



2017 BUILDING BRIGHT FUTURES

Arizona's Early Childhood Opportunities Report

 **FIRST THINGS FIRST**

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EXECUTIVE SUMMARY

First Things First was created by Arizonans to help ensure that Arizona children have the opportunity to arrive at kindergarten prepared to be successful. Each year, the statewide First Things First Board and its affiliated regional partnership councils make decisions about which early childhood strategies to fund that will impact the health and school readiness of Arizona's children.

First Things First is not alone in its mission. Early childhood stakeholders – including parents and caregivers, child care and health providers, state and non-profit agencies, educators, businesses, philanthropists, policymakers and elected leaders – are partners in addressing children's school readiness.

Decisions made by all early childhood stakeholders must be based on science and evidence – about how our children are doing, the resources communities have, and what children in different areas need. *Building Bright Futures* is a valuable tool to inform those decisions. Data presented in this report cover a myriad of topics – some directly related to children, their health and their learning; others that describe the circumstances and environments in which children live.

In recent years, there has been a growing movement to consider factors related to economic stability, education, environment, health and community as having a collective impact on later outcomes; they are collectively labelled as social determinants of health. According to the federal Office of Disease Prevention and Health Promotion, “our health is ... determined in part by access to social and economic opportunities; the resources and supports available in our homes, neighborhoods, and communities; the quality of our schooling; the safety of our workplaces; the cleanliness of our water, food, and air; and the nature of our social interactions and relationships. To ensure that all Americans have that opportunity, advances are needed not only in health care, but also in fields such as education, child care, housing ...”ⁱ

Similarly to the social determinants of health, landmark research conducted by Kaiser Permanente from 1995 to 1997 demonstrated the extent to which negative experiences in early childhood impacted later outcomes in health, education and well-being. According to a summary produced by the federal Centers for Disease Control, the study showed that Adverse Childhood Experiences (ACEs) occurred in three major categories: abuse, neglect and household challenges. Almost two-thirds of study participants reported at least one ACE, and more than one in five reported three or more ACEs. The study found that, as the number of ACEs increased, so did the risk of negative outcomes in adults, such as poor health outcomes, depression, drug use, domestic violence, unintended or teen pregnancy and poor academic achievement.ⁱⁱ How do ACEs lead to negative outcomes later in life? An individual experiences a combination of adverse experiences in childhood, which can lead to disrupted brain development. This can then result in social, emotional and cognitive impairment. As a result, the individual has a higher probability of adopting risky behaviors as well as developing diseases, disabilities or social problems.ⁱⁱⁱ

Information regarding the social determinants of health and the impact of Adverse Childhood Experiences points to the years between birth to 5 years old as the critical period for interventions that promote lifelong learning and health. They also demonstrate that efforts to understand the risks and challenges to children's long-term well-being must look at factors regarding the children themselves, as well as their environments and early relationships with adults. Therefore, a variety of factors – including young children's family characteristics, economic conditions, health and education – must be improved in order to effect systemic changes that will lead to optimal development for all children.

To that end, this biennial assessment describes the status of children across a variety of sectors in several ways:

Starting Strong, our essay section (pages 6 to 23), describes the importance of regular, high-quality screening to ensuring that children’s developmental delays are identified early enough for the children to benefit optimally from early interventions. Among the highlights are:

- Parents and caregivers are doing their best to understand and take action to improve their children’s health and development, but challenges exist.
- About 3 out of 4 parents surveyed said their child had not received the necessary developmental screenings.
- Only an estimated 30% of children with developmental issues are identified before they reach kindergarten.
- And, system partners are taking steps – individually and collectively – to ensure better access to regular, high quality screenings.

Our **Big Picture of Arizona’s Little Kids** section (pages 24 to 27) provides state-national comparisons in three key areas: strong families, healthy children and educated young students. The document also describes ways in which First Things First, as an early childhood system partner, is working to expand opportunities for children to develop the tools they need to be ready for school and set for life.

And our **Data Summary** (pages 28 to 81) paints a picture of the overall status of children statewide. Each section describes an area of early childhood development and health that is crucial to school readiness. Information on how Arizona’s children are faring and how FTF and its partners are working to strengthen supports for kids birth to 5 years old also is included.

Because the data needs of early childhood stakeholders vary, First Things First also has included additional statewide and county data in its Data Center: <http://datacenter.azftf.gov/>. The Data Center makes existing First Things First data and reports more accessible, visual and customizable. In doing so, it supports the strategic planning of First Things First regional partnership councils, Board and staff, as well as the work of the many other stakeholders who are critical to the success of the early childhood system in Arizona.

Taken together, all of this information provides significant insight to the challenges facing young children in Arizona – challenges that threaten their well-being today and their school success tomorrow. *Building Bright Futures* is a tool to begin a public dialogue on what our children need to succeed in kindergarten and beyond, and the crucial role that all Arizonans play in ensuring that our kids are ready for school and set for life.

i Office of Disease Prevention and Health Promotion, *Healthy People 2020, Social Determinants of Health*. Retrieved from <https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health>

ii Centers for Disease Control and Prevention. (2016). *About the CDC-Kaiser ACE study*. Retrieved from <https://www.cdc.gov/violenceprevention/acestudy/about.html>

iii American Academy of Pediatrics (2014). *Adverse Childhood Experiences and the Lifelong Consequences of Trauma*. Retrieved from https://www.aap.org/en-us/Documents/ttb_aces_consequences.pdf



STARTING STRONG

REGULAR, QUALITY SCREENINGS ARE A CRUCIAL FIRST STEP IN ADDRESSING DEVELOPMENTAL CONCERNS IN YOUNG CHILDREN

INTRODUCTION

The early years of life are crucial for a child's health and development. In fact, 90 percent of a child's brain development occurs before kindergarten. The quality of care that children receive between birth and 5 years old impacts whether they will develop in healthy ways. Healthy development means that children of all abilities are able to grow up in a safe and loving home where their social, emotional and educational needs are met.ⁱ

From birth to 5 years old, children should reach certain milestones in how they play, learn, speak, behave, and move. Skills such as taking first steps, speaking words or phrases, and emotional self-regulation are considered developmental milestones. While each child is unique and will develop at his or her own pace, developmental milestones give a general idea of what typical development looks like and what is reasonable to expect as a child grows.

A child who consistently does not meet the guideposts of healthy development may have a developmental delay. Developmental delays can be a sign of one of two things – either an area where a child needs additional support in order to meet developmental milestones, or a sign of a potential lifelong issue that could significantly impact a child's long-term learning and well-being (developmental disability). The National Survey of Children's Health shows that certain populations of children are at higher risk for developmental delays, and a review of Census data shows that Arizona has high percentages of children in the at-risk populations.

Surveillance of a child's healthy development – including regular, quality developmental screening and referral for further assessment and follow-up services, as warranted – ensures that any potential learning and development issues are identified early enough for the child to get the maximum benefit of intervention services and supports. Early intervention treatments and therapies have the highest success rates when they are provided to children as early as possible in their development. And, children at risk for delays who are screened are more likely to receive early intervention services than unscreened peers.ⁱⁱ Without routine screening, only an estimated 30% of children with developmental issues are identified before they reach kindergarten.ⁱⁱⁱ

Quantitative and qualitative data point to a number of challenges faced by various sectors in Arizona's early childhood system in ensuring that timely, quality screening is occurring; and that appropriate referrals are being provided in cases where concerns may exist and further assessment is needed, including information with which families can actively support their child in reaching developmental milestones. These challenges include many children not being screened and, when they are screened, screenings being conducted by individuals who may not have had adequate training to appropriately conduct the assessment, score, interpret and share results with families. In addition, screenings may be conducted across a variety of settings such as at doctors' visits, in child care settings, or by home visitors with no clear linkages of information and services between those systems. When screening results do show concerns with a child's development and families are referred for follow-up assessment, the services may be complex, difficult to access, under-resourced, and in many cases not appropriate to meet the child's needs, particularly for children with mild to moderate developmental delays.

This brief focuses on the crucial first step in identifying concerns with children’s healthy development: timely and quality screenings. Subsequent briefs will examine the complexities of and gaps within the system of services and interventions that are intended to support children who have an identified developmental concern, delay or disability.

This brief also highlights collaborative efforts by First Things First and early childhood system partners to enhance the quality of developmental screening and offers recommendations on what families, providers and policymakers can do to ensure more children are getting the screenings they need to start strong and healthy in their development. The recommendations are not intended to be detailed or comprehensive; rather, they can serve as a vehicle to encourage further dialogue and collaborative action to ensure that all children are afforded the opportunity to start school ready to reach their fullest potential.

Background: Complexities of Arizona’s Early Intervention System

About 85% of a child’s brain growth happens between birth and 3 years old.^{iv} Although all children develop at their own pace, there are certain things that children typically learn to do at each age and stage of life. These are collectively known as developmental milestones. It is crucial that babies and toddlers be closely observed and supported in meeting those milestones. Monitoring a child’s development means paying attention to the child’s physical, mental, social, and emotional well-being, as well as noting developmental concerns. When children are not developing typically, effective and timely interventions – including regular, high-quality developmental screenings – offer them the opportunity to identify and receive the support necessary to put them on a trajectory for optimal success.

In Arizona, there are a variety of partners that comprise the early intervention system. A child’s growth and development are followed through a partnership between families, non-profit and public agencies, health care providers, early educators, and other professionals who may work with a family, such as home visitors. Each partner plays a key role in working with families to support a child’s healthy growth and development. Coordinating and aligning the work of these various collaborating partners is crucial in order to ensure that:

- Children receive timely and appropriate screenings and referrals;
- Appropriate prevention, early intervention and treatment services are available; and
- Children receive the support and services they need to achieve healthy development.

The early intervention system is complex and can be difficult for families to navigate with the many partners, various policies and numerous practices that drive the provision of services – including screening, assessment and evaluation, and services and therapies – and the delivery of services across the health care, education and social services sectors. Highlighted below are some key policies and practices specific to the front end of Arizona’s early intervention system – identifying young children with developmental delays and disabilities.



Health Care

The American Academy of Pediatrics has established recommendations and guidance to ensure that primary care providers are routinely monitoring children's development, conducting regular screenings, and referring families for further assessment when appropriate. The federal Medicaid program, known as the Arizona Health Care Cost Containment System (AHCCCS), and the federal-state Children's Health Insurance Program (SCHIP), known as KidsCare in Arizona, have similar requirements of medical providers working with children served by public health insurance programs through a benefit known as Early Periodic Screening, Diagnostic and Treatment (EPSDT). This is particularly significant, given that 50% of births in Arizona are paid for by Medicaid. All primary care providers are expected to partner with families to fulfill these requirements and provide families with information with which to support their child's healthy development (also known as anticipatory guidance).

AHCCCS' Children's Rehabilitative Services Program also works with the Arizona Long Term Care System in the Department of Economic Security's Division of Developmental Disabilities to serve children based on specific needs and conditions. The Arizona Department of Health Services' Office for Children with Special Health Care Needs works to improve systems of care, provide information and referral, training to families and professionals, family involvement and support, and telemedicine to provide services in remote areas of the state.



Education

The Individuals with Disabilities Education Act (IDEA) is a law that makes available a free appropriate public education to eligible children with disabilities throughout the nation and ensures special education and related services to those children. The IDEA governs how states and public agencies provide early intervention, special education, and related services to eligible infants, toddlers, children, and youth with disabilities. Infants and toddlers, birth through age 2, with disabilities and their families receive early intervention services under IDEA Part C. The Arizona Early Intervention Program (AzeIP) has primary responsibility for implementing Part C. Children and youth ages 3 through 21 receive special education and related services under IDEA Part B through the Arizona Department of Education and local school districts.

The IDEA requires states to have a comprehensive and continuous Child Find System that ensures all children birth to 21 in need of special education and related services are identified, located and evaluated. Child Find is a continuous process of public awareness activities, as well as screening and assessment processes designed to locate, identify and refer all young children with disabilities as early as possible. The Child Find process often involves creating informed referral networks consisting of physicians, Head Start programs, child care programs, parents, public health, schools, social services and others in the community that touch the life of a child.



Social Services to Strengthen Families

In Arizona, there are various services and programs through the nonprofit sector and public agencies dedicated to supporting families and their children with the full range of delays and disabilities by providing support, training, information and individual assistance. Evidence-based home visitation programs have been shown to be an effective way to improve outcomes for families and children experiencing various risk factors.⁹ While there are a number of evidence-based models available, the four most common in Arizona include Healthy Families, Nurse Family Partnership, Parents as Teachers and Early Head Start. Each program has its own unique curriculum and/or program implementation guidelines, but they all include a requirement that home visitors work with families to monitor children's development, conduct regular screenings and refer families, as appropriate, for further assessment. This also includes supporting families with anticipatory guidance as appropriate and warranted. To leverage funding and coordinate the delivery of home visitation in Arizona, the Strong Families Alliance – a consortium of agencies statewide whose work with families includes the funding and implementation of home visitation – was developed. The Alliance works to strengthen the home visiting system in Arizona and promote collaboration and the sharing of resources and best practices.

This high level overview of the system touches only on some key policies and practices that guide the early intervention system. Due to its complexity, it is critical that families have a comprehensive, integrated, coordinated and effective early intervention system of services for their children with developmental concerns, delays and disabilities no matter when, where or how they enter the system. The importance of this is further emphasized when understanding what developmental delays and disabilities are and how common they are among our young children.

What Are Developmental Delays And How Common Are They?

Developmental concerns can range from delays such as grunting instead of using words to ask for something, or not crawling or walking at a reasonable age, to a permanent disability that will remain with a person for life, such as blindness, severe autism or cerebral palsy.

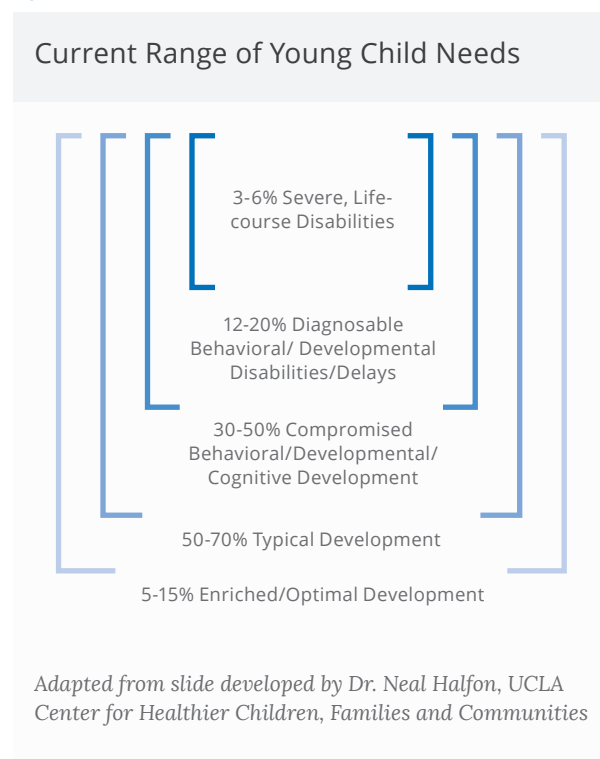
Delays can be ameliorated and even eliminated with early and appropriate intervention. Sometimes developmental delays can be precursors to or indications of developmental disabilities, which are “a diverse group of severe chronic conditions that are the result of mental and/or physical impairments. These impairments lead to challenges with everyday functioning such as language, mobility, learning, self-help, and independent living.” While disabilities can be supported and appropriate measures taken to improve the child’s development, there is no cure or fix for permanent disability. Developmental disabilities begin anytime during development up to 22 years of age and usually last throughout a person’s lifetime.^{vi}

Research shows that a very small percentage of young children (3 to 6%) have profound health issues and concerns that are likely to require ongoing care and attention throughout their lives (See Figure 1). Some of these issues are congenital and others may be the result of severe illnesses or injuries. Some require institutionalization or constant in-home care and management, and may be subject to repeated hospitalizations for complications resulting from their conditions.^{vii}

A much larger number of young children (12 to 20% of the overall population) have developmental or mental health conditions or needs which require attention. In terms of developmental delays and disabilities, research indicates that about 1 in 8 very young children (12% of children 6 months to 3 years old) could be diagnosed with a developmental delay or disability. About 1 in 6 (18%) of children 2 to 5 years old could be diagnosed with a mental health disorder, including attention deficit/hyperactivity disorder, depression, and a variety of other mental disorders.^{viii}

An even larger proportion of the young child population may have developmental concerns without necessarily manifesting a specific condition or having a specific diagnosis. Between 30-50 percent of children fall into this category of development. A child’s home environment may make them vulnerable to developmental concerns that – if not addressed in the early years – are likely to affect future development and functioning.^{ix} For example, by age 3, there are

Figure 1





profound differences in vocabulary acquisition among children from under-resourced families (less than 550 words) compared to their more affluent peers (about 1,100 words).^x

The aforementioned categories of developmental concerns to disabilities are shown in Figure 1. In total, as many as half of all children birth to 5 years old are in need of some level of support in order to achieve their optimal development. Without that support, the child's specific challenges may only worsen, compromising their long-term learning and well-being.

Furthermore, the 2016 National Survey of Children's Health shows that certain populations of children are at higher risk for developmental delays, and a review of Census data shows that Arizona has high percentages of children in the at-risk populations. According to the survey:

- Children at/below the Federal Poverty Line (\$24,600 for a family of four) are more than 2X as likely to have high risk for developmental delays compared to their peers living at 200% FPL. More than 1 in 4 young children in Arizona (29%) live in poverty.^{xii}
- Hispanic and African American children are 2X more likely to have a high risk of delays than white children. Half of Arizona's children birth to 5 years old are Hispanic or African American (45% and 4%, respectively).^{xiii}
- Children with parents who lack a high school diploma are 2X more likely to have high risk of delays compared to children with parents with a diploma and 3X as likely as children whose parents have education beyond high school. Of all Arizona births in 2015, almost 1 in 5 were to mothers with less than a high school diploma (18%).^{xiv}

Given these factors, it is crucial that Arizona ensures that all children are afforded the opportunity to have any and all developmental concerns identified and supported as early as possible.

Identifying Developmental Concerns

Developmental screenings play a vital role in giving families information about their child's development across all developmental domains, including cognitive, physical and social-emotional development. The screenings help identify areas in which children are developing typically, as well as areas in which additional assessment is needed to determine if a delay exists and the best course of treatment for the delay.^{xv} A screening is not a diagnostic assessment. There are a variety of best practices when it comes to developmental screening, depending on the setting where the screening occurs.

Ideally, quality screening includes the use of valid and reliable screening tools; trained screeners who know how to use and score the tool, interpret the results and share information with families; engaged families, who are best positioned to provide accurate and reliable information about their child's abilities and behaviors; and referrals for follow-up assessment when concerns are noted, including providing families with information about what they can do to support their child in meeting developmental milestones, also known as anticipatory guidance.

There are a variety of evidence-based, high-quality tools available for children's developmental screening. Examples of some of the most commonly used tools are: the Ages and Stages Questionnaire (ASQ) and the Ages and Stages Questionnaire – Social Emotional (ASQ-SE); the Parents' Evaluation of Developmental Status (PEDS), favored by many pediatricians and primary care physicians; and the Modified Checklist for Autism in Toddlers (MCHAT).

As previously noted, screening can be provided through a child's primary care provider, but can also be done by other professionals in health care, social service, or early education (child care) settings. Regardless of where a child is provided a screening, it should be conducted in a timely manner and include risk-appropriate referrals in order to be most effective.

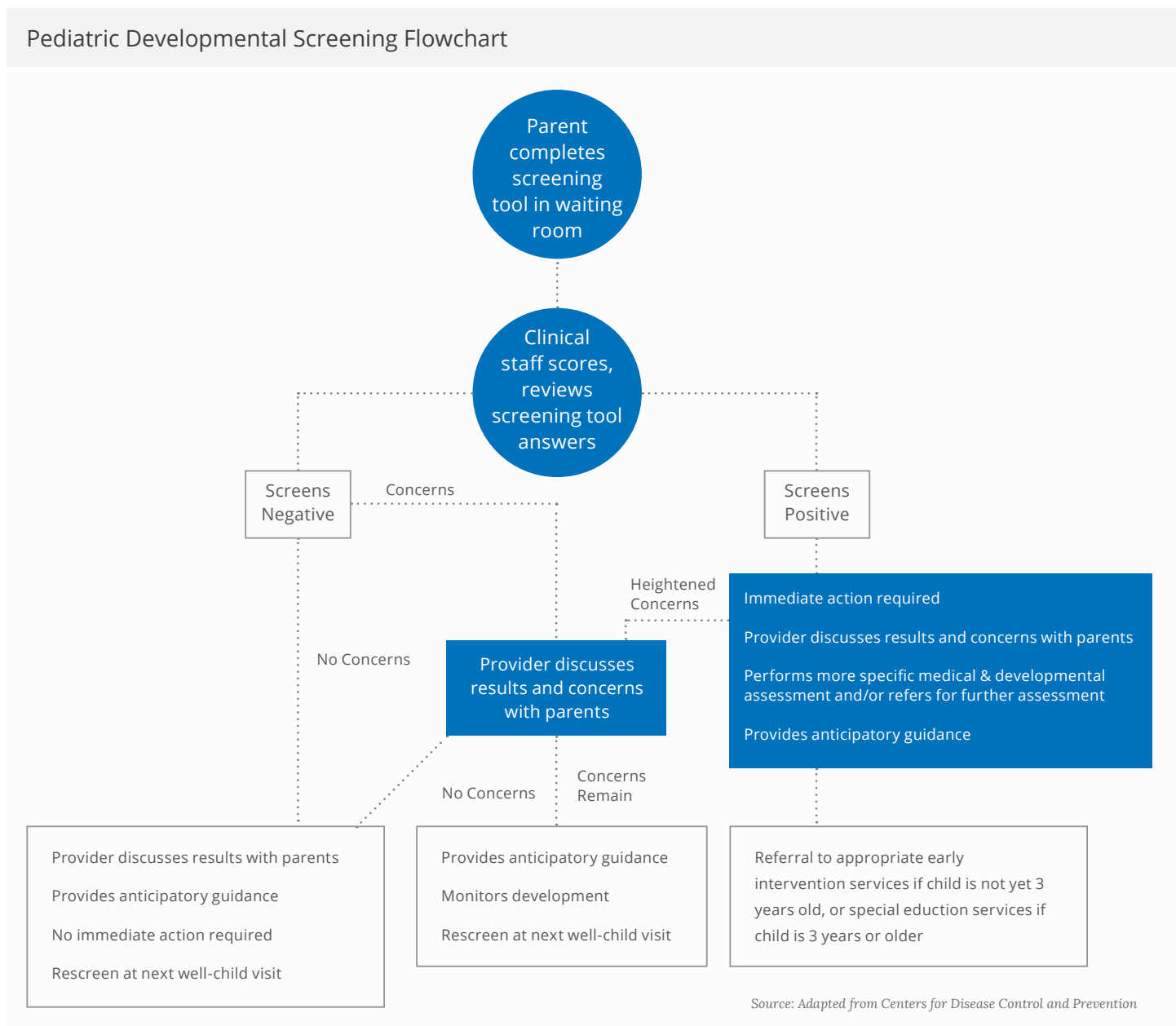


The American Academy of Pediatrics (AAP) recommends that developmental surveillance be part of every well child visit – which typically occur every 2-6 months between a child’s birth and 3 years old.^{xvi} Developmental surveillance includes asking parents about any concerns they have regarding their child’s development, taking a developmental history, observing the child, noting any factors that place the child at risk for a developmental delay and documenting their observations. If a primary care provider does have a concern, the visit would include doing a timely developmental screening.

Regardless of whether a concern is noted or not, the AAP recommends routine standardized screenings at well-child visits at 9, 18 and 30 (or 24) months of age.^{xvii} In addition, children who have health care coverage through publicly-funded programs are supposed to have their development monitored regularly as part of their Early Periodic Screening Diagnostic Treatment (EPSDT) benefit.^{xviii}

Figure 2 describes how this process ideally would look in a primary care provider’s office.

Figure 2



HOW ARIZONA'S YOUNG CHILDREN ARE FARING

Despite the importance of developmental screening as a core component of the early intervention system, there are several quantitative and qualitative measures that suggest a fragmented system of screening for Arizona's young children. Highlighted below are key challenges to providing quality screening for our young children across health, early education and social services sectors.

