The Economics of Child Abuse A Study of California



Safe & Sound March 2019

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Acknowledgments

We are grateful to the following colleagues and partners for their invaluable advice and guidance:

Casey Family Programs
Chapin Hall, University of Chicago
Office of Child Abuse Prevention, State of California
San Francisco Human Services Agency
University of California, Berkeley
University of Southern California

Special thanks to our contributors for their financial support to make this report possible:

Blue Shield of California Foundation
County Welfare Directors Association of California
Casey Family Programs
S.H. Cowell Foundation
The Golden Door Foundation
Conrad N. Hilton Foundation
Office of Child Abuse Prevention, State of California
Zellerbach Family Foundation

We are grateful to our peer reviewers who spent many hours assessing this report and providing invaluable advice:

Yiyu Chen, PhD - Office of Child Abuse Prevention, State of California

Emily Putnam Hornstein, PhD - University of Southern California

Carrie Szeto - Office of Child Abuse Prevention, State of California

Daniel Webster, PhD - University of California, Berkeley

Wendy Wiegmann, PhD - California Child Welfare Indicators Project

This report was based upon research of The Economics of Child Abuse: A Study of San Francisco (2017). The following colleagues contributed to that report:

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Note from Safe & Sound

In 2017, one out of every 19 children were reported as victims of maltreatment in California. Signs of child maltreatment are often difficult to detect, and many victims cannot or do not speak up because of their young age, fear, shame, or guilt.

While the physical, mental, and emotional effects persist long after maltreatment occurs—in fact, for most, it lasts their entire lives—child maltreatment also has serious effects far beyond those for the victim. • Spark widespread discussion around the devastating, Maltreatment results in ongoing costs to taxpayers, institutions, businesses, and society at large. Local communities bear the brunt of these costs in the form of medical, educational, and judicial costs, though more tragic signs are seen in homelessness, addiction, and teen pregnancy.

To create a concrete understanding of the widespread and detrimental impact of child maltreatment to California, this report articulates the detrimental effect in dollars. We estimate the cumulative lifetime costs associated with victims with verified cases of maltreatment in California in 2017, is \$19.31 **billion**—conservatively. This estimate is based only on the verified victims we know about. But, there are so many more children out there, suffering in silence without support or resources. Given that child maltreatment is vastly underreported, the total economic burden to the state could be as much as \$284 billion per year.

With this report, our hope is to:

- Articulate the significant and negative impact of child maltreatment on the community;
- · Shed light on the culture and climate within our state that makes families vulnerable and places children at greater risk for maltreatment;
- long-term impact of child maltreatment throughout California, and what we can do to change that trajectory; and
- Create a tool for community members and policymakers to push forward prevention funding, create child safety policies, and grow community action.

As you read this report full of data points and dollar figures, we beg you to remember that we are talking about real children and real lives that have forever been changed. We believe every child deserves to be safe, to be protected, and to be loved. Child maltreatment is not inevitable. Its destructive effects on victims, their families, and our community as a whole can be avoided. It's time we eradicate child maltreatment from every corner of California and strengthen our prevention efforts to stop it from ever happening again.



Executive Summary

Child maltreatment is a persistent and pervasive problem throughout California. Although it is a hidden social ill, its impact is significant. Child maltreatment impacts not just the child, but the family, the community, and society at large. In California, as many as one out of every 19 children is suspected of being maltreated. The impact of maltreatment not only morally degrades our society, it significantly hurts our economy. In fact, the physical, mental, and emotional effects of maltreatment persist long after child maltreatment occurs, and result in ongoing costs to every sector of California.

Child maltreatment is a core underlying factor in many of California's ongoing struggles, such as high rates of school dropout, homelessness, incarceration, and chronic health issues. This report shines a light on this largely ignored issue and the negative impact it has on all of us.

The Financial Impact of Child Maltreatment

The cumulative financial impact on California for the 71,289 verified child victims in 2017 is \$19.31 billion. These costs are accrued over the course of the victim's lifetime, however these costs will continue to accumulate each year, until we are able to reduce and ultimately end child maltreatment.

