POSITIVE CHILDHOOD EXPERIENCES IN ARIZONA

A reporting brief using data from the
U.S. National Survey for Children's Health

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EXECUTIVE SUMMARY

Positive Childhood Experiences, or PCEs, are advantageous or benevolent childhood experiences that promote positive development and resilience among youth (0-17 years). Contrary to Adverse Childhood Experiences—or ACEs, meaning adversity and traumatic events during childhood and adolescence—PCEs are linked with a range of improved mental and behavioral outcomes. Research has shown that PCEs have protective effects against health problem associated with elevated stress and trauma. In the 2021 report from the Arizona Department of Health Services, nearly half of children experienced one or more ACEs—with a higher prevalence in all ACE categories compared to the national average. Therefore, examining the prevalence of PCEs is critical to develop strategies for ameliorating detrimental impacts of ACEs on public health.

In this report, PCE constructs range from supportive relationships to nurturing environments in both within and outside of the family unit. The types of PCE include *mentorship, family resilience, supportive and safe neighborhood, afterschool activity, community service* and *sharing ideas with an adult*. The report findings are based on data from the 2017-2020 National Survey of Children's Health.

Several highlights of the findings are:
- The prevalence of individual PCEs among children in Arizona were relatively similar to or lower than the national average.
    - Supportive Neighborhood: 48.1% in AZ vs. 55.8% in US
    - Community Service: 38.1% in AZ vs. 42.0% in US
- The most prevalent categories of PCEs were mentorship (85.8%) and family resilience (83.7%).
- The least prevalent PCE categories were community service (38.1%), and supportive and safe neighborhood (48.1% and 60.5%).
- The majority of children reported experiencing PCE categories; however, PCEs were reported at lower frequencies among children of immigrant and mixed-status households, children with special healthcare needs, low socioeconomic status households, those without insurance coverage.
- Youth in Arizona had a lower prevalence of all PCE categories compared to those residing in Colorado and Utah when compared with other Southwestern states.

Positive experiences during childhood play a significant role in building resilience and mitigating disease trajectories followed by adversities. Children and their families are not only able to adapt to difficult situations, but also strive in the midst of adversities. Although it is impossible to change one's past, we can still shape a better future for children and their families by taking collaborative actions to promote nurturance and positive growth.

POSITIVE CHILDHOOD EXPERIENCES (PCES)
Adverse Childhood Experiences (ACEs)

Children grow up in households exposed to ghosts from their parents' past. These are often termed "adverse childhood experiences" or ACEs. Friberg, et al. (1975) coined the term ghosts in the nursery to conceptualize the negative relationship between young children and their caregivers.[1] This idea was groundbreaking; it helped to explain the cycle of abuse and neglect that children experience and the adverse effects that it had on their academic, physical, and mental health outcomes.

ACEs refer to specific kinds of adversity and traumatic events during childhood and adolescence (0-17 years).[2] Such events include experiencing abuse and neglect, witnessing household violence, having a caregiver with a mental illness or substance use problems, and losing a loved one.[3,4] The original ACE Study was conducted in 1995-1997 by the U.S. Centers for Disease Control and Prevention and Kaiser Permanente Health Care Organization which showed strong correlations between harmful experiences in childhood and poor health outcomes in adulthood.[4] This study highlighted the importance of mitigating childhood trauma and preventing ACEs to improve the quality of life for children and their families throughout the nation.[4] Since then, extensive research has evaluated the detrimental effects ACEs have on health across the lifespan. Children with a greater number of ACEs are more likely to present with negative health outcomes in adulthood.[5–10] ACEs are associated with sleep disturbance, higher stress and anxiety, lower consumption of fruits and vegetables, disorder of executive function, not having a sense of psychological well-being, a lack of gratitude, and a lack of family closeness in middle and older adulthood.

In 2019, Arizona Department of Health Services (ADHS) issued an ACE action plan to address ACES in Arizona.[11] Soon thereafter, ADHS released an ACEs report describing the prevalence of ACEs among Arizona children and key population characteristics associated with higher occurrence of ACEs.[12] This report found that 43% of children in Arizona aged 0-17 years old experienced one or more ACEs with the top three ACES being experiencing a family divorce or separation (24.9%), hard to cover the basics on family's income (17%), and living with someone with an alcohol/drug problem (10.8%).[12] Additionally, this report found that children who were third or more generation, Black, or had no insurance coverage in the last 12 months had the highest prevalence of ACEs.[12] This public health issue is not confined to Arizona, but is a nationwide problem, with more than two-thirds of the U.S. population reporting experiencing at least one ACE, and 1 in 6 people experience four or more ACEs.[2,13]

There are several strategies that have been suggested to prevent ACEs from occurring in the first place but also to help children recover from traumatic experiences or events. Some such strategies include strengthening economic supports to families to reduce financial hardships, provide quality care and education early in life, strengthen family environments to ensure a safe, stable, and nurturing space for children, and enhance parenting skills by providing anger management support, problem-solving skills, and nonviolent disciplinary strategies. Interventions to lessen harms and prevent future risk are also important to mitigate the lasting consequences associated with ACEs.[12] However, positive

childhood experiences (PCEs) are being evaluated as a means to minimize ACE exposure to prevent poor health outcomes associated with childhood trauma, and ultimately, improve the health of Arizona's most vulnerable population – our children.

Positive Childhood Experiences (PCEs)

But what about those positive experiences that occur throughout childhood? Liberman et al. (2005) presented the concept of "angels in the nursery."[14] She suggested that these positive experiences could be drawn upon to help the child to discover a self-work and resiliency that could interrupt the cycle of abuse.[14] Despite the exposure to adverse experiences, some children have demonstrated the ability to shift expected health outcomes into adulthood. Childhood resilience is the capability to minimize poor health outcomes into adulthood despite predictors that indicate otherwise,[15] often measured as the severity and frequency of exposure to adversity.[16] Also, children with resiliency can positively adapt to notable adversity or trauma, meaning "adjustment that is much better than what is expected, given the exposure to the risk condition".[17] For example, children of low socioeconomic status engaged in higher rates of shift-and-persist mentality – the ability to change responses to stressors into positive situations and the pattern of optimistically planning for their future.[18] Historically, resilience has focused on the absence of adversity; however, the presence of PCEs can provide an additional framework to understanding resilience for vulnerable youth.

There is a growing body of evidence investigating PCEs association with health outcomes. PCEs include a variety of advantageous or benevolent childhood experiences such as mentorship, family resiliency, supportive and safe neighborhood, social engagement (after school activities or community service), and sharing ideas with an adult. Despite limited research, there is evidence that PCEs are protective against adolescent substance use and pregnancy and are associated with positive adult functioning and better mental health outcomes. It is important to explore PCEs and their relationship with lifelong health in order to leverage these factors as possible resilience strategies to prevent ACEs. The purpose of this report is to describe the prevalence of PCE among Arizona's youth (0-17 years of age).

ARIZONA PCES METHODOLOGY & FINDINGS
METHODOLOGY

This report uses the 2017-2020 National Survey of Children's Health (NSCH) data. Since 2016, the NSCH has used mail and web-based surveys to annually examine the health and well-being of children aged 0-17 years old.[19] NSCH captures parent-reported data on personal, home, and community factors that impact children's health including demographics, children's physical and mental health status, health insurance, access and use of healthcare services, medical home, transition to adult care, early-, mid- and adolescent-specific information, family health and activities, impact of child's health on family, parental perceptions of neighborhood factors, and access to community-based services. The NSCH is a multistage probability sampling survey funded by the Health Resources and Services

Administration Maternal and Child Health Bureau and administered by the U.S. Census Bureau's Data Resource Center. These data have provided critical information related to public health needs assessments and performance measures for children under 18, as data are available for national and state-specific outcomes. The data are publicly available on the NSCH website (childhealthdata.org).

