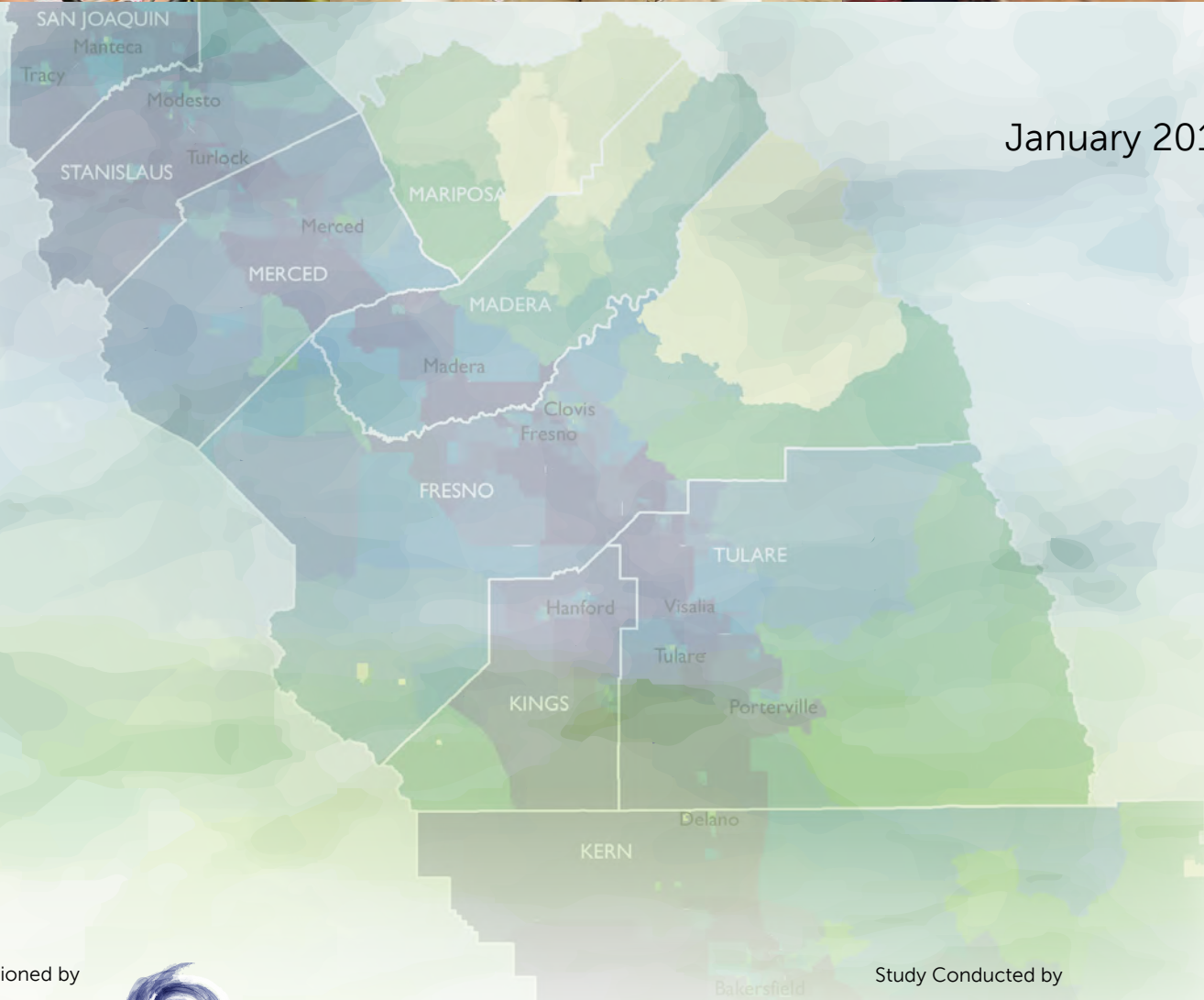


# CALIFORNIA'S SAN JOAQUIN VALLEY: A REGION AND ITS CHILDREN UNDER STRESS



Commissioned by



SIERRA HEALTH  
FOUNDATION



W.K.  
KELLOGG  
FOUNDATION®

Study Conducted by

**UC DAVIS**  
CENTER FOR REGIONAL CHANGE

Dear Colleagues,

We are pleased to share with you California's San Joaquin Valley: A Region and its Children Under Stress, commissioned by the San Joaquin Valley Health Fund, with funding from the W.K. Kellogg Foundation and Sierra Health Foundation, and prepared by the UC Davis Center for Regional Change. In preparing this report, researchers met with residents and those working with and on behalf of Valley communities to learn what their priorities are for policy and systems change.

As detailed in the report, their quest for a more equitable region is focused on several priorities that include early education, healthy food, healthy living environments and equitable land use planning as the primary issues of concern. While the report documents the many racial, health and other inequities, and the particular effects they have on the lives and life chances of families raising children in the region, it also presents the vision of local leaders and community residents.

We know the challenges that lie ahead will be difficult to address. While the San Joaquin Valley includes the top agricultural producing counties in California, almost 400,000 of the region's children live in poverty and seven of the 10 counties with the highest child poverty rates in the state are in the Valley. One out of every four Valley children experiences food insecurity and they are much more likely to be exposed to pesticides while in school and to go to schools with unsafe drinking water. But, with these challenges comes an incredible opportunity to address them with the expertise and commitment of the community members and organizations that will drive the success of the San Joaquin Valley Health Fund. We hope this report will simultaneously spark dialogue and action capable of transforming the challenges facing children across the Valley into a new, more hopeful reality.

In partnership with local and regional organizations and philanthropic and other funders, the San Joaquin Valley Health Fund is supporting efforts to create sustainable change that redresses the systemic inequities presented in this report.

We hope the report will help you better understand why and how to invest in efforts that mobilize communities, increase civic engagement and build regional capacity at a scale capable of transforming the Valley into a place where all children have the opportunity to thrive.



Chet P. Hewitt  
President and CEO  
Sierra Health Foundation



La June Montgomery Tabron  
President and CEO  
W.K. Kellogg Foundation

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## Introduction

### A Region and Its Children Under Stress

Children flourish when their physical, emotional and intellectual needs are met, but for many children in the San Joaquin Valley, these basic necessities are lacking. With high rates of poverty and large concentrations of immigrants and non-citizens, the San Joaquin Valley is a place where children are at particularly high risk of living without these essential supports. The region's most vulnerable children are more likely to have inadequate access to healthy food, to live in communities with unsafe drinking water and harmful air pollution, to face discriminatory policies and practices in schools that disproportionately impact children of color, and to be exposed to violence in their neighborhoods. Repeated exposure to adversities such as these produces toxic levels of stress that can have negative and long-lasting effects on learning, behavior and health. At the same time, a wide range of community organizations and residents are working to mobilize local strengths to address these challenges, providing new opportunities for achieving improvements in child well-being in the region.

This report chronicles the status of children age 0-8 in the San Joaquin Valley in order to inform decisions by the San Joaquin Valley Health Fund (SJVHF). The goal of the SJVHF is to "strengthen the capacity of communities and organizations in the San Joaquin Valley to improve health and well-being by advancing programs and policy changes that promote community health and health equity for all."<sup>1</sup>

Young children are the most vulnerable members of a community and the source of its greatest potential. Community-engaged research conducted by the UC Davis Center for Regional Change and Pan Valley Institute identified community perceptions of the primary challenges that threaten the health and well-being of children age 0-8 in the San Joaquin Valley counties of Fresno, Kern, Kings, Madera, Mariposa, Merced, San Joaquin, Stanislaus and Tulare. The topics discussed in the following sections reflect community priorities as voiced by parents and community stakeholders, supplemented by data describing conditions in the region, with the purpose of informing public and philanthropic investments and regional advocacy to improve child well-being and reduce health and racial disparities.

### Challenges and Opportunities

In the course of this research, we asked community members to share their visions of an ideal community for children, contrasting that with the reality of what children experience in their daily lives. Out of these discussions, four issue areas emerged as top priorities for child health and well-being:

- **Early Education** supports the developmental needs of young children and lays the foundation for all future learning.
- **Healthy Food** is a basic precondition for good health and all families should have easy access to affordable, fresh, healthy food that children need in order to thrive.
- **Healthy Living Environments** encompass the natural, built and socio-economic conditions of a community, and are a key determinant of health and well-being.
- **Equitable Land Use Planning** engages residents in shaping the physical design of their communities to provide the resources needed to build a healthy, sustainable and prosperous region.

After providing a brief description of our research methods, we present a demographic and economic portrait of the San Joaquin Valley, highlighting the role that longstanding employment and migration patterns have played in shaping current conditions for children. That background information is followed by sections that focus on the four priority areas of Early Education, Healthy Food, Healthy Living Environments, and Equitable Land Use Planning. A concluding section reviews the primary challenges facing children in the San Joaquin Valley and discusses key opportunities for change.

### Methods

Researchers from the Center for Regional Change and Pan Valley Institute employed multiple methods to gather community perspectives on the primary challenges facing children age 0-8 in the San Joaquin Valley. These methods included:

- An online survey of 208 individuals who work with or advocate on behalf of children and their families, including educators, public health officials, social workers, mental health professionals, social justice advocates, environmental justice advocates,

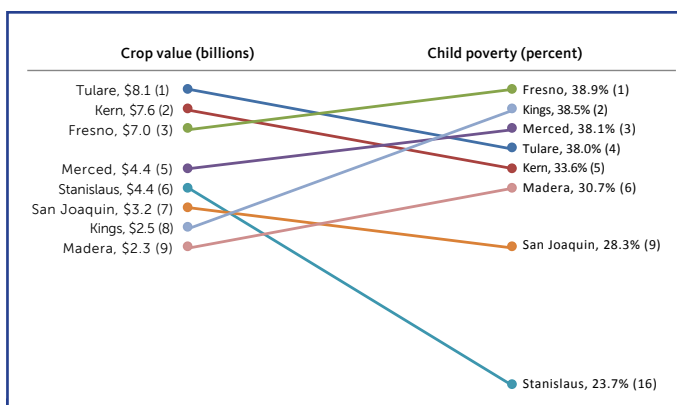


- lobbyists, policymakers and medical professionals;
- Interviews with 28 individuals from these same sectors;
- Ten meetings throughout the region that engaged community members from diverse racial and ethnic groups in discussion activities to elicit their knowledge and opinions;
- Town hall meetings in Merced, Stockton, Farmersville and Madera in which community members reviewed preliminary findings and provided additional refinement; and
- Analysis of secondary data from multiple public sources and published reports.

### Regional Background: A Place of Contradictions

The San Joaquin Valley is the economic heartland of the state, where agriculture, oil and land development generate significant wealth. Eight of the nine San Joaquin Valley counties featured in this report were among the top 10 agricultural producers in the state in terms of total crop value in 2014. And yet, seven of these counties appear in another ‘top 10’ list: a ranking of the California counties with the highest percentage of children in poverty (Figure 1). More than one out of three children in the region lives below the Federal Poverty Level (FPL), which was \$24,008 for a family of four in 2014. In Fresno, Tulare and Kings counties, child poverty rates

Figure 1. California County rankings: Agricultural crop value and child poverty, 2014



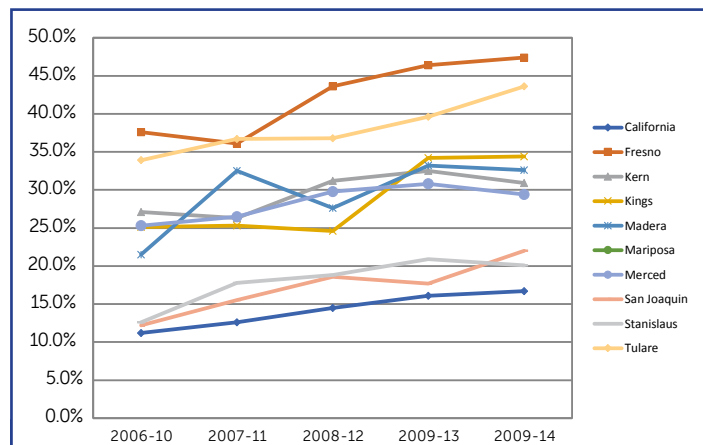
Source: California County Agricultural Commissioners’ Reports, 2013-2015; American Community Survey one-year estimates of the percentage of children under 18 living in households with incomes below the Federal Poverty Level, 2014.<sup>4</sup>

Eight of the San Joaquin Valley counties are among the top nine agricultural producers in the state, and seven of these same counties are in the top 10 counties with the highest child poverty rates.

have remained more than 20% since 1980, putting them in the “persistent poverty” category.<sup>2</sup> As described in more detail below, researchers and community advocates have drawn connections between the dependence on low-wage agricultural labor and poverty, while the dominance of industrial interests in local and regional politics has led to policies that further disadvantage the region’s most vulnerable populations.<sup>3</sup>

Not only do many of the region’s children live in areas of persistent poverty, they live in areas of concentrated poverty. These are places where more than 30% of the residents have incomes below the FPL. The percentage of children living in concentrated poverty is higher in the San Joaquin Valley than the statewide average, and is still increasing in some counties (Figure 2). A survey respondent from Fresno County described areas of concentrated poverty as places “...that are completely impoverished, and within those sections the families face multiple barriers such as food deserts, concentrated areas of high crime, high poverty neighborhoods, and institutionalized racism. Where families live determine their opportunities.”