\$268,544

Individual lifetime cost of child maltreatment survivors in 2017

- × 71,156
 Substantiated survivors of child maltreatment in California in 20
- + \$207,024,000

 Cost for the 133 fatalities from child maltreatment in 201
- = \$19,315,559,000

Total economic burden incurred by the California community for the lifetime costs associated with the victims of child maltreatment in 2017



California	\$19.31B
Bay Area	\$2.00B (19% of CA population)
San Francisco	\$0.20B (11% of Bay Area population)

In 2017, Safe & Sound published a report titled The Economics of Child Abuse: A Study of San Francisco, finding the cost to be \$0.2B in San Francisco alone. Later that year we expanded our work to assess the greater Bay Area, finding the impact to be \$2B. Now, we have undertaken this report to look at the entire state of California, finding the financial impact to be \$19.31B.

California's Community Risk Factors

A variety of factors make individuals and families more vulnerable to maltreatment. Risk factors are often related to life experiences, such as being a victim of maltreatment. Other risk factors are biological predispositions such as mental illness, or those related to one's community.

These factors place children at greater risk for maltreatment:

Socioeconomic Inequality & Poverty

Today, the gap between the rich and poor is twice as large in Ċalifornia as it was in 1980. Research suggests that income, or socioeconomic status, is the strongest predictor of maltreatment rates.

Lack of Adequate & Affordable Housing

Californians spend a disproportionate amount of their income on housing. California's median monthly housing costs were 47 percent higher than the U.S median. In addition to increasing families' stress, lack of affordable housing leads to greater rates of cohabitation.

High Unemployment Rates

Although unemployment in California is historically low—4.2 percent as of June 2018—concentrated areas of unemployment persist. High levels of unemployment increase economic uncertainty and stress for families.

Homelessness

As of a 2017 point-in-time count, more than 112,000 individuals were homeless in California—more than 21,000 of whom were in families. Homelessness is a major driver of temporary family separation, not only increasing family stress but also the number of caregivers in a child's life.

Community Violence Across the state, families exposed to a culture of violence often experience trauma, strain, and fear, all of which increase the likelihood of child maltreatment.

Substance Abuse

From 2014-2016, an estimated 6.37 percent of the California population consumed a problematic amount of alcohol. Families with problematic alcohol or drug use often experience trauma, strain, and fear.

Social Isolation & Marginalization

In 2016, 27 percent of Californians were foreignborn and California's U.S.-born population was characterized by churn and turnover. From 2007-2016, about 5 million people moved to California from other states, while about 6 million left California, leading to deteriorated social and support networks.

Wildfires & Natural Disasters

In the last several years, wildfires have posed an evergrowing threat to Californians. For example, between July 2017 and July 2018, Sonoma County experienced several wildfires and saw a 35 percent increase in reports of child maltreatment, as well as increases in substance abuse and domestic violence.

Breakdown of \$19.31B

Lifetime Productivity \$13B Diminished earning potential Unemployment because of

Criminal Justice \$545M

everything below

- As a child / juvenile, victims are
- As an adult, victims are 28%

Healthcare \$3.8B

- Mental health issues

Education \$919M

- Poorer academic performance

Child Welfare \$787M

Fatalities \$207M

Total Loss \$19.31B

About Child Maltreatment

As a child, Anna dreamed of being a store owner. She would play "grocery store" for hours, selling pretend vegetables and milk to friends. But when she was 8, her mother's boyfriend began to abuse her. This went on for years because Anna's mother, afraid of losing their housing, begged Anna to keep their secret.

Anna became frightened and withdrawn. Her schoolwork suffered.

For a child like Anna, child maltreatment literally changes the chemistry of the brain, disrupting social and emotional growth and increasing the likelihood of low educational achievement, unstable employment, adult poverty, and involvement in the criminal justice system.

As Anna grew older, she began to self-medicate, turning to alcohol and methamphetamines to hide her pain. Unable to hold a job, Anna and her young son Michael spent years in and out of shelters, with no physical address and no regular employment—her childhood dream now a distant memory.