To our knowledge, no other dataset has measures of PCEs across each state. Researchers have used other secondary data such as the Behavioral Risk Factor Survey and the Midlife, the Youth Risk Behavior survey, and Aging in the U.S. Study to examine positive experiences with family, friends, and in school/the community.[20,21] Other researchers have created novel measures to examine PCEs,[22] sometimes using different terminology such as Benevolent Childhood Experiences[23] and Positive Influences in Childhood.[24,25] Many of these measures ask adult participants to retrospectively report on PCEs. The NSCH measure of PCEs developed by Crouch et al, provides one of the most robust national measures of PCEs in a serial cross-sectional nature.

Positive Childhood Experience Variable

Using the Health Outcomes from Positive Experiences (HOPE) framework, Sege and Brown identified four PCE constructs as follows: 1) "being in nurturing, supportive relationships," (2) living, developing, playing and learning in safe, stable, and equitable environments," (3) "having opportunities for constructive social engagement and to develop a sense of connectedness," and 4) "learning of social and emotional competencies."[26] Crouch and colleagues further operationalized the four PCE constructs using variables that explored positive experiences in the NSCH data.[25,27] **Figure 1** provides a summary of the social constructs used to develop the PCE categories with definitions for the PCE categories derived from the NSCH questions.

Figure 1. Summary of the Social Constructs used to develop the Positive Childhood Experiences (PCEs) Categories with Definitions Derived from the National Survey of Children Health Questions.

CONSTRUCTS	Nurturing and Supportive Relationships	Living in a stable, safe, and equitable environment	Opportunities for positive social engagement	Developing social and emotional competencies
POSITIVE CHILDHOOD EXPERIENCES CATEGORIES	**Mentorship** *The child has at least one adult at school or within the neighborhood or community who knows this child well and who he or she can rely on for advice or guidance.* **Family resilience** *The child's family is more likely to resolve problems by talking and working together on solutions by drawing on strengths and remaining hopeful during difficult times.*	**Supportive neighborhood** *The child lives in a neighborhood where people help each other out, watch out for each other's children, and have community resources to rely on during difficult times.* **Safe neighborhood** *The child lives in a neighborhood where he or she is safe.*	**After school activity** *The child participates in a sports team, clubs, or other organizations; or takes sports, music, art, language, or other organized lessons or activities after school or on the weekends during the last 12 months.* **Community service** *The child participates in any type of community service or volunteer work at school, place of worship, or in the community during the last 12 months.*	**Shared ideas** *The child is able to share ideas and talk about things that really matter.*

Crouch and colleagues divided the first **construct, nurturing and supportive relationships**, into two additional constructs: mentorship and family resilience. **Mentorship** was operationalized using the question "other than you or other adults in your home, is there at least one adult in this child's school, neighborhood, or community who knows this child well and who he or she can rely on for advice or guidance?" **Family resilience** was operationalized using a composite measure derived from four Likert-scale questions: "when your family faces problems, how often are you likely to...? (i) talk together about what to do, (ii) work together to solve our problems, (iii) know we have strengths to draw on, and (iv) stay hopeful even in difficult times." The Likert scale options were available all of the time, most of the time, some of the time and none of the time. The child was classified as residing in a household with family resilience if the caregiver responded all or most of the time to all four questions.

The second construct, **living in a stable, safe and equitable environment**, was also further divided into two constructs: **living in a supportive neighborhood** and **living in a safe neighborhood**. Living in a supportive neighborhood was operationalized using the following three questions: "To what extent do you agree with these statements about your neighborhood or community... 1) people in this neighborhood help each other out, 2) we watch out for each other's children in this neighborhood, and 3) when we encounter difficulties, we know where to go for help in our community." The Likert scale options were definitely agree, somewhat agree, disagree, and definitely disagree. Children were categorized as living in a supportive environment if the parent/caregiver gave a response of "definitely agree" to at least one of the three questions, and "definitely agree" or "somewhat agree" to two other questions. Living in a safe neighborhood was operationalized using the question "To what extent do you agree with these statements about your neighborhood or community... the child is safe in our neighborhood." The child was categorized as living in a safe neighborhood if the caregiver responded with "definitely agree."

The third construct, **opportunities for positive social engagement**, was also divided into two constructs: **social engagement that involves after school activity** and **social engagement involving community service**. Social engagement involving after school activity was operationalized using the following three questions: "During the past twelve months, did this child participate in a sports team or did he or she take sports lessons after school or on weekends? Any clubs or organizations after school or on weekends? Any other organized activities or lessons, such as music, dance, language, or arts?" The variables were binary variables. The child was categorized as engaging in after school social activity if the parent/caregiver provided a response of "yes" to at least one of the questions. Social engagement involving community service was measured using the following question: "During the past twelve months did the child participate in any type of community service or volunteer work at school, place of worship, or in the community?" A "yes" response was categorized as participation in social engagement involving community service.

The final construct, **developing social and emotional competencies**, was measured using the Likert scale question: "how well can you and this child share ideas or talk about things that really matter?" and categorized as **shared ideas**. Response choices were very well, somewhat well, not very well, or not very well at all. Responses of "very well" or "somewhat well" were

regarded as developing social and emotional competencies while "not very well" or "not very well at all" were regarded as lack of development of social or emotional competencies.

This report's descriptive and stratified statistics summarize information about PCE category experiences by children in Arizona by co-occurrence, demographic characteristics (race, age, sex, children with special needs, generational status, income, and education) and insurance coverage. The frequencies reported were adjusted for NSCH complex survey design and weighted based on Arizona's population composition of children 0-17 years. All analyses were conducted using Stata 15 (StataCorp. 2017. Stata Statistical Software: Release 15. College Station, TX: StataCorp LLC).

Table 1. Comparison of the Prevalence of Individual PCEs among Children in Nationwide vs. Arizona

| PCE	AZ	Nationwide
Presence of non-parental adult mentor	85.8%	88.5%
Talk together about what to do when the family faces problems	89.2%	89.5%
Work together to solve the problem when the family faces problems	89.1%	90.2%
Know they have strengths to draw on when the family faces problems	90.1%	90.9%
Stay hopeful even in difficult times when the family faces problems	94.5%	94.2%
People in this neighborhood help each other out	78.7%	84.3%
People watch out for each other's children in this neighborhood	78.5%	84.6%
We know where to go for help in our community	82.3%	84.5%
Child is safe at school	97.0%	97.4%
Participation in sports teams or lessons	51.2%	55.9%
Participate in clubs or organizations	50.2%	51.1%
Participate in any organized activities or lessons	45.0%	47.2%
Participate in any type of community service or volunteer work at school, church, or in the community	38.1%	42.0%
Sharing ideas or talk about things that matter	94.8%	95.2%

FINDINGS

Individual and Category Prevalence of PCEs in Arizona

Overall, based on the NSCH data, the prevalence of individual PCEs among children in Arizona were relatively the same as children across the U.S. (***Table 1***). Interestingly, the proportion of children that live in a supportive neighborhood was slightly lower among children in Arizona (78.7%) as compared to children nationwide (84.3%). This difference became more apparent when comparing the prevalence of the PCE categories among Arizona children vs. nationwide (***Figure 2***). Once again, 48.1% of children in Arizona as compared to 55.8% of U.S. children lived in a supportive neighborhood. The only other PCE category that was slightly lower among Arizona children was community service (38.1% vs. 42.0%).