Figure 2. Percentage of children under 18 living in areas of concentrated poverty



Source: As cited on kidsdata.org, American Community Survey and Annie E. Casey Foundation, KIDS COUNT Data Center (Jan. 2016)

One-third of all San Joaquin Valley children (excluding Mariposa County, for which data were not available) live in neighborhoods where more than 30% of residents are poor, twice the state average. After rising for several years, rates leveled off or declined in many counties in 2014. Tulare County and San Joaquin County are the exceptions, with significant increases in the percentage of children living in areas of concentrated poverty between 2013 and 2014.

Due to the legacy of discriminatory housing policies and lending practices, children of color are more likely to live in the poorest neighborhoods, and less likely to move out of them by the time they are adults.<sup>5</sup> Limited career opportunities, inadequate education and social support systems, and in some cases, active political and economic discrimination, contribute to restricted geographic mobility. Moreover, low-income children who grow up in disadvantaged counties – characterized by high levels of segregation and income inequality, underperforming schools and high crime rates – experience limited economic mobility as well. They are less likely to be in the top 25% of income earners as adults compared to low-income children who grow up in counties that have average levels of segregation, inequality, crime and school performance. The quality of the childhood environment matters less for the offspring of high-income parents, who do not experience the same drag on earnings if their childhoods are spent in disadvantaged counties.<sup>6</sup> Boys and children of color are also sensitive to the quality of the childhood environment, as they are more likely to suffer negative impacts on high school graduation

and adult earnings if they grow up in disadvantaged areas than girls or white children.<sup>7</sup> Limited mobility is a concern, because when families are stuck in poor neighborhoods for multiple generations, the negative effect of these disadvantaged neighborhoods on children's cognitive performance is heightened.<sup>8</sup>

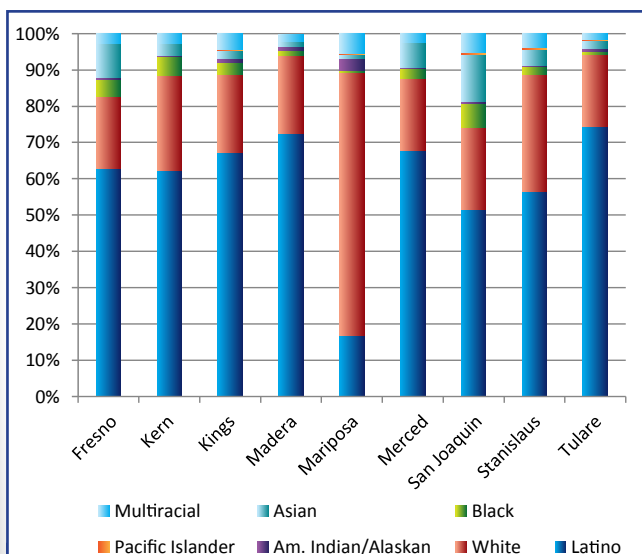
### Agricultural Legacy Shapes the Present and the Future

The San Joaquin Valley's agricultural and industrial legacy shapes the region through its influence on labor markets, land use and environmental conditions.

The Valley's foreign-born population is predominantly Mexican in origin, a byproduct of Mexico's proximity to the U.S. and a legacy of the bracero program. This program provided temporary visas to Mexican farmworkers beginning in 1942, when labor shortages were acute. When the program ended in 1964, the agriculture industry's dependence on low-wage labor, combined with poor economic conditions in Mexico, encouraged continued migration.<sup>9</sup> At the same time, more restrictive immigration policies compel many job-seekers to enter the country without authorization, and tightened border controls increasingly encourage migrants to settle in the U.S. rather than risk being caught and deported during return migrations.<sup>10</sup> These immigration patterns have reshaped the face of the Valley, as demonstrated by the ethnic makeup of its children. More than half of all children in the region are Latino, and in some counties they comprise more than 70% of the youth population (Figure 3). There is substantial ethnic variation within broad racial and ethnic categories, as many families from Mexico originate from non-Spanish speaking indigenous communities, and Asians include people of Southeast Asian, Indian, Chinese and Japanese descent (the latter three from earlier migrations), each with their own stories of exploitation and opportunity.

The ethnic makeup of the San Joaquin Valley is expected to become increasingly diverse in coming years, with rapid growth of the Asian, Latino and multiracial populations, coupled with the inflow of residents seeking respite from the high cost of living in other parts of the state. The total population of the San Joaquin Valley is expected to grow much faster than the rest of the state, increasing from about 4 million in 2010 to 7.4 million by 2060 (Figure 4).

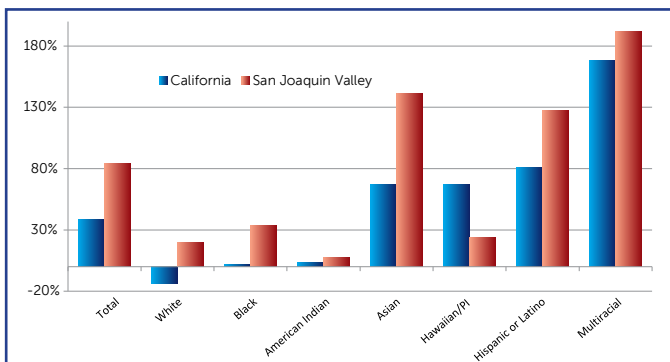
Figure 3. Estimated percentage of the population under the age of 18, by race/ethnicity



Source: As cited on kidsdata.org, California Department of Finance, Race/Ethnic Population with Age and Sex Detail, 2010-2060 (Jun. 2015); U.S. Census Bureau, Current Population Estimates, Vintage 2014 (Jun. 2015).

More than half of all children under age 18 in the San Joaquin Valley are Latino, in every county except Mariposa, which is majority non-Hispanic white. San Joaquin County is the most diverse, with larger shares of black and Asian populations than the other counties.

Figure 4. Projected population growth 2010-2060, by race/ethnicity



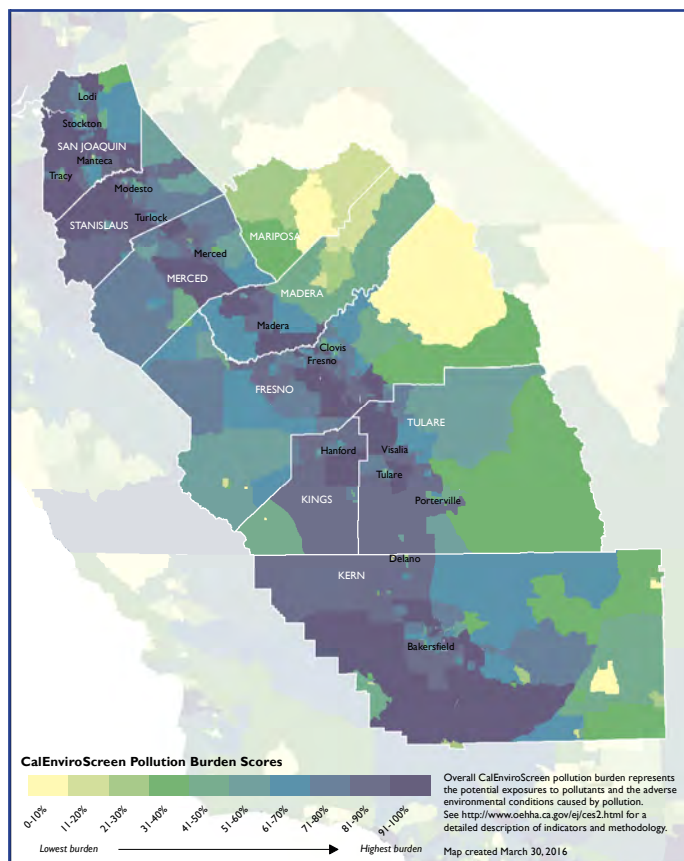
Source: California Department of Finance, P-1 State and County Population Projections (2014).

The population in the San Joaquin Valley is projected to grow at more than twice the rate as the state as a whole, with the most rapid growth among multiracial, Asian, and Latino populations. Some of this growth is due to natural population increase (births), while some of the growth will result from people moving into the Valley from outside the region.

## Beyond Agriculture: Other Industries Shape the Valley

Agriculture is not the only industry whose exploitation of the region's rich natural resources has shaped development in the Valley. Energy extraction – oil drilling and, more recently, fracking – contributes to the Valley's economy, but the energy industry suffers from boom-bust cycles that can have devastating effects on people and communities.<sup>11</sup> Attempts to diversify the region's economy contributed to a boom in prison construction in the 1980s, which arguably contributed little to local economies while creating negative perceptions of "prison towns."<sup>12</sup> Furthermore, the region's central location and the presence of long-haul roadways that connect major urban centers in the state and beyond facilitate the flow of goods to markets, but also make it a corridor for the illicit economy (e.g., drugs, guns, stolen merchandise) and human trafficking.<sup>13</sup> While the San Joaquin Valley generates much of its economic wealth from agriculture, oil and transportation, these same industries contribute to significant environmental hazards, including air pollution, water pollution, pesticides, and toxic and hazardous waste facilities. As illustrated by the state's CalEnviroScreen 2.0, which measures and maps these cumulative environmental hazards, residents of the San Joaquin Valley are exposed to high levels of pollution in comparison to the state as a whole (Figure 5). This pollution burden poses significant risks for a range of serious health problems for the children and families

Figure 5. Cumulative pollution burden



Source: California Communities Environmental Health Screening Tool (CalEnviroScreen 2.0, updated October 2014). Map created by the Center for Regional Change, March 2016

The pattern of cumulative pollution burden in the San Joaquin Valley highlights the region's elevated risks relative to the state as a whole. It highlights the problems in concentrated urban cores as well as smaller rural communities.

living there.