Screening Rates

- The 2016 National Survey of Children's Health found that only 1 in 4 Arizona parents (26%) surveyed said that they were asked by a health-care provider to complete a developmental screening tool concerning their child's development in the past year. The prevalence of physician-ordered, parent-completed developmental screening was low regardless of demographic, health-care, or risk indicators. The Arizona rate was on par with national results (26% and 27% respectively).^{xix}
- The state's Medicaid agency, the Arizona Health Care Cost Containment System (AHCCCS), reports that in 2016, only 1 in 5 (21%) of 1, 2 and 3 year-olds served by the program for the preceding year had received a developmental screening.^{xx} The data were collected to establish a baseline for the agency's Performance Improvement Project (PIP), referenced later in this brief.
- In addition to the data cited above, from 2014-2016, as part of the federal Early Childhood Comprehensive Systems (ECCS) grant, Raising Special Kids, with the support of First Things First, conducted ten Family Forums around the state. One of the chief concerns noted by parents was that they did not feel their medical provider listened to their concerns regarding their child's development, in particular when they suspected something was not right.^{xxi}

Building Capacity of Professionals to Provide Quality Screening

While policies are in place that promote timely and appropriate screenings of children that occur in various settings, utilization of valid and reliable screening tools and trained screeners who know how to use and score the tool, interpret the results and share information with families is highly variable within and across sectors. For example, research suggests that barriers to screening for the health sector may include clinicians' and clinical staff's lack of knowledge and inadequate training on screening. In addition, managing workload in pediatric practices to ensure adequate time to conduct screenings has been raised as a concern.^{xxii}

Furthermore, access to and availability of training for home visitors and other social service providers has also been identified as a barrier to providing quality screening. Based on system partner dialogue and family experiences, training provided on these important screening tools can range from watching a 20-minute video to in-depth seminars.

In addition, early care and education programs in Arizona are comprised of center based and family child care home providers. This includes for-profit and nonprofit providers, school districts, and Head Start programs serving infants, toddlers and preschoolers. While early care and education programs should include screening and assessment as a core component of their programs, this varies considerably across programs due to knowledge and use of screening tools, lack of or limited program policies on screening and assessment, availability of staff to conduct screenings while meeting ratio and group sizes, and variance in staff qualifications of the early childhood workforce.

Family Engagement

Families may perceive developmental screening as a way to find something “wrong” with children, which is something that can make parents reluctant to have their children screened. One way to approach the screening discussion is to view screening as a partnership opportunity for parents/caregivers and providers to support children’s healthy development and open up communication about how to keep children developing in the best ways possible. It is important for families to understand the purpose behind the screening, as well as the partnership with providers, so that the most appropriate steps are taken by all parties to promote the best possible outcomes for the child’s development.

A key component of the screening process involves the post-screening discussion of results with families. If a child demonstrates mild concerns or delays but not sufficient delay for a referral for further assessment, and in the discussion a provider communicates that there is not sufficient delay to warrant a referral for further assessment, the family could assume that everything is fine. In reality, however, the child may need some extra support in a key developmental domain, and without that support, the mild delay could progress to a more significant concern down the road, requiring a greater investment of resources and time to support the child’s development. If, on the other hand, a child demonstrates significant delays or concerns and the provider communicates that further assessment is required, without considering the family’s preparedness for next steps or acceptance that their child may not be typically developing, the family may feel anxious and disconnected and decline to proceed with an assessment and potential services that could support their child. It is essential that these conversations take into consideration a variety of factors that could influence a family’s capacity or readiness to take action on behalf of their children, and that they are conducted in a sensitive and thoughtful way so that children and families benefit. Often these conversations are where the process stops.^{xxiii,xxiv}

It is important to acknowledge that many parents are doing their best with what is available to them to navigate a complex system of early childhood development, and are eager to do more. According to Zero to Three’s National Parent Survey, nearly 9 in 10 parents regardless of race, ethnicity, income, and education levels are passionate about their roles and share an even greater desire to do more to help their children. Almost 70% of parents say that if they knew more effective parenting strategies, they would use them to improve their child’s health and development. It is important for the early childhood system to give families the support and resources they need and streamline a complicated system.^{xxv}



Coordination and Risk Appropriate Referrals

There is no central repository of screenings conducted, who is being screened, and the results or the follow-up that occurs/does not occur after the screening. The result is that children may be getting screened multiple times by different providers, inappropriately screened or not screened at all. Families may then receive conflicting or insufficient information on their child's development. This can lead to confusion, frustration and families becoming overwhelmed, which could then lead to children not receiving needed and timely assessments or services.^{xxvi}

Across system partners, knowledge and understanding of available resources and services and the ability to help families navigate the system when it has been determined that children need further assessment have been raised as significant challenges. Services and resources by community also can vary greatly, including waiting lists for services as well as workforce shortages, particularly in rural and tribal communities. These challenges leave partners overwhelmed with the task of connecting families to appropriate, timely and available interventions.

These challenges have unintended consequences for partners in the early intervention system. For example, as detailed in Figure 3, depending on the referring source, as many as 2 out of 3 children referred to AzEIP ultimately are not eligible for AzEIP services.

To qualify for AzEIP services, a child must have a 50% delay in at least one developmental domain, which is considered a narrow eligibility criteria when compared to other states. While infants and toddlers may not meet the eligibility criteria for AzEIP, these young children may have mild to moderate delays that require some level of intervention. System partners may be erring on the side of caution and over referring children to AzEIP for further assessment. This puts significant strain on this part of the system because AzEIP is required to assess all children referred to them. Additionally, the earlier concern noted about the difficulty in sharing screening information among partners means that often AzEIP does not have earlier screening results to include in its follow-up assessments.^{xxvii}

While it should be expected that some children referred to the program will not be eligible for services (particularly given the narrow eligibility criteria previously mentioned), the levels outlined in Figure 3 have elevated the issue of risk-appropriate referrals among system partners.



Lastly, when children are determined not eligible for AzEIP, families must go through another process to find appropriate services, which often takes considerable time and effort, thus delaying further assessments and interventions. The challenges faced by system partners who are following up on concerns identified through initial screenings, and the gaps in services for children who do and those who do not qualify for publicly funded programs will be discussed in subsequent briefs.

What is obvious from the aforementioned challenges is that Arizona’s current early intervention system lacks the definition, coordination and integration necessary to ensure that children are receiving the timely and quality screenings necessary in order to put them on the trajectory for optimal development.

Figure 3

Many Children Referred for Follow-Up Assessment Not Eligible for Services

Referral Sources	Eligible	Not Eligible	N/A (child's case closed before eligibility determination-could be loss of contact, voluntary withdrawal etc.)	Grand Total	% Eligible by Referral Source
Domestic Violence Shelter or Program.	1	3	2	6	17%
Department of Child Safety	289	345	747	1,354	21%
Physician's Office	1,799	1,458	2,758	5,889	31%
Public Health Facility	274	209	402	881	31%
Public Health or Social Service Agency	509	352	673	1518	34%
Hospital	556	215	782	1542	36%
Child Care/Early Learning Program	503	389	509	1384	36%
School	36	27	35	98	37%
Homeless Shelter or Program	3		4	7	43%
Foster Care or Adoption Agency	37	20	23	79	47%
Parents/Family	1,318	878	637	2,775	47%
Audiologist	70	3	14	85	82%
Grand Total	5,401	3,854	6,463	14,964	36%
Percentage totals	36%	26%	43%	N/A	N/A

Source: Arizona Early Intervention Program (AzEIP), State Fiscal Year 2017 (July 1, 2016 - June 30, 2017)



What First Things First and Its Partners are Doing

In 2013, First Things First was awarded a three-year federal HRSA Early Childhood Comprehensive Systems (ECCS) grant focused on enhancing screening rates, improving existing services, and strengthening families' abilities to support their children's optimal development.

Stakeholders from state agencies, nonprofits, the Arizona Chapter of the Academy of Pediatrics, funding agencies, parent advocacy organizations, parents and others were convened to assess the early intervention system, to align collective goals on the recommendations of evidence-based screening tools and screening intervals, and to seek common areas of focus for collective work to improve the system.

This ongoing collaboration is building momentum, with all of the key system partners committed to understanding the complexity of the system and how each partner interfaces with the others in order to be able to focus in on system improvements. While this may seem an obvious goal, in reality it is difficult to achieve, given that each system partner has its own laws, policies and programmatic priorities; multiple funding streams; and families involved with multiple systems that have no formal communication or data sharing among them. To inform this collective work, several projects were undertaken to better understand the statewide context, concerns, gaps and barriers to families getting needed services and resources. The projects/studies included:

- **Family forums** conducted to hear directly from families about their experiences.
- **Interviews with early childhood comprehensive system professionals** on the screening, referral and treatment options, as well as system gaps for identifying and treating, children with developmental concerns.
- **An evaluation study** of an innovative effort to conduct developmental screenings online in three regions of the state.
- A Learning Collaborative conducted with a group of pediatric providers to increase understanding of the early intervention system and improve screening, risk appropriate referrals and knowledge about how to help families navigate the complex system of resources.

As a result of this work, the partners developed a Developmental Pathways Project to support the early childhood community in understanding the screening, referral and intervention pathways available when there is a concern with a young child's development. The aim is to ensure that all agencies and stakeholders conducting screening are providing high quality screening and risk-appropriate referrals for families of children with developmental concerns, along with simultaneous work on the part of state agency

policymakers to streamline the referral and service pathways. In addition, the project aims to increase the coordination and support to families in navigating a complex system of supports and services. The Pathways Project has resulted in common goals, to which system partners can align or leverage their efforts in order to achieve collective impact. Some notable examples include:



Training

In September 2016, First Things First and the Department of Economic Security/Arizona Early Intervention Program (AzEIP) partnered in hosting a three-day ASQ Training of Trainers workshop for 46 program administrators, AzEIP contractors, program managers, Child Care Health Consultants (CCHCs) and FTF staff to learn how to effectively use two Ages and Stages Questionnaires (the ASQ-3 and the ASQ:SE-2), which are among the most valid and reliable developmental screening tools available and widely used in Arizona programs.

The training included an in-depth exploration of the importance of screening and how to use the screening tools, how to engage families in the screening process, how to talk with families about the screening results and, most importantly, how to partner with families and caregivers in setting the stage for their child's healthy development. Each of the workshop participants agreed to train 10 more people over the course of the year in the same information shared with them.

One of the goals of providing a Training of Trainers workshop was to ensure that as system partners we are working to build capacity throughout the state, not just training a finite set of providers in a system challenged by rapid turnover. This investment allowed for a reach of close to (and likely more than) 500 professionals who conduct screening and referrals with families – supporting quality screenings, risk appropriate referrals and appropriate routing of children and families to the services and supports they need.



Leveraging Efforts to Integrate Screening In the Medical Home

A number of system partners are leveraging their collective efforts to ensure that children have a medical home and that the services provided to children include regular screening. As a result of the following efforts, more pediatricians and primary care offices are being supported in enhancing their screening practices through their professional associations, the major sources of reimbursement for their services (public health insurance programs and their contracted health plans), and community-based system partners working with the same families. For example:

Arizona's Medicaid agency, the Arizona Health Care Cost Containment System (AHCCCS) is also working to increase developmental screenings among children who have Medicaid coverage. For example, AHCCCS is working on a three year performance improvement project (PIP) from 2016-2019 focused on increasing developmental screening rates among children 0-3 using standardized screening tools. Although not formally tied to the PIP measurement, AHCCCS will be evaluating whether or not follow-up appointments are scheduled and maintained and services provided for any concerns identified through the screening process. Of note, AHCCCS's Targeted Investments (TI) initiative is incentivizing the health system to integrate physical and behavioral health care. The TI program will make almost \$300 million available for eligible providers. One of the prioritized populations in the TI program includes children with behavioral health needs, which includes performance measures on developmental screening for providers.

At the Arizona Chapter of the American Academy of Pediatrics, a workgroup of pediatricians are examining how to increase, improve, and sustain developmental screening in the clinical practices serving children enrolled in AHCCCS. Developmental screenings and autism screenings have also been a key topic at the statewide Governor's Autism Spectrum Disorder Task Force.

State agency partners are focused on strengthening the home visitation system to increase coordination of screening by home visitors with primary care providers. This includes identifying professional development opportunities to increase capacity and skills of the home visitation workforce as well as researching consultation models to integrate with the home visitation programs so that children with mild to moderate delays have access to supports and services as needed.

The Developmental Pathways Project continues to inform and aid in defining next steps in this collective work. Specific strategies are being identified with an emphasis on how to improve policies and coordination, where screening practices and evaluation/assessment processes need improvements, where professional development and capacity building is needed to strengthen the workforce, and how to identify, improve upon and increase existing resources and supports for families. This work is also focused on the inclusion of abused or neglected children, a high risk population that needs coordinated and streamlined services and supports.

As mentioned previously, monitoring children’s development and ensuring that families have the information and support they need in order to support their child’s healthy development is a responsibility we all share. As state agencies and other system partners work to improve screening rates, tools and resources, there are actions that families, providers, communities and policymakers can take to help more Arizona children get a strong start in their health and learning.

What Can Families Do?

Ensuring healthy development requires working with families and strengthening their capacity to respond effectively to their child’s development. Any family of a child with a physical, developmental, or behavioral concern or impairment may require outside help, and often professional guidance and support, to respond to that condition or challenge and manage the stress that it can place upon the whole family.^{xxviii}

And at the same time, families also need support – through individuals who can coach and teach, but also through peers. Parenting is not an easy task, in the best of situations, and when faced with developmental or behavioral challenges of a child, families face another layer of challenge. Support groups for parents, especially for parents of children with developmental concerns who often report feeling extra isolated and alone, can serve as a lifeline, offering community, solidarity, helpful information and a sense of belonging.

- For information about how to support your child, visit sites with credible parenting information like firstthingsfirst.org.
- In preparing for provider appointments, keep notes about and document issues that you are concerned about; take pictures of your child doing a specific task; record audios or videos on your phone of behaviors that concern you; write down your questions and take them with you so you remember what to ask and tell your child’s primary care provider or specialist during your appointment. Time is often limited, so writing it down helps to keep you and the provider focused where you need to be.
- Ask for a developmental screening for your child if you have concerns.
- If a doctor tells you there is nothing to be concerned about, ask what you can do at home to support your child’s development.
- Contact Raising Special Kids (info@raisingspecialkids.org) or Child Find (at your local school district) if you have a developmental concern you want addressed, or believe your child needs screening and potentially further assessment.
- Contact the Birth to 5 Helpline (birthtofivehelpline.org or 877-705-KIDS (5437)) for information or help in a particular aspect of parenting.

- If a doctor or other professional tells you that there are concerns about your child, follow up and act right away. If you're not sure how to move forward, ask for help in how to do it. The earlier you get help, the more actively you engage to help your child, the better the chances that your child will get the supports needed.
- Ask questions; be your child's first teacher and best advocate; speak up for your child to get what he or she needs.

What Can Providers Do?

Providers come in a range of shapes and sizes, educational backgrounds and experiences. They can range from primary care providers (PCPs) and developmental/medical specialists to home visitors (HVs) to school teachers and parent educators.

Some key areas that providers can focus on include:

- Engage families; listen to their concerns and ideas; involve them early and always in the process of helping their child.
- Empower the parent as the child's first teacher and ensure that they are given concrete, specific steps to help their children. The ASQ Learning Activities include simple and useful tools to help families practice developmental skills with their children.
- Make sure you are using appropriate screening tools and conducting high quality screening to ensure that resources are well used. When providing results, remember that it can be challenging to receive information about one's child that is concerning. It can also be frustrating to feel that something is wrong and not know the pathway to get help for a child. Partner with parents in supporting the child's optimal development by helping provide a warm handoff to other services so that they can access the support they need.
- Participate in professional development opportunities around quality screening, interventions, and Adverse Childhood Experiences (ACEs), to always be growing as you help families grow. The more you can learn about risk appropriate referrals, the more families will be routed appropriately to the services they need without having to travel multiple pathways and lose precious time in getting a diagnosis or help.
- Know your local resources; know the people who provide them; make a warm handoff to ensure the family gets the needed services.
- Follow up with families at their next appointment to know if they got the services they were referred for.
- Participate in system-building conversations locally and statewide to help clear away the obstacles that keep families from accessing needed supports for their children.

What Can Communities Do?

Communities can support families in a variety of ways. The importance of developing community-based responses that build upon local strengths and local innovations that enlist or develop local champions can be essential to supporting families and children in their healthy development. Key actions that communities can take include:

- Use the power of numbers: organize to support families and to advocate for screening and services for families of children with special needs or concerns.
- Practice inclusion so that families of children with developmental concerns or special needs can feel integrated and part of their local community.
- Organize support groups for parents.
- Participate in system-building conversations locally and statewide to help support clearing away the systemic obstacles that keep families from accessing needed supports for their children.

What Can Policymakers Do?

- Fund research to identify opportunities for coordination, collaboration, resource maximization, duplication avoidance, and facilitating seamless movement through the pathways.
- Then invest in system coordination and improvements to help service and data systems talk to each other. Help Me Grow is an example of a program that works in many states to help coordinate programs, providers, systems and data around children's development and has shown excellent results in improvements in care, appropriate routing of children and families to appropriate services, and identification of gaps so that they can be addressed. Such high functioning programs require investments and have high returns, saving costly future investments.
- Take a look at Adverse Childhood Experiences (ACEs) and support the development of trauma-informed organizations and communities. Trauma affects early and later health and development – promoting resiliency and stability in children, families and communities also supports healthy child development.
- Support professional development of existing professionals and those currently in training to improve the quality of supports for families. Track where screenings are occurring, to what extent they are occurring and how effectively children are being referred. Where there are issues with families not getting appropriately routed, address them with targeted training and capacity building.
- Support work to ensure Arizona has adequate providers in the specialty areas required to serve the population in need.
- Invest in innovative service delivery such as telemedicine for families in more remote and difficult to reach areas.

Each child develops in his or her own way, but there are developmental milestones that, when not met, can signal the need for further assessment. Arizona stakeholders need to work together to build awareness of typical development and the importance of regular, quality screenings to ensure any potential concerns are identified and addressed early on. This brief identified the concerns that exist regarding screening rates in Arizona, and steps many system partners are taking to ensure families and children have access to regular, quality screenings.

Subsequent briefs will address related issues – including challenges that exist in the current publicly funded programs to support children with developmental concerns, and the lack of supportive services and interventions for families whose children don’t qualify for those programs. In the meantime, stakeholders can use the information in this brief to begin (or continue) the dialogue in their communities and spheres of influence to ensure that young children in Arizona get a strong start on a path toward lifelong learning.

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FIRST THINGS FIRST

THE BIG PICTURE

OF ARIZONA'S LITTLE KIDS

The number of young children in Arizona is expected to grow by 19 percent by the year 2030. A child's early years hold the key to their success – and our state's. Children who are healthy and prepared when they enter kindergarten do better in school and are more likely to graduate and enroll in college. Well-educated adults are more prepared for the job opportunities of a global marketplace and to contribute to the strength of their communities.

About 90 percent of a child's brain growth happens before kindergarten, and those early experiences affect whether their brain will develop in ways that promote optimal learning. Poverty, exposure to family violence and lack of access to quality early learning experiences are all factors that can negatively impact a child's early development, and subsequently, their long-term success. A review of some key data points reveals that many of Arizona's babies, toddlers and preschoolers face significant challenges when it comes to stable, nurturing environments and high-quality early learning experiences that will put them on a trajectory for success in kindergarten and beyond.

This document provides state-national comparisons in three key areas: strong families, healthy children and prepared students. In the following pages, additional data points – and trends at the county level – also are identified. Taken together, these points reveal opportunities across several areas to help more Arizona families provide the stable, nurturing environments children need in order to thrive. This brief also describes ways in which First Things First, a critical partner in Arizona's early childhood system, is working to expand opportunities for children to develop the tools they need to be ready for school and set for life!

THE BIG PICTURE

STRONG FAMILIES

Family stability can affect the resources a child has that either support or restrict their optimal development. Poverty and its effects – including unreliable access to food, housing and child care – can impact a child’s physical and emotional development.

The number of young children in Arizona grew much faster between 2000 and 2010 than in the nation as a whole.

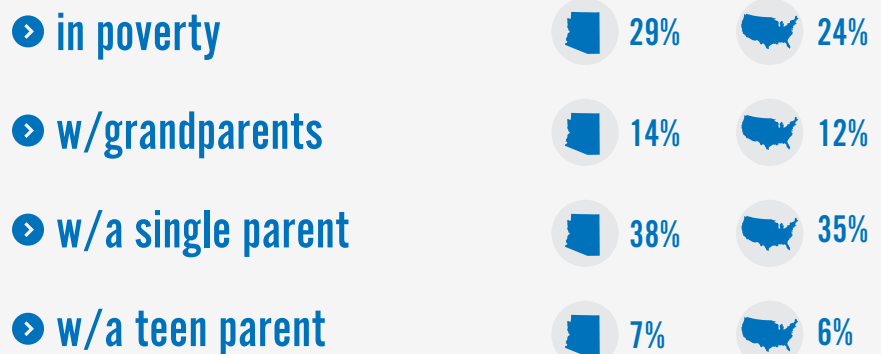


The percentage of households with young children in Arizona is about the same as in the U.S.



Arizona’s young children are more likely than their peers nationally to be born into challenging situations like poverty and being raised by single parents, teenage parents or grandparents. They also are less likely to receive the supports that can help mitigate the effects of poverty on their overall well-being. Compared to the U.S. as a whole:

MORE YOUNG CHILDREN IN AZ LIVE



Fewer Arizona children (ages 0-17) receive TANF.



First Things First helps strengthen families by giving parents options when it comes to fulfilling their role as their child’s first teachers, including kits for families of newborns with resources to support their child’s health and learning, community-based parenting education, voluntary home-based coaching for families with multiple challenges, support for families of children with special needs, and referrals to existing programs that meet the family’s specific challenges.

THE BIG PICTURE

HEALTHY KIDS

Children's health encompasses not only their physical health, but also their mental, intellectual, social and emotional well-being. Factors such as a mother's prenatal care, access to health care and health insurance, and receipt of preventive care such as immunizations and oral health care all influence a child's current health and also their long-term development and success.



Arizona's babies are born healthier than their peers nationally, which is encouraging.

FEWER AZ BABIES ARE BORN

➤ w/low birth weight



7%



8%

➤ premature



9%



10%

Yet, too many children lack the necessary immunizations before they enter school, and many lack access to care to prevent dental problems – a key cause of school absenteeism later on.

MORE YOUNG CHILDREN IN AZ

➤ lack health insurance



9%



5%

➤ have untreated tooth decay



27%



21%

➤ lack needed vaccinations



33.9%



28.4%

First Things First supports healthier kids by supporting pregnant mothers; giving parents tools to promote good nutrition and healthy weight; expanding access to oral health screenings and preventive fluoride varnishes; building awareness of health insurance options available for families with children; helping early educators meet the social-emotional needs of kids in their care; and, improving health practices in home and center-based child care settings.

THE BIG PICTURE

EDUCATED YOUNG STUDENTS

Quality early learning promotes success in school and in life. The quality of a child's early experiences impacts whether their brain will develop in ways that promote optimal learning. Research has demonstrated that children with access to quality early learning environments are more prepared for kindergarten: they have increased vocabulary, better language, math and social skills, have more positive relationships with classmates, and score higher on school-readiness assessments. They are less likely to need special education services or be held back a grade, and are more likely to graduate and go on to college.



Compared to the U.S. as a whole:

Far fewer of Arizona's 3- and 4-year-olds attend preschool.



Healthy development is important for school readiness. Early identification of developmental delays – through regular screenings starting at birth – is a critical first step to ensuring that children receive the intervention and support that can mitigate the impact of the delays on their future learning. Left unaddressed, many developmental issues can become learning problems later in a child's life.

Fewer of Arizona's young children received developmental or sensory screenings.



First Things First promotes early learning by: completing more than 54,000 screenings to detect developmental or sensory issues that can become learning problems later on; working with about 925 child care and preschool providers statewide to enhance the quality of early learning programs for more than 60,000 young children statewide; funding scholarships helped more than 8,800 children access early learning in the past year alone; working with relatives and friends who provide child care to increase their knowledge of brain development and young children's learning; and helping early educators expand their skills working with infants, toddlers and preschoolers.



SUMMARY OF ARIZONA DATA ON YOUNG CHILDREN

INTRODUCTION

The partners in Arizona's early childhood system – encompassing a diverse array of public and private entities dedicated to improving overall well-being and school readiness for children birth to 5 statewide – rely on data to inform policy and program decisions, enhance services for families and expand the resources available for early childhood programs. This includes the First Things First Board and its 28 regional partnership councils across Arizona. Every year, the FTF Board and volunteer councils must make decisions about how to prioritize funding for programs to support children and families in communities throughout Arizona. In order to do so, they review an array of data that provides an indication of the context in which young children are living, playing, growing, and beginning their education. This information is then used as a starting point for discussions with early childhood stakeholders – including educators, service providers, community leaders, and families – on how to maximize the resources in their area and yield the most positive outcomes for Arizona's youngest children.