Figure 2. Comparison of PCE Categories in Arizona vs. the U.S., 2017-2020
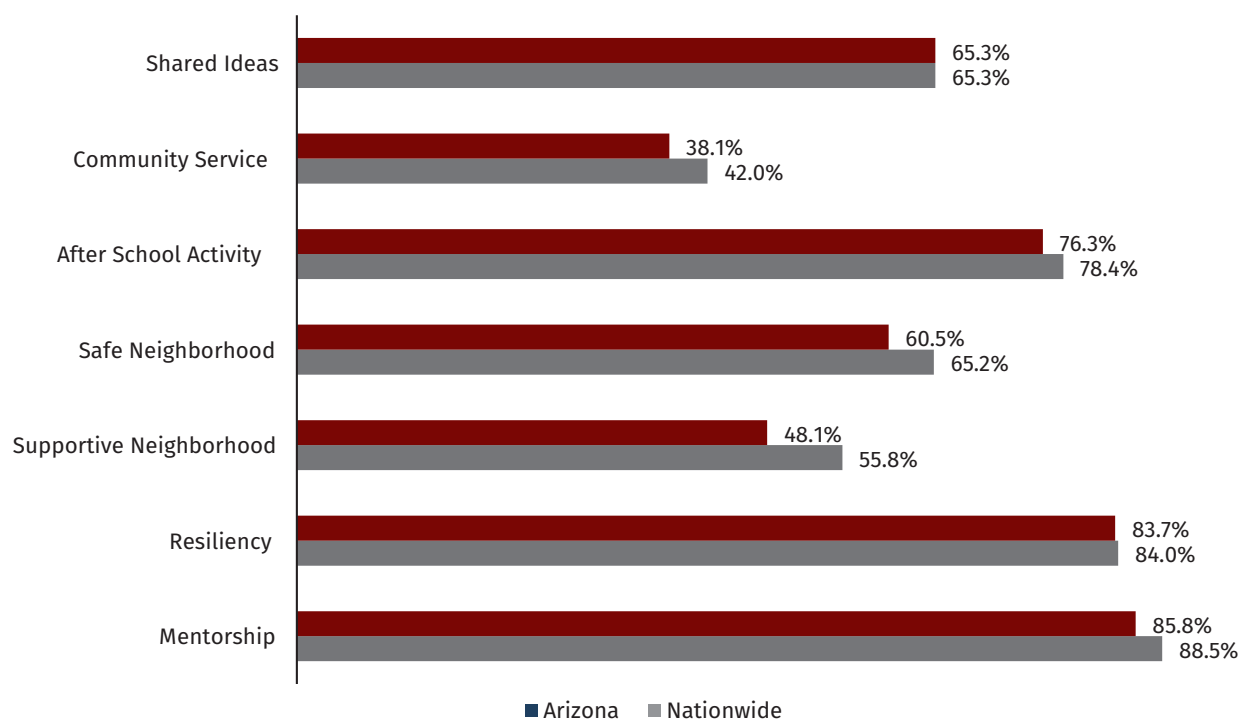
The three most prevalent individual PCEs that children in Arizona report experiencing are: 1) child is safe at school, 2) sharing ideas or talk about things that matter, and 3) stay hopeful even in difficult times when the family faces problems. Children in Arizona had a lower prevalence of PCE categories than U.S. children in 13 of the 14 individual PCEs and 7 of the 7 categories of PCEs. This resulted in the two most prevalent PCE categories that children in Arizona report experiencing being mentorship (85.8%) and resiliency (83.7%). Children in Arizona experienced a lower prevalence of five of the seven PCE categories when compared to U.S. children.

Changes were observed in the prevalence of PCE categories between survey years (***Figure 3***).

Figure 3. Trends in PCE Categories (%) Across Survey Years from 2017-2020, Arizona
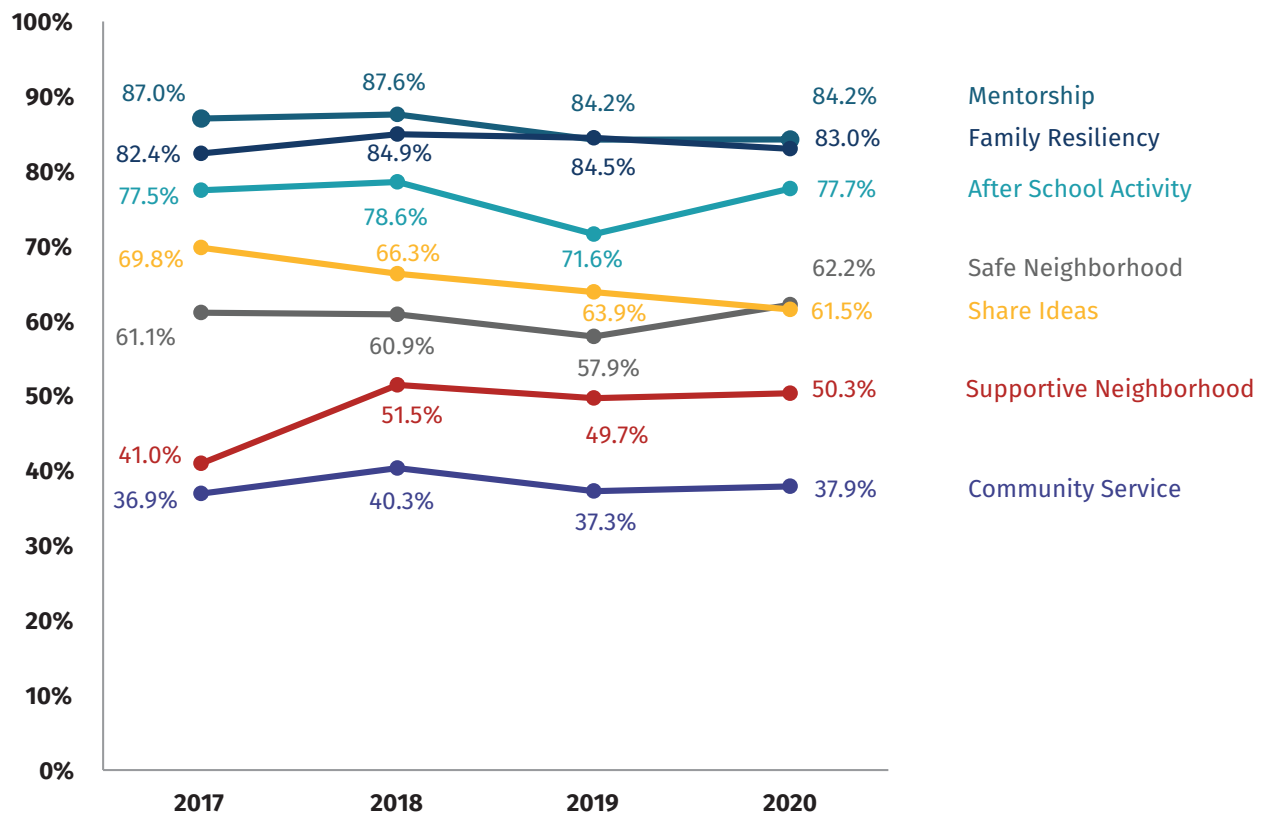
We observed both positive and negative trends for PCE categories in Arizona. In general, children have experienced a high proportion of PCEs from 2017 through 2020. The proportion of Arizona children experiencing family resilience, a safe neighborhood, after school activity, and community service have either remained stable or have had slight increases throughout the years. Children in Arizona that experienced mentorship declined by 3% in 2020 as compared to 2017; however, it was not substantially different throughout the years. The largest decrease was seen in the prevalence of children who experienced shared ideas which decreased by 12% in 2020 as compared to 2017. However, we did observe some positive trends, particularly with children who lived in a supportive neighborhood which increased by 23% in 2020 as compared to 2017.

Comparison of PCE categories in Arizona to Other Southwestern States

Table 2 compares the prevalence of PCE categories within the southwestern states of Arizona, Colorado, New Mexico, Utah, and the national prevalence from 2017-2020. The individual states were selected due to their similarities in population sociodemographic and economic characteristics to Arizona.[12] Compared to these states, Arizona ranked third in all seven PCE categories. Overall, Utah

had the highest prevalence among the southwestern states for all but one PCE category, whereas New Mexico ranked fourth for all but one PCE category. Residents of Arizona had the lowest prevalence of four or more PCEs compared to nationwide prevalence and all of the other southwestern states.