Planning and investment patterns have resulted in high levels of residential segregation by race/ethnicity and income, constraining the ability of low-income communities and communities of color to access health-promoting resources and opportunities. Some of the most impoverished communities are left out of the planning process altogether because they lack municipal governments.<sup>14</sup> These unincorporated communities, located outside of city limits, are governed by counties that were not set up to provide local services such as water, sewage treatment, streetlights and sidewalks. In 2013, an estimated 31% of the Valley's residents lived in unincorporated areas, ranging from 21% in Fresno to 56% in Madera (figures for Mariposa County not available). Using Census data and aerial maps, analysts identified 525 unincorporated, low-income communities in the San Joaquin Valley, home

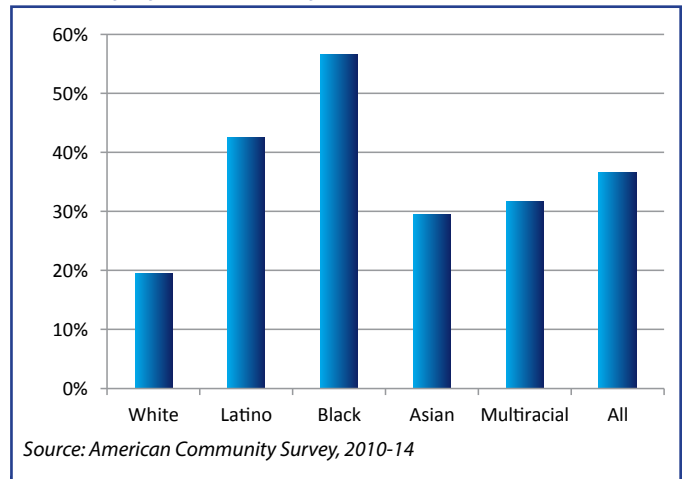
to approximately 310,000 people, two-thirds of them with incomes below \$34,999. People of color are over-represented in these communities, where they make up 65% of the population, compared to 54% of the region's total population.<sup>15</sup>

### Limited Economic Opportunities Contribute to Poverty

The agriculture/food processing industry is expected to be the primary employer in the San Joaquin Valley for years to come,<sup>16</sup> but other growing industries include retail, health care services, hospitality and tourism, education and training, business services, construction, social services, transportation, and financial services and real estate.<sup>17</sup> Many of these industries rely heavily on low-wage and seasonal laborers, including undocumented immigrants, who often face poor working conditions and workplace violations such as wage theft.<sup>18</sup>

As a result, poverty remains an acute problem in the region, where 1 in 3 families with children under 18 have incomes below the FPL.<sup>19</sup> Poverty rates are even higher for children of color (Figure 6) and children with immigrant parents (Table 1), while children of undocumented immigrant parents have still higher poverty rates. It is estimated that 1 in 5 children in the San Joaquin Valley has at least one undocumented parent, and that nearly 3 in 4 children with an undocumented parent have family incomes that are

Figure 6. Percentage of San Joaquin Valley children under 6 in poverty, by race/ethnicity



In the nine-county region, approximately 1 in 5 white children under the age of 6 are poor. In comparison, the poverty rate for Asian and multiracial children is 30%, doubles to 40% among Latino children, and triples to 60% for African American children.

below 150% of the FPL.<sup>20</sup>

In the words of a social justice advocate who works in the southern San Joaquin Valley, “The root of many of the Valley’s problems is poverty and the lack of economic diversity in the region. It is a cycle that limits options in employment to low-wage, low-skill work. That affects educational attainment, and impacts the environmental quality.”

Table 1. Percentage of children under 18 with foreign-born parents, and percentage of children in poverty by parent nativity

County	% linguistic isolation	% foreign-born parents	% below FPL	
			foreign-born parents	native-born parents
Fresno	13.2%	43.7%	46.7%	32.4%
Kern	8.1%	39.3%	38.0%	28.1%
Kings	N/A	31.6%	36.3%	30.1%
Madera	N/A	47.3%	38.0%	26.3%
Mariposa	N/A	12.3%*	51.7%	17.5%
Merced	14.7%	52.3%	38.4%	33.4%
San Joaquin	11.6%	47.9%	29.7%	22.8%
Stanislaus	9.1%	41.2%	33.3%	23.4%
Tulare	21.9%	45.0%	43.6%	30.7%
California	10.4%	49.1%	26.6%	17.8%

Source: Percent linguistic isolation: as cited by KidsData.org, Population Reference Bureau, analysis of data from the American Community Survey microdata files (Nov. 2015); Percent foreign-born: American Community Survey, 2014, \*except for Mariposa County, which is based on five-year estimates from 2010-14. Percent poverty by parent nativity: American Community Survey, 2010-14.

The percent of children living in households in which no one over the age of 14 speaks English varies, but is twice as high in Tulare County (21.9%) compared to the state as a whole (10.4%). Due to language barriers encountered by their parents, these children may not be able to access all the services they need. More than 40% of children in the San Joaquin Valley have at least one foreign-born parent. More than half of children in Merced County has a foreign-born parent, compared to only about 1 in 8 children in Mariposa County. The poverty rate in the Valley is much higher among children with foreign-born parents than native-born parents, and higher than in the state as a whole. The gap in poverty rates between children of foreign born parents and native born parents is especially large in Mariposa County (34-point difference).



A social justice advocate from Kern County also noted how difficult it is for families to escape poverty, stating that *“Multigenerational poverty and the decline of the middle class are contributing to the poor outcomes for many children in our communities. There are too few opportunities for parents to move out of their current situations and reach a higher potential for themselves and their children.”*

Given the structural factors that perpetuate low wages and limit access to vital resources, interventions that treat the consequences of poverty without addressing their root causes will have limited success at best.

As a children's advocate from Fresno County stated, *“We can't serve [through the provision of social services] our kids' way into good health outcomes...We have to change the systemic issues, the infrastructure, the structural racism.”*

The San Joaquin Valley is one of the fastest growing regions in California, and is the center of the state's vital and prosperous agriculture industry, but it will not reach its full potential until and unless all of its children have the opportunity to thrive.

## Early Education

San Joaquin Valley residents in our study emphasized the importance of education in improving the lives of children, but they also noted several challenges that prevent disadvantaged children from capitalizing on the opportunities afforded by a high-quality education. These challenges include access to educational opportunities, social exclusion and discrimination, and chronic exposure to trauma and the treatment of trauma-induced behaviors. These challenges place a significant burden on young children and their families, but they also undermine community well-being by failing to help children reach their full potential.

*“Education is key to allowing people the wings to fly.”*  
– Fresno community meeting participant

### Why it Matters

The early childhood years are a critical developmental period, a time when the brain is growing and changing rapidly. The communication, learning and social skills gained during this period lay the foundation for future cognitive and social-emotional growth. Children without a solid foundation tend to start behind and stay behind in school, contributing to poor educational, health and economic outcomes, and ultimately undermining community well-being.<sup>21</sup> Unfortunately, not all children in the San Joaquin Valley have access to environments and opportunities that allow them to flourish. Even before they enter school, poor children and children of color are more likely to be exposed to violence and trauma that negatively impacts psychosocial development and learning readiness. Once in school, these same children are more likely to be subject to punitive disciplinary practices than their more advantaged peers, widening achievement gaps and contributing to disparate outcomes.

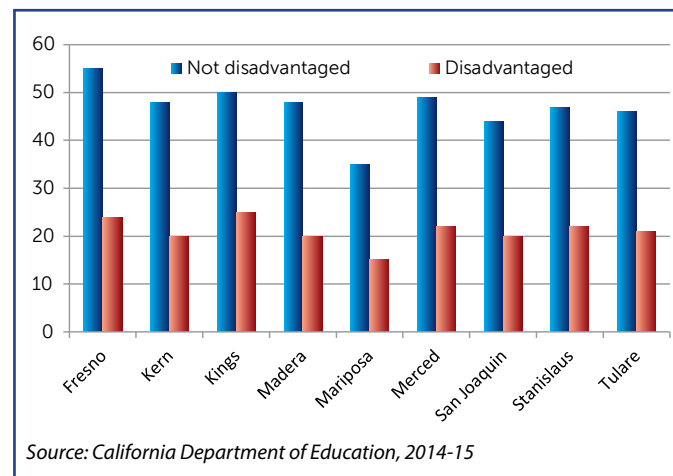
The following sections describe the primary educational challenges for San Joaquin Valley children as identified by study participants. Their perspectives are further substantiated by data showing that children of color and economically disadvantaged children face more substantial barriers to achieving academic success.

### Educational Opportunities

In the context of early education, survey respondents identified school readiness as one of the top issues facing young children in the San Joaquin Valley. Too many children enter kindergarten without the

skills, knowledge and attitudes necessary to make adequate progress in school as it's currently designed, contributing to large disparities in educational outcomes. Disadvantaged children in the San Joaquin Valley underperform compared to their more advantaged counterparts on standardized tests of math and English in the third grade (the first year of testing) and in every subsequent year that tests are administered. In addition to lower test scores (Figure 7), vulnerable students – those who are low income, migrants, homeless, foster youth or whose parents did not complete high school – also have lower high school graduation rates, are less likely to complete the courses required for admittance to the UC/CSU system, are less prepared for college-level math courses, and thus less likely to go to college and less likely to complete college.<sup>22</sup>

Figure 7. Percentage of third-grade students who met or exceeded grade-level standards for English Language Arts, by disadvantaged status



*In every county in the region, disadvantaged students lag their more advantaged peers in standardized tests of English Language Arts achievement. Region-wide, only about 20% of disadvantaged students meet the third-grade standard for English, while in all but Mariposa County, more than 40% of students who are not disadvantaged meet the standard.*

Due to differences in family circumstances and neighborhood conditions, education disparities emerge early in life,<sup>23</sup> but high-quality childcare and preschool programs can help close early gaps in cognitive skills, putting children on more equal footing when they start school.<sup>24</sup> Unfortunately, children of color are less likely to be enrolled in early education programs, contributing

to disparities in kindergarten readiness. Statewide, close to half of Latino and African American children age 3-5 are not enrolled in preschool or kindergarten, compared to about one-third of white and Asian children.<sup>25</sup> (Disaggregated data for different Asian communities are not available, so disparities experienced by subgroups within the Asian population cannot be assessed.) This represents a missed opportunity to address achievement gaps, as participation in high-quality pre-kindergarten programs has been shown to have long-lasting positive impacts on educational achievement, behavior and health among at-risk children.<sup>26</sup>

Low enrollment in some population subgroups results from a combination of factors: high cost, inadequate supply and educational settings that do not meet the needs of the region's diverse families. In rural areas, these barriers are compounded by long distances between homes and childcare centers and limited access to transportation.<sup>27</sup>

Finding high-quality childcare is especially challenging for parents with irregular or unconventional work schedules. One farmworker participating in a community meeting noted that their work in the fields begins at

3 a.m., and that it is difficult to find childcare at that hour for children under age 5. With few alternatives, parents often rely on informal care provided by friends and relatives who may not have training in child development. These challenges were mentioned repeatedly by study participants.

Recognizing the importance of early education, several parents and community stakeholders said that making high-quality preschool programs available to all children, regardless of a family's ability to pay, should be a top priority. High-quality programs have trained and qualified staff, maintain low child-to-staff ratios, use evidence-based curriculums and materials, support positive teacher-child interactions, actively engage parents in their child's development and education, and are sensitive to family composition, culture and language.<sup>28</sup> Given the large population of immigrants and refugees in the San Joaquin Valley, it is also important that early education settings be sensitive to the needs of these families and the challenges they face. Unfortunately, such high-quality programs are in short supply. A shortage of center-based childcare programs was documented in a recent analysis of the number of 3- and 4-year-olds from low-income families

Table 2. Estimated number and percent of 3- and 4-year-olds eligible for Title 5 services, but not enrolled in the State Preschool Program, other Title 5 programs, transitional kindergarten, or Head Start, 2014

County	3-Year-Olds Not Enrolled		4-Year-Olds Not Enrolled	
	#	%	#	%
Fresno	7,877	80%	2,216	23%
Kern	4,719	69%	2,046	32%
Kings	188	26%	408	25%
Madera	338	52%	1,231	50%
Mariposa	52	96%	26	81%
Merced	1,995	69%	872	28%
San Joaquin	3,451	69%	1,756	30%
Stanislaus	2,068	62%	279	9%
Tulare	5,030	80%	1,258	28%
San Joaquin Valley	25,718	72%	10,092	27%

Source: Anthony, J., et al. 2016. *Unmet Need for Preschool Services in California: Statewide and Local Analysis*. American Institutes for Research. Values for San Joaquin Valley based on authors' calculations.

In the San Joaquin Valley, nearly 75% of income-eligible 3-year-olds and 20% of eligible 4-year-olds are not enrolled in government-sponsored preschool programs, indicating a significant shortage of preschool openings. Kings County has much lower rates of unmet need for 3-year-olds (26% not enrolled), as does Madera County (52%), while Mariposa has the highest percentage of unenrolled 3- and 4-year-olds, although the number of children affected is low (52 3-year-olds; 26 4-year-olds). Stanislaus County has large unmet need among 3-year-olds (80%), but only 9% of income eligible Stanislaus County 4-year-olds is not enrolled in a government-sponsored preschool program.

who qualify for, but are not enrolled in, government-funded pre-kindergarten programs such as Head Start, Transitional Kindergarten and the California State Preschool Program. There are high levels of unmet need across the San Joaquin Valley, particularly among 3-year-olds (Table 2), with parts of Kern, Tulare, Madera and Mariposa counties facing exceptionally high levels of unmet need.<sup>29</sup>

Parents who are foreign-born, undocumented and/or have low levels of education are less likely to enroll their children in pre-kindergarten programs, yet these are the very children who reap the largest gains from attendance in high-quality school- or center-based programs.<sup>30</sup> Some parents lack awareness about the importance of early development, how to promote it and what to do if early milestones are not met. Interviewees in this study reported that children of undocumented and non-English speaking parents are at particularly high risk of falling through the cracks because they are often disconnected from education and health systems that provide early screening and support. For their part, parents said that they don't always know what resources are available, or where to go to find out. Culture and language barriers also impede access to services and the development of trust between parents and providers.