Anna is not alone. There are so many more like her. Throughout California and the United States, child maltreatment remains a pervasive—though largely invisible—corrosion in our communities.

Child maltreatment refers to physical, sexual, and emotional abuse, and neglect. Child maltreatment is a significant and severe adverse childhood experience (ACE) that can impact every facet of a child's future.²

The symptoms of maltreatment can be difficult to detect; nonetheless, the impact on the children harmed is devastating. Neglect comprises the majority of child maltreatment, and though these children may not bear obvious wounds, they may suffer lifelong consequences that are as harmful as the other types of maltreatment.

In California, child maltreatment has a significant, undeniable, and detrimental impact. In 2017, **499,661 children were involved in reports** or allegations of child maltreatment in California, of which **71,289 were substantiated** (confirmed to be maltreatment after investigation by an individual county's Child Protective Services). In addition,

133 children in California died as a result of child maltreatment.³ In other words, 5.4 percent of the state's children were suspected to be victims of child maltreatment; 14 percent of suspected victims were confirmed to have been maltreated; and, 0.19 percent of victims died as a result of maltreatment.

Child maltreatment reports and substantiations disproportionately affect minorities, people of color, and low-income communities. For example, in 2017, while the state average rate of substantiated child maltreatment was eight children per 1,000, the rate of maltreatment among Black children was 21 per 1,000, and for Native American children it was 24 per 1,000⁴ (explained in detail on page 13).

Rates of reporting and substantiation vary across types of maltreatment—for example, emotional abuse can be more difficult to detect than physical abuse and thus is less likely to provide the evidence necessary for substantiation.⁵

In this report, the four types of child maltreatment are defined as:

Neglect

Failure to provide for a child's basic physical, educational, or emotional needs.^B

Physical Abuse

Physical injury resulting from hitting, kicking, shaking, burning, or otherwise harming a child.

Emotional Abuse

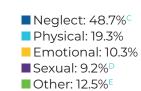
Any pattern of behavior that impairs a child's emotional development or sense of self-worth, including constant criticism, threats, rejection, and exposure to family violence.

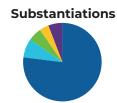
Sexual Abuse

Includes indecent exposure, fondling, rape, or forcing a child into preforming activities that are illegal or degrading, including sexual exploitation or pornography.

Breakdown by Maltreatment Type





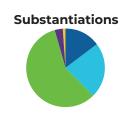




Breakdown by Race & Ethnicity

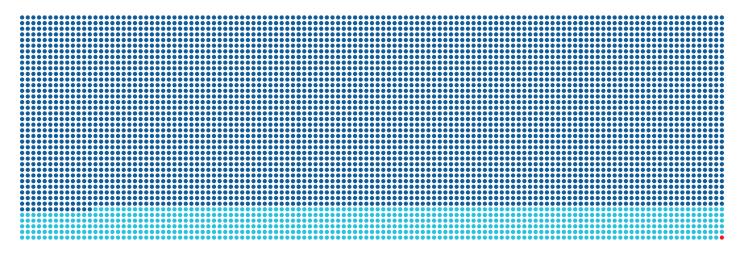








Overall Breakdown



Reports: 499,661 Substantiated Survivors: 71,156 Deaths: 133

• = 100 reports

- A. These statistics were obtained from the California Child Welfare Indicators Project (CCWIP) on October 2, 2018. CCWIP updates historic results on a quarterly basis.
- B. Note that neglect is a broad category inclusive of a number of types of maltreatment including caretaker absence.
- C. Neglect includes allegation types of "Severe Neglect," "General Neglect" and "Caretaker Absence/Incapacity."
- $\mbox{D.}$ Sexual abuse includes allegation types of "Sexual Abuse" and "Exploitation."
- E. Other includes children whose maltreatment report or substantiations originated with a report on a sibling. While each of these children experienced physical, sexual, or emotional abuse or neglect, the structure of the data prevents us from knowing which was the primary maltreatment type for these children.

Meet Anna



She wanted to own a grocery store when she was growing up.