Occurrence of PCEs in Arizona by Population Demographic Characteristics

Children may experience PCEs based on different population demographic characteristics. It is important to evaluate whether a specific demographic of children are more likely to experience certain PCEs as positive experiences or advantageous events may be protective of poor health outcomes. The information below details the occurrence of PCEs among children in Arizona by population demographics.

Table 2. Comparison of PCE Categories Across the U.S. and Southwestern States, 2017-2020

PCE Category	Nationwide (%)	Arizona (%)	Colorado (%)	New Mexico (%)	Utah (%)
Mentorship	88.5	85.8	89.4	85.0	92.9
Family Resiliency	84.0	83.7	85.1	83.5	84.8
Supportive Neighborhood	55.8	48.1	55.6	45.9	71.6
Safe Neighborhood	65.2	60.5	65.1	55.5	71.5
After School Activity	78.4	76.3	81.2	72.3	82.2
Community Service	42.0	38.1	44.4	36.8	56.2
Share ideas	65.3	65.3	66.1	66.5	64.0

Numbers in green indicate the highest percentage and numbers in red indicate the lowest percentage of the PCE Categories among the southwestern states.

Age

Based on the weighted population frequency of the NSCH, 28% of children were aged 0-5 years, 31% were aged 6-11 years, and 41% were aged 12-17 years (**Table 3**). There were no differences in the proportion of children in Arizona that experienced mentorship, family resiliency, a supportive neighborhood, a safe environment, or engagement in after school activities. Twenty-four percent of children aged 12-17 years experienced the community service PCE compared to 14% of children aged 6-11 years. Further, 37% of children aged 6-11 years old experienced the shared ideas PCE as compared to 19% of children aged 12-17 years.

Sex

Based on the weighted population frequency of the NSCH, 50.7% of children were male and 49.3% of children were female. There were no differences in the proportion of children in Arizona that experienced any of the seven PCE categories (**Table 3**).

Children with Special Health Care Needs (CSHCN)

The NSCH used a five-item CSHCN Screener to identify children with special health care needs following the consequence-based definition by the federal Maternal and Child Health Bureau (MCHB).[19] CSHCN are "those who have or are at increased risk for a chronic physical, developmental, behavioral, or emotional condition and who also require health and related services of a type or amount beyond that required by children generally".[28] For a child to qualify as having special needs, they must experience a specific consequence at the time of the survey, the consequence must be due to a medical or other health condition, and the condition must occur for 12 months or more.[19] The five different health consequences evaluated are: 1) the use or need for prescription medication, 2) above average use or need of medical, mental health, or educational services, 3) functional limitations compared to others of the same age, 4) use or need of specialized therapies, and 5) treatment or counseling for emotional or developmental problems. CSHCN experienced less PCEs compared to non-CSHCN for all seven PCE categories (*Table 3*).

Table 3. Occurrence of PCEs by Population Demographic Characteristics, 2017-2020

| PCE Category	Mentorship	Family Resiliency	Supportive Neighborhood	Safe Neighborhood	After School Activity	Community Service	Shared Ideas
0-5 years[a]	---	27%	14%	---	---	---	---
6-11 years	43%	30%	17%	40%	37%	14%	37%
12-17 years	43%	27%	16%	33%	39%	24%	29%
Male	43%	43%	25%	39%	37%	18%	31%
Female	43%	40%	23%	35%	39%	20%	35%
Non-CSHCN	68%	70%	40%	60%	61%	30%	55%
CSHCN	18%	14%	8%	13%	15%	8%	10%

a.   Most PCE questions are not asked for children under the age of 6.

Generational Status

Research has shown that children have a higher probability of experiencing PCEs if their parents have also experienced PCEs. Children of immigrants and those who live in households where members do not have the same legal status are less likely to be exposed to PCEs. As a border state, Arizona has a high proportion of immigrant and mixed-status households. When examining the prevalence of the PCE categories across generational status, all but one (after school activities) is highest among

the 3rd generation, followed by the 1st generation, and then the 2nd generation (***Figure 4***). However, the prevalence difference of the PCE categories was often not large between 1st and 2nd generations. The most prevalence PCE category for all groups was the presence of mentorship followed by family resiliency.

**Figure 4**. Prevalence of PCE Categories by Generation Status of Children 0-17 Years Old in Arizona, 2017-2020
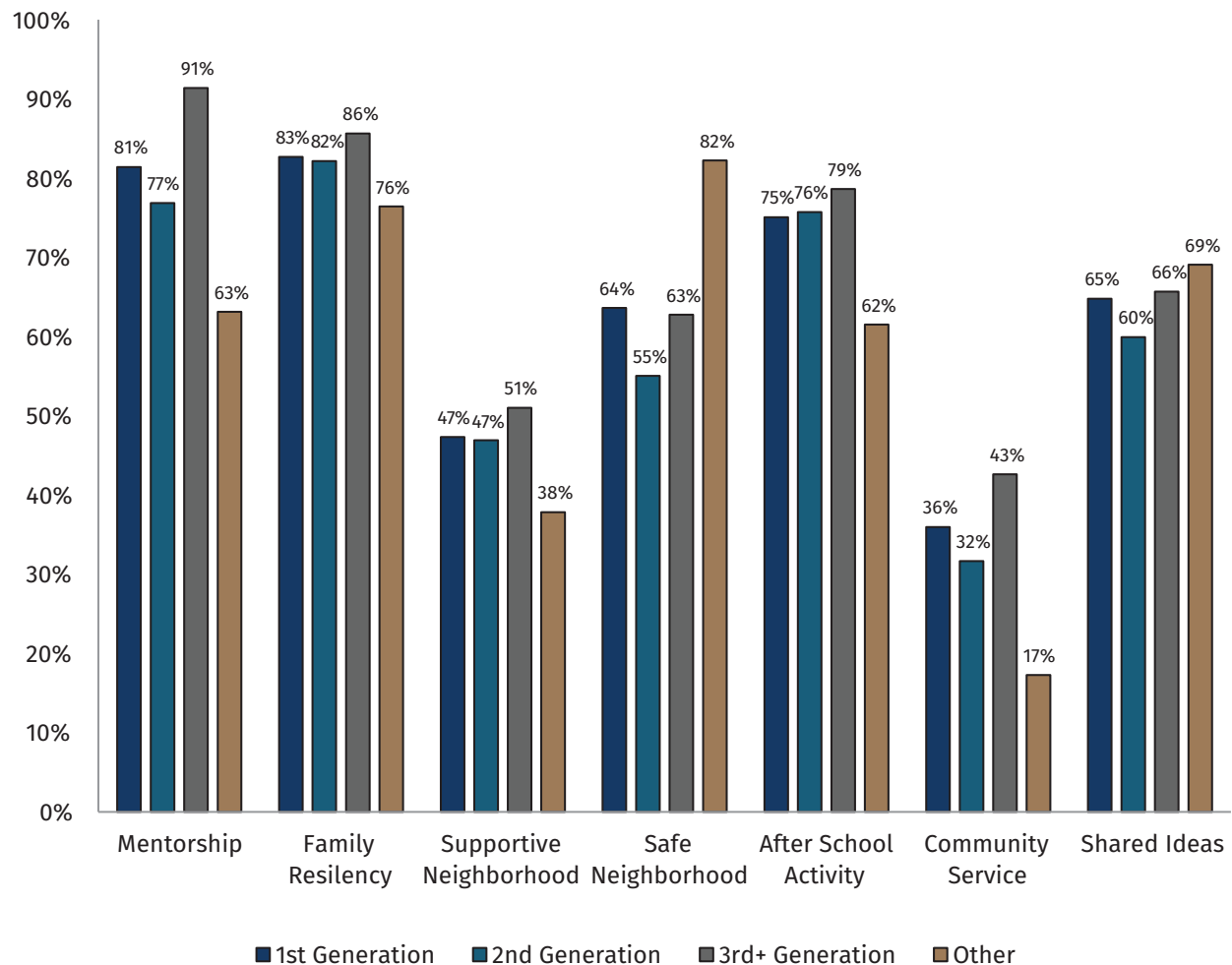
Race and/or Ethnicity