In addition to the shortage of early education opportunities, parents also cited a lack of in-school and after-school tutoring and mentoring programs, information and guidance regarding higher education, and affordable extracurricular activities. A parent educator who works in Madera and Fresno counties remarked that *"Parents are working a lot of hours to earn enough income to survive, leaving hardly any time to get involved in extracurricular activities with their children. Plus in many rural areas, you have to pay to access quality programs."* Parents also acknowledged the link between their own capabilities and their children's success in school, expressing a desire for increased educational opportunities themselves. In particular, they mentioned resources that would enable them to help their children study, such as English classes and computer technology training so they can communicate more effectively with teachers.

### Social Exclusion and Discrimination

Parents desperately want their children to succeed and are willing to make great sacrifices in pursuit of that goal. In fact, for many immigrants, the decision to uproot their families and move to a new country stems from a desire to give their children better opportunities. As much

as parents want their children to succeed and children themselves start their schooling with expectations of academic success, social exclusion and discrimination make it difficult for many children to reach their full potential.

In community meetings, parents with children in the migrant education program remarked that migrant kids and English learners are bullied at school. One parent suggested that English classes for migrant students convene after school, so they aren't stigmatized for being in special classes for English Language Learners (ELL). One informant also noted that children can become "trapped" in these classes, losing the opportunity to take college prep courses in high school. Furthermore, not all parents are aware that they can have their child reclassified to remove the ELL designation.

It is not just children who feel stigmatized. Parents whose cultural and linguistic backgrounds do not match those of teachers and administrators reported feeling disconnected from schools, and some reported language-based discrimination. Parents suggested that schools should try harder to promote open communication by holding meetings during non-work hours, making sure they are relevant to parents, and by providing accommodations for non-English speakers. More than just conveying information, parents want schools to enable them to be active partners in their children's education. However, undocumented parents and formerly incarcerated parents often feel excluded from schools due to their marginalized status. At a community meeting in Merced attended by parents whose children participate in the Migrant Education Program, one participant provided an example of this exclusion, explaining, *"Parents can't go on school field-trips with their children because they don't have Social Security to take the fingerprints."*

Studies also show that parents are more engaged in their children's education when they have trusting relationships with providers.<sup>31</sup> One way to build that trust would be to increase the number of bilingual teachers and bilingual or dual immersion programs, as was suggested in several of the community meetings. These programs signal to immigrant families that their culture is valued and respected, and allow parents to play a more active role in the schools and their child's education.

In fact, respect for their cultures and languages, and support for maintaining those traditions, was rated one of the top priorities at the community meetings.



Several respondents noted that the region's cultural and linguistic diversity is one of its greatest assets. According to a children's advocate from Fresno County, "Research shows that these kids have been given gifts. The fact that they have two or more languages is not only a gift to them, it's a gift to us as a community... If you want to see more children with higher literacy rates, especially low-income communities, you strengthen the dual language support. You structure things around dual generation support so that while you're supporting baby, you're also supporting mom and moving her and her education or her career path if that's where she's at." Community members emphasized that maintaining cultural identity and respecting cultural traditions would support educational goals and also promote the well-being of students, their families and their communities. In the words of a Southeast Asian youth outreach coordinator from Stanislaus County, "Culture and tradition goes a long way with mental health and well-being in terms of the way they carry themselves... and they feel good because that's their identity."

### Exposure to Trauma and School Discipline

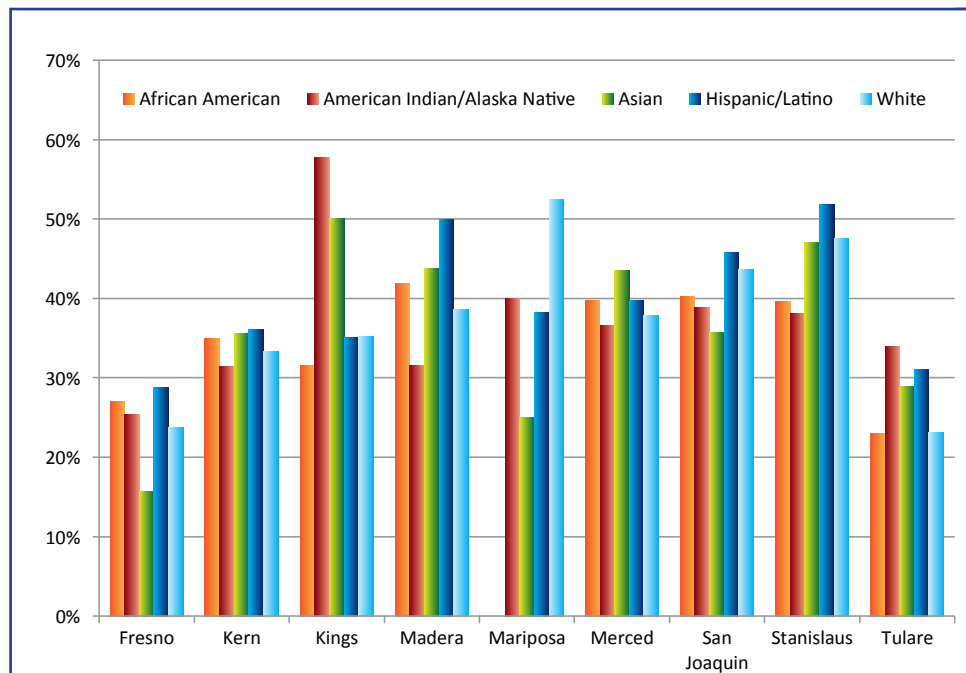
The impact of violence and trauma on young children emerged as one of the top concerns among study participants. Violence in their neighborhoods and adversity in their homes exposes children to potentially toxic levels of stress, which has a negative impact on brain development and behavior.<sup>32</sup> Parents were particularly concerned about drug use, gangs and crime

in their neighborhoods, not only out of concern for safety, but also because exposure to violence causes anxiety in their children. Stakeholders who work in education, mental health and social services made the link between trauma and education, noting that children who experience trauma may respond with behaviors that interfere with learning. Behavioral problems and mental health issues were cited by more than 30% of survey respondents as being the top challenge for San Joaquin Valley children, and were mentioned frequently in the community meetings as well.

Parents and key stakeholders agreed that the response by schools to behavior problems is often inadequate, and fails to take into account the circumstances that produce those behaviors. As an early childhood educator from Fresno put it, "We have to learn how to respond to children who are being exposed to chronic stress in their homes and neighborhoods. I can't stress this enough. Children living in poverty are facing challenges that cause undue stress which can be toxic when it comes to brain development. We can absolutely mitigate those circumstances by providing environments which foster positive adult-child interactions. We need to stop looking at early learning as just programs and start looking at them as a path to an equitable start in life."

Parents at the community meetings told stories of active and talkative children being removed from the classroom

Figure 8. Percentage of suspensions for willful defiance, 2014-15, by race/ethnicity



Fresno and Tulare counties are least likely to suspend students for willful defiance versus more serious offenses such as fighting or drug/alcohol possession. There is racial/ethnic variation in the percentage of suspensions for willful defiance. In Kings County, 50% or more American Indian/Alaska Native and Asian students who are suspended are suspended for willful defiance infractions, compared to about one-third of suspensions among African American, Latino and white students. In Madera and Stanislaus Counties, Latino students are more likely to be suspended for willful defiance than students of other racial/ethnic groups, but in Mariposa County, white students are most likely to be suspended for willful defiance and Asian students least likely.

Source: California Department of Education, 2014-15

for long periods of time or sent to special education classes. Several parents said that school bullying is a problem that is not taken seriously enough, creating an unsafe climate at school. Schools need more counselors, and a parent at one community meeting suggested that teachers need more training so that they know how to handle children with special needs, responding with greater patience and strategies that help students feel at ease.

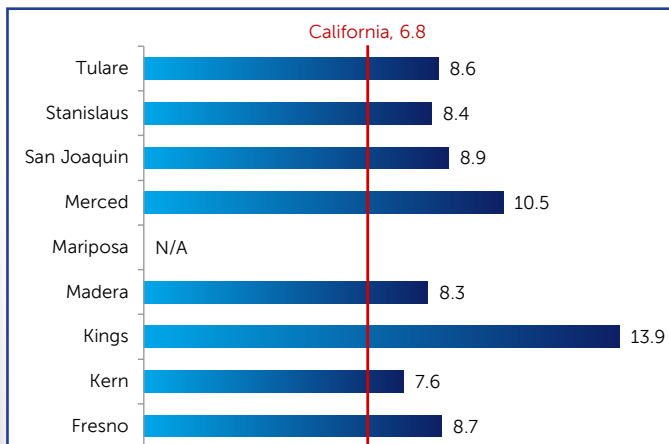
When trauma-induced behaviors are treated as disciplinary problems, low-income children and children of color, who face greater exposure to trauma, are more likely to be punished. Moreover, there is evidence of discrimination in the application of school-based discipline. Black and Latino students tend to receive harsher punishment than white students for the same infringement, which can further exacerbate achievement gaps by weakening connections to school.<sup>33</sup> Students who have been suspended or expelled are twice as likely to drop out of school and five times more likely to commit a crime, which led the state legislature to pass a law in 2014 that prohibits schools from suspending students below the fourth grade for “willful defiance.”<sup>34</sup> Since then, suspensions have been declining, but recent data illustrate the inequitable application and overuse of punitive disciplinary practices in the San Joaquin Valley. Statewide, 31% all school suspensions in 2014-15

resulted from “willful defiance,” a broad category that can include acts like disruptive behavior, talking back to the teacher and coming to class late. Suspensions for “willful defiance” occur at higher rates in most San Joaquin Valley counties than the statewide average, and within counties rates vary by ethnic group (Figure 8).

Harsh disciplinary practices such as expulsion, and even arrest, run the risk of derailing children’s lives by pushing them out of schools and setting them on a pathway to prison.<sup>35</sup> The “school-to-prison pipeline” was a topic of discussion at several community forums, a concern substantiated by data showing that San Joaquin Valley children face a greater risk of ending up in jail, with the felony juvenile arrest rate higher in every county than the statewide average (Figure 9). African American youth are arrested at a markedly higher rate than any other population (Figure 10).

A town hall meeting participant in Merced expressed worry about the over-policing of youth in the San Joaquin Valley and commented that more money is put into law enforcement and punishment than positive youth programs that would enrich children’s lives. Instead of incarceration, many participants want their communities to adopt positive rehabilitation and restorative justice strategies, helping to break the cycle of poverty and promote community well-being.

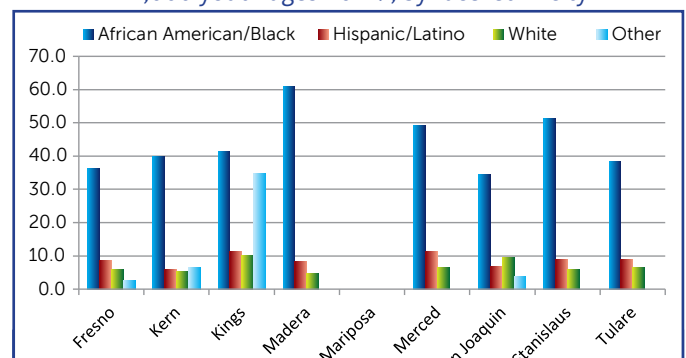
Figure 9. Number of juvenile felony arrests per 1,000 youth ages 10-17



Source: As cited on kidsdata.org, California Department of Justice, Criminal Justice Statistics Center, Monthly Arrest and Citation Register (MACR) Data Files; CJSC published tables (Jul. 2015). California Department of Finance, Race/Ethnic Population with Age and Sex Detail, 1990-1999, 2000-2010, 2010-2060 (Jul. 2015).