Starting at 10 years old, Anna's mom's boyfriend began to abuse her. This lasted for years, because her mother did not report the abuse for fear of repercussions from the government, society, and him. Finally, a teacher suspected something was wrong, and reached out. Anna's voice was heard, and her mother was supported too.

Feeling shame and anger, Anna acted out, breaking the law and ending up in invenile detection

During the abuse and after, Anna was frequently absent from school and needed **special education** classes to help her learn.

The teacher called **child** welfare, which determined that Anna would be safer in foster care while her mother received needed support so that they could be reunified.

the law and ending up juvenile detention.

\$7,653

average per victim for criminal justice cost

\$12,917

average per victim for special education cost

\$11,057

average per victim for child welfare cost, conservatively

Now, Anna is struggling to create a stable life for her own child

She attends **Safe & Sound Family Support Center** to build her support network, improve parenting abilities, and care for her son.

Safe & Sound and essential family support centers throughout California offer free services for families.

To get the support she needs, Anna goes to therapy. She also sees doctors regularly for a host of **health issues**, including high blood pressure, that her cardiologist believes is a result of the stress and trauma of her childhood.

\$53,618

average increased lifetime healthcare costs of a victim over a non-victim Luckily, Anna's juvenile record was sealed, as it was hard enough to secure a job given her learning disability and medical requirements. Though she has work, her dream of owning a store remains unrealized, and her earning potential is diminished.

\$183,301

average dollars lost to decreased productivity over a victim's lifetime

Anna is working hard at her job, her parenting classes, and at getting her life on the path she wants for her family, but she will never forget the trauma of her childhood.

\$268,544

average, in 2018 dollars, total (per survivor) lifetime cost to our community as a result of maltreatment



The Human Impact

Impact on Children

While the impact and trauma of maltreatment on a child's life is undeniable, children are not data points, but individual lives. Though forever impacted by their experience, not all children who have been maltreated will experience the negative outcomes outlined in this report. While some children who have been maltreated will struggle in school, become teen parents, or become involved in the criminal justice system, others will go on to lead healthy and accomplished lives. It is essential that California's communities champion the programs and services that help to mitigate the trauma of maltreatment and support healthy and successful futures.

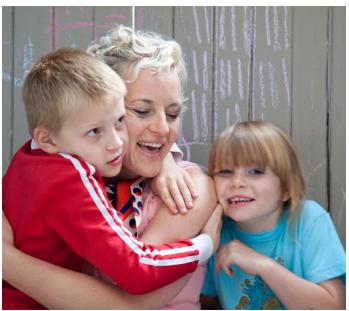
Impact on Families

Child maltreatment not only impacts the life of a child who is maltreated, but also has adverse consequences for the entire family. Research on child sexual abuse suggests that siblings of victims may experience feelings of neglect from the lack of attention, feelings of guilt if they knew about the abusive situation but did not speak up, fear of being maltreated themselves, anger towards the offender, confusion, and more.⁶ Additionally, a sibling's reaction and behavior can increase family distress during an already stressful time. Conversely, a sibling who is supportive can aid in the victim's healing.

Impact on Communities

In addition to the financial impact on our community documented throughout this report, the emotional burden of child maltreatment impacts us all. We must never forget that child maltreatment degrades the moral fabric of our state.





Individual & Family Risk Factors

A widely accepted and longstanding body of research points to a multitude of child, parent / caregiver, and family risk factors that can increase the likelihood of child maltreatment. The presence of these risk factors does not automatically lead to maltreatment—rather, recent research suggests that child maltreatment arises from the interaction of risk factors across these domains by compounding families' stressors.⁷

Conversely, research by the Center for the Study of Social Policy shows that there are five commonalities that healthy families, free from maltreatment, share.⁸ Communities can support these five protective factors to combat risk factors and prevent incidences of child maltreatment within vulnerable families.