This biennial report serves as a resource for anyone seeking to better understand the state of Arizona's children – both challenges and opportunities. The focus of this statewide report is different than many summary reports compiled by other state or national organizations, in that the data include state agency service data rather than relying primarily on survey or self-reported data. In many cases, this data is also available at the county level, which is a more detailed level than many national reports. This highlights not only how Arizona may differ from the country as a whole on these metrics, but also how the experiences of children in different counties across the state may vary dramatically. Although county lines do not match the boundaries of the FTF regional partnership councils in all cases, the information provides an important look at general geographic trends. The biennial FTF Regional Needs and Assets reports – published in even numbered years – provide additional detail at the FTF regional level.

An overview of some of the notable findings in the state and counties is provided in this Data Summary across the areas of:

- Family Characteristics
- Economic Circumstances
- Education
- Child Health and Well-Being

Detailed statewide data tables are provided after this summary. The corresponding county-level data tables (where available) can be viewed in the FTF Data Center at:

<http://datacenter.azftf.gov/>

The Data Center makes existing First Things First data and reports more accessible, visual and customizable. In doing so, it supports the strategic planning of First Things First regional partnership councils, Board and staff, as well as the work of the many other stakeholders who are critical to the success of the early childhood system in Arizona.



WHY IT MATTERS

At the national, state and local levels, the characteristics and various compositions of families can influence the availability of resources and supports for families.ⁱ These include the number of schools, health care facilities and resources, and social services and programs that are available and accessible to young children, their families, and other caregivers. Knowledge of a number of population characteristics can also support the continuation or the development of resources that are most appropriate for the particular needs or challenges of a region. For example, by analyzing and comparing available data, policymakers and program providers can identify underserved or at-risk families or areas. Characteristics such as population size, ethnic composition, and household income should all be considered when designing programs, resources, and policies for a community, county or region. Failure to consider differences in composition of the young child and adult populations may create a situation in which the actions of decision-makers who set funding and programmatic priorities may not align with the needs of young families within their regions.

In addition, family structures and stability can affect the resources a child has that either support or restrict their optimal development.^{ii,iii} There is a wealth of research that describes how a variety of factors – including poverty, access to resources such as preventative health and early education, and the quality of a child’s interactions with adult caregivers – can affect outcomes for young children. For example, raising young children poses a particular challenge for aging grandparents, as grandparents raising or supporting their grandchildren often lack information on resources, support services, benefits and policies available to aid in their caregiving role.^{iv} Decisions that take in to account a variety of data regarding the structure and stability of children’s home and community environments have a greater chance to improve the well-being, economic security and educational outcomes for children.

Research has confirmed that the early relationships children establish with adults are the primary influence on brain development.^v Ensuring that children have adult caregivers who consistently engage in (high quality) interactions beginning in infancy builds a foundation in the brain for all of the learning, behavior and health that follow.^{vi}

HOW ARIZONA'S YOUNG CHILDREN ARE FARING

Population Change

Arizona is home to a diverse population of young children that is expected to increase by 19 percent by the year 2030 (See Figure 1). Between the two most recent Censuses (2000-2010), the population of young children age birth to 5 in Arizona increased by about 20 percent, which was four times greater than the increase across the U.S. as a whole (5%) (See Figure 2). When examining births in Arizona, the pattern over the next 5 years (2010-2015) is somewhat varied but shows an overall decline in the number of births between 2010 and 2015 (-2.3%) (See Figure 3). According to the American Community Survey estimates, the overall population of young children in the state reflects this decline with a 6 percent decrease between 2010 (546,609) and 2015 (512,025), but is projected to increase by 8.7 percent by 2020 to 556,443 and then to 648,746 by 2030 (See Figure 1).

Race and Ethnic Composition

The ethnic makeup of Arizona's youngest children differs from that of the nation as a whole. Almost half of children between birth and 5 years old in Arizona are Hispanic or Latino, compared to only a quarter across the country (See Figure 4). Young American Indian children make up five percent of young children in the state, which is substantially greater than the one percent across the U.S.

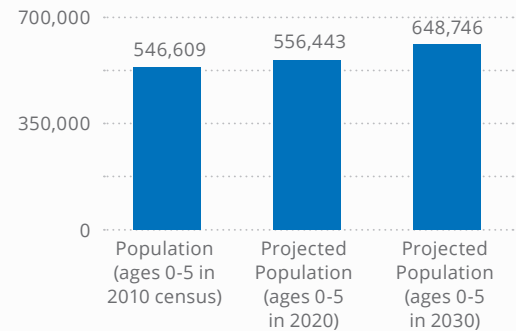
Primary Household Language

Language preservation and revitalization have been recognized by the U.S. Department of Health & Human Services as keys to strengthening a community's culture and encouraging communities to move toward social unity and self-sufficiency.^{vii}

Special consideration should be given to respecting and supporting the numerous Native American languages spoken by families, particularly in tribal communities around the state. As a reflection of Arizona's diverse population, a language other than English is spoken in over a quarter of households in Arizona (27%), compared to only a fifth (21%) of households across the country. Spanish is the most common other language spoken in both Arizona (20%) and across the country (13%). In Arizona, a Native North American language is spoken in two percent of households; across the country, less than one percent of households speak these languages.^{viii} Language barriers can limit families' access to health care and social services, and can provide challenges to communication between parents and their child's teachers, which can impact the quality of education children

Figure 1

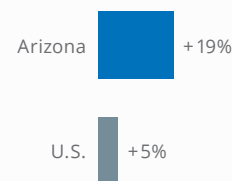
Arizona's population of young children is projected to grow by 2030.



Population of Children (ages 0-5) in Arizona, 2010 to 2030. Arizona Dept of Administration, Employment and Population Statistics, "2012-2050 State and county population projections" & 2010 US Census.

Figure 2

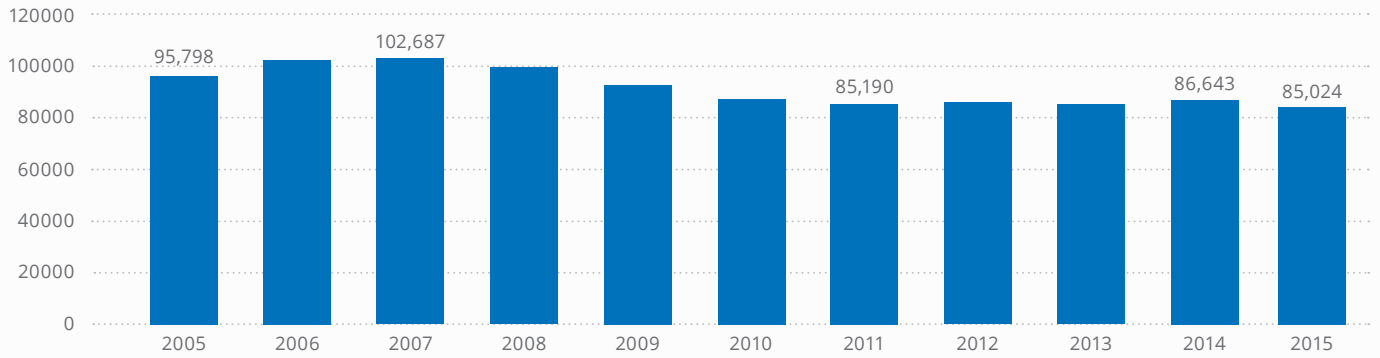
The number of young children in Arizona grew much faster between 2000 and 2010 than in the nation as a whole.



Population Change for Population Ages 0-5, 2000-2010. US Census Bureau (2010). 2010 Decennial Census, Summary File 1, Table P14.

Figure 3

Births in Arizona decreased during the economic downturn.

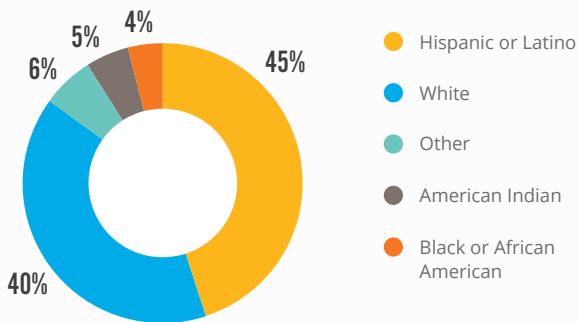


Arizona Births, 2005–2015, Arizona Department of Health Services (2016). [Infant and Maternal Health Data]. Unpublished data received through First Things First State Agency Data Request.

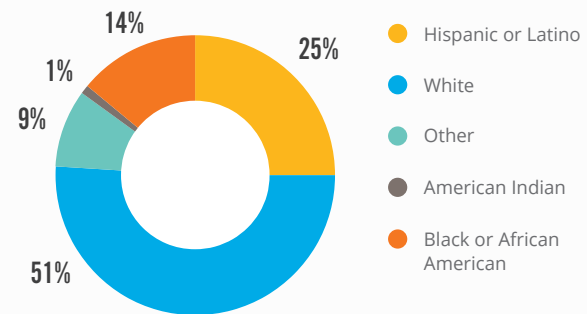
Figure 4

The pattern of ethnic backgrounds of young children in Arizona is different than that of young children in the U.S. as a whole.

Arizona



United States



Race/Ethnicity of Children Ages 0–5, 2010. United States Census Bureau (2010). 2010 Decennial Census, Summary File 1, Tables PCT12A–H.

are able to receive.^{ix} Assuring that early childhood resources and services are available in Spanish is important in many areas of Arizona, given that five percent of the households in the state are limited English speaking households (that is, a household where none of the members speak English very well).

Parental Awareness of Early Childhood Development

Often, parents and caregivers are not aware of the importance and long-term impact of daily interactions on children's early learning, brain development and future academic success. A statewide survey of 3,708 parents and caregivers conducted by First Things First^x revealed that:



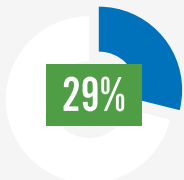
Only 50% of respondents reported reading to children seven days a week.

Research supports that reading to children daily is one way that children build vocabulary and a foundation for literacy. In fact, research shows that the number of words a child knows at ages 3 and 4 corresponds strongly to reading comprehension levels at ages 9 and 10.^{xi}



50% of those surveyed believe children do not respond to their environment until two months of age or later.

Research shows that from birth, children observe and interact with the environment that surrounds them. Those interactions and early experiences are influencing the development of their young brain.^{xii}



29% of respondents believe that children sense and react to caregivers' emotions only after they reach seven months of age or older.

Research indicates that just as infants from a very early age can detect and react to their environment, they also can sense and react to parents and their emotions. From touches to expressions and tone, infants are sensing and responding to their parents.^{xiii}



50% of respondents believe their child learns just as much from watching television as from being with their parents.

In fact, although TV can be entertaining, research shows that it does not stimulate brain development. Research shows that face-to-face interaction and experimenting with their environment are the primary ways in which children learn.^{xiv} Because of this, the American Academy of Pediatrics recommends virtually no screen time (TV, movies, computers, etc.) for kids under 2; and no more than one hour of high-quality educational programming for children 2 to 5 years old.^{xv}

COUNTY HIGHLIGHTS

Population Change

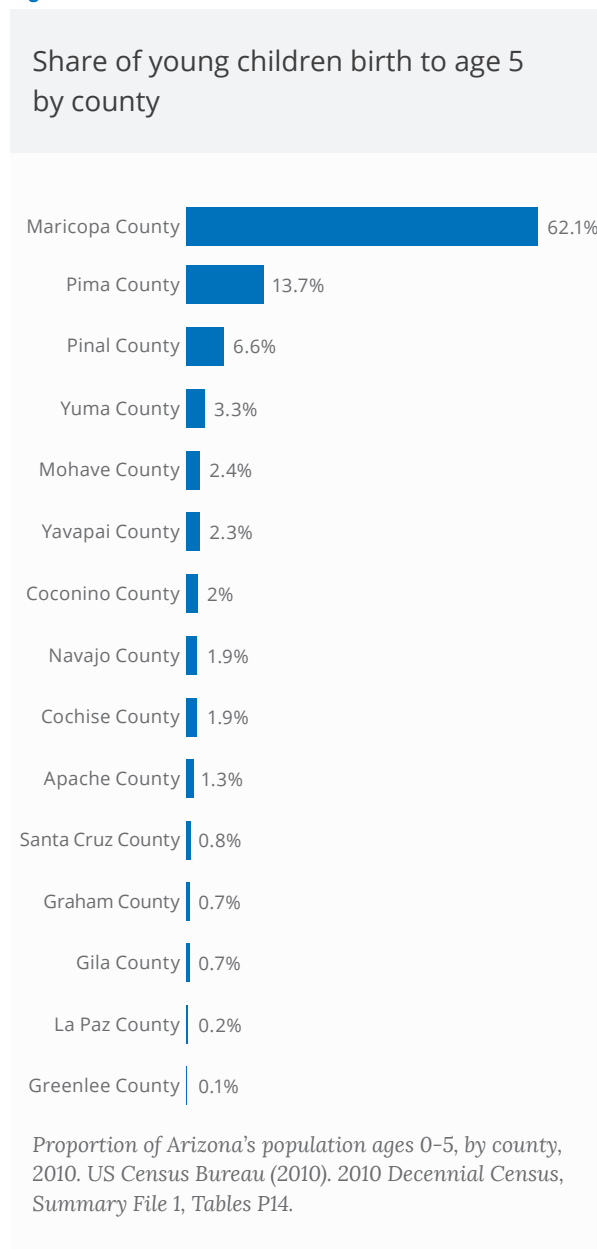
The majority of Arizona’s children (76%) live in Maricopa or Pima counties (See Figure 5). All but three counties in the state saw a growth in the population of young children between 2000 and 2010, and some had explosive growth (e.g., Pinal County saw an increase of 149% during those years). After a dip during the Great Recession, those increasing population trends are expected to resume for most counties into 2050 (See Figure 6). Statewide, the overall population of young children is projected to increase by 38.7% by 2050. Five counties meet or exceed this projected growth between 2010 and 2050, with high projected growths in Pinal, Yavapai and Yuma Counties. Six of the 15 counties are projected to see decreases in the population of young children by 2050.

It is important to recognize that the very small population numbers in some of the counties (e.g. Greenlee, La Paz) make rates in those counties somewhat unstable. That is, a change affecting a relatively small number of children in those counties can have a large impact on a rate. Also some data, such as that from the American Community Survey, are estimates that may be less precise for smaller areas and for tribal areas.^{xvi}

Race and Ethnic Composition

The ethnic composition of the adult and young child populations differs dramatically by county, particularly with regard to the Latino population across the state. This is important information, particularly when planning services for children. Total or adult-only population statistics may not fully represent the needs of children in communities. For example, in some counties, Latino residents comprise the majority of the population, and in others there is a relatively low percentage of Latino residents. However, one thing that is consistent across the state: all counties have a higher relative percentage of Latino children than Latino adults. The largest difference is in La Paz County where less than a fifth (18%) of the adult population is Latino, yet half of all young children are Latino (See Figure 7). Other counties with a high young Latino population relative to their adult Latino population include Pima, Yuma, Maricopa, Yavapai and Cochise.

Figure 5



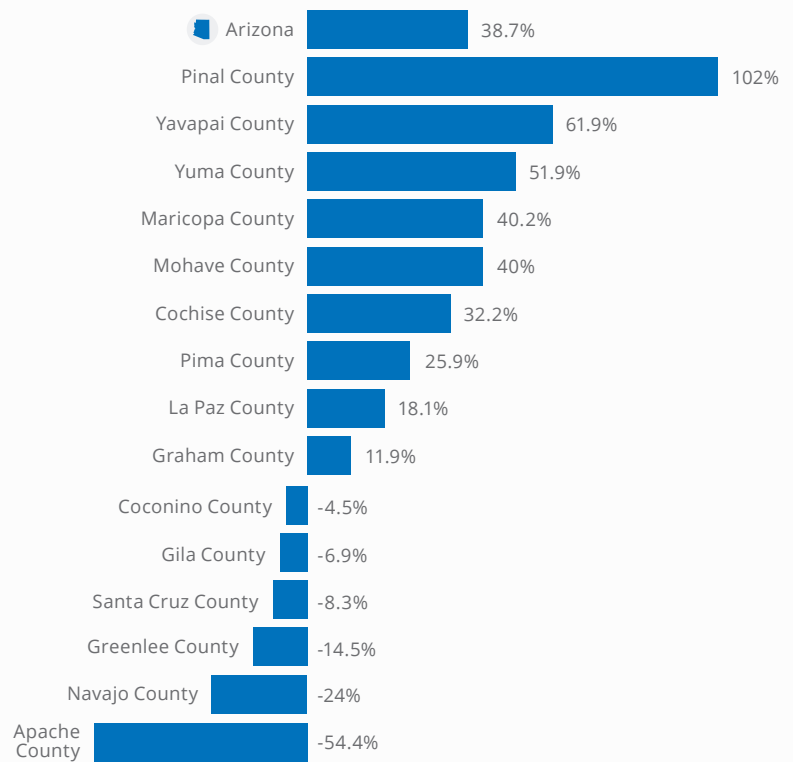
Living Arrangements

Although the living arrangements of young children in Arizona and across U.S. are similar, there is a good deal of variation by county. In nine Arizona counties, young children are more likely to be living with a single parent than in other areas of the state. Of note, 57 percent of children birth to 5 years old in Apache County and 52 percent in La Paz County live with a single parent or step-parent. In addition, a relatively large percentage of young children in Greenlee County is living with unrelated persons (10%) (See Table 1). However, this may be an overestimate because of the small numbers in the county; the true percentage is likely to be larger than the percentage in the state (2%) as a whole. Five counties, Apache (32%), Gila (28%), Navajo (27%), Graham (22%), and Santa Cruz (22%) had more than a fifth of children birth through 5 years old living with a grandparent in 2010 (See Figure 8). Several of these counties include a large proportion of tribal lands; Apache County has the most land designated as Native American reservation of any county in the United States. Therefore, the higher percentage of grandparent-led households may be in large part due to the fact that extended, multigenerational families and kinship care are common in Native communities.^{xvii, xviii, xix}

Across all cultures, there are strengths associated with this type of family structure, with members often able to provide a network of support to each other. Challenges may arise, however, when grandparents become the main caregivers due to parents being unable to care for their children due to physical or mental illness, substance abuse or incarceration.^{xx} Data indicate that, in Arizona alone, 138,000 children birth to 17 years old (9%) have parents who have been incarcerated.^{xxi} Identifying those grandparents in need of additional support and connecting them with available resources in their communities may be a priority in some of these counties. Grandparents caring for their grandchildren under 18 were most likely to be the sole care providers (i.e., the child's parents are absent from the household) in Cochise County (31% of households with grandchildren had grandparents as sole providers) and Greenlee County (23%).^{xxii}

Figure 6

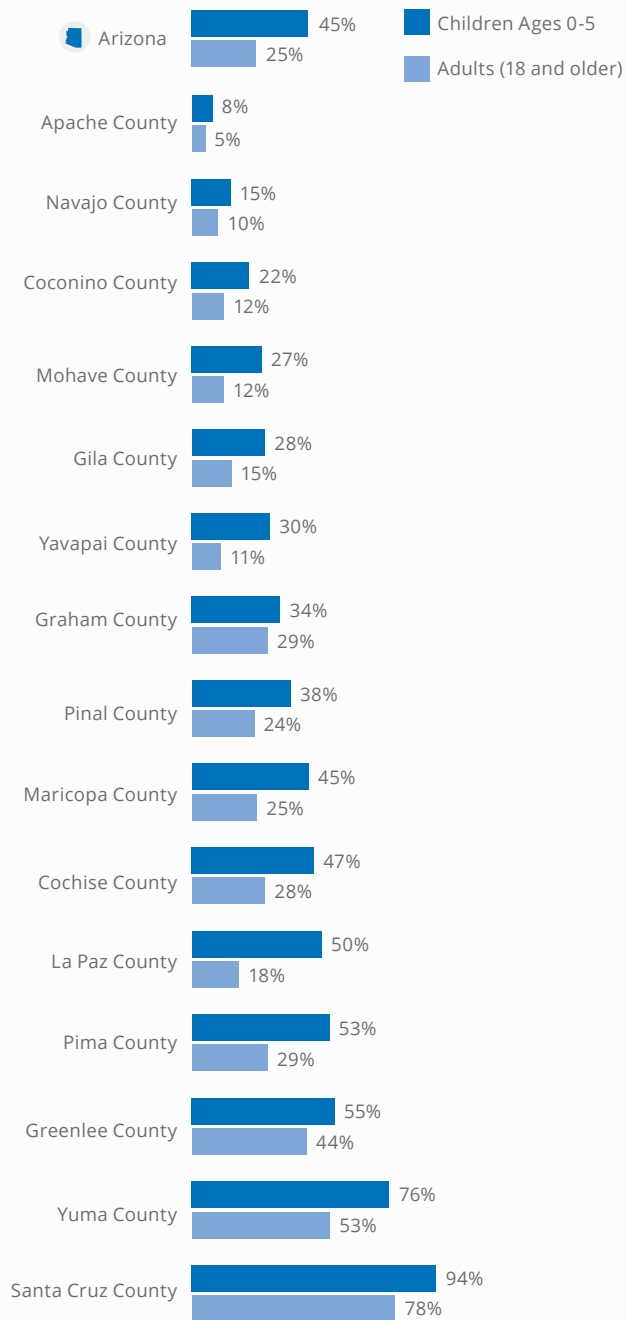
Thirteen of 15 Arizona counties are projected to see increases in the population of young children into 2050.



Projected Population Change, Children Ages 0-5, from 2010-2050, according to Medium Series Population Projections. 2010-2050 Arizona Dept of Administration, Employment and Population Statistics, "2012-2050 State and county population projections" & 2010 US Census.

Figure 7

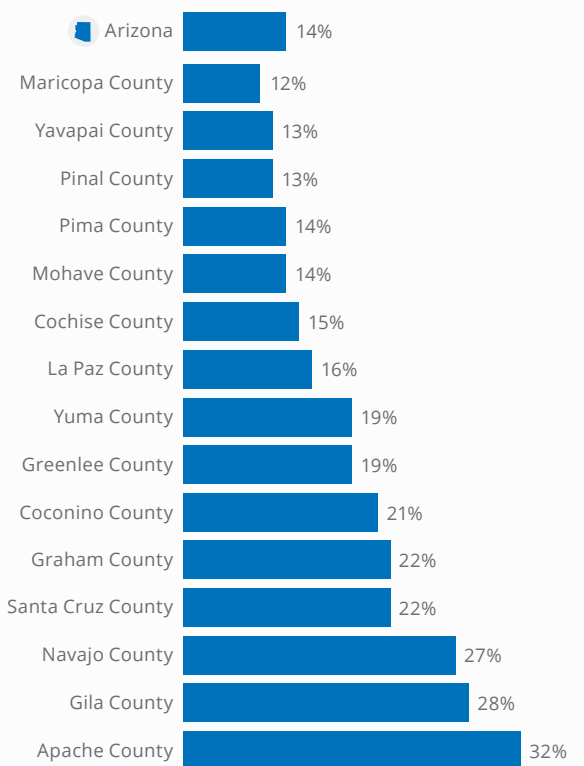
Latino population as a percentage of county population



Latino Population of Young Children Compared to Adults, 2010. US Census Bureau (2010). 2010 Decennial Census, Summary File 1, Tables PCT12A-H. US Census Bureau (2010). 2010 Decennial Census, Summary File 1, Table P11.

Figure 8

Percentage of children birth to age 5 living in a grandparent's household



Children ages 0-5 living in a Grandparent's Household, 2010. US Census Bureau (2010). 2010 Decennial Census, Summary File 1, Table P41.

Table 1

Living arrangements for children birth to age 5 in Arizona

	Living with two married parents or step-parents	Living with one unmarried parent or step-parent	Living with relatives (but not with parents or step-parents)	Living with unrelated persons
Arizona	58%	38%	2%	2%
Apache County	35%	57%	6%	2%
Cochise County	60%	34%	4%	1%
Coconino County	49%	46%	3%	2%
Gila County	45%	49%	4%	2%
Graham County	60%	37%	1%	2%
Greenlee County	44%	44%	3%	10%
La Paz County	42%	52%	5%	1%
Maricopa County	61%	36%	2%	2%
Mohave County	53%	40%	4%	3%
Navajo County	42%	52%	4%	2%
Pima County	56%	40%	3%	2%
Pinal County	60%	36%	2%	2%
Santa Cruz County	44%	48%	6%	2%
Yavapai County	60%	34%	4%	3%
Yuma County	61%	36%	2%	1%
All Tribal Reservations	26%	65%	8%	1%
United States	62%	35%	2%	1%

Living arrangements for children birth to 5 in Arizona. US Census Bureau (2016). 2011-2015 American Community Survey 5-Year Estimates, Tables B05009, B09001, B17006.