The juvenile felony arrest rate is higher in the San Joaquin Valley than the state as a whole. The rate in Kings County is double the statewide average, and Merced County also has a rate significantly higher than the other counties.

Figure 10. Number of juvenile felony arrests per 1,000 youth ages 10-17, by race/ethnicity



Source: Ibid Figure 9. Other combines the categories two or more races and no race identified. Asians, Pacific Islanders, Filipinos and American Indians/Alaska Natives are omitted due to small numbers.

Black youth are much more likely to be arrested for a felony than youth of any other race. This is true in every county. In Kings County, youth classified in the “other” category also have very high arrest rates. In all but San Joaquin County, Latinos have higher arrest rates than whites.

## Opportunities for Change

Education disparities emerge early in life and are resistant to change, but investing in early childhood education and development is a powerful and cost-effective strategy to promote individual and community well-being. Culturally appropriate, high-quality, affordable and accessible pre-kindergarten programs are an important tool to address disparities, but supply is constrained in the San Joaquin Valley. Readiness programs can help families prepare their children for school, but should also help prepare schools and teachers to serve children and families more effectively.

Local Control Funding Formula (LCFF) expands opportunities for communities to shape school programs and policies in ways that reflect their priorities for supporting strong, equitable learning outcomes. With input from parent advisory committees and other stakeholders, school districts must devise plans for spending supplemental funds that LCFF appropriates to districts with large concentrations of “high-need” (low-income, English Language Learner, foster youth) students. Districts have great flexibility in how they allocate LCFF funds, including using it to address early education, as long as it is spent on programs

intended to benefit high-needs students. Vigilance is required to ensure the money is being used in ways that promote stronger, more equitable outcomes, but current transparency and accountability mechanisms need strengthening.<sup>36</sup> Language and other barriers prevent many parents from participating in the planning and evaluation process, a fact that was noted in the community meetings. School districts and advocacy organizations are working to educate parents about the school governance process and the importance of their participation in it, but more could be done to increase the capacity and effectiveness of parent leaders while ensuring that schools are transparent and accountable.

Policies like LCFF, approaches like trauma-informed care and programs such as bilingual schools have the potential to break the school-to-prison pipeline and reduce education disparities, but they must be implemented with input from parents and community members in order to ensure they meet the needs of the diverse children and families they are meant to serve.

## Healthy Food

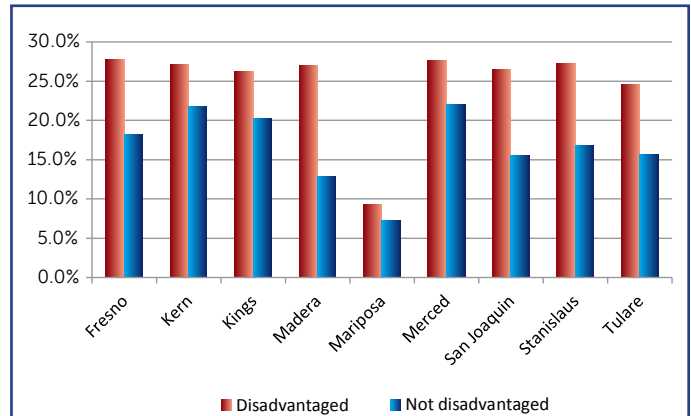
San Joaquin Valley residents in this study identified healthy food as a top priority for child health and well-being, emphasizing the need for all children to have access to affordable, fresh, nutritious food in order to support their growth. Study participants identified two main barriers to the provision of healthy food in the region: cost and access.

### Why it Matters

Reliable access to nutritious, affordable food is necessary to ensure the optimal growth and development of young children. Children who experience access problems that are so severe their food intake is reduced and normal eating patterns are disrupted have very low food security.<sup>37</sup> Even children who usually get enough to eat experience food insecurity if their families worry about running out of food or can't afford to provide balanced meals. The consequences of food insecurity for children are serious. Children who experience food insecurity are more likely to be hospitalized in their first year of life, are more likely to develop asthma, exhibit more problem behaviors, and perform worse on reading and math tests in elementary school.<sup>38</sup> The effects of food insecurity can persist for years among children who are exposed during critical developmental periods. Researchers have found that food insecure first-graders had reduced self-control and lower levels of important learning behaviors such as attentiveness and task persistence than food secure children. Years later, in fifth grade, they scored lower than their peers on these important non-cognitive skills, even if they had become food secure in the interim.<sup>39</sup>

Despite – or perhaps because of – the high rate of food insecurity in the San Joaquin Valley, obesity is a significant problem among the region's children, demonstrated by the fact that roughly 1 in 4 economically disadvantaged students were found to be obese in fifth-grade physical fitness tests of body composition (Figure 11). Childhood obesity is both a public health and social concern. Obese children are more likely to have low self-esteem, exhibit a number of cardiovascular risk factors such as high blood pressure and high cholesterol, are more likely to have asthma and to show signs of chronic inflammation.<sup>40</sup> As adults, obese children are at greater risk for cardiovascular disease and mortality, and experience lower educational

Figure 11. Percentage of fifth-graders who are obese, by economically disadvantaged status, 2014



Source: California Department of Education, Physical Fitness Report, Body Composition, % Grade 5 Students in Needs Improvement – Health Risk category. These are children with very high body mass index (BMI) levels, or a very high percentage of body fat, calculated using skinfold measurements. Figures for Mariposa County should be used with caution due to the low number of students tested.

Disadvantaged students are more likely to be obese than their non-disadvantaged peers. Approximately 1 in 4 disadvantaged students is obese. While rates of obesity among disadvantaged students are fairly uniform across counties, there is substantial variation in obesity rates among non-disadvantaged students that warrants further exploration.

attainment and earnings than their counterparts who were not obese as children.<sup>41</sup>

### Cost Barriers

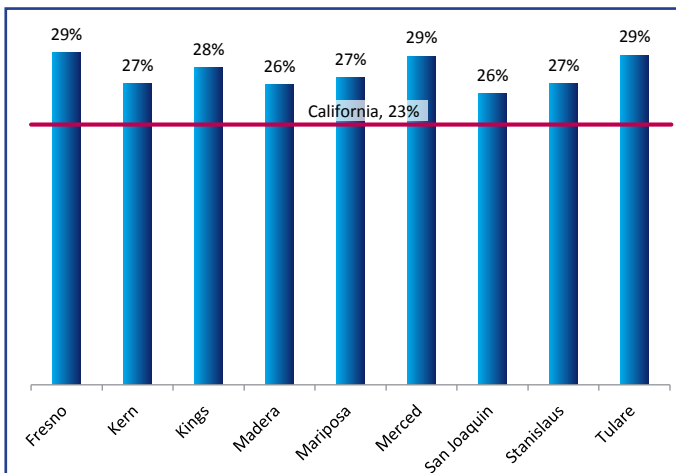
While the San Joaquin Valley is one of the most productive agricultural regions in the nation, children whose parents work in the agriculture and food industries are often unable to afford the food they help produce, leading a Stockton meeting participant to state that “Food insecurity in the San Joaquin Valley is shameful given the billion dollar agricultural industry.” High rates of food insecurity among children reflect the Valley's high poverty rate. Educators and service providers also acknowledged the cost and time barriers that make it difficult to buy and prepare fresh, healthy food – a major challenge for working parents who receive low wages. As a parent educator from Mariposa County explained, “Low-income families cannot afford healthy fresh food all month. Buying cheap processed food is how a low-income family survives.”

Although the percentage of children living in food insecure households has been declining in the San



Joaquin Valley, it remains higher than the state average (Figure 12). Since poverty is more prevalent among non-white populations, people of color are disproportionately affected by food insecurity. The United States Department of Agriculture (USDA) reports that food insecurity nationwide is more than twice as common in Latino (22.4%) and black (26.1%) households compared to white households (10.5%). Of children who experience very low food security in the United States, 40% have a foreign-born parent.<sup>42</sup> These conditions are reflected in the San Joaquin Valley.

Figure 12. Estimated percentage of children under 18 living in households with limited or uncertain access to adequate food, 2014



Source: Feeding America, Map the Meal Gap.

The rate of childhood food insecurity in the San Joaquin Valley is higher than the state as a whole. In 2014, the highest rates of food insecurity were in Fresno, Kings, Merced and Tulare counties, where 29% of children under 18 experienced limited or uncertain access to food, compared to 23% of children statewide.

Until all families have adequate financial resources, emergency relief programs like CalFresh (California's Supplemental Nutrition Assistance Program), the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), Free and Reduced Price school meals (FRPM), and food banks will remain a necessity. These programs help impoverished families put food on the table, yet many people across California who are eligible for these programs do not use them. The same holds true in the San Joaquin Valley. Community members involved in this research expressed that stigma prevents many people from applying, as do restrictive eligibility criteria, lack of understanding of the eligibility criteria and the difficulty of applying.

Given the high rate of poverty in the San Joaquin Valley and the central role that schools play in children's lives, the FRPM is an important source of nutrition for children from poor families. The percentage of children who are eligible for FRPM is much higher than the statewide average in every county except Mariposa (Table 3), but the participation rate among eligible children is lower than it could be for lunch, breakfast and summer meals. An informant with expertise on supplemental food programs noted that reasons for low participation in the breakfast program include that not all schools participate, awareness of the program is low, and it can be difficult to get young children to school early enough for breakfast served before school. Efforts to increase participation include "innovative programs such as breakfast in the classroom and second-chance breakfast. These programs are great ways to overcome some of the traditional barriers – they increase awareness, don't require an alteration of drop-off or bus schedules, and are seamlessly integrated into the school day," according to this informant.

The summer meal program is even less well-utilized, primarily because few schools participate. Additional barriers include lack of awareness, transportation to distribution sites and age limits. Although all children ages 0-18 are eligible to participate in summer meals, this USDA-funded program does not provide reimbursement for meals provided to parents, making it difficult for families to eat together. In some places, private contributions (e.g. from hospitals and health systems) help fill the gap.

In addition to government-funded supplemental food programs, other resources such as food banks and emergency aid programs attempt to fill the gaps, but they cannot keep pace with demand, especially during economic downturns such as that caused by the continued drought.<sup>43</sup> Additionally, donated food is not always healthy or what families would choose for themselves. According to one community member, "Many times foods are expired and other times it is not expired but it is not fresh fruit or produce. It includes processed food." Some parents expressed similar dissatisfaction with food provided by schools, commenting that schools should serve healthier food and beverages, and take into consideration the cultural backgrounds of their students. These sentiments reflect the limited choices available to low-income parents who often rely on supplemental food programs and can't afford to buy the fresh, pesticide-free or organic food they would prefer to feed their children.

Table 3. Participation in School Meals Programs, 2014-15

	% of students eligible for school meals programs	% eligible who participate in lunch program	% eligible who participate in breakfast program	% of lunch program participants who participate in breakfast program	% of lunch program participants who participate in summer meals program
California	59%	70%	38%	54%	20%
Fresno County	73%	82%	40%	49%	18%
Kern County	70%	75%	34%	46%	17%
Kings County	67%	71%	44%	62%	11%
Madera County	77%	76%	33%	44%	8%
Mariposa County*	56%	65%	48%	74%	2%
Merced County	79%	77%	37%	48%	18%
San Joaquin County	65%	75%	35%	46%	32%
Stanislaus County	66%	74%	32%	44%	14%
Tulare County	76%	72%	38%	53%	7%

Source: California Food Policy Advocates (4/26/16), <http://cfpa.net/county-profiles>

*A large percentage of Valley children qualify for school meals programs, but participation in some counties and some programs is relatively low. Participation among eligible children in the lunch program is higher than the state average in every county except Mariposa. Participation rates of eligible children in the school breakfast program falls below the state average in Kern, Madera, San Joaquin and Stanislaus counties. Of the students who participate in the school lunch program, a high percentage also participate in the breakfast program in Mariposa County and Kings County, with below average participation in the remaining counties. Participation rates in summer meals programs are low throughout the state, but in San Joaquin County, nearly one out of three children who participate in the free lunch program also receives supplemental meals in the summer.*

### Access Barriers

Many respondents linked childhood obesity to a lack of access to fresh, healthy, affordable food. Parents at the community meetings were less concerned about obesity than other informants, but frequently mentioned that their children lack access to affordable sports programs, safe parks, bike paths, walking routes and other spaces that encourage physical activity (for more on this topic, see the Equitable Land Use Planning section). Community members also emphasized the burden of living in communities that are dominated by convenience stores and fast food restaurants, speaking passionately about the need for affordable grocery stores in their neighborhoods, more community gardens and conveniently located farmers' markets.