Risk Factors

Children

- Younger than 4 years old (particularly for fatal incidents)
- Adolescents (particularly for sexual abuse)
- Special physical or mental needs

Parents / Caregivers

- Lack of understanding about children's needs, child development, or parenting skills
- History of child maltreatment
- Substance abuse or mental health issues
- Young (particularly under 24) or single
- Non-biological parents or transient caregivers
- Low levels of education
- · Large number of dependent children
- Low levels of income / financial difficulties
- Thoughts and emotions supporting abusive behaviors

Families

- Social isolation
- Family disorganization, dissolution, or violence (including intimate partner violence)
- Stress and distress
- Poor parent-child relationships or negative interactions
- Prior incidence of child maltreatment

Protective Factors

Children's Social & Emotional Competence

A child's ability to communicate clearly, recognize and regulate emotions, and establish and maintain relationships.

Parents' Knowledge of Parenting & Child Development

Understanding the stages of child development and parenting strategies that support physical, cognitive, language, social, and emotional development.

Parents' Resilience

A parent's or caregiver's ability to navigate the ups and downs of daily life, and manage stress when faced with challenges, adversity, and trauma.

Families' Social Connections

Positive relationships that provide a family emotional, informational, and spiritual support.

Families' Concrete Supports

Access to support and services that address a family's basic needs, such as food, healthcare, and housing.

Community Risk Factors

Community factors can both increase the likelihood of child maltreatment and present challenges in families trying to create safety and stability, and build protective factors.

As explained in more detail below, research from the Centers for Disease Control and Prevention (CDC) identifies community violence and neighborhood disadvantage—including high poverty, high unemployment rates, and a high density of alcohol outlets—as risk factors for maltreatment.⁹

Based on this and our own research, we've identified several risk factors specific to the state of California. These include: socioeconomic inequality and poverty, lack of adequate and affordable housing, high unemployment rates, homelessness, community violence, substance abuse, social isolation and marginalization, and wildfires and natural disasters.

The presence of these risk factors does not automatically lead to maltreatment—rather, research suggests that child maltreatment arises from the interaction of risk factors across individual, family, and community domains, which compounds families' stressors.¹⁰

In this section, we examine the unique presentation of each of these factors across the state of California.

Socioeconomic Inequality & Poverty

Income inequality in California—and across the U.S.—has increased over the last 40 years. A 2014 study examining more than 3,000 counties across the U.S. found, even when controlling for child poverty and other variables, a statistically significant relationship between income inequality and child maltreatment rates. And, while income inequality increases the risk for children across the socioeconomic spectrum, low income communities are disproportionately affected.

While California's top incomes are 40 percent higher today than they were in 1980, middle incomes are only five percent higher and lower incomes are 19 percent lower. Thus, the gap between the rich and poor is twice as large in California today as it was in 1980.

Geographically, income inequality tends to be the greatest in the Central Valley and Sierra areas of the state^A where median incomes are overall lower. Income is also disproportionately low for immigrants. For households headed by immigrants, per-capita income is \$27,900—a quarter less than overall percapita income statewide, which is roughly \$38,100.13

Distinct from income inequality, numerous studies have found that poverty is a primary risk factor for child maltreatment. Across the country, rates of child maltreatment are five times higher for families with low socioeconomic status than for all other children. Researchers have gone as far as suggesting that income or socioeconomic status, is the strongest predictor of maltreatment rates. In addition, violence and abuse within a family pose significant barriers to economic self-sufficiency.

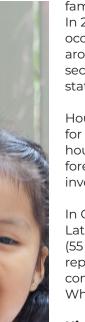
Lack of Adequate & Affordable Housing

Californians spend a disproportionate amount of their income on housing. In addition to increasing families' stress, a deficiency of affordable housing often leads to cohabitation of both families and non-families (extended family, significant others, roommates), increasing the number of transient caregivers in a child's life and the risk of maltreatment.