System Collaboration Opportunities

First Things First is one of many community partners working to strengthen families by providing information that helps caregivers support young children's health and learning. Among strategies that support parents in their role as their child's first teachers are:



Parent Kits

Comprehensive informational kit offered to the parents of every newborn so they know how to support their baby's safety, health and brain development. In addition, FTF partnered with the Department of Health Services to provide crib cards to the labor and delivery nurses at hospitals that reinforce the importance of safe sleep environments, as part of a multi-agency collaboration to improve safe sleep practices statewide. In fiscal year 2017 (FY17), 69,356 families left the hospital with these important tools to help them support their child's health and learning.



Birth to 5 Helpline

Toll-free and statewide, this Helpline is staffed by nurses and early childhood development experts. Answers to caregivers' toughest parenting questions are just a phone call away. Available to any caregiver with a child 5 or younger, including parents, grandparents and child care providers, the Helpline is administered by Southwest Human Development with support from FTF. By calling the Helpline, caregivers can access support as needed from a wide range of early childhood development staff experts, including psychologists, master's level counselors, registered nurses, disabilities specialists, early literacy specialists and occupational, speech/language and physical therapists. In addition to providing caregivers with counseling and resource/referral information, caregivers can receive individualized child development information as applicable. The Helpline also includes options for parents to submit their questions online or through an app for their smartphone. In FY17, the Birth to 5 Helpline responded to 2,413 calls from parents and caregivers of young children statewide.



Family Resource Centers

Located throughout Maricopa and Santa Cruz counties, this network of 40 centers offer families a one-stop shop to find the information to make the best choices for their families. The intent of the Family Resource Centers strategy is to serve as a community hub for connecting families with children birth to age 5 to the information, resources and services they need to support their child's optimal health and development. The expected results are improved parenting skills and social supports for families; increased knowledge of child development; and, support for their child's school readiness. The centers are implemented through public-private partnerships between FTF, cities, schools, faith communities and other organizations. Family Resource Centers offer a variety of services for families so they can access information and education. In FY17, 43,073 families increased their knowledge of effective parenting practices through workshops at family resource centers. 276,339 families received early childhood information and resources and 54,391 families received referrals through these centers.



Parenting Education

Available in a variety of settings, these educational sessions address crucial topics such as brain development, dealing with challenging behaviors and early literacy. The intent of the evidence-based Parenting Education strategy is to offer learning activities designed to increase the knowledge and skills of parents and families to promote positive parenting practices that result in enhanced child health and development when utilized by parents and caregivers. The expected results of effective parenting education programs are increased parental knowledge of child development and parenting skills, improved parent and child interactions, and more effective parental monitoring and guidance, decreased rates of child maltreatment, and better physical, cognitive and emotional development in children. In FY17, 3,560 families completed a series of classes on topics like brain development, early literacy and nutrition.



Home Visitation

First Things First is the leading funder of home visitation in Arizona. Through a variety of evidence-based models (such as Healthy Families, Nurse-Family Partnership and Parents as Teachers), home visitation supports pregnant women and families and helps parents of children from birth to age 5 tap the resources and develop the skills they need to raise children who are physically, socially and emotionally healthy and ready to continue learning. These family support and coaching programs empower parents and caregivers with better knowledge, better health, and better opportunities for their children. Trained educators work with participating families in the comfort of their own home, in areas such as parenting, child development, dealing with challenging behaviors, school readiness and health topics, while assisting with connections to other resources or programs as needed, on a voluntary basis. First-time parents, parents of children with special needs, single parents or families with multiple births and families without any support are among those who benefit most from these programs. FTF is part of a statewide collaborative of home visitation funders and implementers working together to maximize resources, avoid duplication and ensure families can access the evidence-based model that best meets their needs. In FY17, 5,826 families with young children (0–5 years old) participated in voluntary home visiting programs proven to reduce parental stress levels, increase connections to community supports, and improve children’s cognitive, motor, behavioral and socio-emotional development. Also, 3,207 families continued their participation in home visiting programs from 2016 to 2017.

In 2016, FTF augmented these efforts with the launch of its digital engagement strategy. Today’s parents are digital natives. That means they have lived their whole lives in a world that includes web-based information. In 2016, First Things First identified a clear opportunity to better reach Arizona’s diverse parents and caregivers with trustworthy, supportive early childhood information through a robust digital content strategy. The first phase of that strategy was completed in November 2016, with the launch of the organization’s redesigned website – FirstThingsFirst.org. The site features improved content and functionality – including the ability to respond for best viewing on whatever device is used, including smartphones and tablets. The second phase of the strategy was implemented in late 2016 with production and distribution of digital content – such as short videos, social media posts and infographics. The content was adapted from an existing Resource Guide that is part of the Arizona Parent Kit. Research showed that families felt the Guide was the most useful part of the kit because it contains information across a large variety of topics. The result is a series of short, engaging pieces of digital information that parents can readily access. Each piece of content is “tagged” so that parents are offered related content the longer they remain on the site. They also are able to search the entire site for other topics of interest. The third phase of the strategy is on-going: strategically promoting and distributing the content to reach parents where they are online. This includes traditional and digital advertising that targets parents, families and caregivers of young children. FTF continues to work with early childhood system partners to build awareness of the digital resources so that early childhood practitioners can access and use the information in ways that best fits their work with families of young children.



ECONOMIC CIRCUMSTANCES

WHY IT MATTERS

The economic circumstances of a family depend on a number of factors, including parental education and income, job availability and status, and access to supportive resources when needed such as housing, child care and nutrition assistance.

Employment rates and income are indicators of the economic context in the state. According to the National Center for Children in Poverty, on average, families need an income of about twice the Federal Poverty Level to meet basic needs.^{xxiii} As a benchmark, the 2017 Federal Poverty Guideline for a family of four is \$24,600 per year. Research has documented numerous adverse effects of being born and growing up in poverty, including effects on brain development and later cognitive ability.^{xxiv}

Children living in a rural area, which describes much of Arizona, are more likely to be impoverished.^{xxv} Food insecurity – the lack of reliable access to affordable, nutritious food – and hunger are ways through which economic stress negatively affects the health and well-being of children, including putting them at risk of developmental delays.^{xxvi}

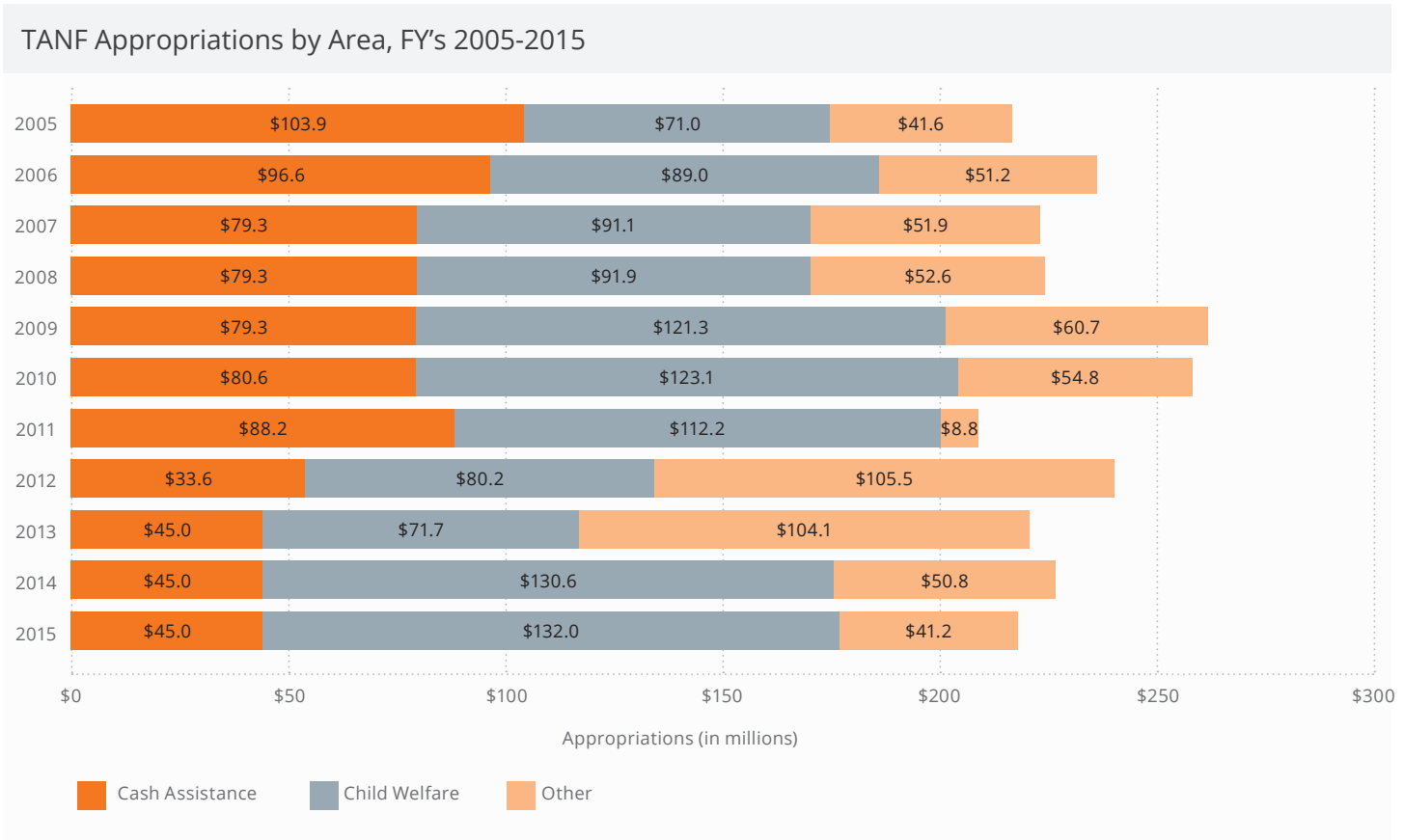
Another potential aspect of living in poverty is sub-standard and/or unstable housing. The conventional standard is that housing should consume no more than 30 percent of a household's income;^{xxvii} in places where housing requires a larger proportion of the budget, families may be forced to make other trade-offs.^{xxviii} High housing costs, proportionate to income, can lead to many adverse circumstances for young children, including homelessness, overcrowding, and frequent moving, and can contribute to lack of supervision while parents are at work for longer hours, poor nutrition, and low cognitive achievement.^{xxix}

Data providing insight into the economic context of communities, counties and regions can also inform policy and programs to help alleviate some of the impact of these economic circumstances for families. Public assistance programs are one way of combating the effects of poverty, and providing supports to families in need. The Supplemental Nutrition Assistance Program (SNAP, also referred to as Nutrition Assistance or “food stamps”) has been shown to help reduce hunger and improve access to healthier food.^{xxx} SNAP benefits can serve as an important safety net that support working families whose incomes simply do not provide for all their needs. Nationwide, 90 percent of families receiving SNAP benefits were employed in the year before or after they received assistance.^{xxxi} For low-income working families, the availability of SNAP benefits means that families can use their limited resources to meet other needs like housing and utilities. For example, for a three-person family with one person whose wage is \$10 per hour, SNAP benefits boost take-home income by 10 to 20 percent.^{xxxii} The USDA Economic Research Service (ERS) reports that in addition to supporting families by helping to put food on the table, SNAP dollars support the economy as well. ERS models suggest that each dollar spent on SNAP generates up to \$1.80 in economic benefits.^{xxxiii} This means that \$5 in SNAP benefits can produce up to \$9 in economic activity including spending in supermarkets, farmer’s markets and other food retailers, as well as employment opportunities for those who work there.^{xxxiv} Because SNAP benefits also enable families to shift some of their income from food to other goods and services, the economic benefits of SNAP dollars extend beyond food retailers to other aspects of the economy.^{xxxv}

Other programs such as Temporary Assistance for Needy Families (TANF), Women, Infants, and Children (WIC, food and nutrition services), and housing supports can also help offset some of the economic conditions of families that can have a detrimental effect on young children. As part of welfare reform, TANF was designed to help particularly needy families achieve self-sufficiency by providing services and supports including income assistance, child care, education and job training, transportation, and other services.^{xxxvi, xxxvii}

Arizona’s maximum TANF benefit for a single-parent family of three is \$278 per month. According to the Center on Budget and Policy Priorities (CBPP), this was the ninth-lowest benefit in the nation as of July 2015. In December 2016, the average monthly benefit was \$207.77 per family. In 2005, about 46 percent of TANF spending was in the cash assistance program. By 2015, that had dropped to 21 percent. Conversely, an increasing percentage of Arizona TANF funds have been spent on other authorized activities not directly related to the goals of providing basic assistance to very low income families, and to moving adults with children into the labor market. TANF appropriations for child welfare programs grew by 86 percent between 2005 and 2015. Other major uses of TANF funds over the years include operating expenses; homeless, hunger, domestic violence, and housing and utility assistance programs; employment programs; and child care subsidies. Figure 9 demonstrates the changes in TANF appropriations between fiscal years 2005 and 2015. Although it is crucial to provide the necessary support to abused and neglected children and their foster families, the shift to using TANF as the funding source for those services may have had the unintended consequence of fewer supports for Arizona’s low-income working families and their children.^{xxxviii}

Figure 9



HOW ARIZONA'S YOUNG CHILDREN ARE FARING

Poverty

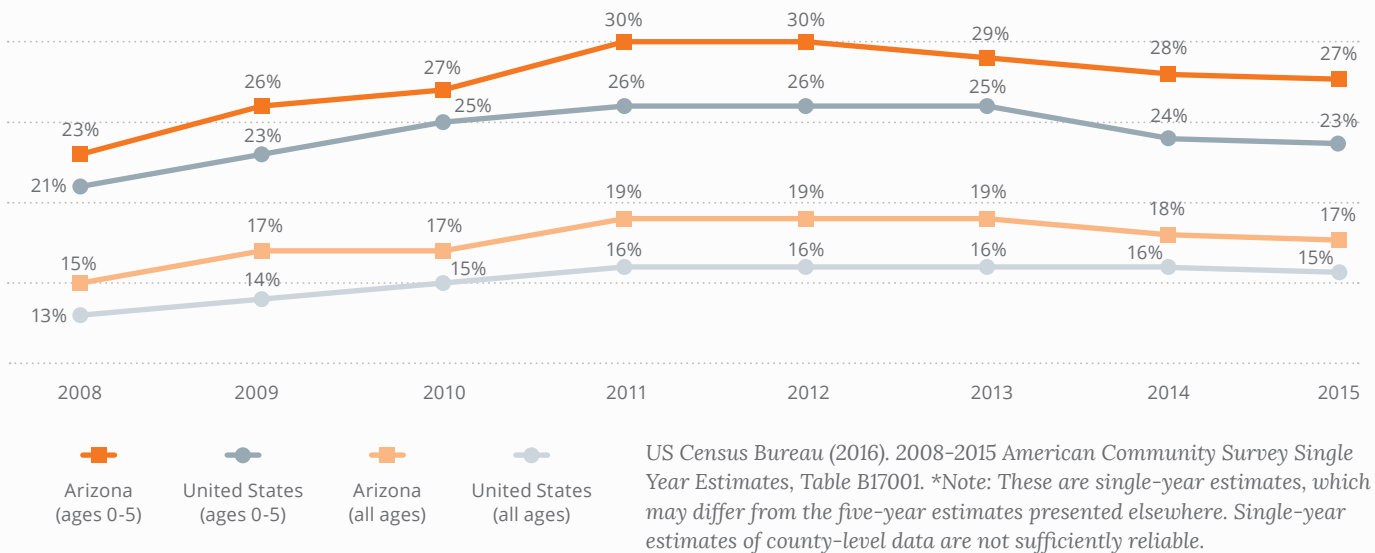
Proportionally, more Arizona residents struggle with poverty than the nation as a whole. Whereas 17 percent of Arizona residents live below the federal poverty level (FPL), 15 percent fall beneath the threshold nationally (See Figure 10). Distressingly, childhood poverty rates are higher than overall population poverty rates in both the state and the nation. Though rates of poverty for young children have begun to drop from the levels seen at the height of the Great Recession, a greater proportion of young children in Arizona live in poverty (27%) than their peers across the country (23%).

Food Insecurity

In 2014, almost 1 in 4 children 17 and younger (23%) were living in households that were food insecure, which is defined as not having access to enough food for an active and healthy life.^{xxxix, xl}

Figure 10

More young children live in poverty in Arizona than in the U.S. as a whole.



Unemployment Rates

Although unemployment rates continue to fall in Arizona, the state's unemployment rate in 2016 remains higher (5.3%) than rates nationwide (4.9%; See Figure 11).

Cost of Housing

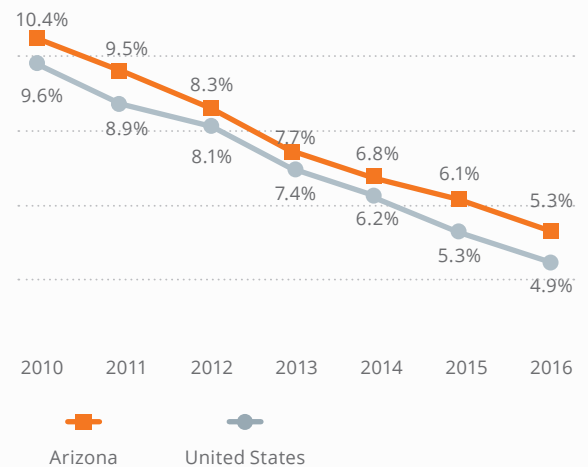
Housing costs also pose a high burden to families in Arizona. Thirty-three percent of occupied housing units in the state exceed 30 percent of the residents' income, which is on par with the national rate of 34 percent.^{xii} Of those households, 60% include children birth to 17 years old. This is concerning because according the U.S. Department of Housing and Urban Development (HUD), families that have to spend such a high amount on housing may not have sufficient resources for other basic needs, like food and health care.

Mother's Educational Attainment

Although overall parental education level matters for children's development, research shows mothers education level is a predictor of children's educational outcomes—their cognitive skills, grades, and educational attainment. Maternal education impacts family income, which in turn impacts the educational opportunities children have. In addition, higher educated parents tend to have more stable relationships, which can translate into more stability for their children.^{xiii} The most recent Arizona data show that almost 1 in 2 children (43%) born in 2015, had mothers with a high school diploma or less.^{xiiii} By comparison, the national rate was 39.8%.^{xliv}

Figure 11

Unemployment rates in Arizona and the U.S. are decreasing.



Unemployment Rates 2010-2014. Arizona Labor Statistics. Local Area Unemployment Statistics (LAUS); Bureau of Labor Statistics (2015). Local Area Unemployment Statistics, Annual average unemployment rates for states.

Arizona Supports

With the high number of families and young children living in poverty in Arizona, public supports can play an important role in addressing some economic stressors. In Arizona, close to half of the children birth to 5 years old are receiving SNAP or Nutrition Assistance benefits. This number has decreased from 2012 (54%) to 2015 (46%). There was a particularly steep drop from 2014 (51%) to 2015 (46%).

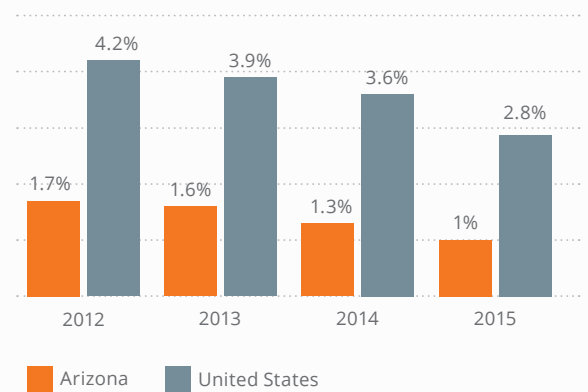
It is unclear to what extent the decline is due to improving financial conditions for families, or to other actors. However, having almost half of Arizona's children receive Nutrition Assistance highlights what a vital resource it is for families. This investment is supporting the health and well-being of children and ultimately the economic growth of the state in important ways; research reports that children whose families were able to benefit from governmental nutrition support were healthier as newborns and adults and more likely to complete high school than children whose families did not receive these benefits.^{xlv, xlvii, xlviii}

In spite of the higher rates of child poverty in the state, a far smaller proportion of children from birth to 17 receive Temporary Assistance for Needy Families (TANF) benefits in Arizona than they do nationwide, and the proportion has been decreasing (See Figure 12). The proportion of young Arizona children (birth to 5) receiving TANF has also decreased from five percent in 2012 to three percent in 2015.^{xlviii} Policy and eligibility changes likely contributed to this decrease.

Federally, TANF benefits are capped at 60 months of receipt across one's lifetime. Arizona has made several reductions to this eligibility limit; a reduction to 36 months of eligibility was enacted in 2010 and in 2011, eligibility was further reduced to 24 months. As of July 2015, Arizona became the first and only state to put regulations in place (which became effective in 2016) limiting a person's lifetime benefit to 12 months. It was estimated that this change in policy would result in 5,000 Arizonans losing this support.^{xlix} In 2017, the state Legislature made changes to allow families to apply for an additional year of eligibility, if the family had been complying with the program's employment requirements and if their children had been in school at least 90 percent of the time.^l

Figure 12

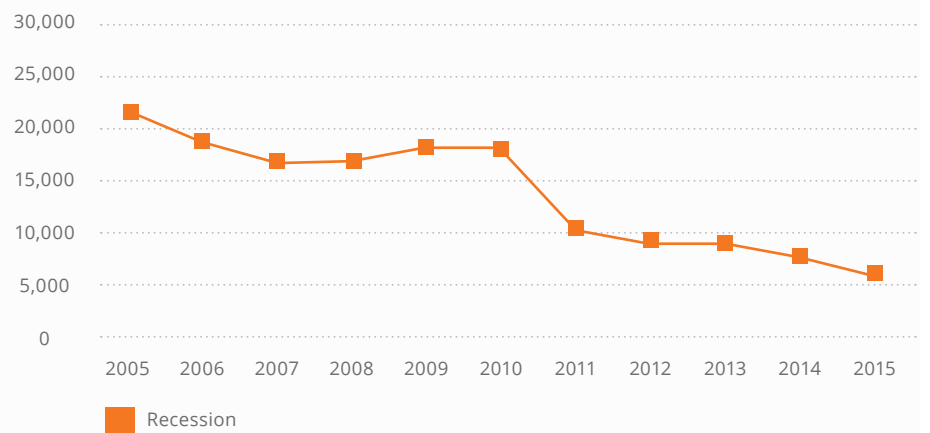
A smaller proportion of children (ages 0-17) receive TANF in Arizona compared to the U.S. as a whole.*



Children Ages 0-17 Receiving TANF 2012-2015. US Department of Health & Human Services, Administration for Children & Families, Office of Family Assistance (2016). TANF Caseload Data 2012-2015. *Estimates based on 2010 Census population of children ages 0-17.

Figure 13

Number of Cash Assistance Cases w/ Children 0-6 Years, FYs 2005-2015



Due to the program's restrictive eligibility, only a small proportion of the Arizona's low-income children receive benefits. The program's enrollment of households with young children is illustrated in Figure 13.

The chart shows a modest increase in program enrollment during the recession, but dramatic reductions afterwards as program time limits were reduced. On average, 5,800 families with young children received cash assistance in each month of fiscal year 2015, a decline of 67 percent since fiscal year 2010. Less than 10 percent of the estimated 76,000 families with young children living in poverty receive assistance suggesting that many families who could benefit are not receiving assistance.ⁱⁱ

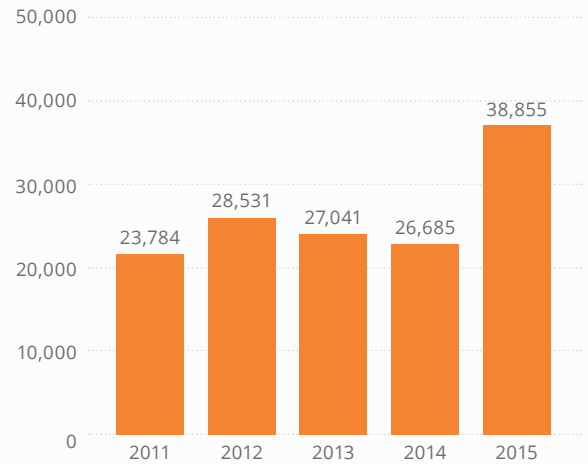
In Arizona, low-income working families may qualify for child care assistance through subsidies administered by the Department of Economic Security (DES). The subsidies can be used at licensed or certified child care homes or centers that have a contract with DES to accept children on subsidy. The subsidies are intended help with child care costs for low-income working families, families transitioning from welfare, teen parents in school and children involved in the child welfare system. Eligibility is limited to families earning at or below 165 percent of the Federal Poverty Level (with certain exceptions, like children involved in the child welfare system). The unduplicated number of young children served by the DES program has seen both increases and decreases over the past few years, due to instability in the amount of state funding allocated to the program (See Figure 14).

