Plan Summary SFY19 – SFY22. <https://files.firstthingsfirst.org/regions/Publications/Funding%20Plan%20Summary%20Table%20-%20FY2022%20-%20Santa%20Cruz.pdf>
- <sup>347</sup> National Scientific Council on the Developing Child. (2012). Establishing a level foundation for life: Mental health begins in early childhood. Harvard University, Center on the Developing Child. Retrieved August 18, 2021 from <https://46y5eh11fhgw3ve3ytpwxt9r-wpengine.netdna-ssl.com/wp-content/uploads/2008/05/Establishing-a-Level-Foundation-for-Life-Mental-Health-Begins-in-Early-Childhood.pdf>
- <sup>348</sup> 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>
- <sup>349</sup> 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>
- <sup>350</sup> Center on the Developing Child. (n.d.). *Early childhood mental health*. Harvard University. Retrieved August 18, 2021 from <https://46y5eh11fhgw3ve3ytpwxt9r-wpengine.netdna-ssl.com/wp-content/uploads/2015/05/InBrief-Early-Childhood-Mental-Health-1.pdf>
- <sup>351</sup> 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>



- 
- <sup>352</sup> American Psychological Association (2020). *Stress in America™ 2020: A National Mental Health Crisis*. Retrieved October 14, 2021 from <https://www.apa.org/news/press/releases/stress/2020/report-october>
- <sup>353</sup> U.S. Census Bureau (2021). Household Pulse Survey Data, Phases 1 & 3. Retrieved from <https://www.cdc.gov/nchs/covid19/pulse/mental-health.htm>
- <sup>354</sup> 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 <https://medium.com/rapid-ec-project/flattening-the-other-curve-7be1e574b340>
- <sup>355</sup> 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 <https://medium.com/rapid-ec-project/flattening-the-other-curve-part-2-5661a2d36a82>
- <sup>356</sup> 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 <https://medium.com/rapid-ec-project/the-forgotten-households-dfd2626098c7>
- <sup>357</sup> Center for Translational Neuroscience (2020, May 26). Health, interrupted: Well-child visits are declining during the COVID-19 pandemic. *Medium*. Retrieved September 10, 2021 <https://medium.com/rapid-ec-project/health-interrupted-a463733ce3e5>
- <sup>358</sup> U.S. Department of Health and Human Service. (2010). *A Report of the Surgeon General: How Tobacco Smoke Causes Disease: What It Means to You*. Atlanta: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Office on Smoking and Health. Retrieved from: <https://www.ncbi.nlm.nih.gov/books/NBK53017/>
- <sup>359</sup> 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
- <sup>360</sup> Arizona Department of Health Services. (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>
- <sup>361</sup> 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.
- <sup>362</sup> Child and Adolescent Health Measurement Initiative. (2018). *National Survey of Children's Health 2016-2017*. Data Resource Center for Child and Adolescent Health supported by the U.S. Department of Health and Human Services, Health Resources and Services Administration (HRSA), Maternal and Child Health Bureau (MCHB). Retrieved from [www.childhealthdata.org](http://www.childhealthdata.org)
- <sup>363</sup> 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.
- <sup>364</sup> Smith, V., & Wilson. R. (2016). Families affected by parental substance use. *Pediatrics*, 138(2). PMID: 27432847
- <sup>365</sup> Smith, V., & Wilson. R. (2016). Families affected by parental substance use. *Pediatrics*, 138(2). PMID: 27432847
- <sup>366</sup> 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 <https://www.kff.org/coronavirus-covid-19/issue-brief/the-implications-of-covid-19-for-mental-health-and-substance-use/>
- <sup>367</sup> Health Alert Network. (2020, Dec 17). Increase in fatal 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 [https://emergency.cdc.gov/han/2020/han00438.asp?ACSTrackingID=USCDC\\_511-DM44961&ACSTrackingLabel=HAN%20438%20-%20General%20Public&deliveryName=USCDC\\_511-DM44961](https://emergency.cdc.gov/han/2020/han00438.asp?ACSTrackingID=USCDC_511-DM44961&ACSTrackingLabel=HAN%20438%20-%20General%20Public&deliveryName=USCDC_511-DM44961)
- <sup>368</sup> 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/>
- <sup>369</sup> AHCCCS. (n.d.). Preventing an overdose. Retrieved December 9, 2021, from [https://www.azahcccs.gov/Members/BehavioralHealthServices/OpioidUseDisorderAndTreatment/Overdose\\_Prevention.html](https://www.azahcccs.gov/Members/BehavioralHealthServices/OpioidUseDisorderAndTreatment/Overdose_Prevention.html)
- <sup>370</sup> Turney, K., & Wildeman, C. (2016). Mental and physical health of children in foster care. *Pediatrics*, 138(5), e20161118.
- <sup>371</sup> Department of Child Safety (2021). Semiannual child welfare reports, Sept 2018 to March 2021. Retrieved from <https://dcs.az.gov/reports>

- 
- <sup>372</sup> 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/>
- <sup>373</sup> Winokur, M., Holtan, A., & Batchelder, K. E. (2014). Kinship care for the safety, permanency, and well-being of children removed from the home for maltreatment. *Cochrane Library*, 2014(1), CD006546–CD006546.
- <sup>374</sup> Children’s Defense Fund. (2020, February). *Implementing the Family First Prevention Services Act: A technical guide for agencies, policymakers and other stakeholders*. Retrieved September 10, 2021 from <https://www.childrensdefense.org/wp-content/uploads/2020/07/FFPSA-Guide.pdf>
- <sup>375</sup> 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 <https://www.gao.gov/assets/gao-21-483.pdf>
- <sup>376</sup> U.S. Department of Education, Office of Special Education and Rehabilitative Services (2021). *42nd Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act, 2020*. Retrieved August 20, 2021 from <https://sites.ed.gov/idea/files/42nd-arc-for-idea.pdf>
- <sup>377</sup> U.S. Census Bureau. (May, 2000). Factfinder for the Nation. Retrieved from <http://www.census.gov/history/pdf/cff4.pdf>
- <sup>378</sup> 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](http://www.census.gov/content/dam/Census/programs-surveys/acs/about/ACS_Information_Guide.pdf)