Additionally, the high cost of housing in communities like the San Francisco Bay Area has begun to resegregate the population.¹⁷ As minorities and low-income individuals are forced to live in less desirable locations and neighborhoods, these populations can become increasingly cut off from relatives, parents' commutes can dramatically lengthen, and children may face worse health outcomes.¹⁸

As of January 2018, median monthly housing costs across the state were 47 percent higher than the nationwide median, while California's median household income was only 18 percent higher than that of the nation as a whole. Between January and August 2017, median home values across the state climbed 7.1 percent, outpacing housing cost growth around the country as a whole. Over time, high and ever-increasing housing costs have resulted in fewer





families enjoying the stability of homeownership. In 2017, only 54.4 percent of California units were occupied by their owner, compared with 63.9 percent around the country as a whole—giving California the second lowest homeownership rate among all 50 states, just slightly higher than New York.21

Housing is a predominant driver of financial stress for families. One 2015 study of more than 60,000 households found that families experiencing foreclosure were substantially more likely to be involved with Child Protective Services.²²

In California, housing costs disproportionately affect Latinx and Black families—more than half of Latinx (55 percent) and Black households (54 percent) report financial strain due to housing costs, compared with 48 percent of Asian and 39 percent of White households.23

High Unemployment Rates

High levels of unemployment increase economic uncertainty and stress for families and in turn place children at greater risk for maltreatment.24 According to the Fourth National Incidence Study of Child Abuse and Neglect (NIS-4), children with no parent in the labor force had two to three times the rate of maltreatment overall, compared to children whose parents were employed.25

Although unemployment in California is historically low—4.2 percent as of June 2018²⁶—concentrated areas of unemployment persist. Often, these are the same areas of the state that tend to have lower wages overall, compounding stress for families.²⁷ For example, in June 2018, Imperial County in the southeastern corner of California, had an unemployment rate of 18 percent, one of the highest in the country. In addition, five counties comprising the San Joaquin Valley had unemployment rates in June 2018 of 7.5 percent or greater (Kern, Tulare, Kings, Fresno, and Merced counties).



Homelessness is a major driver of temporary family separation. One national study found that in some instances caregivers arrange for children to live with other family members that have permanent housing, while in other instances shelters only have capacity to admit some children or adults, but not the entire family.²⁸ Homelessness not only increases family stress but also the number of caregivers in a child's life, putting them at higher risk for maltreatment.

That same study found that nearly 25 percent of homeless families had separated from one or more children, introducing additional caregivers, instability, and stress into their children's lives.



Additionally, domestic violence is a primary driver of homelessness for families.²⁹ For example, of the 226 homeless families in San Francisco in 2015, nearly half reported having experienced domestic abuse.³⁰

As of a 2017 point-in-time count, more than 112,000 individuals were homeless in California—more than 21,000 of whom were in families.³¹ Between 2016 and 2017, California saw its number of homeless people in families increase by more than 1,000 individuals. Of the five major U.S. cities with the highest percentages of unsheltered homeless families, four are in California (with the highest being San Jose; second highest, Long Beach; third highest, Los Angeles; and fourth highest, San Diego).

Community Violence

Across the state, families exposed to a culture of violence often experience trauma, strain, and fear, which increase the likelihood of child maltreatment. California's violent crime rate remains historically low—four per 1,000 residents per year—a rate comparable to the 1960's.³² However, incidences of violent crime range by geography, and are highest in the San Joaquin Valley, mountain regions, and the Bay Area.^A These higher rates create risk factors for child maltreatment.³³

Substance Abuse

Similarly, families with problematic alcohol or drug use often experience trauma, strain, and fear, which increase the likelihood of child maltreatment. From 2014 to 2016, an estimated 6.37 percent of the California population consumed a problematic amount of alcohol, slightly higher than the national average (5.96 percent).³⁴ California's rates of marijuana and cocaine use also exceeded the national averages.³⁵ On the other hand, California is below the national averages for hospitalizations related to opioid abuse, though the state has seen steady increases.³⁶

Alcohol and drug abuse can increase interpersonal violence, impair parents' sense of responsibility toward their children, and reduce the amount of time and money available to spend on children.³⁷ One study found that children in households where substance abuse was present were twice as likely to experience physical abuse and three times as likely to experience emotional abuse or neglect.³⁸ Another study found that parents who reported using marijuana in the past year engaged in physical abuse three times more frequently than those who did not, and the density of medical marijuana dispensaries and delivery services was positively related to rates of physical abuse.³⁹

Social Isolation & Marginalization

Over the past 20 years, California's population has continued to grow—but population growth has slowed significantly and an unprecedented number of residents are moving to other states.⁴⁰ This population instability increases the likelihood that families will be socially isolated or marginalized, which in turn raises the likelihood of child maltreatment.