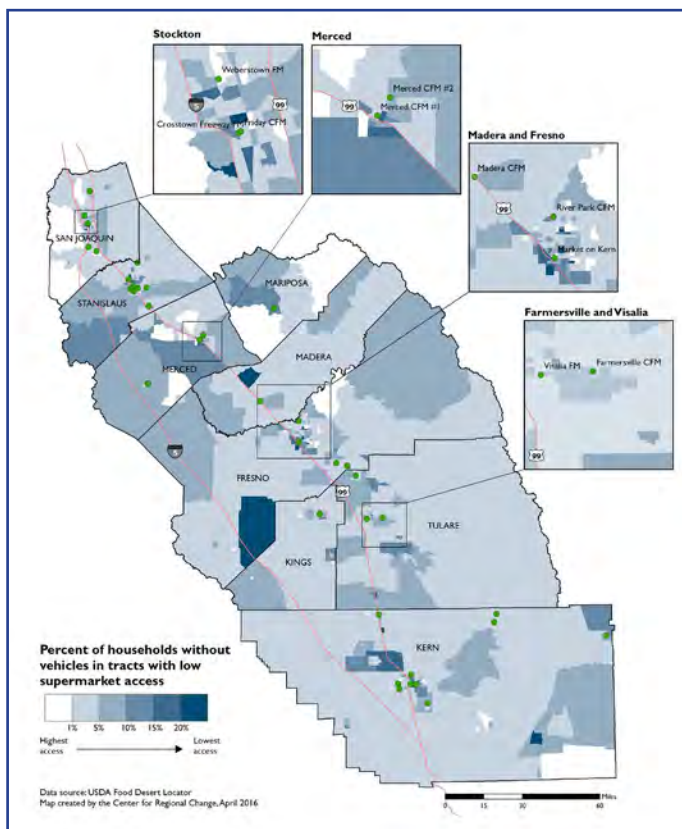
Access barriers are especially acute in rural, isolated areas and places that lack public transportation and have low rates of car ownership. The map in Figure 13 shows pockets of low supermarket and low vehicle access (darker blue indicates more households without vehicles in places where the nearest supermarket is more than a mile away) across large swaths of the Valley, including many rural and some urban areas. Lacking access to full-service grocery stores, communities are beginning to utilize schools as sites for farmers' markets, community gardens and other food distribution programs

to capitalize on their central role in the community. An educator from Kern County argued that *"Every school and childcare center should have a garden and the authority/permission to serve the food grown to the participants without undue restrictions by governmental agencies."*

### Opportunities for Change

Study participants noted multiple opportunities to increase the consumption of healthy food through innovative efforts to increase access to fresh, healthy food, and public-private partnerships that expand supplemental food programs and increase the ability of farmworkers and other food-systems workers to access the food they help produce. As one survey respondent from Kern County noted, *"Until the private organizations – the food industry, for example – realize the importance of caring for the communities in which they are based, true and lasting change will not occur."* Small farmers and food justice advocates talked about barriers to local distribution of fresh produce, including regulatory hurdles, language barriers faced by immigrant farmers, and the high cost of distributing to local markets relative to accessing distant markets through bulk purchasers. Initiatives that make it economically feasible for growers to access local markets would serve the dual purpose of increasing economic opportunity in the region, while enhancing the ability of residents to purchase fresh,

Figure 13. Supermarket access and WIC-authorized farmers' markets



*In some places that lack full service grocery stores, vehicle ownership is also low, making it difficult for residents to shop for fresh, healthy food. Farmers' markets that accept WIC vouchers often are located in areas where access is a problem.*

healthy, locally grown produce. Programs like Market Match, which doubles CalFresh and WIC benefits at participating farmers' markets, supports local farmers by increasing their sales and customer base,<sup>44</sup> but funding for the program is limited. Public-private partnerships are helping increase the reach of Market Match programs by pooling funds in order to take advantage of federal matching grants.

In addition to public and private agencies, grassroots groups and community-based organizations also are partnering with local farmers in the effort to promote access to fresh produce and to promote healthy eating. These groups, such as Food Commons Fresno with deep roots in their communities, are well-positioned to deliver culturally appropriate programming adjusted to the needs of participants, including those with dietary restrictions due to allergies, health conditions or cultural traditions.

Ensuring that all children have access to healthy, fresh, affordable food will require the development of a more sustainable food system that removes cost and access barriers for families, while also fostering a strong local economy.



## Healthy Living Environments

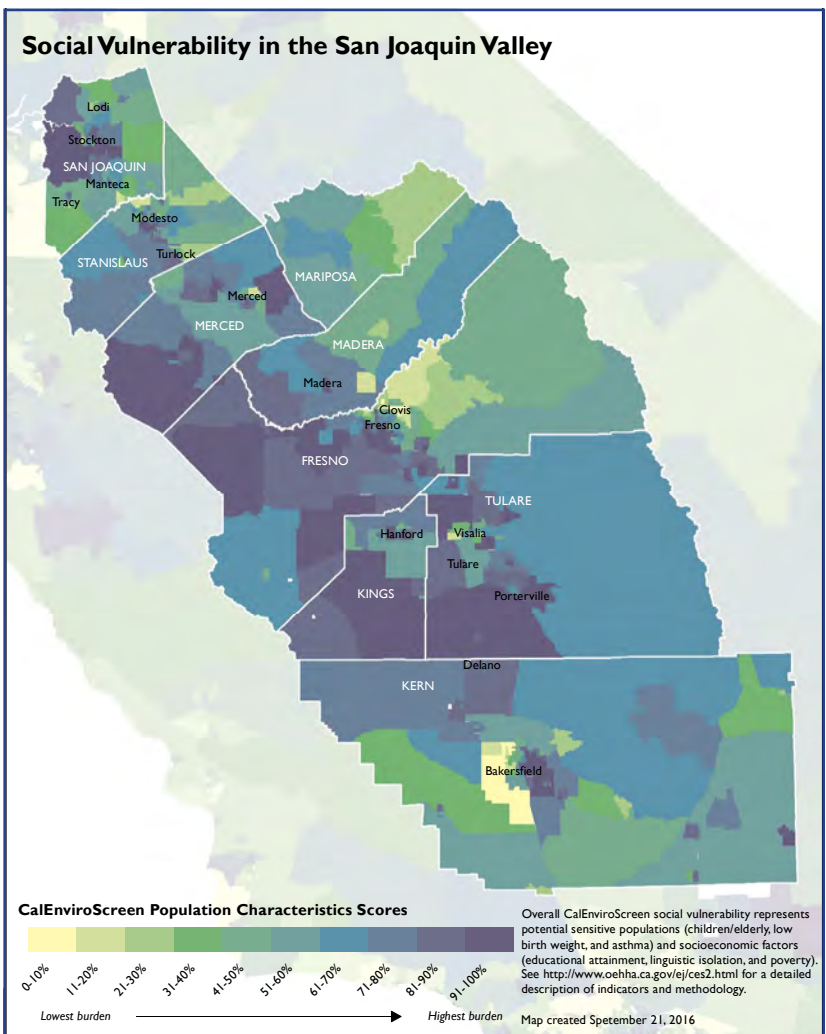
San Joaquin Valley residents in this study identified healthy living environments as a top priority, emphasizing the impact that environmental hazards have on the lives of children. From a community perspective, the primary threats to creating healthy and vibrant communities in the region include air pollution, unsafe drinking water and pesticide exposure. This is aligned with a wide range of research on the region (some cited below). These challenges place a significant burden on young children and their families, who subsequently face disproportionate health impacts and social vulnerability.

### Why it Matters

The health of children, families and communities is profoundly influenced by the quality of their surrounding environments. The population of the San Joaquin Valley faces high levels of cumulative environmental burdens and social vulnerability compared to the state as a whole.<sup>45</sup> As voiced by one community advocate from Merced County, “*It’s water quality. It’s air quality. It’s pollution... we just have such a variety of seemingly insurmountable issues in the Valley.*” This landscape of inequity has been produced through legacies of land use policies that favor the region’s dominant industrial sectors (i.e., agriculture, land development, transportation and petrochemical). As a result, low-income communities and communities of color not only face disproportionate risks, but also have less access to decision-making power (policy, planning and investment) that would allow them to avoid or mitigate these threats to their health and well-being. This combination poses a profound threat to community health and well-being, and increased susceptibility to environmentally induced health problems. Children, in particular, are prone to these risks.

Researchers, policymakers and advocates have identified a range of factors termed “social vulnerability” that can influence the capacity of certain populations to avoid and/or mitigate harmful environmental

Figure 14. Social vulnerability to environmental change



Source: California Communities Environmental Health Screening Tool (CalEnviroScreen 2.0, updated October 2014).

Based on population characteristics, the San Joaquin Valley faces high levels of social vulnerability to environmental pollution compared to the state as a whole.

exposures. Social vulnerability includes demographic, economic, and political factors that can make certain populations more susceptible to environmental hazards. The CalEnviroScreen 2.0 identifies a range of indicators that contribute to negative health outcomes, including poverty, unemployment, lack of formal education, limited English language fluency, age, pre-existing health conditions, and living in areas of racial and ethnic segregation. As illustrated in Figure 14, communities in the San Joaquin Valley have elevated social vulnerability scores compared to the state as a whole.



As one rural studies researcher noted, “It’s the everyday environment that they’re subjected to that’s a challenge in the San Joaquin Valley, especially for lower-income families and working families.”

The following sections describe key issues that affect children’s health and well-being with respect to the environment. These are top priorities that need to be addressed in order to create healthy and vibrant communities in the region.

### Air Pollution

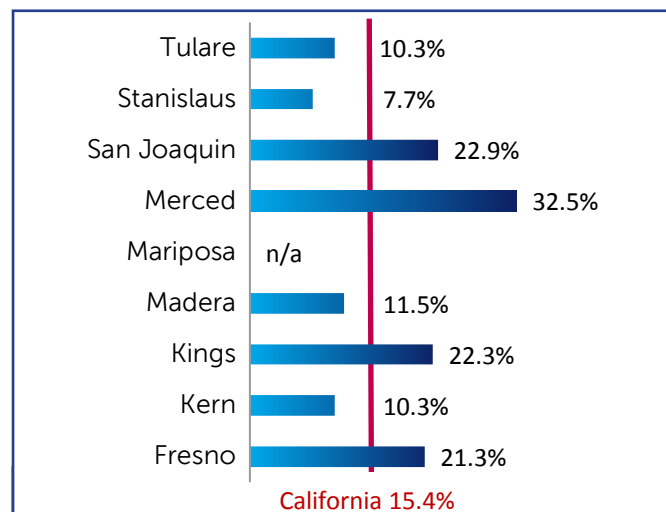
Residents and local leaders who participated in the community forums and interviews frequently named air quality as a top priority that needs to be addressed in the San Joaquin Valley. Asthma was identified by survey respondents as one of the top health issues affecting young children in the region. Other research substantiates these concerns, recognizing the significant environmental concern that air pollution poses.<sup>46</sup> Since children tend to spend more time outdoors than adults, take in more air relative to their body size and have not reached full physical development, they are especially sensitive to air contaminants. When children are exposed to indoor and outdoor contaminants in high concentrations and for extended periods of time, they are at increased risk for developing respiratory illness and other serious conditions, including heart disease and cancer.<sup>47</sup> Poor air quality also affects maternal health and contributes to negative reproductive outcomes, leading to long-term health problems for children.<sup>48</sup> According to the U.S. Environmental Protection Agency, ground-level ozone and fine particulate matter (PM 2.5) are considered the most pervasive threats to human health.<sup>49</sup>

In the San Joaquin Valley, almost every county (with the exception of Mariposa and San Joaquin counties) experienced a greater number of days with ozone levels above regulatory standard than the state average. These numbers range from 14 to 74 days, compared to 13 days for the state. While acknowledging the susceptibility of the region to air pollution due to its topography and weather, many environmental justice advocacy organizations point to the resistance of the San Joaquin Valley Air Pollution Control District to take more aggressive action to regulate polluters – a problem that demands collective action. The region as a whole has remained out of conformity with the Federal and California Clean Air Act for ozone and PM 2.5 levels, despite decades of community pressure on regulators

to address the problem. As expressed by a local public health official from Merced County, “There are strides that have been made over the last 20 years in regards to reducing poor air quality here in the valley...but we still have a ways to go and it’s still impacting our children.” Major sources of air pollution in the region include the petrochemical industry, agriculture-related sources (such as diesel irrigation pumps, dust from tilling and pesticides), and vehicle traffic along its high-volume transportation corridors for autos, trucks and rail lines. Communities located near these sources face disproportionately high exposure to air pollution.