In 2020, 54.1% of children in Arizona were non-Hispanic White, 31.7% were Hispanic/Latino, 5.3% were American Indian/Alaska Native, 5.2% were Black, 3.7% were Asian, 2.9% were multi-racial, and 0.3% Native Hawaiian/Other Pacific Islander. There were interesting trends in the prevalence of PCE categories by race and/or ethnicity (***Figure 5***). Non-Hispanic White children had the highest prevalence for four of the seven PCE categories including mentorship, family resiliency, supportive neighborhood, and community service. Non-Hispanic Black children had the highest prevalence for two of the seven PCE categories (safe neighborhood and shared ideas) and Asian children had the highest prevalence for after school activity. Conversely, American Indian/Alaska Native had the lowest prevalence for three

of the seven PCE categories including mentorship, family resiliency, and after school activity; Hispanic White children had the lowest prevalence for two of the seven PCE categories (safe neighborhood and community service); and Asian children had the lowest prevalence for shared ideas.

Overall, mentorship, family resiliency, after school activities, and shared ideas were generally high across all racial and ethnic groups. However, those who reported living in a supportive neighborhood and reported participating in community service were lower among children of color relative to white children.
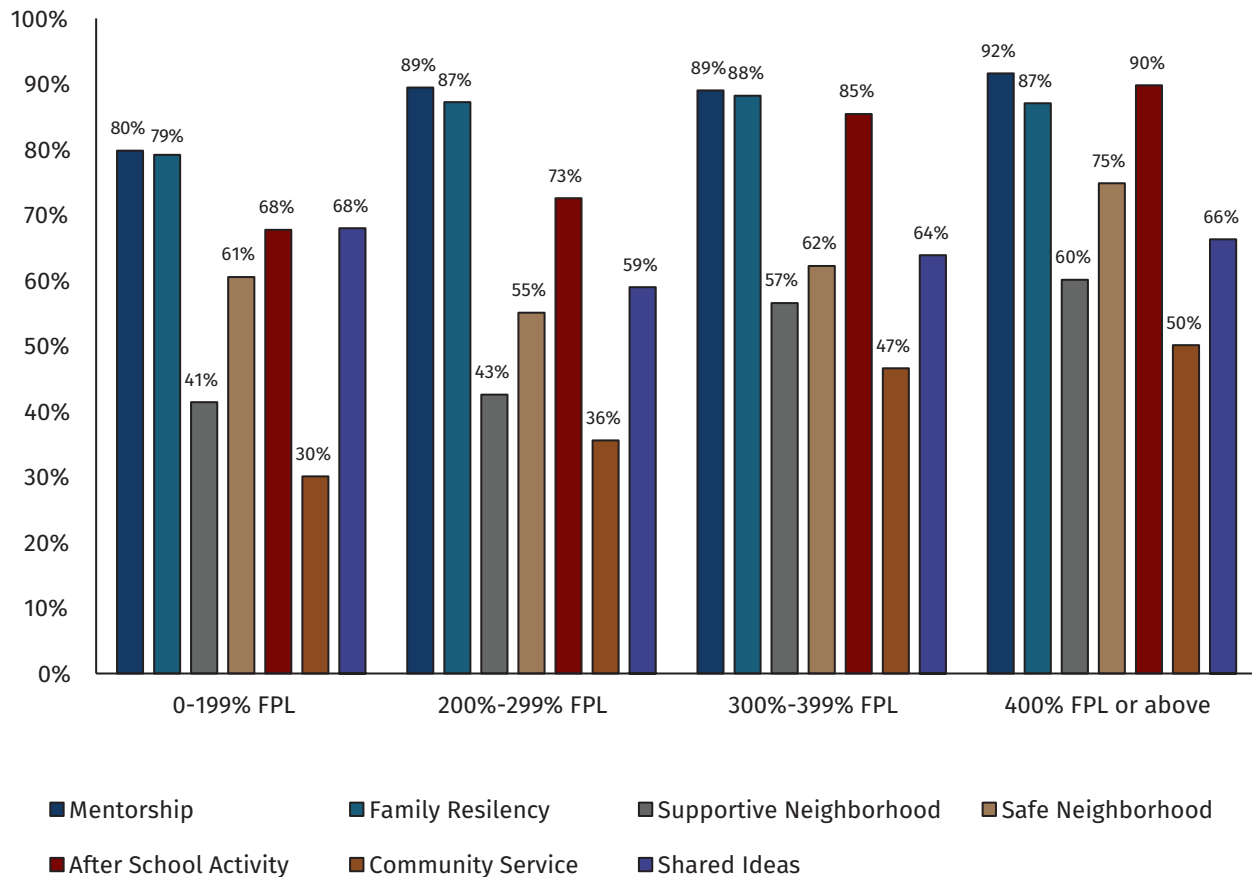
Figure 5. Prevalence of PCE Categories by Race and/or Ethnicity of Children 0-17 Years Old in Arizona, 2017-2020
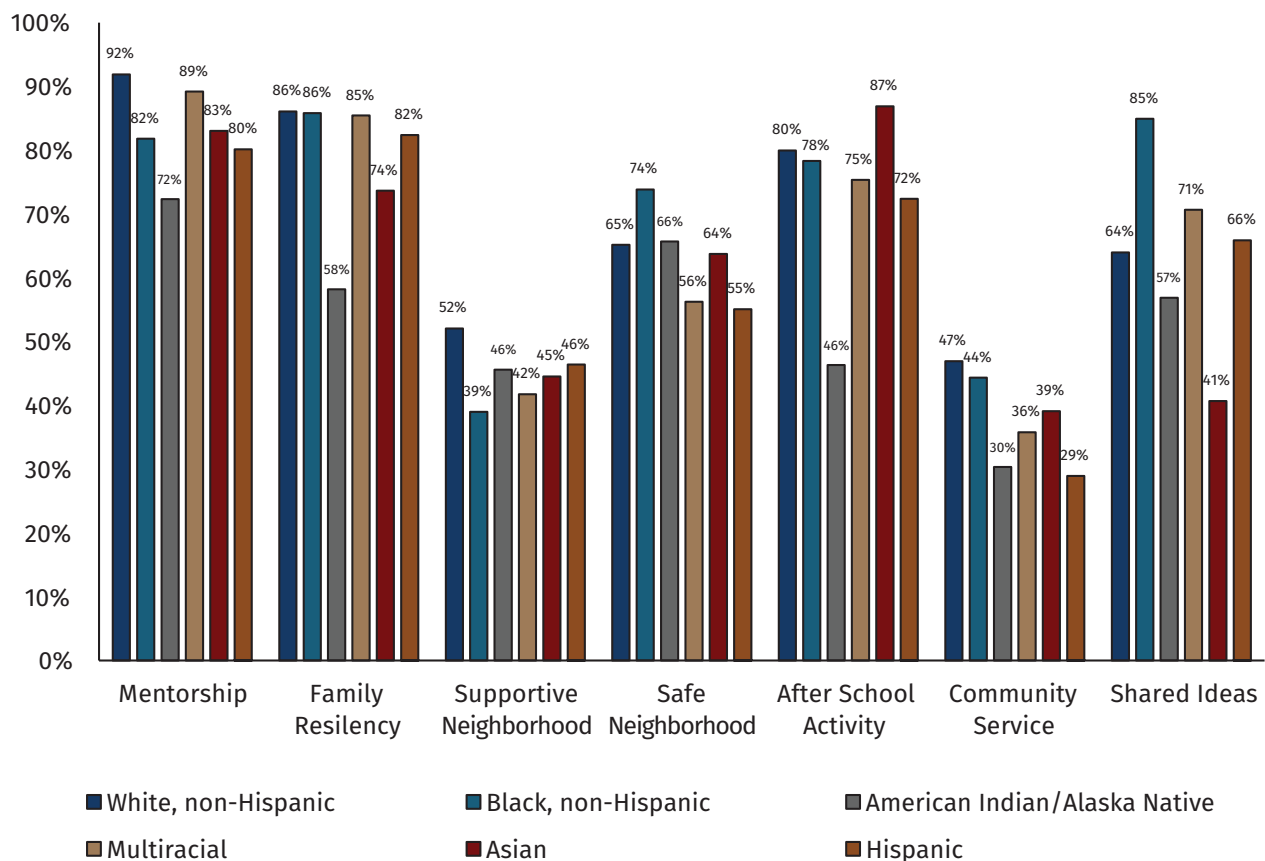
Household Income Level