Federal Child Care and Development Funds (CCDF) provide the bulk of funding for child care subsidies. The CCDF grant requires that the state demonstrate maintenance of effort and provide matching funds. Specifically, Arizona cannot claim a \$37 million portion of the total CCDF grant unless the state expends \$30 million in non-federal dollars on child care-related activities. The Legislature's elimination of General Fund appropriations to child care subsidies in 2012 resulted in the state's inability to meet the CCDF's matching requirements, thus threatening the loss of tens of millions of dollars for child care subsidies. At the same time, First Things First (FTF) began to make significant investments in child care quality-related initiatives. Thus, in order to continue to access Arizona's full allotment of CCDF dollars, FTF collaborated with DES in establishing a Memorandum of Understanding (MOU) to leverage FTF expenditures as the state match. Over the eight years this MOU has been in place, DES has been able to draw down \$302.5 million in federal child care funds. Without this partnership, thousands of children from low-income working families may have lost access to child care.

During the past few years, Arizona has seen explosive growth in the number of children in out-of-home care due to abuse or neglect. Between the end of federal fiscal year (FFY) 2010 and the middle of FFY2015, the total number of children in out-of-home care grew by almost 70 percent. As a result, the percentage of children birth to 5 years old served by the child care subsidy program who are in the child welfare system continues

Figure 14

Number of children birth to age 5 served by DES child care subsidy program



Arizona Department of Economic Security [Child Care Administration]. Unpublished raw data received from the First Things First State Agency Data Request.

to rise. In fiscal year 2011, more than 1 in 4 young children (28%) served by the program were in the child welfare system; by the end of fiscal year 2017, that number was almost 1 in 2 (44%).ⁱⁱⁱ

COUNTY HIGHLIGHTS

Poverty and Unemployment Rates

Much like the nation and state as a whole, the percentage of young children living in poverty exceeds the percentage of adults living in poverty in all counties. In all but one county (Greenlee), more than a quarter of the children birth to 5 years old are living in poverty (See Figure 15). The counties with the highest percentages of children living in poverty are Apache (51%), Gila (47%), Navajo (45%), La Paz (39%) and Mohave (38%). Not surprisingly, the unemployment rate is also higher than the state unemployment rate in these counties (See Figure 16).

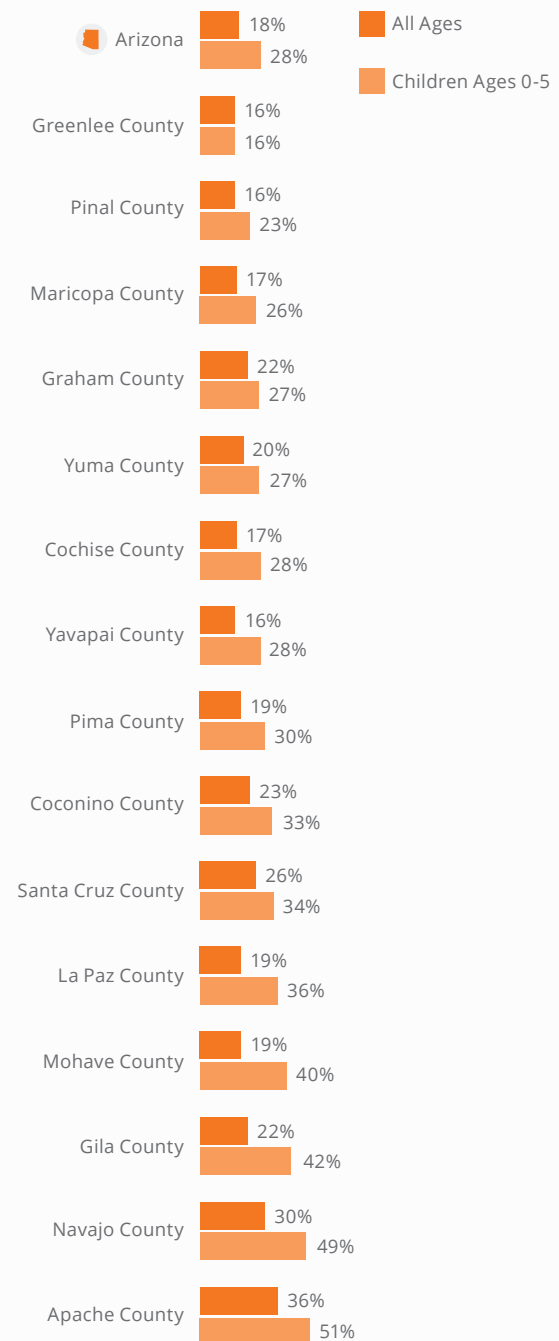
Single moms in Arizona are particularly vulnerable to economic hardship. The median income for single female headed households lags far behind single male headed households in all but four counties, Apache, La Paz, Santa Cruz and Yavapai. Women are more likely to be living in poverty than men for a number of reasons: 1) they are more likely to be out of the workforce, 2) they are more likely to be in low-paying jobs, and 3) they are more likely to be solely responsible for children.^{liii} There is more parity between single female and single male headed households (<\$10,000/year difference) in Apache, La Paz, Mohave, Santa Cruz and Yavapai counties.

Cost of Housing

Four counties in the state have similar or a higher proportion of housing cost burdened units (that is, housing costs are more than 30 percent of household income), than the national rate of 34 percent (See Figure 17). In Arizona, there is limited information when it comes to the number of young children who are homeless. One source of information is schools, which gather data on student homelessness, including preschoolers. In 2015, almost 3 percent (2.7%) of young students (pre-kindergarten to grade 3) in Arizona faced the most

Figure 15

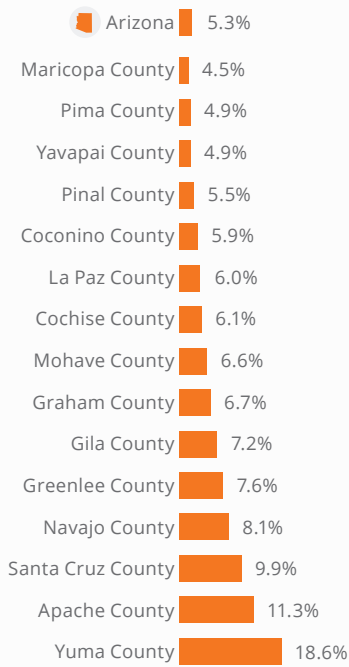
Percentage of population in poverty



Population of all ages and of young children in poverty. US Census Bureau (2014). 2009-2013 American Community Survey 5 Year Estimates, Table B17001.

Figure 16

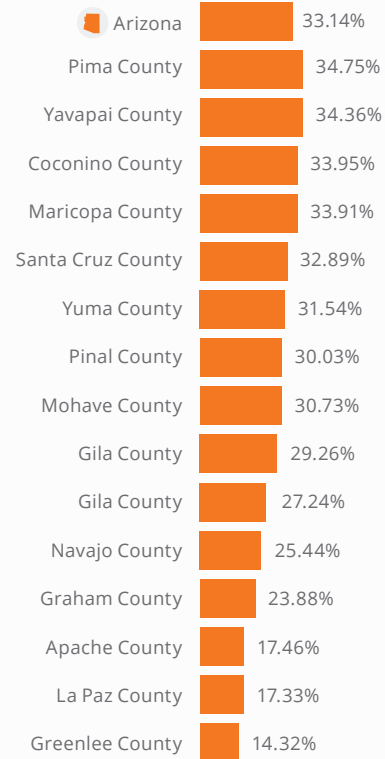
2016 unemployment rate



2016 Unemployment Rates by County. Arizona Labor Statistics. Local Area Unemployment Statistics (LAUS).

Figure 17

Housing costs exceed 30% of income



Percentage of housing units for which housing costs exceed 30% of householder income. US Census Bureau (2016). 2011-2015 American Community Survey 5 Year Estimates, Table B25002, B25106.

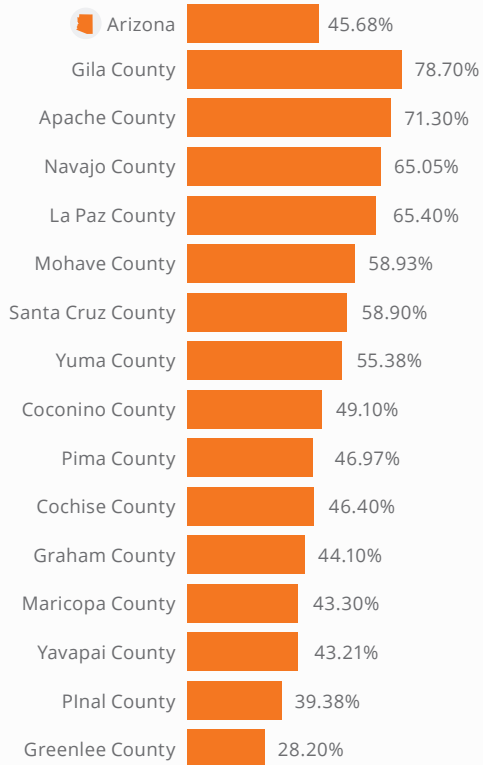
extreme housing stress, homelessness. County data for 2015 were not available, however, 2014 data revealed that while the statewide number was relatively low (2%), this number differed by county. Yavapai and Gila counties had the highest percentage of homeless children in 2014 (6% and 5%, respectively). However, in Gila County, the number of homeless students has actually decreased (-49%) since 2012 when more than one in every 10 students experienced homelessness. The number of homeless young students in Yavapai County has increased slightly since 2012 (+4%).

Arizona Supports

Nutrition Assistance (SNAP) and TANF are critical components of Arizona’s safety net for low income children. The six counties with the highest child poverty rate also have the highest rates of young children receiving SNAP benefits, helping these families better meet the nutritional needs of their growing children (See Figure 18). Gila County had the highest percentage of young children receiving TANF (8.5%); while Coconino and Apache counties had the lowest percentage of young children receiving TANF supports (0.62% and 0.43% respectively (See Figure 19).

Figure 18

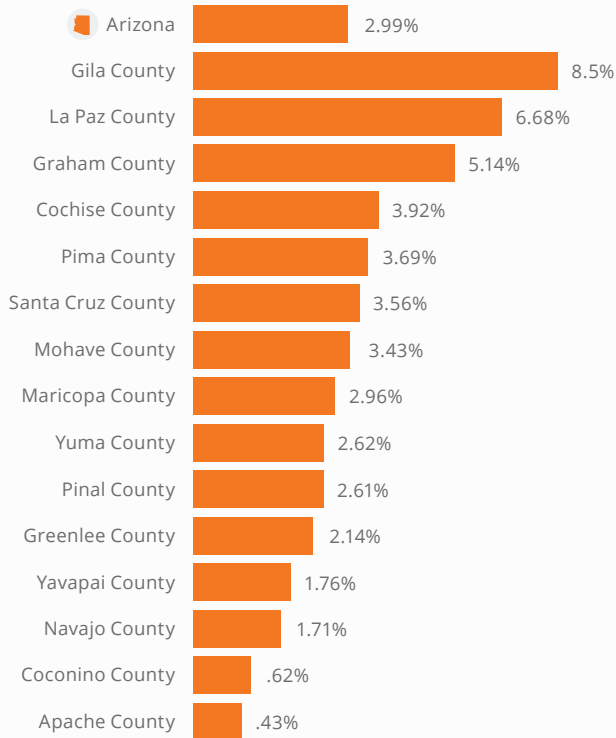
Percentage of children birth to age 5 receiving SNAP in 2015



Estimated percentage of children enrolled in SNAP in 2014. Arizona Department of Economic Security. [SNAP Dataset]. Unpublished raw data received from First Things First State Agency Data Request.

Figure 19

Percentage of children birth to age 5 receiving TANF in 2015



Estimated percentage of children enrolled in TANF in 2014. Arizona Department of Economic Security. [TANF Dataset]. Unpublished raw data received from First Things First State Agency Data Request.



EDUCATION

WHY EARLY LEARNING MATTERS

Quality early learning promotes success in school and in life. The quality of a child's early experiences impact whether her brain will develop in ways that will promote optimal learning. Research has demonstrated that children with access to early learning environments are more prepared for kindergarten: they have increased vocabulary, better language, math and social skills, have more positive relationships with classmates, and score higher on school-readiness assessments.^{liv, lv} They are less likely to need special education services or be held back a grade, and are more likely to graduate and go on to college.^{lvi, lvii} As adults, they are healthier and earn more, and are less likely to be involved in the criminal justice or social welfare systems.^{lviii, lix}

Children access early learning in a variety of ways, including through family and center-based child care providers. Data on the capacity and cost of quality early care and learning opportunities for both typically-developing children and children with special needs can shed light on the needs of young children and their families across the state, and potentially inform service and policy decisions. For example, in understanding the landscape that families with young children are navigating, those in leadership roles may find it useful to know that the annual cost of full-time center-based care for a young child in Arizona is only slightly less than a year of tuition and fees at a public college.^{lx}

Child Care and Development Fund (CCDF) subsidies, funded through a combination of state and federal sources, help low-income families afford child care so that parents may work or prepare for employment. The subsidies may be provided in the form of either a slot in a child care center or a voucher that can be used to pay any provider that meets state requirements. In addition, programs such as Head Start and Early Head Start provide comprehensive early childhood education programs for families who meet income eligibility criteria. In addition, as part of its efforts to improve access to quality early learning, First Things First funds scholarships to help infants, toddlers and preschoolers access early learning through child care and preschool providers that have met or exceeded rigorous quality standards. In addition, services available for young children with special needs are provided through the Arizona Early Intervention Program (AzEIP),^{lxi} Division of Developmental Disabilities (DDD)^{lxii} and the Arizona Department of Education^{lxiii}. Providing timely services to young children at risk for or with developmental delays and disabilities can improve language, cognitive, and social/emotional development, and reduce educational costs by decreasing the need for special education.^{lxiv, lxv, lxvi}

HOW ARIZONA'S YOUNG CHILDREN ARE FARING

Preschool Participation

As discussed previously, research has overwhelmingly shown that young children exposed to quality early education have a better chance at succeeding academically in their early years and later in life. Unfortunately, far fewer 3- and 4-year olds in Arizona are enrolled in early education (36%) than same-aged children across the country (47%) (See Figure 20). The cost of child care may very well be a factor in this low enrollment, with center-based early care and education for a single infant, a toddler, or a 3- to 5-year-old costing an Arizona family an estimated 17, 15 and 13 percent of their income respectively.^{lxvii} The U.S. Department of Health and Human Services recommends that parents spend no more than 10 percent of their family income on early care and education.^{lxviii} The cost for early care and education at a licensed child care center is considerably higher than in a family care setting, particularly for children under 3 years old. This may leave families who want an early learning program for their child with few affordable options.

Arizona Supports

Early Care and Education

Nationwide, the number of children receiving Child Care and Development Fund (CCDF) child care assistance in 2013 was the lowest since 1998.^{lxix} In fiscal year 2017, 32,241 children (0-5) received these subsidies in Arizona. The number of subsidies provided to young children represents about six percent of children birth to 5 years old in the state. With half of young children in Arizona living below the Federal Poverty Level, the number in need of these subsidies is likely much higher than those receiving them. The Department of Economic Security carefully monitors child care subsidy program use and spending, and

Figure 20

Fewer 3- and 4-year-olds attend preschool in Arizona than in the U.S. as a whole.*



3- and 4- year olds enrolled in some form of early education. *As a proportion of the population. US Census Bureau (2016). 2011-2015 American Community Survey 5 Year Estimates, Table B14003.

as capacity allows, periodically moves families off the waiting list and in to the program. Nonetheless, the demand for this support continues to surpass the available supply, and Arizona is one of 18 states that are not able to provide support to all eligible families who apply for subsidies.^{lxx} The amount of state funding allotted to the child care subsidy program varies from year to year. The fiscal year 2018 budget includes about \$7 million for child care, compared with a high of \$83 million at the program's high point (fiscal year 2009).^{lxxi}

Federal funds also are the primary funding source of Head Start and Early Head Start programs, which work to promote school readiness for children from low-income families. Head Start is primarily a program for preschoolers, while Early Head Start works with pregnant women, infants and toddlers through the transition to preschool. Head Start and Early Head Start services are offered in a variety of settings, including centers, schools, child care homes and, in some cases, individual homes. Both programs incorporate early learning, health and family support services. Approximately 1 million children are served by these programs throughout the nation, including U.S. territories and tribal nations. Enrollment of children in foster care, children with disabilities, and children whose families are homeless is prioritized. About 80 percent of the children served by Head Start last year were 3 and 4 years old.^{lxxii} Over the past seven years, the number of Arizona children accessing Head Start or Early Head Start services has remained fairly stable (See Table 2).

Table 2

Number of children enrolled for any period of the year in any of the Head Start programs, by age group

Age Group	2009	2010	2011	2012	2013	2014	2015	2016
<3*	1,951	2,978	3,250	3,309	3,526	3,246	3,893	4,873
3	5,755	5,577	5,773	5,784	6,092	5,484	6,562	6,003
4	12,163	13,066	12,763	12,407	12,345	11,570	11,436	11,595
5 years and older	1,400	741	939	429	474	339	107	125
Total Enrollment	21,269	22,362	22,725	21,929	22,437	20,639	21,998	252,596

Office of Head Start- Program Information Reports (2009-2016). Enrollment Statistics Reports- State Level. *Note: Pregnant women are included in the "0 to 2" age category.

Created by First Things First, Quality First is Arizona's child care and preschool quality improvement and rating system. The system partners with early learning providers – including licensed child care and preschool centers and family child care homes – to improve the quality of their early care and education programs. Improving the quality of early learning and expanding children's access to those high-quality programs represents almost half of FTF's annual program investment. The latest data indicate those investments are

paying off. Quality First has significantly improved the quality of early learning options available to Arizona’s families (See Figure 21). In fiscal year 2013, 25 percent of 857 rated providers met or exceeded quality standards. Over the past five years, both enrollment and quality have improved. In fiscal year 2017, 71 percent of 921 rated providers met or exceeded quality standards. This means that 38,281 children in Arizona were in quality early learning programs as a result of First Things First, an increase of 57 percent since 2015 (24,420 children). When combined with providers who continue to work diligently on enhancing the quality of their child care and preschool programs, Quality First has ensured that more than 63,754 children throughout the state have access to a higher standard of early education.^{lxxiii}

As part of an effort to increase access to quality early learning, many First Things First regional partnership councils fund scholarships for families earning at or below 200 percent of the Federal Poverty Level. With limited exceptions, the scholarships can only be used at Quality First participating providers who have achieved ratings in the quality levels. The number of children served by the scholarship program grew steadily between 2011 and 2014, decreasing slightly in 2015 but substantially decreasing in more recent years (See Figure 22). The number of scholarships available in each area of the state depends on available funds and the early childhood priorities established by the local regional partnership council. As a result of a 24 percent reduction in tobacco revenues since the inception of FTF, regional partnership councils had to adjust their scholarship allotment levels for fiscal year 2016 to meet their fiscal realities, resulting in fewer scholarship slots being available. Nonetheless, almost 37 percent of FTF’s spending in fiscal year 2017 went toward providing 8,809 infants, toddlers and preschoolers access to quality early learning settings.

In addition to the existing DES, Head Start and FTF programs, at the end of 2014, Arizona was awarded a federal Preschool Development Grant of up to \$20 million per year for up to four years from the U.S. Department of Education to improve the state’s preschool enrollment.^{lxxiv} Arizona’s low percentage of children enrolled in preschool was one of the reasons it was one of five states awarded the federal grant. The grant funding supports increasing infrastructure to provide high-quality preschool programs, and expansion of high-quality preschool programs

Figure 21

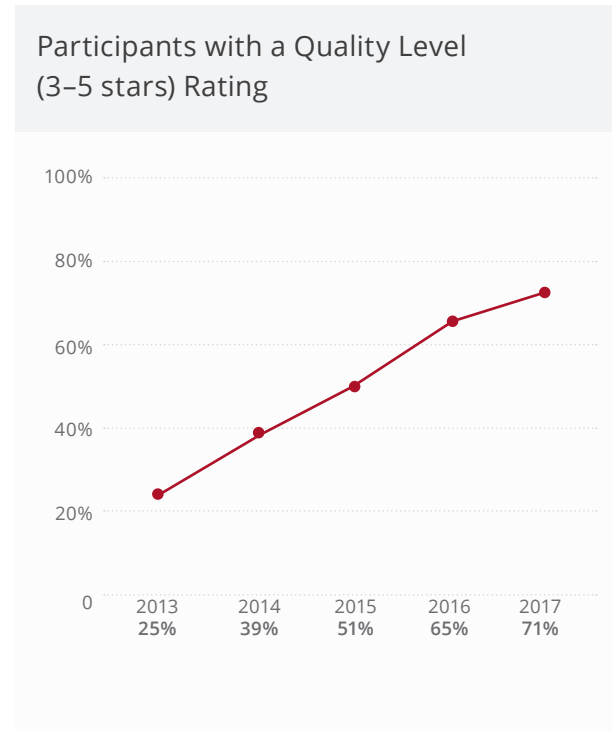
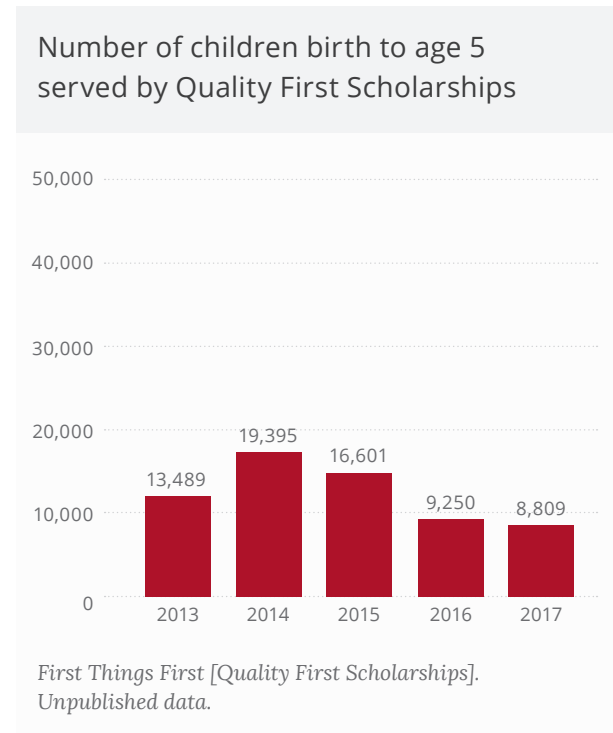


Figure 22



in high-need communities. Through a partnership with the Arizona Department of Education, First Things First includes the new preschool development sites in Quality First, giving those programs access to resources that will: ensure their settings are rich in language and literacy opportunities; expand teachers' skills in working with young learners; enhance the programs' ability to meet the social-emotional needs of students; promote the inclusion of children with special needs; and, provide developmentally appropriate learning materials. In FY17, there were 62 preschool programs in the PDG participating in Quality First, 46 of which met or exceeded quality standards. This means an additional 4,346 children received their early education from providers committed to continuous quality improvement, including 2,895 children whose early learning provider met or exceeded quality standards.^{lxxv}

Children with Special Needs

The availability of services for young children with special needs is an ongoing concern across the state, particularly in the numerous geographically remote communities.

Developmental and sensory screenings, often one of the first steps in the process of receiving these services, are as infrequent in Arizona during health care visits as they are across the country (See Figure 23). Various partners in Arizona's early childhood system are working to expand developmental and sensory screening for infants and toddlers. For example, First Things First has several regional partnership councils that fund developmental and sensory screenings for children birth to 5 years old in their communities. In state fiscal year 2017, more than 54,514 screenings were completed to identify issues that, left unaddressed, could become learning problems later on. In addition, FTF and other early childhood system partners integrate developmental screening in to programs such as home visitation to further expand the availability of developmental screenings for young children.

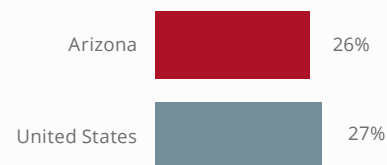
In Arizona, the Department of Economic Security manages the Arizona Early Intervention Program (AzEIP) and the Division of Developmental Disabilities (DDD) which provide early intervention services for infants, toddlers and preschoolers with developmental delays and disabilities. The number of children from birth through 2 years old referred to AzEIP^{lxxvi} increased from about 11,700 in 2014 to about 14,450 in 2015. The number of young children with an Individualized Family Service Plan (IFSP), the first step after a child is determined eligible for AzEIP, increased dramatically over that same period from about 5,248 to 10,039.