Families that live in homes lacking adequate air conditioning and weatherization, coupled with close proximity to pollution sources, are at the highest risks for air pollution-related illness. Asthma is one of the most prevalent childhood diseases associated with outdoor air pollution. (It is important to note that asthma is also caused by a number of other causes including indoor air quality, household pets and pests.) Asthma diagnoses of children ages 1-17 in the region range from 7.7% to 32.5% compared to 15.4% for the state as a whole (Figure 15).<sup>50</sup> Due to the variation in how asthma is diagnosed, a better indicator of the scope of this problem may be in the number of emergency room visits for asthma among children. By this metric,

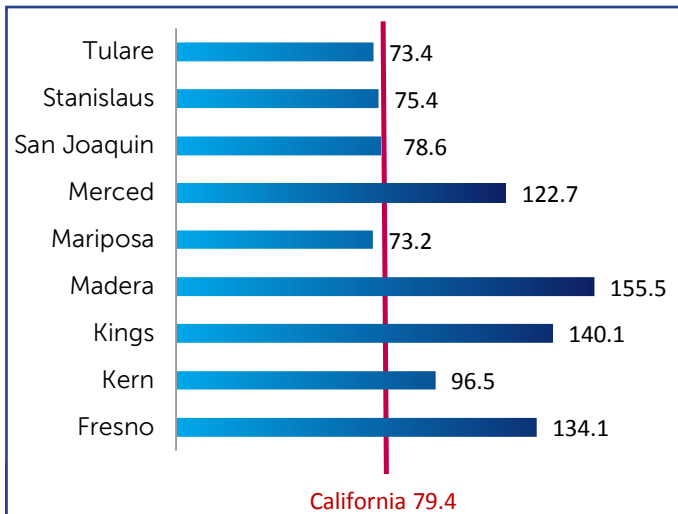
Figure 15. Percentage of children diagnosed with asthma



Source: California Health Interview Survey (2011-2012)

Several counties have high rates of childhood asthma diagnoses, relative to the state as a whole, including Merced, where 1 of 3 children has received a diagnosis of asthma. In some San Joaquin Valley counties, rates are lower than the statewide average, but public health officials caution that doctors do not use uniform criteria to establish a diagnosis of asthma. Data for Mariposa County are suppressed due to low numbers.

Figure 16. Asthma-related emergency room visit rate (per 10,000 children)



Source: Office of Statewide Health Planning and Development (2012)

The rate of emergency room visits due to asthma is above the state average of 79.4 per 10,000 children in Merced, Kings, Kern and Fresno counties, and is nearly double the state average in Madera County.

five of the nine San Joaquin counties fare much worse than the state average, with the rest very close to the state average (Figure 16). However, even this measure is likely an under-count, as many families, especially those in rural areas, do not have easy access to hospitals. For children without access to adequate medical care, asthma can have a large negative impact on school attendance and schoolwork.<sup>51</sup> As voiced by a regional land conservation advocate, “In terms of school days lost to asthma and respiratory illness...I think that air quality is a major health issue throughout the San Joaquin Valley.”

## Drinking Water

Local community members and leaders voiced strong concerns about access to drinking water in the San Joaquin Valley, most commonly drawing connections to health problems and the economic burden that poor water quality places on families. Clean, safe drinking water is a necessity for healthy child development, learning and overall well-being.<sup>52</sup> Exposure to drinking water contaminants can lead to multiple health effects for children, including compromised cognitive functioning, liver and kidney damage, gastrointestinal difficulties, cancer and neurological impairment.<sup>53</sup> In recognition of the fundamental role that water plays in human health, equitable access to clean, abundant and affordable drinking water has been deemed a human right and has recently been enshrined in California's new Human Right to Water legislation. Passage of

this legislation was prompted by the recognition that in many communities in the region, in particular, communities occupied predominately by low-income people and people of color, such human rights are not being respected or protected.<sup>54</sup> According to an informant who studies issues affecting rural areas, “Water use and water rules [are] a really challenging area of policy and rulemaking in California. But it's probably now, more than ever, having a significant impact on the long-term health of young residents, because it's shaping the way people choose where to invest and where not to invest.”

Depending on the location within the region, drinking water supplies can be contaminated by multiple sources. These include agricultural residue such as pesticides, nitrates from fertilizer and manure, harmful bacteria from leaking sewer and septic systems, industrial chemicals such as perchlorate<sup>55</sup> from oil and gas production, and naturally occurring toxins such as arsenic, boron and radioactive uranium. On top of the health risks of ingesting or coming into contact with this water, residents are burdened by the high cost of paying for this water, as well as the replacement water that many must resort to purchasing from often distant stores. A regional land conservation advocate stated, “You see communities...that have historically been dependent on groundwater, and they're losing access to that because they can't afford to drill deep enough to access it.” Another local environmental justice advocate explained, “People are having to rely on state subsidized drinking water, and they're having to purchase it [water] themselves.”

Children face especially high risks from water contamination. Schools, in particular, are a large provider of the drinking water that young children consume. However, research shows that many school sites repeatedly fail to meet safe drinking water standards.<sup>56</sup> Although water quality in schools is a statewide issue, it disproportionately impacts children in the San Joaquin Valley, which is home to the largest number and highest percentage of schools where the drinking water does not meet regulatory standards.<sup>57</sup> In the Central Valley, 1 in 4 schools are affected by unsafe drinking water.<sup>58</sup> School sites that are most affected have been found to serve populations with higher percentages of Hispanic/Latino students, as well as students from lower socioeconomic backgrounds.<sup>59</sup> As one local environmental justice advocate stated, “[A]t least there's food on the table, but...not having access to clean drinking water...it's really painful.”

## Pesticide Exposure

Participants in this study frequently named pesticide exposure as a primary concern for residents in the San Joaquin Valley due to the dominant presence of agriculture, which often results in the location of homes and schools in close proximity to farmland. These concerns are further substantiated by research that identifies pesticide exposure as a critically important issue for children given the serious acute and chronic health threats associated with toxic exposure at a young age. Since pesticides can interfere with critical stages of development, children are extremely vulnerable to exposure of any kind.<sup>60</sup> Current research demonstrates the links between pesticide exposure and the elevated risk of cancer, neurological disorders, and respiratory illness.<sup>61</sup> Prenatal pesticide exposure is also correlated with neurodevelopmental disorders such as autism, as well as other adverse birth outcomes.<sup>62</sup>

Children and families living near agricultural fields face disproportionate pesticide exposure.<sup>63</sup> This is a result of pesticide drift from nearby fields onto homes, schools and neighborhoods. However, these hazards are not evenly distributed. In counties with high levels of pesticide use (which include all but Mariposa County), Latino children are more likely to attend schools near the highest use of pesticides considered a public health concern.<sup>64</sup> Latino children are also 46% more likely than white children to attend schools with any pesticides of concern applied nearby, and 91% more likely than white children to attend schools in the highest quartile of use.<sup>65</sup> While pesticide drift onto settled areas is illegal, and the California Department of Pesticide Regulation claims it is infrequent, this is an all-too-common occurrence according to environmental justice advocates and local community leaders in the Valley. Pesticides also leach into ground water, contaminating water supplies and volatilize into the air, contributing to air pollution, all of which adds to the pollution burden facing children and families in the region. Similar to water quality monitoring and enforcement, many advocates criticize pesticide regulators and point to a pattern of policymakers and public agencies that are not responsive to local community needs. At the same time, a number of growers are shifting to organic methods to provide healthier produce, working conditions and environmental quality in their communities.

## Opportunities for Change

Healthy, safe and equitable living environments are essential for the health and well-being of the region's children and families. However, the landscape of environmental injustice has multiple sources that are not easily addressed. Many of these relate to legacies of land use planning that have led to the concentration of hazardous facilities in and around low-income communities and communities of color, contributing to the inequitable distribution of environmental hazards. (This is described in detail in the next section.) At the same time, the San Joaquin Valley has a long-standing reputation of producing powerful environmental justice and health organizations that have achieved important victories in changing policies and plans for improving the health and well-being of communities.<sup>66</sup> In some cases, this involves proactive efforts and partnerships with farmers to support transitions to sustainable agriculture in the region. Building upon this work, participants in this study have made a clear call for policymakers, planners and advocates to diligently mitigate environmental and social hazards, and prioritize community needs over industry interests.

# Equitable Land Use Planning

San Joaquin Valley residents in this study identified equitable land use planning as a top priority in the region due to the large impact it has on many facets of health and well-being. From a community perspective, the primary land use challenges in the region include a lack of green space and parks, affordable housing, accessible and affordable transportation, and community safety. These challenges result from inequitable planning decisions that prevent the development of thriving and inclusive communities for children and families.

## Why It Matters

Current planning and investment patterns in the San Joaquin Valley reflect long-standing agricultural, petro-chemical and development interests. These forces have overburdened the Valley's population with cumulative environmental hazards, while also depriving these communities of equitable access to housing, transportation, safe spaces and economic opportunity. These patterns are often correlated with high degrees of residential segregation by race and ethnicity, and impact the ability of people of color to access health-promoting resources and opportunities. Policies and practices such as "redlining," in which banks refused loans to certain people and in certain places, created a legacy of racial segregation and economic inequity that persists to this day, despite the outlawing of such overtly discriminatory practices.

Other planning practices and municipal decisions have led to high numbers of unincorporated communities in the San Joaquin Valley. Unincorporated communities are often overlooked by planners and policymakers due to the absence of municipal governments and local representation that would otherwise ensure accountability in planning and decision-making processes. As a result, these communities lack essential infrastructure and services, such as street lights, sidewalks, clean drinking water and sewage systems. Such deficiencies have a significant impact on families and children.

The following sections describe key issues that affect children's health and well-being with respect to land use planning. These are top priorities that need to be addressed in order to create thriving and inclusive communities in the region.

## Green Space and Parks

Access to parks and green space was one of the most frequently discussed topics during community meetings, with many residents identifying recreational amenities as a top priority in their communities. This perspective is further substantiated by data that demonstrate the positive effects of parks and green space. Research has shown the critical importance of park access and green space when it comes to both environmental benefits and positive health and well-being outcomes.<sup>67</sup> The scarcity of park space in the San Joaquin Valley is a concern for communities, and largely impacts young children and families. Residents repeatedly voiced the need for greater access to parks, as well as the improvement of existing recreational areas. Many explained that existing parks are poorly maintained, located next to freeways or unsafe for young children. According to one community advocate working in multiple counties, *"...the disadvantaged communities that we work with in the Valley oftentimes do not have a nearby recreational center or parks that really offer a variety of opportunities for recreation."*

Having access to parks and open space provides greater opportunities for children to be active and increases the likelihood that children will maintain a long-term healthy lifestyle that includes a healthy weight.<sup>68</sup> Research has shown that access to green space also improves psychological health<sup>69</sup>, and is an issue of top concern to survey respondents and community members. Green space (e.g. trees, plants and other vegetation) also has the ability to improve environmental conditions by reducing nitrogen dioxide and particulate matter in the air, while minimizing heat absorption caused by concrete and other materials in the built environment.<sup>70</sup> This provides long-term health benefits for young children and others in the community.