Overall, there was a higher proportion of children that experienced each of the seven PCE categories that lived in a household at or above 400% of the federal poverty level when compared to children who lived in a household below 200% of the federal poverty level (**Figure 6**). The prevalence of each of the seven PCE categories did not differ between the two highest household income levels.

Figure 6. Prevalence of PCE Categories by Household Income Level of Children 0-17 Years Old in Arizona, 2017-2020

Legend:
- Mentorship
- Family Resilency
- Supportive Neighborhood
- Safe Neighborhood
- After School Activity
- Community Service
- Shared Ideas

Education

Overall, children whose primary caregiver had a college degree or higher had the highest prevalence for all PCE categories except for shared ideas. Interestingly, children who had a primary caregiver with less than a high school education were more likely to experience shared ideas (67.6%) compared to children with a primary caregiver with a college degree or higher (65.4%). Children whose primary caregiver had less than a high school education had a lower prevalence of five of the seven PCE categories including mentorship, family resiliency, safe neighborhood, after school activity, and community service. Children whose primary caregiver had a high school degree or GED were less likely to report experiencing the supportive neighborhood PCE. ***Figure 7*** summarizes the different prevalence of the PCE categories by primary caregiver education level.
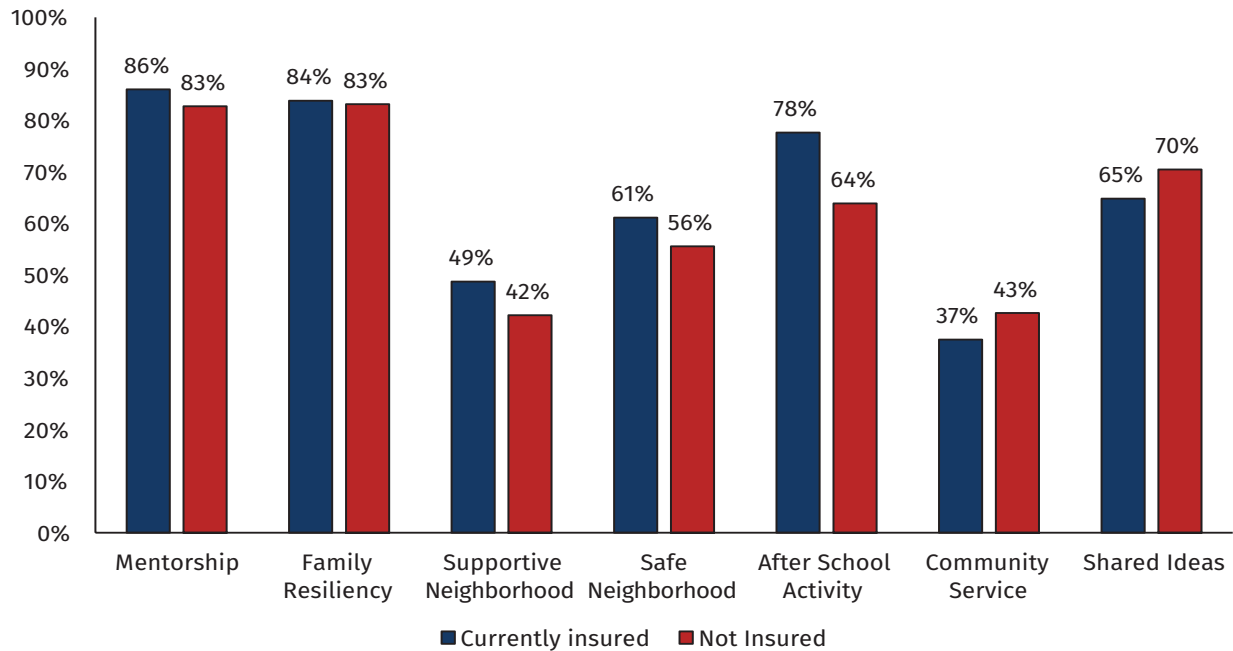
Figure 7. Prevalence of PCE Categories by Highest Education Level of Primary Caregiver of Children 0-17 Years Old in Arizona, 2017-2020

Legend:
- ■ College degree or higher
- ■ Some college or technical school
- ■ High school degree or GED
- ■ Less than high school
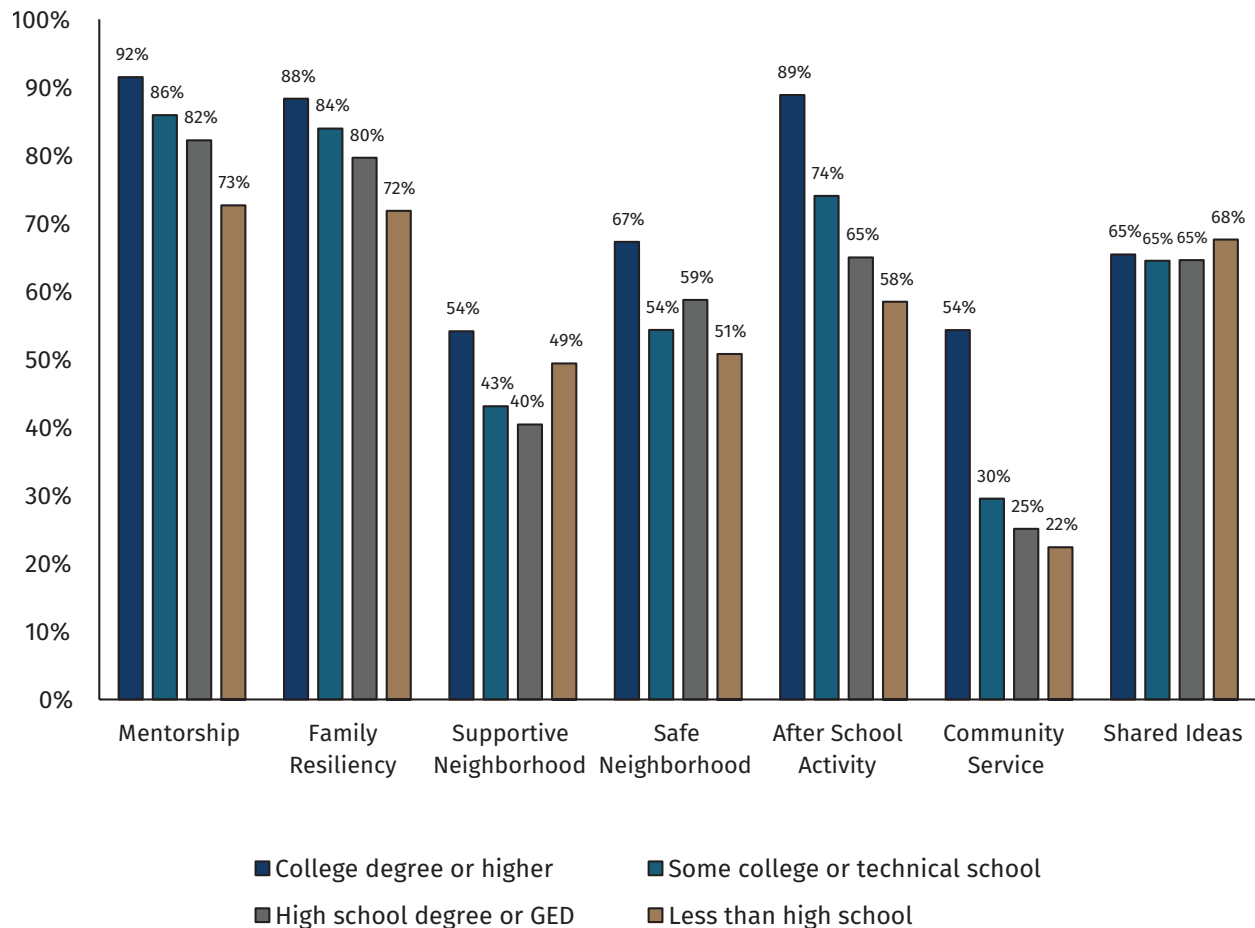
Insurance Coverage