There was also a modest four percent increase in the number of young children, birth to five years of age, referred for DDD services between 2014 and 2015 from 4,283 to 4,453. The number of young children served by DDD remained relatively stable during the same period; 4,874 in 2014 and 4,876 in 2015.^{lxxvii}

The essay at the beginning of this report describes at length how FTF and partners statewide are working to improve the coordination of developmental and sensory screening and the rates of young children receiving timely and appropriate screenings.

Figure 23

Fewer young children received standardized developmental screenings in Arizona than in the U.S. as a whole.



Children Ages 10 months-5 Years Who Received Developmental Screenings during a Health Care Visit, 2016. National Survey of Children's Health. NSCH 2016.

System Collaboration Continues to Expand High Quality Early Learning Opportunities for Young Children

Leveraging Resources to Expand Programs Participating in Quality First

Earlier in this section, the success of FTF's Quality First program was described. The voluntary program has been able to increase the percentage of providers meeting or exceeding quality standards from 25 percent in 2013 to 71 percent in 2017 (See Figure 21). In addition, a recent independent study confirmed that the program improves the quality of participating programs and that the 5-star scale used to rate programs represents distinct levels of quality. In addition, FTF funds scholarships to help more young children access high quality early learning. In FY17, 8,809 infants, toddlers and preschoolers accessed early learning through Quality First providers meeting or exceeding quality standards.

Through a series of public-private partnerships, FTF will be able to expand the numbers of providers able to access Quality First. Among those partnerships are:

- In fiscal year 2018, an additional 40 Preschool Development Grant programs were enrolled in Quality First, including nine programs that meet or exceed quality standards.
- In 2017, the Tempe City Council approved a two-year pilot program – Tempe PRE (Preschool Resource Expansion) – to expand access to high quality preschool to approximately 300 children whose families live at or below the federal poverty level. Through a collaboration between the city and FTF, the Tempe PRE classrooms will participate in Quality First to help participating sites improve or maintain their quality levels.
- In May 2017, First Things First was awarded an \$800,000 grant from the W.K. Kellogg Foundation that will support a pilot program to test modifications to Quality First across an additional 50 programs statewide. The pilot will focus on child care and preschool settings that serve large numbers of at-risk children, such as children living in poverty and children in the child welfare system. Researchers will follow those programs over the course of two years to determine whether the modifications continue to improve program quality and whether the modifications result in decreased program costs, which can be used to expand access for more providers.

Quality First is one example of the growing momentum to support high quality early learning in Arizona. For example, the Department of Economic Security (DES) – which administers the state's child care program supported through federal CCDF funding – has leveraged program changes made at the federal level to enhance quality locally. Efforts underway address one or more aspects of quality, including: teachers who know how to engage young learners; learning environments that support high quality teacher-child interactions; and stability in teacher/child relationships.

Enhancing the Skills of Early Educators

Quality First encompasses a variety of strategies to improve the quality of early care and education across the State. Specifically, Quality First works with early care and education providers to improve the quality of their programs through the funding of several supports. Participants have access to a variety of supports, including coaching to help providers establish learning environments that foster the development of every child, funding to improve their facilities and to purchase learning materials, and education for teachers. Highly qualified early childhood teachers can significantly affect a child's cognitive outcomes, specifically early literacy and language development, letter knowledge, and writing skills.^{lxxviii}

The Institute of Medicine and National Research Council have jointly recommended that early childhood systems work to enhance the education of early childhood teachers, to at least a bachelor's degree level.^{lxxix} In Arizona, several agency partners fund complementary professional development strategies that, when taken together, create a pathway for early educators to attain early childhood education credentials, certificates and degrees. Systems collaboration focuses on maximizing resources and avoiding duplication. First Things First also coordinates a statewide Professional Development Workgroup that continues to work on creating a seamless pathway from associate to bachelor's degrees, aligned with the states early childhood workforce knowledge and competencies. First Things First funds scholarships that help many early educators access college coursework aimed at an early childhood credential, associate's degree or bachelor's degree. Through federal CCDF dollars aimed at improving child care quality, DES funds classes that help teachers earn a certificate of completion in early childhood. The Arizona Department of Education, through its federal Preschool Development Grant, funds college coursework aimed toward attainment of a bachelor's degree or Master's degree in the counties where there are PDG sites.

In 2015, the Professional Development Workgroup launched the Arizona Early Childhood Career and Professional Development Network, AzEarlyChildhood.org, which offers early childhood professionals a one-stop-shop for information to support their on-going skill development. This includes a web-based system that enables early childhood professionals and those interested in a career in early education to: 1. Keep a record of their experience, education, professional development and credentials in a central location; 2. Apply for college scholarships and track their certificate/degree achievement; and; 3. Find and register for community-based professional development opportunities. The resources available include information about the standards for early childhood professionals, links to national and state organizations, including community colleges, and a job bank.

In order to access this information, early childhood professionals must sign up on the workforce registry. The registry gives professionals a centralized location to store and track professional development information, which is often needed to access educational opportunities or apply for jobs. They can also search for a job and apply for college scholarships. In FY2017, 27,218 early childhood professionals had accounts in the registry, exceeding First Things First's target (25,000) by almost 9 percent. FTF is currently in the process of verifying the educational attainment information provided by those early childhood professionals to obtain data with which to monitor progress.

Early results show that of the 3,257 individuals with transcripts verified:

- <1% has a doctoral degree in early childhood;
- 6% have a Master's degree in ECE or related field with 18 credits in ECE;
- 12% have an Associate Degree in ECE or related field with 18 credits in ECE or 60 college credits;
- 17% have a Child Development Associate Credential, a Certificate of Completion or 24 credits or 360 clock hours
- 12% have a high school diploma or equivalent and 12 credits or 180 clock hours
- 11% have a high school diploma or equivalent and 6 credits or 90 clock hours; and
- 30% have a high school diploma or its equivalent.^{lxxx}
- 11% have a Bachelor's degree in ECE or related field with 24 credits in ECE;

DES has instituted new requirements regarding initial health and safety training for early educators. The training is available through the aforementioned online professional development site, which also is used to track compliance with the new training.

Promoting Continuity in Child/Caregiver Relationships

In addition to being able to spend enough time on quality interactions with students, research shows that consistent relationships with teachers results in children who are better prepared to learn.^{lxxxii} Children with poorer socio-emotional skills may benefit from positive early education experiences that could help facilitate their transition into formal schooling.^{lxxxiii} Unfortunately, children with socio-emotional and behavioral problems may be more at-risk for expulsion from early education programs. Given the high rate of expulsion in preschool and child care programs^{lxxxiii}, First Things First has prioritized an evidence-informed Early Childhood Mental Health Consultation (ECMHC) strategy to promote positive transition practices and reduce expulsion rates for children in Arizona. The program, known as Smart Support, is administered by Southwest Human Development. The ECMHC strategy is intended to help early childhood education professionals more effectively interact with children and their families through consultation with trained mental health professionals. Based on evidence found in research on ECMHC programs, ECMHC is effective in preventing and reducing challenging classroom behaviors, improving teacher skills and lowering preschool expulsion rates.^{lxxxiv}

The 2015 re-authorization of CCDBG encouraged state programs to use a portion of funds set aside for quality improvement to institute measures to reduce expulsions in child care and preschool settings. As a result, DES has recently instituted measures to prevent the expulsion of children in subsidized child care and preschool. Specifically, if a child receiving subsidy is going to be expelled, the provider has access to technical assistance to prevent the expulsion. The contractor selected to provide the assistance is Southwest Human Development, which also administers the successful mental health consultation model previously reported. DES collected baseline information from providers in the past year, and will monitor progress against that data in the coming

years. By providing tools for teachers to better meet the social-emotional needs of children in their care - including expert consultation when behavioral issues threaten a child's current early learning arrangement - system partners hope to increase the stability of child/caregiver relationships for some of Arizona's most at-risk children.

Another measure prompted by the CCDBG reauthorization that promotes continuity of care is the increase in the amount of time families qualify for assistance from the child care subsidy program. In previous years, families were dropped from the program once their earnings exceeded 165% of the Federal Poverty Level (with limited exceptions). In 2016, legislation was passed that allows families to remain in the child care subsidy program if they are earning up to 185% of the state median income. This ensures that a parent's transition to higher employment does not disrupt their child's relationships with their caregivers and the continuity of their early education. In addition, that legislation allows DES to pay enhanced rates for quality programs.

Expanding Access to High-Quality Learning for Arizona's Most Vulnerable Children

As noted previously in this report, many of Arizona's most vulnerable children access early learning with the support of a child care subsidy. The most recent data indicate that 44% of the children birth to 5 years old receiving a child care subsidy are involved with the child welfare system. At the same time, only about 8% of all young children receiving child care subsidies are with early learning providers who have met or exceeded quality standards.^{lxxxv} FTF is working with its system partners to increase the number of vulnerable children who have access to quality early learning programs. For example, FTF, with the Department of Child Safety and Department of Economic Security are working together to develop training for staff and resources for kinship and foster families to help families search for quality providers in their communities. In addition, the pilot program underway to test Quality First program modifications will include programs serving high numbers of children involved in the child welfare system.

Promoting Early Literacy

Language development and early literacy are crucial to success in school. First Things First is one of six founding partners of Read On Arizona, which works with more than 600 state and local collaborative partners to lead statewide efforts in early literacy. In addition to FTF, the organization's Advisory Board includes the Arizona Department of Education, the Head Start State Collaboration Office, the Arizona Board of Education, the Governor's Office of Education, the City of Phoenix, Mesa Public Schools, the Bob & Renee Parsons Foundation, the Virginia G. Piper Charitable Trust, the Helios Education Foundation and the Arizona Community Foundation.

Through Read On Arizona, stakeholders working with children from birth through age 8 come together to improve language and early literacy outcomes by expanding literacy opportunities and interventions available at the state and local level; increasing capacity of practitioners in the field; building awareness of the importance of early literacy; and, ensuring that families have access to information and resources to support early literacy and language development with their children.

In addition to statewide efforts, Read On Arizona works through a network of 25 Read On communities throughout Arizona. While each of these community collaboratives is different, they are typically comprised of representatives from early care and education providers, schools, cities and towns, libraries, philanthropy, business and child and education advocacy organizations. All Read On communities focus on improving language and literacy outcomes for underserved populations.

In fiscal year 2017, Read On Arizona and its partners achieved the following outcomes:

- Increased third-grade reading outcomes from 40% to 44% for all students, and 28% to 32% for economically-disadvantaged students, passing AzMERIT English Language Arts state assessment since 2015.
- Increased school readiness domain expectations for 4-year-olds, from 79% to 80% meeting age-level expectations in language, and 86% to 89% meeting age-level expectations in literacy, in Teaching Strategies Gold sampling since 2015.
- Reached more than 300,000 low-income children with early literacy support and resources.
- Utilized data from Read On Arizona's interactive mapping tool, MapLIT, to release a research report (in partnership with Mary Lou Fulton Teachers College, Arizona State University) entitled, Factors Related to Early Childhood Literacy, identifying that poverty, attendance and chronic absenteeism measures were significant factors and predictive of school-level reading achievement.
- Launched a statewide early language and literacy awareness campaign, "Smart Talk," to increase understanding of the importance of quality conversations with babies and toddlers and to provide easy tools for parents and caregivers to make Smart Talk part of their daily routine. ^{lxxxvi}

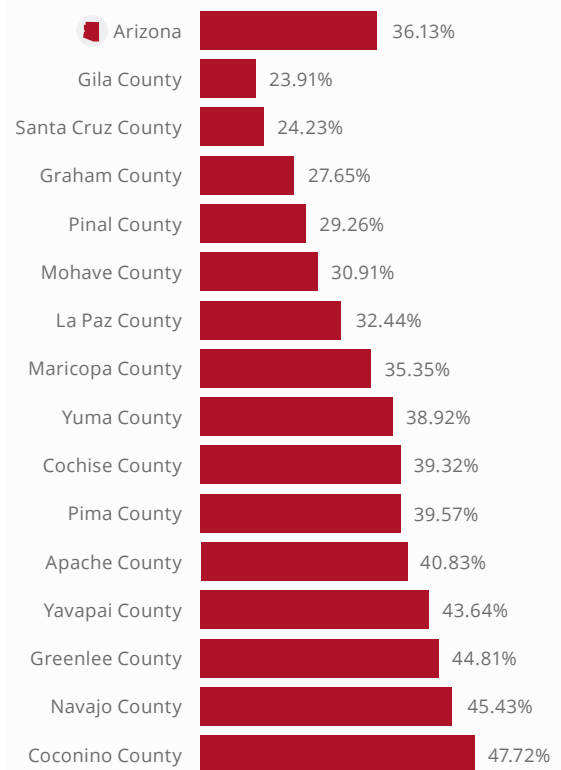
COUNTY HIGHLIGHTS

Coconino and Navajo counties had particularly high percentages of children enrolled in some form of early education in 2015 (48% and 46%), followed closely by Greenlee (45%) and Yavapai (44%). Conversely, Gila and Santa Cruz counties had the lowest percentage, both at 24 percent, which falls below the state rate of 36 percent (See Figure 24).

As discussed previously, the cost of child care can be a barrier for families accessing quality early learning opportunities for their children. Generally speaking, care for infants is the most expensive because they require the highest staff-to-child ratio. These costs also vary by county, with Apache and Gila counties having the most costly child care as a percentage of the median income across all age groups: infants; 1- to 2-year-olds; and 3- to 5-year-olds (See Figure 25). It is important to note that the percentages in Figure 25 reflect families with only one young child in need of full-time care. Families with more than one child under age 5 requiring child care would exceed the U.S. Department of Health and Human Services' recommendation (no more than 10 percent of income spent on child care) by a substantially higher percentage. Moreover, the percentages were calculated with the average median income for all families. Single parent homes, particularly those with a single female householder, typically have a substantially lower median income, resulting in a higher cost of child care by percent of median income. Single parent families may also be more likely to need full-time child care than married-couple families.

Figure 24

Percentage of 3- and 4-year-olds enrolled in some form of early education by county



3- and 4-year-olds enrolled in some form of early education. US Census Bureau (2016). 2011-2015 American Community Survey 5 Year Estimates, Table B14003.

WHY K-12 EDUCATION MATTERS

Education builds a foundation for the future, and strong educational systems are important for the development not only of children, but also for the state as a whole. As discussed in the previous section, children whose education begins with high-quality early learning opportunities tend to repeat grades less frequently, have higher standardized test scores and fewer behavior problems, as well as higher rates of high school graduation.^{lxxxvii} Adults who graduate from high school earn more and are less likely to rely on government-funded assistance programs than those without high school degrees, and higher levels of education are associated with better housing, neighborhood of residence, and working conditions, all of which are important for the health and well-being of children.^{lxxxviii, lxxxix}

From 2000-2014, the primary academic performance of students in the public elementary schools in the state has been measured by Arizona's Instrument to Measure Standards (AIMS).^x The AIMS was used to track how well students are performing compared to state standards, and was considered a high-stakes exam because

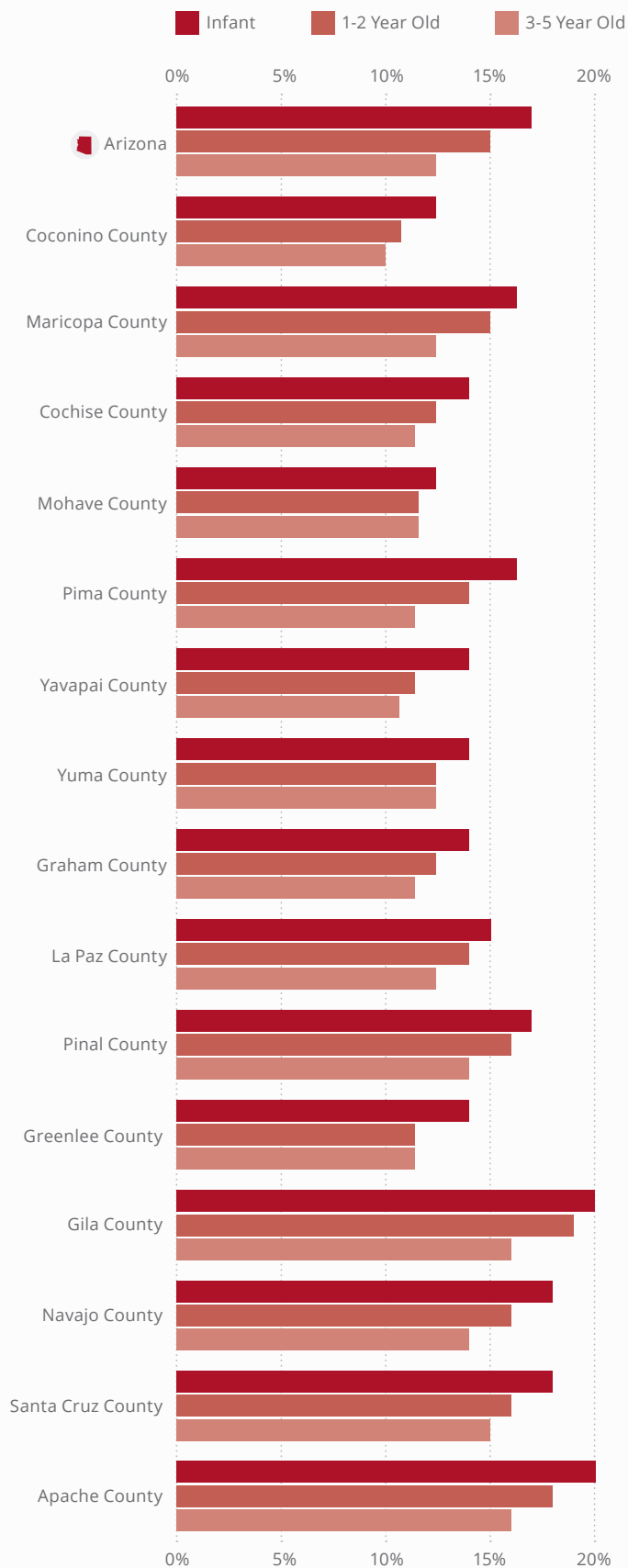
the results directly impacted students' future progress in school. Beginning in the 2013-2014 school year, AIMS scores were used to meet the requirement of A.R.S. §15-701 (also known as the Move on When Reading law), which states that a student shall not be promoted from the third grade if the student obtains a score on the statewide reading assessment "that demonstrates that the pupil's reading falls far below the third-grade level." Exceptions existed for students identified with or being evaluated for learning disabilities, English language learners, and those with reading impairments. Passing AIMS scores were also required for high school graduation.

However, a new summative assessment system which reflects Arizona's K-12 academic standards, Arizona's Measurement of Educational Readiness to Inform Teaching (AzMERIT), was implemented in the 2014- 2015 school year.^{xci} This assessment replaced the reading and mathematics portions of the AIMS test. The AzMERIT, is designed to assess students' critical thinking skills and their mastery of the Arizona Academic Standards established in 2010. Students who receive a proficient or highly proficient score are considered adequately prepared for success in the next grade. Although it is not a graduation requirement, it will still be used to determine promotion from the third grade in accordance with A.R.S. §15-701.^{xcii} AIMS results are included in previous versions of this biennial report; this and future reports will use AzMERIT scores.

Cost of center-based child care as a percentage of median family income by county. US Census Bureau (2016). 2011-2015 American Community Survey 5 Year Estimates, Table B19126. Arizona Department of Economic Security (2015). [Child care market rate survey data]. Unpublished raw data received from First Things First State Agency Data Request.

Figure 25

Cost of child care in a center as a percentage of median income



HOW ARIZONA'S CHILDREN ARE FARING

High School Completion

The 4-year graduation rate of public high school students in Arizona dropped slightly between 2010 and 2013 from 78 to 75 percent. While the rate rose back to 2010 levels in the 2014-2015 school year (78%), it still remains below the nationwide graduation rate (See Figure 26). Arizona's graduation rate remains among the lowest in the nation; only 4 states, and Washington D.C, have lower graduation rates than AZ in 2014-2015.^{xciii}

Given the lower rates of high school completion, it is not surprising that the percentage of adults (25 and older) with a high school diploma or GED is 24% which remains lower than across the nation (28%).^{xciv}

Arizona Achievement Scores

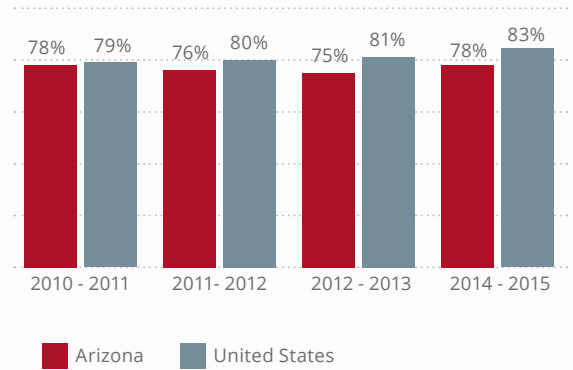
Achievement scores at earlier grades in Arizona lag behind the country as a whole in reading (See Figure 27). The National Assessment of Educational Progress (NAEP) is an assessment of mathematics, reading, writing, and science performance for America's children in fourth and eighth grades.^{xcv} In 2015, the average reading score for Arizona's fourth graders (215) was below the national average, showed no statistical improvement from 2013 (213) and placed Arizona in the bottom ten of all states on the NAEP's basic reading assessment. Only 30 percent of fourth grade students in Arizona scored at or above proficient reading assessment level on the NAEP.^{xcvi}

On the other hand, Arizona's mathematics scores showed a decrease from 2013 (240) to 2015 (238), with 38 percent of Arizona fourth graders at or above proficiency in math.

With the AzMERIT testing, students are classified as either Minimally Proficient, Partially Proficient, Proficient or Highly Proficient. The "passing" designation is applied to all students in the latter two categories. Since the beginning of AzMERIT testing during the 2014-2015 school year, the percentage of third graders passing the AZMERIT English Language Arts test increased from 40% to 44% in the latest testing during the 2016-2017 school year (See Figure 28). Overall, in the 2016-2017 school year, 44% of students were classified as "minimally proficient" which puts them at-risk for third grade retention.

Figure 26

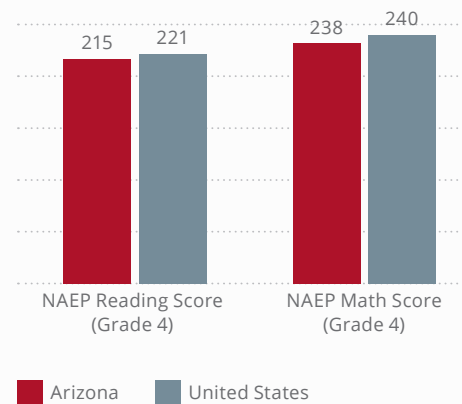
Public high school seniors in Arizona are graduating at a lower rate than in the U.S. as whole.



4-Year Public High School Graduation Rates AY2010-2012. National Center for Education Statistics (2015). Public high school 4-year adjusted cohort graduation rate (ACGR) for the United States, the 50 states and the District of Columbia: School years 2010-2011 to 2012-2013.

Figure 27

Arizona lags behind the U.S. as a whole in fourth grade reading.*



NAEP Reading and Mathematics Scores, 2015. National Center for Education Statistics (2017). *Scores reported are averages.

Similar to ELA, passing test scores have also been increasing in math between the same years from 42% to 47%. However unlike ELA, those scoring minimally proficient was much lower in math; 27% on the 2014-2015 school year and only 24% falling in this lowest category in the 2016-2017 school year (See Figure 28).

Arizona Supports

The 2015 Kids Count Data Book ranked Arizona 44th of the 50 states in terms of children’s educational achievement.^{xvii}

As these children grow and mature, limited mathematical and literacy skills could not only impede future academic success, but also limit their access to jobs and generally have implications for their well-being and the well-being of their future families. Arizona’s investment in K-12 education lags behind the rest of the nation. The state spends \$7,489 per public school student, substantially less than the national average of \$11,392 per student (See Figure 29).

COUNTY HIGHLIGHTS

High School Completion

There is variability in both high school graduation rates and attainment of high school diplomas across Arizona counties. Graham, Pinal and Pima had the lowest 4-year graduation rates in the state (all at 74%), and over a quarter of the adult population 25 and older in Santa Cruz and Yuma counties had less than a high school education in 2015 (See Figure 30).^{xviii}

County Achievement Scores

In 11 of 15 counties, including the state as a whole, 3rd grade students scored higher in Math than in English Language Arts on the AzMERIT (See Figure 31). No Arizona county, nor the state as whole, had 50% of 3rd grade students that passed the English Language Arts test. Greenlee County had the highest percentage of 3rd graders passing at 48 percent. In Math, only two counties had 50% or more of their 3rd graders with passing scores; Greenlee (67%) and Maricopa (50%). Given the close connections between educational achievement and poverty, it is not surprising that Apache County, which has the highest poverty rates for adults and young children, also struggles with K-12 achievement.