## Affordable Housing

Local community members and leaders in this research voiced strong concerns about affordable housing in the Valley, an issue that was echoed in the survey responses. The lack of quality, affordable housing in areas with high levels of quality of life resources (good jobs, schools, services) places a significant financial and social burden on communities, especially households with young children. Primary concerns include the inadequate



provision of affordable housing units, displacement of low-income residents from gentrifying neighborhoods, limited adherence to inclusionary zoning in many jurisdictions, and the clustering of affordable homes in isolated areas with limited access to key services and resources in the region. Notably, families in the San Joaquin Valley experience housing cost burden (measured as households that pay more than 30% of their income on housing) at rates that range from 37% to almost 47% (Table 4).<sup>71</sup> As explained by a statewide affordable housing advocate, *“There’s a huge gap in the payment ability of very low wage workers and the cost of homes for rent and for purchase. These conditions are being exacerbated by pressure from the Bay Area in communities that have become commuter towns.”*

Unstable and poor quality housing directly affects children, often resulting in missed school days, unreliable service access, increased stress and mental health problems, and lack of safe spaces to do homework, play and spend time with family and friends. These activities are critical for a child’s healthy development and well-being. A community organizer from Kern County stated in the survey, *“It’s critically important... it’s hard to have good health without good housing.”* Expanding upon this, they explained, *“Many low-income families are living in uninhabitable housing (mold, asbestos, lead, vermin, cockroaches, leaky plumbing, faulty wiring) and [are] afraid to complain to their landlord for fear of becoming homeless. They fear retaliation from the landlord.”*

Table 4. Percentage of households experiencing high housing cost burden

County	%
Fresno	45.2%
Kern	41.8%
Kings	40.4%
Madera	45.7%
Mariposa	37.2%
Merced	43.6%
San Joaquin	46.2%
Stanislaus	46.6%
Tulare	44.0%
California	47.2%
United States	33.3%

Source: U.S. Census Bureau, American Community Survey (Jan. 2015).

*The high cost of housing in the coastal regions of California are reflected in the high percentage of residents that spend 30% or more of their income on housing, but housing cost burden is also high in many San Joaquin Valley counties. Only Mariposa County comes close to the nationwide average of 33%.*

Families and children can also face economic and social isolation when they are unable to access affordable, stable and quality housing. Federally subsidized or low-income housing units in the San Joaquin Valley tend to be clustered in areas of concentrated poverty.<sup>72</sup> These neighborhoods typically offer fewer economic opportunities and lower performing schools, and living in them has long-term negative consequences for children, especially the most vulnerable children, as discussed in the Introduction to this report. According to a rural studies researcher, *“Lack of safe, affordable housing ... puts children at risk for having to operate in a community with a lack of infrastructure, unsafe outdoor conditions, [and] potential health hazards.”* As the population of the Valley continues to grow and new developments are created to meet this need, proactive measures can be taken to equitably build and develop the region.

### Transportation Access

Community members voiced several concerns about the impact that transportation challenges have on people in the region. The availability of safe, reliable and affordable public transportation is essential for healthy and equitable communities because it provides access to job opportunities, food, health services and education. However, transit infrastructure is insufficient in the San Joaquin Valley, which takes a toll on community health and economic stability. The logistical challenge and time-consuming nature of traveling with young children on public transportation was

repeatedly highlighted by participants at community meetings. As stated by a family services director from Stanislaus County, *“A bus pass even within the city can mean a full half day or more of traveling just to get to a one-hour appointment.”* For households with young children, transportation is an especially critical resource due to their multiple needs, such as transportation to school, child care, health care services and extra-curricular activities. As expressed by an educator in San Joaquin County, *“Families are at risk because, geographically, they live in remote locations and they’re not typically close to resources.”*

Bike routes, sidewalks and street lights also are lacking, which creates

additional gaps when traveling without a personal vehicle. Constructing and improving existing amenities has the potential to increase mobility and accessibility of routine destinations, such as schools and parks. As noted by a local community health advocate, *"We have really failed our children by not ensuring that all of them have a safe route to school, whether it's by walking or by bike. And certainly there are a lot of investments there that need to be made to improve our community's design."* Access to alternative transportation also influences physical health and provides opportunities for residents to be active. The same advocate further explained, *"If we had a more robust public transportation system, we could actually help foster more physical activity by people walking to bus stops...or reaching their commutes with biking and walking."* These transportation barriers compound the challenges that people face, particularly families who need to provide for young children.

### Community Safety

In the context of equitable land use planning, community safety was identified as a major concern among residents who participated in the community meetings and town halls. Participants at almost every community meeting voiced their desire for safer and more vibrant communities that are free from gangs, drug use and violence. In doing so, participants also expressed different perspectives about law enforcement in their communities. While some feel the need for greater police presence and quicker response times, others feel that law enforcement officers in their community are not there to protect them and in some instances actively target them for unjust treatment. Other challenges were also identified during community meetings and town halls, including language barriers, lack of trust and the need to develop positive community relations with law enforcement.

The disproportionate safety risk of living in communities that lack basic infrastructure and resources (e.g. street lights, law enforcement, etc.), coupled with the extreme strain of living in poverty, contribute to crime, gang violence, substance use, domestic violence, abuse/neglect and other forms of trauma. As expressed by a local public health official from Stanislaus County, *"One of the things we see is violence in our families and in our communities, and the subsequent impact to children that [it] causes, with brain development and with mental health issues later on, and how they in turn resolve conflicts themselves."* Many gaps were identified by residents during the community forums, including the need for trauma recovery centers, drug and alcohol addiction services, and re-entry support for incarcerated individuals.

### Opportunities for Change

Equitable land use planning places a central value on ensuring that underserved and vulnerable populations are protected from the negative effects of land use and gain access to the benefits of community infrastructure. However, the systemic exclusion of low-income people and people of color from land use and planning decisions has contributed to the current inequity faced by communities in the San Joaquin Valley. Through discriminatory land use policies and inequitable urban investment, communities continue to feel the effects of this marginalization. In the words of a children's advocate from Fresno County, *"Until we shift that dynamic...we keep everybody else out."* Policymakers, planners and advocates must take proactive steps toward ensuring the development of inclusive and healthy communities informed by local participation, with a focus on increasing access to opportunity for underserved and vulnerable populations. Equitable, sustainable and efficient land use is essential for the future growth and development of the San Joaquin Valley, and vital to the health and well-being of children and families in the region.

## Conclusion: Promoting Health and Racial Equity in the Region

Children throughout the San Joaquin Valley face significant threats to their health and well-being that prevent many of them from reaching their greatest potential. The unequal distribution of health risks have resulted from the historical legacy of institutional racism, xenophobia and classism that contribute to inequitable land use, poor environmental regulation and economic disinvestment, thus depriving people of color and low-income communities of the economic and political resources needed for a healthy and prosperous life.<sup>73</sup> Stakeholders participating in the interviews and community forums spoke eloquently about historical and structural challenges and the urgent need to address these issues in order to improve child well-being and reduce health disparities. In the words of a Fresno-based health policy advocate, *"The conditions here took decades to be created and are now embedded in the built environment, policies, dynamics in homes and neighborhoods, and learned generational behaviors and coping mechanisms. They will take decades to undo."*

Discrimination and social exclusion remain major barriers to positive health outcomes and well-being for children and their families. These impediments not only make it difficult to access quality education, economic opportunities and social services, but they present significant barriers to civic engagement and political participation. Underserved populations and isolated communities lack representation in planning and policy development, while language barriers and lack of governance experience limit participation in local decision-making processes. As expressed by a children's policy advocate, people in positions of power *"don't reflect the populations they're supposed to be serving and...make decisions with public resources that are not necessarily informed by the reality of what's going on in the community."* Another advocate stated, *"In order to have the resources driven in these communities, we need representatives who really understand the needs. And nobody really understands the needs of these residents more than themselves."* These sentiments were shared widely by leaders and organizers throughout the Valley who are working to engage residents and increase civic participation.

Beyond these barriers, the San Joaquin Valley's generally conservative political culture tends to favor a local control perspective that cuts against efforts to promote regional and collaborative planning and governance efforts. In the words of one policy advocate from Fresno County, *"You have these institutions of power that have settled themselves heavy, heavy, heavy in the Valley and are very hard to penetrate."* This jurisdictional and geographic fragmentation often places the most vulnerable populations and places at greater risk of falling through the cracks. It also reduces the capacity of regional coalitions to succeed in taking on the regional drivers of inequity, such as land use, transportation, housing and economic development. According to an informant who studies issues affecting rural areas, *"Rural regions need to be considered in macro-policy-making around land use, agricultural production and environmental intervention."* Regional efforts in the San Joaquin Valley have great potential to tackle challenging issues by offering comprehensive strategies that take into account multiple interconnected needs and broader structural factors.

Considering the many challenges facing the Valley, it is vital to recognize one of its greatest assets: its residents. The region has a diverse and growing population of people who are determined to create a better future for their children. The population of the San Joaquin Valley is expected to nearly double from about 4 million in 2010 to 7.4 million in 2060, with the largest growth occurring in the Latino, Asian and multiracial populations (as seen in Figure 4). In order to fully capitalize on the dynamism and commitment of its people, institutions in the San Joaquin Valley should strive to be more inclusive and increase the capacity of residents to build sustainable, equitable and thriving communities. In support of these efforts, attention must be given to both the immediate needs of children and families in crises and to the broader structural factors that contribute to health inequities. According to a children's policy advocate, *"We've got to fix the structural problems and not just keep building around them."* It will always be necessary to have a strong safety net, but as a long-term strategy for change, community organizing and community engagement have the potential to

reshape policies and practices to produce a more equitable distribution of health-related opportunities (and risks) in the San Joaquin Valley. This work will not be easy, but residents, local leaders and regional advocates are working tirelessly to refocus attention on structural inequalities that are the root cause of many health problems and to advance equity throughout the region.

In a companion report, we discuss promising efforts by community-based organizations, philanthropies, government agencies and individuals to increase community capacity and engagement in equitable policy and systems change efforts. Organizing residents around issues of concern in their communities and giving them the language and tools to advocate on their own behalf can be an effective strategy to increase community health by strengthening communities from the ground up. Community residents and local leaders emphasize that they are not seeking charity; rather, they want to refashion their communities as places full

of opportunities and resources that will allow them to succeed on their own terms. Parents in the San Joaquin Valley have a vision of their ideal community for raising healthy children, which in the words of a Fresno resident, would be one in which *“parents are gainfully employed in jobs that support wellness via opportunities for upward mobility, health insurance, etc. Green space. Safe and vibrant neighborhoods with things to do and clean air and streets. Schools would be creative as well as educational spaces. Inclusive diversity would be celebrated. Healthy food would be easily accessible and affordable. Mental health is destigmatized and it’s just part of being healthy. People are happy and hopeful about their future.”*

What will it take to turn that vision into reality? This report identifies four key areas that community members identified as essential to child health and well-being in the San Joaquin Valley. Focusing efforts on these areas and pursuing opportunities to create lasting change has the power to advance this community vision.

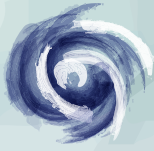


## Endnotes

- <sup>1</sup> SJVHF (<http://www.shfcenter.org/sjvhealthfund>) is managed by The Center with funding from Sierra Health Foundation, The California Endowment, Rosenberg Foundation, The California Wellness Foundation, W.K. Kellogg Foundation, Blue Shield of California Foundation, Wallace H. Coulter Foundation, Dignity Health and TIDES Foundation. The research reported here was supported by W.K. Kellogg Foundation and Sierra Health Foundation.
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- <sup>15</sup> Ibid.
- <sup>16</sup> According to the USDA's Economic Research Service County Typology codes for 2015, none of the counties in this region are farming dependent, meaning that farm earnings accounted for less than 25 percent of total county earnings and farm employment accounted for less than 16 percent of total employment during 2010-12 (<http://www.ers.usda.gov/data-products/county-typology-codes/documentation.aspx>). However, the combined agriculture, food and beverage processing industry is projected to provide the majority of job openings in the eight-county region through 2022, according to the California Employment Development Department (see footnote 15).
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