Children who were insured were more likely to experience four of the seven PCE categories including mentorship, family resiliency, supportive neighborhood, safe neighborhood, and after school activity. Surprisingly, children who were not insured were more likely to experience community service or shared ideas (***Figure 8***). Children were also evaluated on whether they had continuous coverage over the past 12 months. Children who had no insurance coverage had the lowest prevalence for three of the seven PCE categories including supportive neighborhood, safe neighborhood, and after school activity. Children who had gaps in coverage over the past 12 months had a lower prevalence of mentorship and community service when compared to children with no coverage or who were insured for all 12 months. Interestingly, children who were insured for all 12 months, although not substantially different, were less likely to report the PCE of shared ideas. There were no prevalence differences by insurance coverage during the past 12 months for the PCE category of family resiliency. ***Figure 9*** summarizes the prevalence of the seven PCE categories by insurance coverage duration over the past 12 months.

Figure 8. Prevalence of PCE Categories by Insurance Status of Children
0-17 Years Old in Arizona, 2017-2020

Figure 9. Prevalence of PCE Categories by Insurance Coverage Duration of Children 0-17 Years Old
in Arizona, 2017-2020
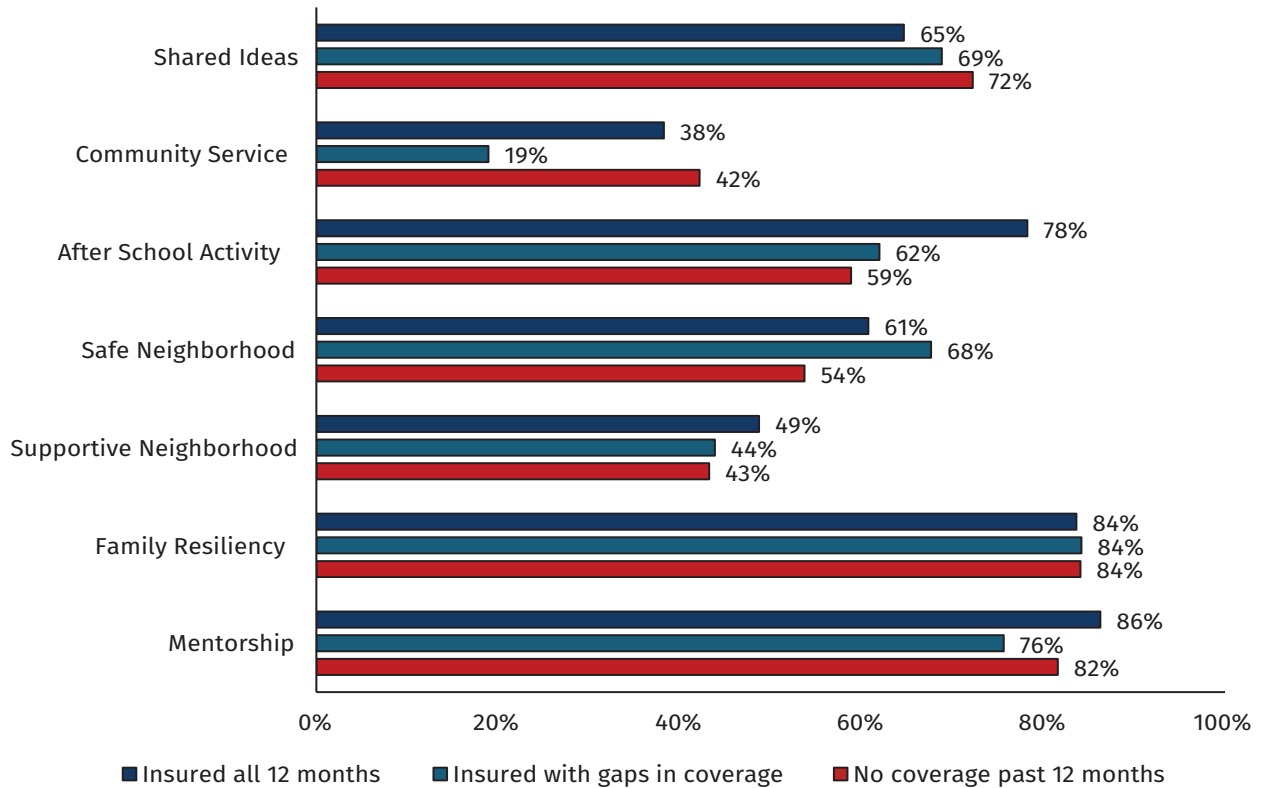
Regarding type of insurance coverage (**Table 4**), children with private insurance only had a higher prevalence for five of the seven PCE categories (mentorship, family resiliency, supportive and safe neighborhood, after school activity, and community service). Children that had a combination of public and private insurance had the lowest prevalence of six of the seven PCE categories including mentorship, family resiliency, supportive and safe neighborhood, after school activity, and shared ideas. Children with public insurance only had the lowest prevalence for the community service PCE category whereas uninsured children had the highest prevalence for the shared ideas PCE category.

Table 4. Prevalence of PCE Categories by Insurance Type among Children 0-17 Years Old, 2017-2020

PCE Category	Not insured	Private & Public	Private only	Public only
Mentorship	82.7%	73.8%	89.0%	82.5%
Family Resiliency	83.1%	78.9%	85.7%	81.0%
Supportive Neighborhood	42.2%	41.0%	54.4%	39.0%
Safe Neighborhood	55.6%	34.9%	66.4%	54.3%
After School Activity	63.9%	56.3%	86.1%	66.1%
Community Service	42.6%	33.4%	43.7%	25.7%
Shared Ideas	70.5%	52.3%	65.3%	65.4%
4 or more	100.0%	95.3%	99.4%	95.9%

Private only is any insurance coverage that was privately purchased including through ACA marketplace, through employer, or TRICARE; Public only is any insurance that is governmental funded or provided through government assistance. Numbers in green indicate the highest percentage and numbers in red indicate the lowest percentage of the PCE Categories by insurance type.

Promoting PCEs in Arizona and Beyond

This report discusses the prevalence of the PCE categories as operationalized by Crouch et al. in Arizona compared to other Southwestern states and nationwide. Overall, children in Arizona had a lower prevalence of all the PCE categories compared to the prevalence across the nation and among residents of Colorado and Utah. The prevalence of PCE categories related to the neighborhood or community was much lower compared to prevalence of PCEs that were specific to the individual family situation.

Importance of Neighborhood- and Social-Related PCE Categories

The reported PCE categories could be grouped into a neighborhood-related domain and social-related domain. Family resiliency, supportive neighborhood, and safe neighborhood categories formed the neighborhood-related domain whereas mentorship, after-school activity, community service and shared ideas categories formed the social domain.[27] There was a marked contrast between the neighborhood and the social categories.