Figure 28

Third grade AZMerit scores in Arizona have improved over the last three years.

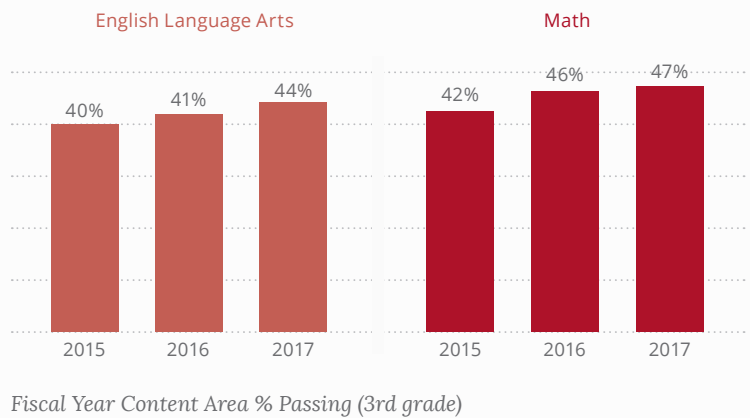


Figure 29

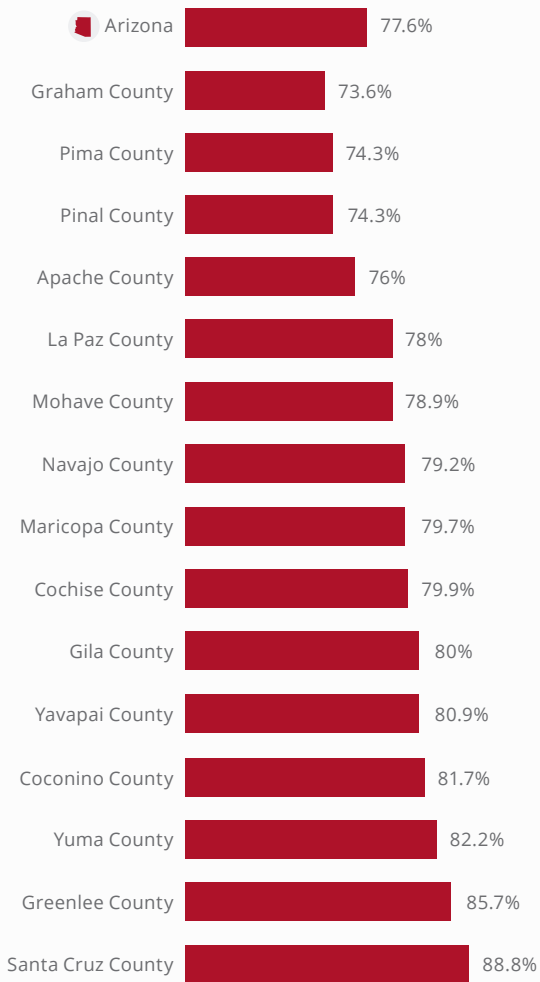
Arizona spends much less per public school student than the U.S. as a whole.



Per Pupil School System Expenditures, FY 2015. US Census Bureau (2014). 2013 Annual Survey of School System Finances, Table SSF008.

Figure 30

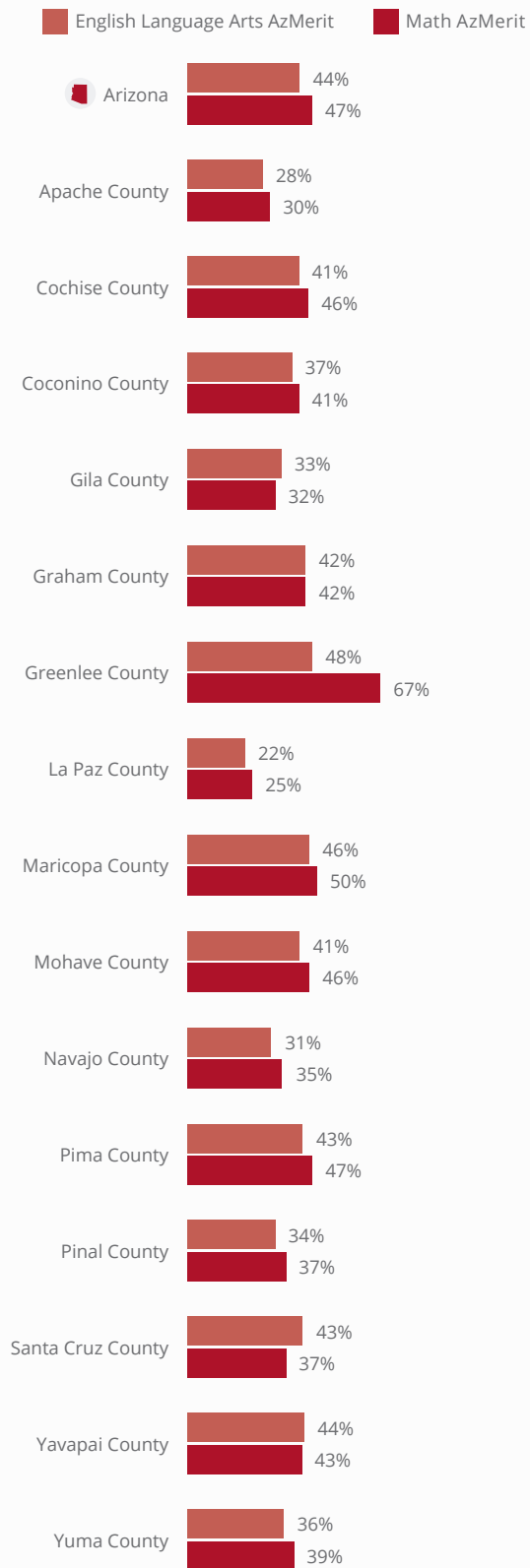
Four-year graduation rate



Four-year graduation rates by county, 2015 cohort. Arizona Department of Education (2017). [Graduation and Dropout Dataset]. Unpublished raw data received from First Things First State Agency Data Request.

Figure 31

Percentage of third grade students passing 2017 AzMerit



Arizona Department of Education (2017). AzMERIT 2016. Retrieved from <http://www.azed.gov/accountability-research/data/>



CHILD HEALTH AND WELL-BEING

WHY IT MATTERS

Children's health encompasses not only their physical health, but also their mental, intellectual, social and emotional well-being, and can be influenced by their parents' health and the environment into which they are born and raised.^{xix, c} Factors such as access to health insurance coverage, a receipt of preventive care such as vaccinations and oral health care, and exposure to abuse or neglect all influence not only a child's current health, but also their long-term development and success. Healthy People is a science-based government initiative which provides 10-year national objectives for improving the health of Americans. Healthy People 2020 targets are developed with the use of current health data, baseline measures, and areas for specific improvement. Understanding where Arizona mothers and children fall in relation to some of these national benchmarks can help highlight areas of strength in relation to young children's health and those in need of improvement in the state. Research surrounding the social determinants of health has demonstrated how family characteristics, economic circumstances, and educational access play as big a part in long-term health outcomes as traditional health measures. The information presented in prior sections of this report, combined with the health data described below demonstrates that Arizona's young children face significant challenges that pose a threat to their long-term health and well-being.

Health Insurance Coverage

The ability to obtain health care is critical for supporting the health of young children. There are many opportunities during the early years of a child's life for well-baby and well-child visits that can offer developmentally appropriate information and guidance to parents, and that can provide a chance for health professionals to assess the child's development, conduct timely screenings and referrals to appropriate services and administer preventative care measures like vaccines. Without health insurance, each visit can be prohibitively expensive and may be skipped.^{ci} Unfortunately, children in Arizona are particularly vulnerable when it comes to health insurance coverage. Despite expansion of the federal Medicaid program and the implementation of the Affordable Care Act, almost 1 in 14 children in Arizona birth to 17 years old remained uninsured (7.3%). On a positive note Arizona is one of the states where the number of uninsured children is dropping most rapidly.^{cii} This is likely due, in large part, to the restoration of Arizona's Children's Health Insurance Program (CHIP, also known as KidsCare) and community-based efforts to enroll more children in the program.

Immunizations

Despite the well-known benefits of vaccinations, national figures show that more than 1 in 4 children (28%) between ages of 19 months and 3 years old had not received the full recommended 7 vaccines series.^{ciii} Without vaccinations, the CDC warns that there could be serious implications for children's health – their own and their peers'. Many childhood diseases like whooping cough and chicken pox have become fairly uncommon, due in part to vaccines. However, the few cases that exist could become thousands if unvaccinated are exposed to a disease, become sick and expose others.^{civ}

Children's Oral Health

Poor oral health can have a detrimental effect on children's quality of life, their performance at school, and their success in life. In fact, more than 51 million school hours are lost each year to dental-related illness.^{cv} An essential component of child well-being is good oral health and the absence of tooth decay. Untreated tooth decay is the most common chronic disease among children in the United States, causing pain and infections that may lead to other serious problems with eating, speaking, playing and learning.^{cvi} Tooth decay (dental caries) is five times more common than asthma and seven times more common than hay fever.^{cvii} The American Academy of Pediatrics estimates that half of all children in the U.S. will develop caries, and some will experience severe dental disease.

Children begin to get their first teeth at around 6 months old, and by the time they are about 3, children will have the complete set of 20 primary teeth. Although not permanent, these teeth are an essential component of a child's well-being. Healthy first teeth are needed to bite and chew food, develop speech, develop the jaw bones and face muscles, and to hold space for and guide adult teeth into proper position.^{cviii} In addition, a healthy smile supports growth of a child's self-esteem.^{cix} Undetected and untreated tooth decay can interrupt all of these needs, lead to pain, and negatively impact development of adult teeth leading to long-lasting effects, including bone loss and systemic infections.^{cx, cxi}

Injuries

Injuries are the leading cause of death in children in the United States.^{cxii} Nonfatal unintentional injuries substantially impact the well-being of children and are estimated to cost the U.S. more than \$347 billion annually in medical costs and lost quality of life.^{cxiii} Many of these injuries are preventable, leading the Centers for Disease Control and Prevention to produce a National Action Plan for Child Injury Prevention, which outlines evidence-based strategies for addressing the challenge of keeping children safe.^{cxiv} The Arizona Department of Health Services has recognized the need to focus on reducing childhood injuries in Arizona, and identified that as one of their priorities in the 2011-2015 Bureau of Women's and Children's Health Strategic Plan.^{cxv}

Abuse or Neglect

Just as positive experiences promote healthy brain development, negative experiences – such as maltreatment or other forms of toxic stress, such as family violence – can negatively affect brain development. Potential impact include changes to the structure and chemical activity of the brain (e.g., decreased size or connectivity in some parts of the brain), and in the child's emotional and behavioral functioning.^{cxvi} Studies conducted on adults in the early 1990s showed that the higher the number of adverse childhood experiences (ACEs) reported, the more those individuals were at higher risk for a myriad of physical, emotional and social problems.^{cxvii}

Neglect can include both the failure to meet a child's physical needs for food, shelter, and safety, as well as failure to meet a child's cognitive, emotional, or social needs. For children to master developmental tasks in these areas, they need stable environments and nurturing interactions with their caregivers. If this stimulation is lacking during children's early years, brain development is impacted and the children may not achieve the usual developmental milestones.^{cxviii}

HOW ARIZONA'S YOUNG CHILDREN ARE FARING

Prenatal Health

In terms of prenatal health, Arizona does not yet meet federal targets for reported maternal smoking during pregnancy. Across Arizona, 3.9 percent of pregnant women reported smoking in 2014, well above the 2020 Healthy People target of 1.4 percent. Reported smoking during pregnancy varies considerably across counties (discussed in the County Highlights section), highlighting the need for targeted interventions to encourage pregnant women to quit. Despite elevated rates of smoking during pregnancy, Arizona babies seem to be making gains in other areas. Between 2007 and 2013, the infant mortality rate dropped from 6.8 to 5.3 per 1,000 live births, before spiking in 2014 to 6.2 and decreasing again in 2015 to 5.6 which keeps Arizona meeting the Healthy People 2020 target of 6.0, while also falling further than the rate nationally (5.9) (See Figure 32). In addition, in 2015, fewer Arizona babies were born at low birth weight (7% vs. 8%), or prematurely (9% vs. 10%) than those across the nation (See Figure 33). These indicators also represent success relative to the Healthy People 2020 target of less than 7.8 percent for low birth weight and less than 11.4 percent for premature births.

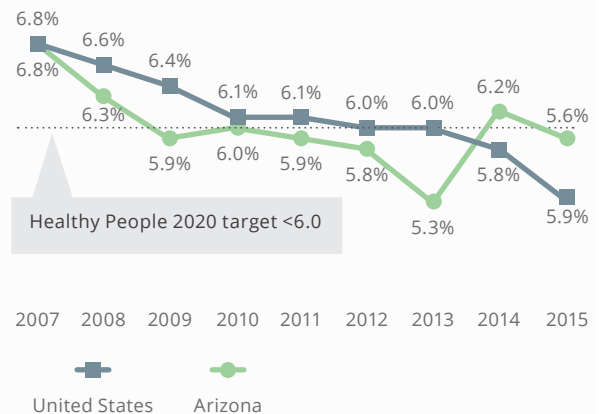
Teen Pregnancy

Research shows that children of teen mothers are more likely to be born prematurely and at low birth weight, increasing their risk of death or developmental disability; more likely to have poor educational outcomes, like grade retention and low test scores; are more likely to live in poverty; more likely to be abused or neglected; and, in the case of daughters of teen mothers, more likely to grow up to become teen mothers themselves.^{cxix}

Given these risks, the number of teens becoming parents in Arizona remains a concern. The percentage of births to teen mothers is higher in Arizona than across the nation for both mothers under the age 17 and under the age of 19 (See Figure 34). In 2015, the percentage of births to mothers 17 or younger was 1.9% in AZ, and the percentage of births to mothers 19 or younger was 6.9%; compared to 1.6% and 5.8% nationally.

Figure 32

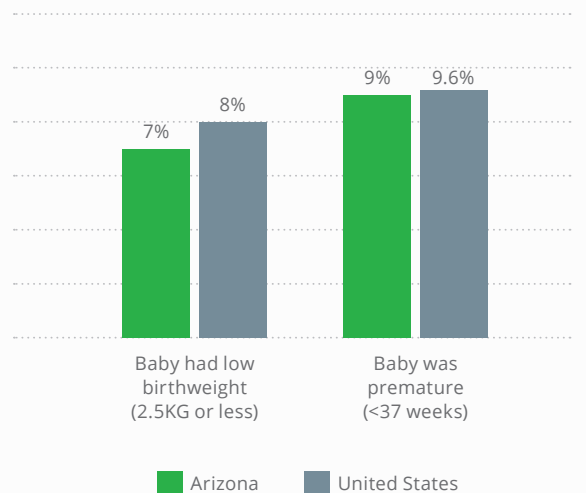
The infant mortality rate in Arizona is decreasing faster than in the U.S. as a whole.



Infant Mortality Rate, 2007-2015. Arizona Department of Health Services (2017). Health Status and Vital Statistics 2013 Annual Report, Table 5E-17; Center for Disease Control and Prevention (2013). Infant mortality statistics from the 2013 period linked birth/infant death data set.

Figure 33

Babies in Arizona have better health outcomes than the U.S. as a whole for several key indicators.



Infant Birthweight and Premature Birth Rate Arizona Department of Health Services (2017). [Maternal and infant health dataset]. Unpublished raw data received from First Things First State Agency Data Request.

Health Insurance Coverage

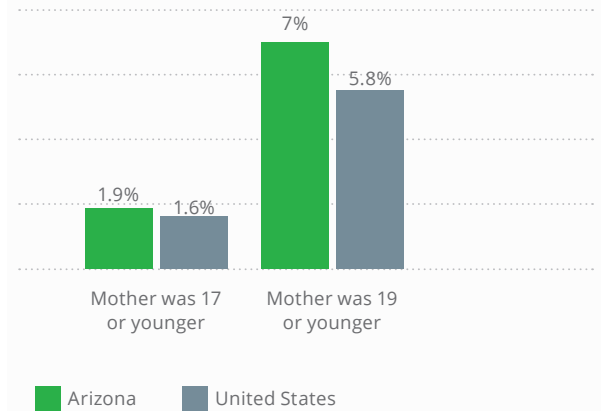
The number of uninsured children in Arizona has continued to decrease, following a national trend (See Figure 35). In fact, in 2016, the number of uninsured children at the national level dropped to a historic low. Despite this improvement, Arizona was one of 12 states that had a rate of uninsured children birth to 17 years old (7.3) that was higher than the national rate (4.5). Although the overall rate of uninsured children in Arizona remains high compared to other states, it is encouraging that Arizona was among the seven states with the most rapidly declining rates of uninsured children, with an 11.2 percent decrease in the number of uninsured children between 2015 and 2016.^{cxv} This number likely continued to improve with the state’s reauthorization of its Children’s Health Insurance Program (CHIP) and ongoing collaborative efforts by system partners to build awareness of health insurance options in the state and provide enrollment assistance.

Children Receiving Recommended Immunization

According to a survey of pediatricians published by the American Academy of Pediatrics (AAP) in 2016, “the proportion of pediatricians reporting parental vaccine refusals increased from 74.5% in 2006 to 87.0% in 2013. Pediatricians perceive that parents are increasingly refusing vaccinations because parents believe they are unnecessary (63.4% in 2006 vs 73.1% in 2013). A total of 75.0% of pediatricians reported that parents delay vaccines because of concern about discomfort, and 72.5% indicated that they delay because of concern for immune system burden.” The study also found that parents’ refusal to vaccinate their children is causing more and more pediatricians to drop them as patients. In the AAP study, 6.1% of pediatricians in 2006 reported “always” dismissing patients for continued vaccine refusal; in 2013, the percentage nearly doubled to 11.7%.^{cxvi} The number of unvaccinated children is of concern in Arizona. In 2015, almost 1 in 4 children (28%) between birth and 3 years old had not received the recommended vaccines.^{cxvii} While that number rose to 94-97% by the time children reach kindergarten, up to 1 in 20 kindergarteners remained not completely vaccinated due to personal belief exemptions.^{cxviii}

Figure 34

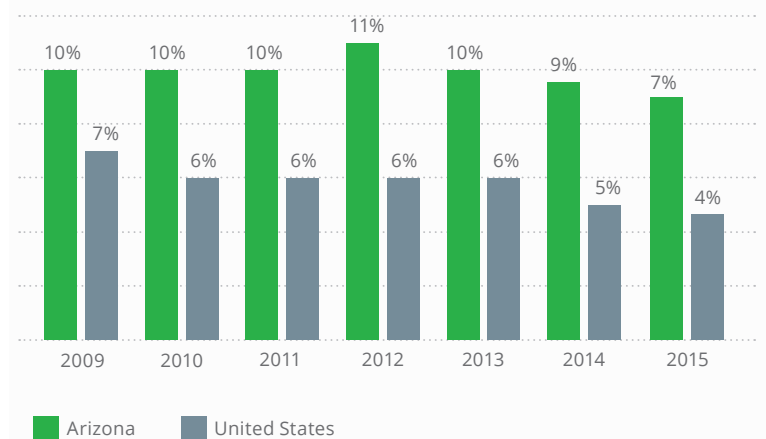
Arizona has higher rates of teen pregnancy than the U.S. as a whole.



Teen Pregnancy Rate. Arizona Department of Health Services (2015). [Maternal and infant health dataset]. Unpublished raw data received from First Things First State Agency Data Request.

Figure 35

The number of uninsured children in Arizona has decreased.



US Census Bureau (2014). 2009-2014 American Community Survey Single Year Estimates, Table B27001. *Note: These are single-year estimates, which may differ from the five-year estimates presented elsewhere. Single-year estimates of county-level data are not sufficiently reliable.

Children’s Oral Health

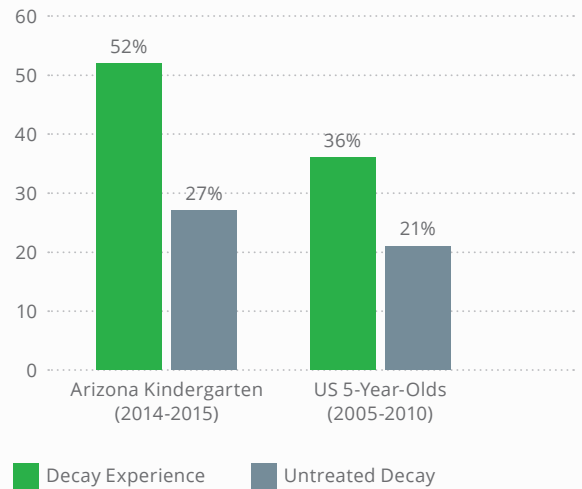
Compared to 5-year-olds in the general U.S. population, Arizona’s kindergarteners are more likely to experience tooth decay (See Figure 36). A recent survey shows that the prevalence of decay in Arizona kindergarteners has decreased in the past several years, going from 35 percent to 27 percent (See Figure 37). While the prevalence and severity of tooth decay has declined among school-aged children, it remains a significant problem in some sub-populations – particularly certain racial and ethnic groups and low income children.^{cxxiv} National data indicate that 80 percent of tooth decay in children is concentrated in 25 percent of the child population, with low-income children and racial/ethnic minority groups having more untreated decay than the U.S. population as a whole.^{cxv} This disparity is also seen in Arizona, with low-income and minority children having the highest level of untreated decay and decay experience.

Injuries

Inpatient hospitalizations and emergency room visits for children from birth to 5 with non-fatal unintentional injuries have fallen between 2012 and 2014 (See Figure 38). Overall, hospitalizations have dropped by 31 percent, and emergency room visits have fallen by seven percent; the change in both are greater than would be accounted for by the decreasing birth to 5 population in the state in those years. Falls accounted for the highest proportion of injuries leading to both emergency room visits (46%) and hospitalizations (35%). There were variations by ethnicity in both emergency room (ER) visits and hospitalizations due to unintentional injuries. Young Latino children accounted for about 18,000 ER visits, or 40 percent of the total. This is fewer than would be expected, given that they make up about 45 percent of the population of young children. White young children were slightly over represented in ER visits, with 46 percent of visits compared to making up 40 percent of the population. Young Latino children are also under represented in hospitalizations, accounting for 36 percent. White, Black and American Indian young children are over-represented in hospitalizations for unintentional injuries.^{cxvii} White young children account for 43 percent of hospitalizations (compared to 40% in population); American Indian children accounted for 10 percent of hospitalizations (compared to 6% in the population); and African American children accounted for 8 percent (compared to 5% in the population). Although the overall number of hospitalizations and emergency room visits in the state has

Figure 36

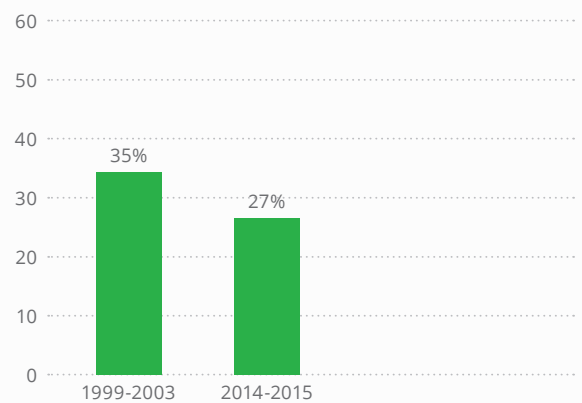
Prevalence of decay experience and untreated decay



Arizona Department of Health Services and First Things First (2015). *The Oral Health of Arizona’s Kindergarten: Healthy Smile Healthy Bodies Survey 2015*, ADHS Office of Oral Health. Unpublished data. National Health and Nutrition Examination Survey (NHANES), 2005-2010.

Figure 37

Prevalence of untreated decay among Arizona kindergarteners



Arizona Department of Health Services, Office of Oral Health (2005). *“The Oral Health of Arizona’s Children: Current status, Trends and Disparities.”* Arizona Department of Health Services and First Things First (2015). *The Oral Health of Arizona’s Kindergarten: Healthy Smile Healthy Bodies Survey 2015*, ADHS Office of Oral Health. Unpublished data.

decreased since 2012, it is important to ensure that effective policies are in place to continue to prevent child injury. The Centers for Disease Control and Prevention’s National Action Plan for Child Injury Prevention calls for a multi-step approach that includes: improvements in standardization of data and surveillance systems to help fill gaps in information; supporting a cross-discipline research agenda around proven prevention strategies and understanding new hazards; raising awareness about child injuries through improved communication (e.g. national campaigns) and education and training among parents, educators and health providers; improved health care access to facilities such as poison control centers, trauma systems and emergency medical services especially to rural residents and high-risk populations; and adoption and enforcement of policies such as child safety seat use, helmet use and pool fencing.^{cxxvii}

Abuse or Neglect

The Department of Child Safety investigates reports of child abuse and neglect, offers services to assist and preserve families at risk of child removal, supports children placed in foster care, and provides maintenance payments and other assistance for children placed in adoptions or guardianships.