Broadly, the neighborhood-related categories were less prevalent compared to social categories. For example, the mentorship category had the most instances of highest percentage across population demographics with a few exceptions. Mentorship had its highest prevalence among the third-generation children (97%) and its lowest prevalence among children with special health care needs (18%). Even at its lowest percentage (18%), the mentorship category was higher than any of the other PCE categories for children with special healthcare needs. Similar results were found in a recent national sample where the mentorship category also had the highest percentage at 89.8% when compared to any of the other PCEs.[27] The only social-related category that had a higher percentage than mentorship was the after school category observed among Asian children (87%). There were only five instances when the neighborhood-related categories had a higher prevalence than the social-related categories. That was the case for the supportive neighborhood among children with no special health care needs (70%), Latino children (82%), Black/African American children (86%), first generation children (88%), and second-generation children (90%).

In the case of first- and second-generation children, some research suggests that children living in neighborhoods with a high immigrant concentration may provide a protective effect against negative behaviors and health outcomes.[29–32] Research has shown that volunteering is associated with improved outcomes such as self-rated health, satisfaction, coping mechanisms as well as decreased hospitalization and mortality.[33,34] Neighborhood environment has been recognized as a social determinant of health that can affect health and economic outcomes.[35,36] Research has shown that increased perception of neighborhood safety is associated with greater academic achievement among children.[37] Considering the established relationship between academic achievement and future academic success and earnings,[35] our findings highlight a need for further research to understand how the distributions of PCEs affect other outcomes as well as strategies to increase neighborhood-level PCEs among children in Arizona. Findings from this report also suggest a need for programs that increase community engagement and neighborhood safety.

Understanding Individual Level Factors that Impact PCE Prevalence

Mentorship, family resiliency, after school activities, and shared ideas were PCE categories generally high across all racial and ethnic groups. However, living in a supportive neighborhood and participating in community service was lower among children of color relative to white children. When breaking down the PCEs by category; however, mentorship, family resiliency, living in a supportive neighborhood, and participating in after school activities were highest among third generation or more immigrants. Therefore, investing in children's neighborhoods to be supportive and increasing participation in community service are important aspects to consider for enhancing positive childhood experiences.

Recommendations

Based on the findings of this report, there are several recommendations made for future changes that can help promote positive experiences among children. Table 5 summarizes policy, system, and environment-level changes; however, they are only few suggestions and should be expanded to meet broader needs in the state.

Table 5. Recommendations for policy, systems, and environmental changes

PCE Construct	Policy Change	Systems Change	Environmental Change
Nurturing and Supportive Relationships	• School policy that ensures quality care and education early in life • Services such as home visitation programs that can help first-time parents prepare for their newborns and provide training in child health and development • Programs and initiatives that provide targeted services and individualized coaching that help parents build nurturing relationships with their children	• Activities in daycare centers and preschools that can improve social, emotional, and cognitive development in children	• Positive and nurturing school environments that foster children's health and wellbeing • Supportive home environments where family members support each other for parenting
Living in a stable, safe, and equitable environment	• Allocate community resources that families can rely on during difficult times such as financial hardships • State-wide programs and initiatives like Arizona's Project Safe Neighborhoods to reduce violent crimes throughout the state • Policies to strengthen household financial security that help parents to have the ability to provide for their child's basic needs • Resources to support the pursuit of education and job trainings for low-income families	• Increasing the number of prosecutors and police assistants in neighborhoods with high crime rates • Local organizations that provide healthy foods to families in low-income communities	• Safe, close-knit communities where neighbors help each other out and watch out each other's children • Safe neighborhood environments where children can play and feel safe

PCE Construct	Policy Change	Systems Change	Environmental Change
Opportunities for positive social engagement	• School policy that encourages children to participate in afterschool activities and volunteer work	• Increasing opportunities for community services or volunteer work in communities (e.g., local organizations, places of worship) • Expanding collaborations with trauma-informed organizations or communities such as the Arizona ACE Consortium and the Trauma-Informed Faith Community Movement to promote events and initiatives to raise public awareness of ACEs	• Communities, organizations, and places where people reside that are welcoming and safe to engage
Developing social and emotional competencies	• Policy to invest in social and emotional learning among children in K-12	• Implementing activities to promote social and emotional learning at local schools and providing necessary resources to teachers • Adopting a proper pedagogy in classrooms that is suitable for social and emotional development • Parent education to teach parents about how to promote age-appropriate social and emotional learning at home	• Creating trustful, respectful, and supportive home and school environments where children can freely share ideas and be accepted as who they are.

Note. Adopted from *What is Policy, Systems, and Environmental (PSE) Change?*: http://healthtrust.org/wp-content/uploads/2013/11/2012-12-28-Policy_Systems_and_Environmental_Change.pdf

Strengths & Limitations

Despite the large, representative sample, this study includes limitations that should be acknowledged. First, it is a cross-sectional study, and as a result, conclusions cannot be drawn as to the negative impact of the PCEs on child adjustment. Second, the study spans a 4-year period, which includes the beginning of the COVID-19 epidemic, during which time PCEs are likely to have declined (e.g., many extracurricular or mentoring activities were closed due to COVID restrictions). The

study made use of parent/caregiver report, which provides a more distal perspective on children's positive experiences than child report. Also, due to the feasibility of the NSCH to be administered in a large population, this study may not have captured other positive experiences that profoundly impact children's development, as well as details about their experiences. Nonetheless, this approach enables data collection and subsequent age-based comparisons across the wide age range included in the study. Finally, the categories of PCEs are relatively nascent and consensus about their operationalization is still forming. The measures of PCEs used in this study were combined from individual variables that mapped onto the conceptualization by Crouch *et al.* (2021).[25] The fact that differences in PCEs map onto groups who commonly face disparities provides evidence for its validity and supports the growing research on this topic.

Conclusions

Positive childhood experiences are crucial as a means to minimize the effects of ACEs and promote health and wellbeing in youth, especially those who are exposed to childhood adversity. Arizona has the second highest prevalence of ACEs among the southwestern states in the US and over 40% of children have one or more ACEs[12], which higher than the national average. However, the results in this report show that children in AZ do not have significantly higher PCEs – which could offset the effects of ACE exposure – than the other southwestern states. The prevalence of PCE is even lower among children of immigrants and ethnic minorities, those with private and public insurance and low household education levels, and CSHCN. Importantly, less than 20% of CSHCN had a positive experience in each of the PCE domains (for example, only 8% of CSHCN had supportive neighborhoods compared to 40% of non-CSHCN).

In addition, there are marked differences in the proportion of children that experienced PCE categories related to the neighborhood vs. social domains. While children in Arizona were more readily exposed to PCEs that fell under the social domain (shared ideas, after school activity, resiliency, and mentorship), they are less likely to have neighborhood-related PCEs (safe and supportive neighborhood, and community service). This clear division in the overarching constructs that these PCE categories fall under highlights the importance for targeted public health interventions that aim to improve these neighborhood-related factors. In the last decade, there has been more emphasis on how our built environment impacts our health and shapes our overall wellbeing. This report further demonstrates how vital our environment is even at a very young age and highlights the need for ADHS to partner with various agencies, non-profit organizations, and community groups to develop strategies to ensure a safe, stable, and nurturing environment for all of Arizona children.

In conclusion, ongoing collaborative efforts with multi-level approaches at policy, system, and environmental-levels are necessary to promote PCEs, especially among high-risk groups of Arizona children. It is also important to note that safe and supportive relationships and growth environments shape positive growth and development in all children regardless of their ACE scores. As public health efforts focus on enhancing exposure to PCEs, they will not only reduce ACE exposure potentially mitigating the adverse health outcomes associated with childhood trauma, but also create the culture that maximize nurturance of children.

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