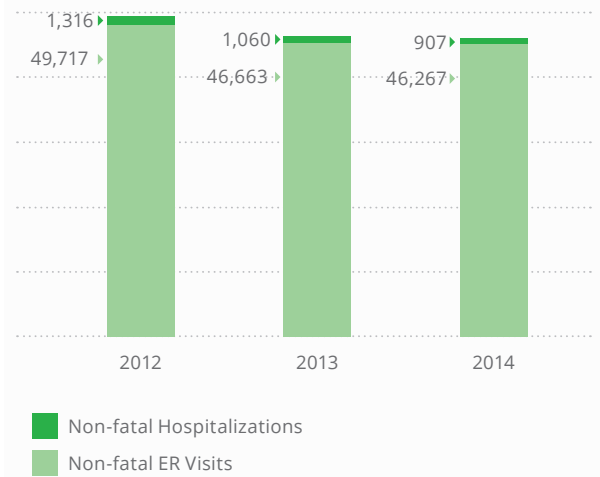
Data provided from the Arizona Department of Child Safety indicate that children birth to 5 years old consistently represent 40 percent or more of the children removed from their homes due to suspected child abuse or neglect. Although the percentage remains fairly consistent, the actual number of babies, toddlers and preschoolers impacted has risen dramatically. Arizona has seen a significant increase in the number of families involved in the child welfare system since approximately 2008. For example:

- The number of children under the age of 6 years in foster care grew from 3,746 in March 2008 to 7,261 in March 2015, an increase of 94 percent;
- The number of reports of child abuse and neglect received across all ages and priority levels grew from 35,121 between October 2007 and September 2008 to 51,963 between October 2014 and September 2015, an increase of 48 percent; and
- The number of families receiving in-home services grew from 5,402 in March 2008 to 8,513 in March 2015, an increase of 58 percent.

Some of this increase may be attributed to the dramatic increase in substance-exposed newborns. Between 2008-2014, the number of substance exposed newborns in the state had more than tripled, increasing by 235%.^{cxxviii}

Figure 38

Hospitalizations and ER visits for unintentional injuries to young children in Arizona have decreased.



Unintentional injuries for children Ages 0-5, 2012-2014. Arizona Department of Health Services (2015). [Unintentional Injury Report]. Unpublished raw data received from First Things First State Agency Data Request.

As previously described, adverse experiences in early childhood place children at greater risk for negative outcomes as adults. The more adverse experiences a child has – including maltreatment, divorced or incarcerated parents, and witnessing violence in the home – the more likely they are to engage in risky behavior and have negative health and social outcomes.^{cxix} Data show that 30% of children birth to 17 years old in Arizona had experienced two or more adverse early childhood experiences.^{cxix}

System Collaboration Opportunities

The Essay section of this report identified significant collaboration under way to enhance the coordination of and the rates of developmental and sensory screenings, as well as increasing the rate at which children are connected to early intervention support services to address their developmental concerns or delays.

Immunization

The Arizona Partnership for Immunization (TAPI) includes more than 400 members. The Arizona Department of Health Services, the Arizona Health Care Cost Containment System; county health departments, community health centers and fire departments, insurers, professional organizations (like the Arizona Medical Association, the Arizona Chapter of the American Academy of Pediatrics, the Arizona Chapter of the American Association of Family Physicians and the Arizona Osteopathic Medical Association); and corporations, private foundations, professional organizations and children’s advocacy groups. This non-profit group works to build awareness of the importance of immunizations and increase vaccinate rates statewide. Among their efforts are trainings and targeted campaigns regarding specific vaccinations, like whopping cough. Individual TAPI members may also have their own efforts to increase immunization rates. For example, the Arizona Chapter of the American Academy of Pediatrics has specific advocacy and education efforts on immunizations and the impact on child health, vaccine reimbursements and other key initiatives.

Children’s Oral Health

Early childhood oral health is another health issue that is benefitting from system collaboration. Several system partners, led by First Things First, have formed a Community of Practice in oral health that meets quarterly and also has a website where partners share information and resources. Participants include community grantees working to provide oral health screenings and apply preventive fluoride varnishes on children birth to 5 years old (as appropriate). Agency partners – like the Arizona Department of Health Services and Indian Health Service – as well as dental providers are also fully participating in the Community of Practice. The members are working to maximize the resources available for preventive oral health in young children, ensure that children are referred to a dental home after screening, and enhance parent education efforts provided as part of the screenings. They also work to identify system challenges for young children to access preventive oral health care. For example, members of the Community of Practice also participated in a coalition established to identify potential policy changes to promote better oral health for Arizona’s children. In the 2015 legislative session, their collective work led to the introduction and passage of a bi-partisan bill that expanded the availability of dental care services in rural communities by having AHCCCS cover teledentistry services and by expanding the scope of work for dental hygienists. The collaborative work of these partners likely contributed to a decline in the percentage of kindergarteners experiencing tooth decay, which fell from 35% to 27% between 2003 and 2015.

Child Welfare

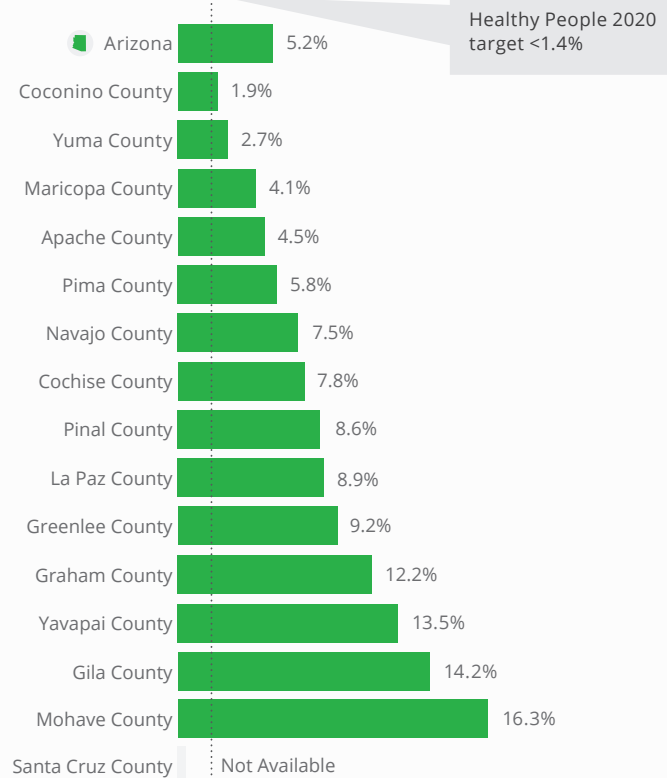
Children birth to 5 years old make up a large portion of the children in out-of-home care due to abuse or neglect. A June 2015 independent review of the Department of Child Safety conducted by Chapin Hall at the University of Chicago identified the reduction in state funding to services for vulnerable families as one of the primary reasons that child abuse and neglect reports and the number of children in out-of-home care have risen so dramatically in Arizona.^{cxxxix} While the partners in Arizona's early childhood system – including agencies, schools, service providers, non-profits, philanthropy and faith communities – cannot make up for these massive funding losses, there are efforts to coordinate existing services to ensure they reach the highest-need families. For example, through the work of several system partners, coordinated outreach and intake lines for evidence-based home visitation programs in Maricopa and Pima counties have been established. Studies have demonstrated that these evidence-based programs – like Healthy Families America and Nurse Family Partnership – prevent or reduce child abuse and promote school readiness.^{cxxxix}

The Strong Families Alliance – a collaboration among the various entities that use evidence-based home visitation as part of their efforts with families – works to maximize efficiency and effectiveness by providing professional development to providers and supporting providers who may need additional support. In addition, there are several efforts underway to enhance families' understanding of existing services and supports. For example, through public/private partnerships, First Things First has established a network of 34 Family Resource Centers – typically in schools and community centers – to provide parenting education classes and resources for families with children birth to 5 years old in Maricopa County. The centers also offer information on community resources to address other challenges the family may face.

In addition, Court Team programs focus on improving how the courts, child welfare, and child serving organizations work together, share information and expedite services for infants and toddlers in the child welfare system so that research informed decisions combined with developmentally appropriate services are provided to this highest risk population of children. Court Teams are led by a judge who specializes in child welfare cases and is uniquely positioned to bring stakeholders – including families, child welfare officials and community providers – together to focus on protecting babies from further harm. Court Team goals are achieved by developing court-community teams to:

Figure 39

Mother reported smoking during pregnancy



Maternal smoking rates, 2015. Arizona Department of Health Services (2017). [Maternal and infant health dataset]. Unpublished raw data received from First Things First State Agency Data Request.

- Raise awareness of the developmental needs of maltreated infants and toddlers;
- Ensure that case plans support the developmental needs of the youngest children;
- Promote a permanency plan that results in stable placements for the youngest children with foster families, relatives, or other caretakers^{cxxxiii}; and
- Ensures that there is a continuing focus on child well-being when young children are returned to parents, relatives or other caretakers.

Research on the outcomes for young children under the jurisdiction of juvenile courts that utilize Court Teams has shown:

- A significant increase in the services provided to eligible children and their parents, particularly in access to health care and early intervention services;
- Decrease in the number of foster home moves for infants and toddlers;
- An increase in parent-child visits; and,
- An increase in relative/kinship placements.^{cxxxiv}

Currently, there are Court Teams in various stages of development and operation in every county of Arizona. The most robust court teams are the ones that meet regularly and are able to provide the ongoing training and support collaborating partners need in order to work together effectively. Support from First Things First has helped to enhance or expand the function of Court Teams in the La Paz/Mohave, Yavapai, South Phoenix, North Phoenix, Navajo/Apache, Pinal and Colorado River Indian Tribes, and Gila River Indian Community regions.

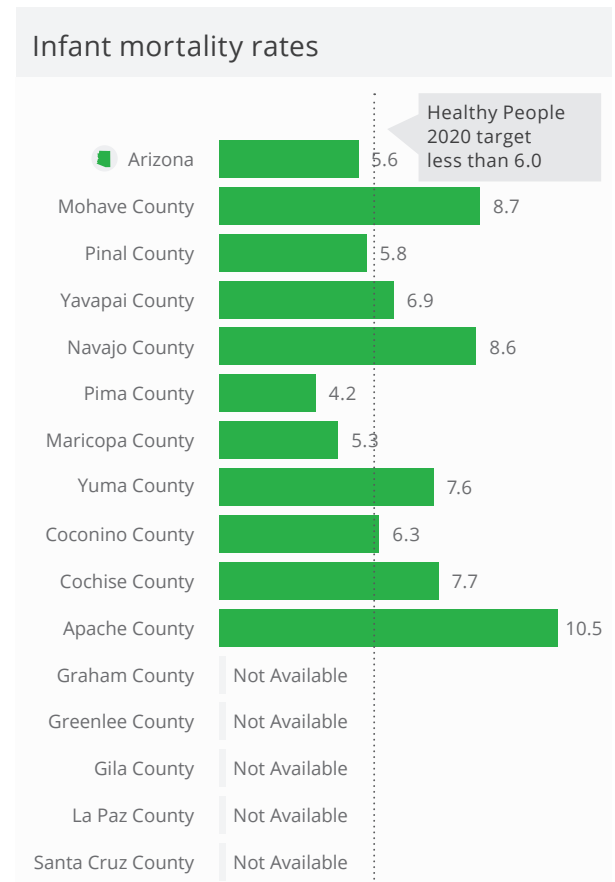
COUNTY HIGHLIGHTS

Maternal and Birth Characteristics

Parental and caregiver substance use, including smoking, can have both short and long term consequences for young children affecting physical, intellectual and social development and health.^{cxxxv}

Reported smoking during pregnancy is drastically different depending on county of residence. Across the state, just over five percent of pregnant women report smoking, but nine counties have higher rates (See Figure 39). In Mohave and Gila Counties, 16 and 14 percent (respectively) of pregnant women reported smoking during pregnancy. Coconino and Yuma Counties had the lowest percentage of women smoking

Figure 40



Infant mortality rates by county, 2015. Arizona Department of Health Services (2017). [Maternal and infant health dataset]. Unpublished raw data received from First Things First State Agency Data Request.

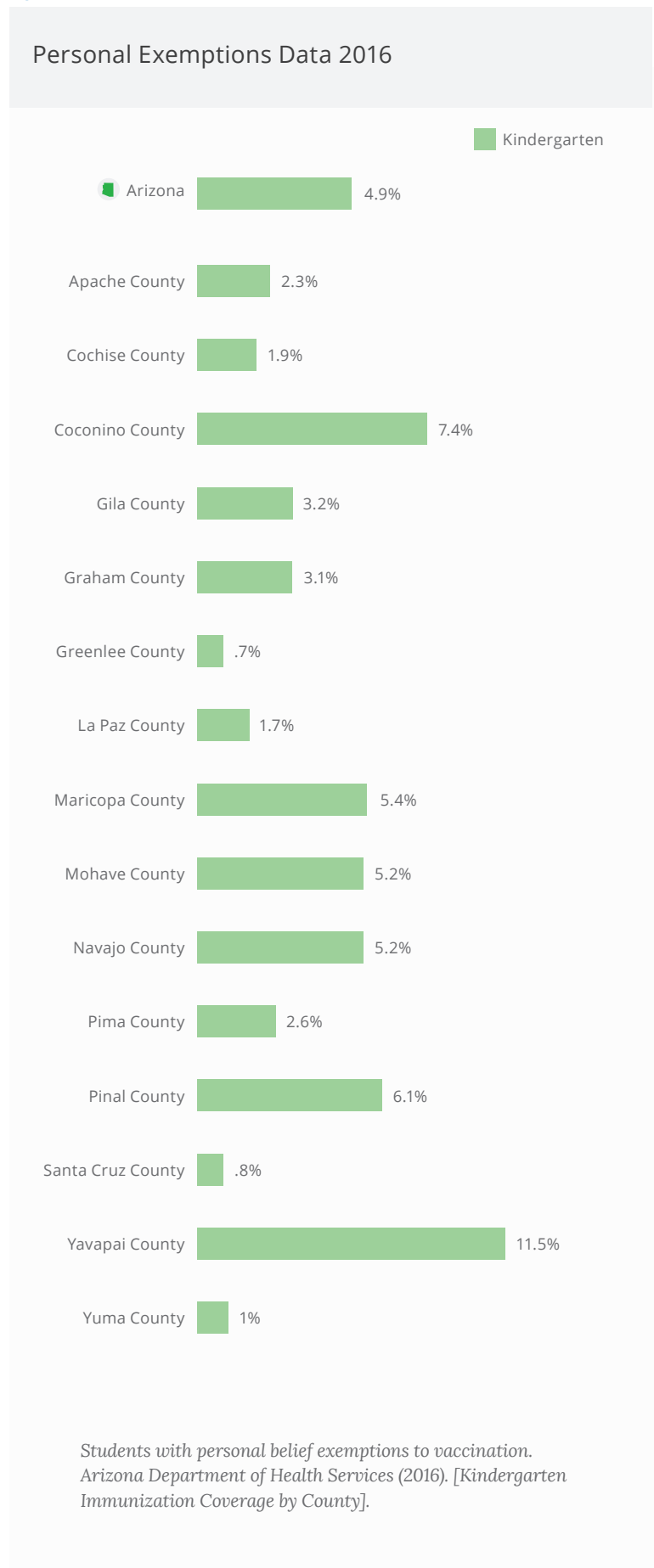
during pregnancy, 1.9% and 2.7%, respectively. No county in Arizona meets the Healthy People 2020 target (1.4% or less). Apache County had the highest infant mortality rate of any county in the state, at 10.5 per 1,000 live births in 2015 (See Figure 40). Apache is also the county with the highest rate of young children living in poverty. Apache County's rankings on other birth metrics, such as the number of prenatal visits, or premature or low birthweight births are very similar to other counties across the state.

Vaccination Rates

Despite clear statements from the Centers for Disease Control and Prevention, the American Academy of Pediatrics, and the Immunization Safety Review Committee of the Institute of Medicine that research does not support a link between vaccines and autism.^{cxxxvi, cxxxvii, cxxxviii} A survey of physicians in Arizona found that the most common reasons for vaccine hesitancy and refusal among caregivers were fears of autism or other health consequences for children.^{cxxxix}

While vaccination rates in kindergarten across Arizona counties are approximately 90 percent or more, Yavapai County is the exception with lower vaccination rates and a much higher personal exemption rate (11.5%) than the state (4.9%; See Figure 41).

Figure 41



Substance Exposed Newborns

There was wide variation among Arizona counties in terms of the percentage of children born substance exposed (See Figure 42). In 2015, Apache, Coconino, Greenlee, La Paz, Navajo, Santa Cruz and Yuma counties all had no children born substance exposed. In that same year, Gila, Graham and Pima counties had the highest percentages of substance exposed newborns (1.72%, 1.21% and 1.13%, respectively).

Health Insurance

Children with health insurance are more likely than those without to have a regular and accessible source of health care.^{cxl} The American Community Survey five-year estimates cover the years 2011-2015. In that time period, approximately 9 percent of children ages birth to 5 were estimated to be uninsured. The one-year estimates suggest that rate is falling, but one-year estimates cannot reliably be used for county comparisons (See Figure 43). In Greenlee (22%) and Apache (17%) counties, 1 in every 6 young children lacks insurance. Conversely children in Cochise (7.1%), La Paz (7.3%), Pinal (8.0%), Maricopa (8.6%) and Pima (8.6%) counties are all more likely to be insured than children in the rest of the state.^{cxli}

Figure 42

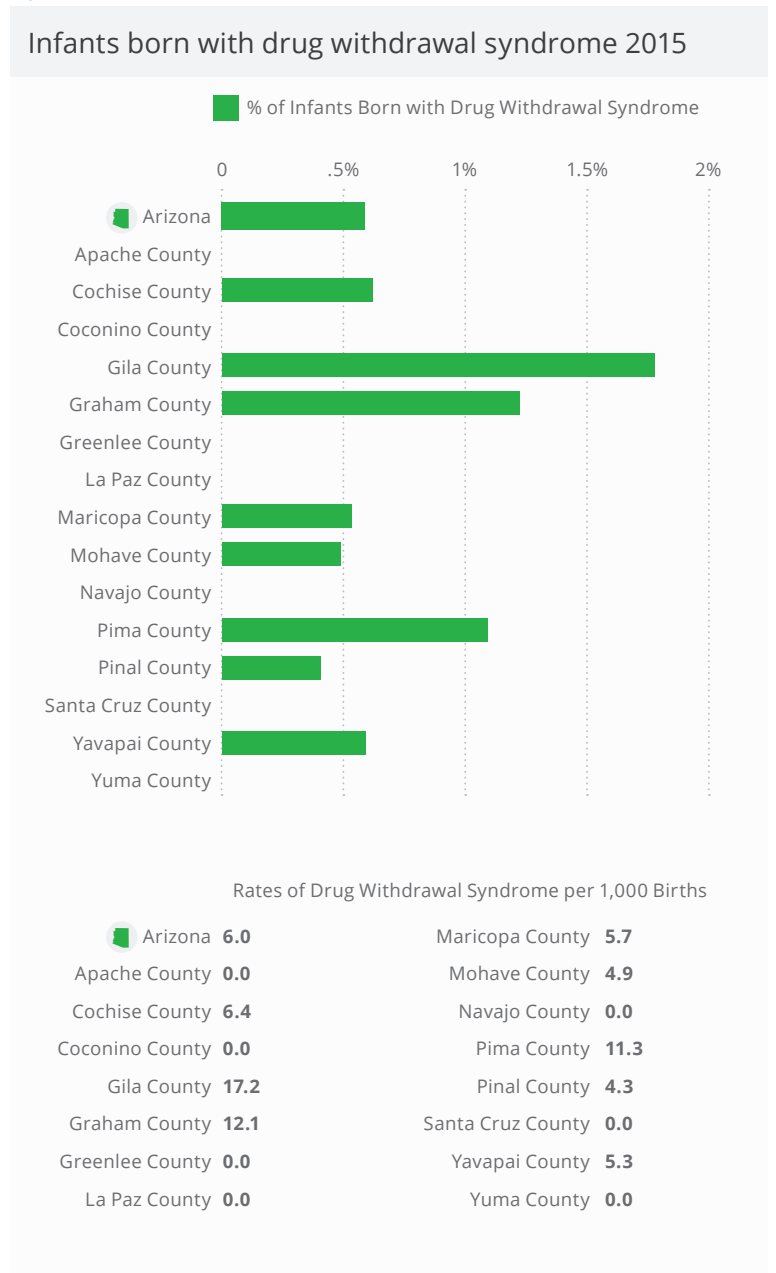
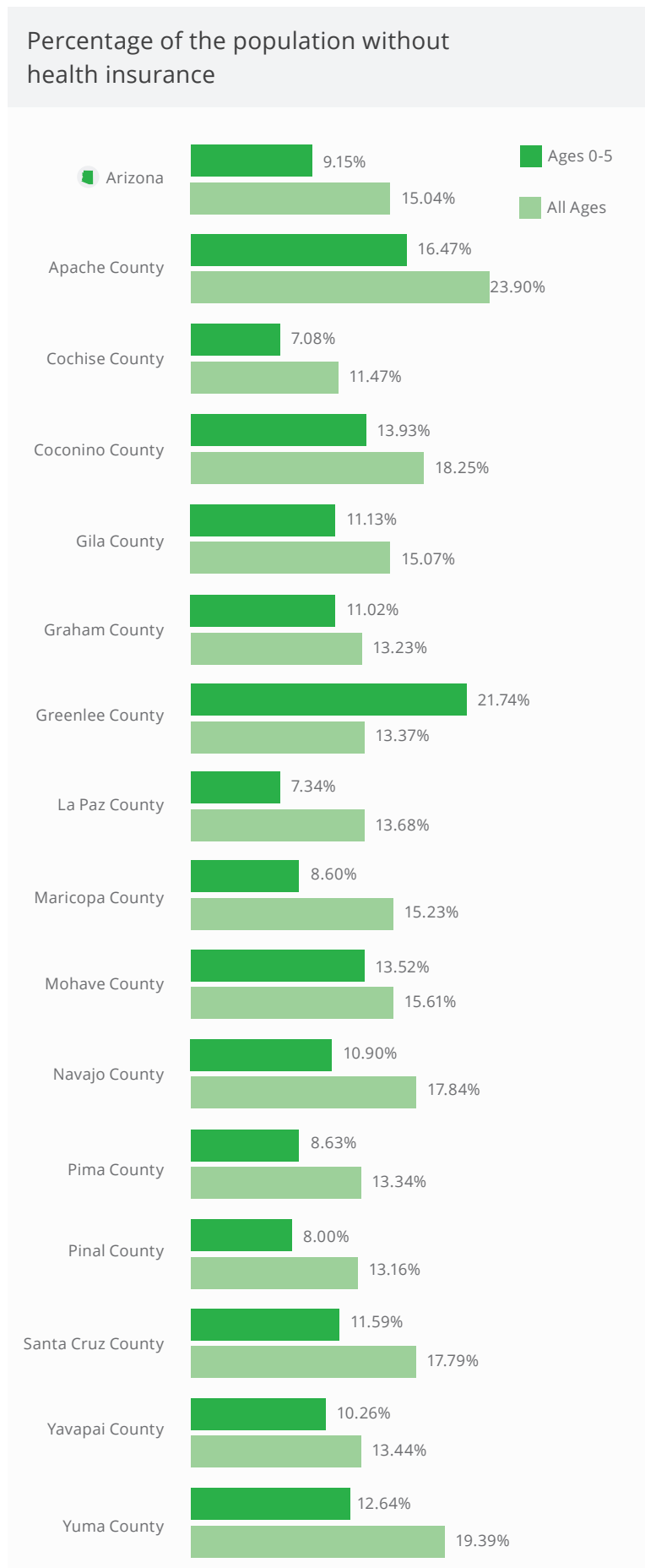


Figure 43



Percentage of the population without health insurance, 2015 ACS 5-Year Estimates. US Census Bureau (2016). 2011-2015 American Community Survey 5 Year Estimates, Table B27001.

- i. US Department of Health and Human Services. Health Resources and Services Administration, Maternal and Child Health Bureau. (2014). Child Health USA 2014. Population Characteristics.
- ii. Center for American Progress. Valuing All Our Families. (2015). Progressive Policies that Strengthen Family Commitments and Reduce Family Disparities.
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- vi. Harvard University, Center on the Developing Child “Serve & Return Interaction Shapes Brain Circuitry.” Accessed at http://developingchild.harvard.edu/resources/multimedia/videos/three_core_concepts/serve_and_return/
- vii. US Department of Health & Human Services Administration for Native Americans
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