California is a sanctuary state with welcoming immigration policies and is home to more immigrants than any other state.⁴¹ In 2016, 27 percent of Californians were foreign-born. Of all foreign-born individuals in the state, half were naturalized citizens, roughly a quarter had a green card or other form of temporary legal status, and the remaining quarter were undocumented.⁴² Since 2006, Asia has been the leading area of origin for new immigrants, with Asian countries accounting for 58 percent of new arrivals between 2012 and 2015.

Immigrant status itself is not a risk factor for child maltreatment. Indeed, research shows that immigration status is a protective factor strengthening families' connection and support. 43 However, the circumstances of immigration, the conditions of inequality in which many immigrants live, and the social challenges they often must navigate, add stressors into family life. Immigrants are more likely than native-born residents to face cultural and language differences, prejudice, discrimination, family disruption, confusing interactions with institutions (such as schools, courts, and hospitals), fear of deportation, social isolation, and residential segregation.⁴⁴ And, as mentioned in our analysis of socioeconomic inequality, immigrant households tend to earn substantially less than non-immigrant households, resulting in greater economic stress.

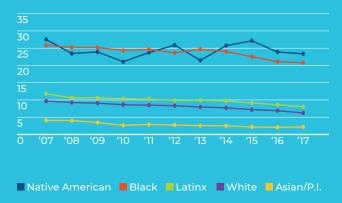
Moreover, California's U.S.-born population is characterized by churn and turnover. From 2007 to 2016, about 5 million people moved to California from other states, while about 6 million left California.⁴⁵ Housing costs are a primary driver of this turnover, with one-third of Californians (33 percent) saying that the cost of their housing makes them seriously consider moving out of the state.⁴⁶

Community turnover is problematic for families as it leads to deteriorated social and support networks, both for those who stay in the state and those who leave.⁴⁷ The effect of residential instability was found to be greater in areas whose residents are generally affluent, possibly because in poorer neighborhoods economic factors are a greater driver of maltreatment than instability.⁴⁸

Impact of Race & Ethnicity

It is important to recognize that the rates of child maltreatment are not equally distributed along racial and ethnic lines in California. Rates of substantiations are significantly higher among Black and Native American families than other ethnic groups.⁴⁹ There is no evidence suggesting that parents of color are less capable of caring for their children. Rather, the causes of racial disproportionality in the child welfare system include a complex constellation of factors, including income disparity, intergenerational and systemic racism, and the disproportionate involvement of welfare and law enforcement in the lives of families of color.50 While the field is only beginning to understand the interplay of these factors, research suggests that concentrated poverty among demographic groups explains much of the difference in substantiation rates.51 This further underscores the impact of economic factors listed earlier in this report.

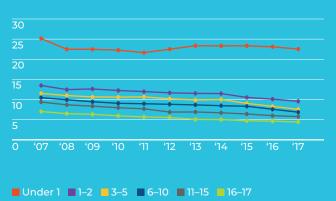
Substantiations per 1,000 Children by Race



Impact of Age

Additionally, children under 1 year old tend to experience child maltreatment at higher rates than any other age group. 52 This may be because of their size (infants are more likely to be harmed by even minor physical stresses), the reaction some adults have to excessive crying, or a child's lack of reponsiveness. 53

Substantiations per 1,000 Children by Age



Wildfires & Natural Disasters

In the last several years, wildfires have posed an evergrowing threat to Californians. In 2017, the Tubbs fire in Napa and Sonoma Counties grew to become one of the most destructive fires in the state's history. In Sonoma County, at least 1,500 families with children lost their homes, and the county lost significant preschool and childcare capacity. Between July 2017 and July 2018, the county saw a 35 percent increase in reports of child maltreatment, as well as increases in substance abuse and domestic violence. In addition, in Sonoma County, a survey of 91 early childcare and education providers revealed that 44 percent have seen an increase in anxiety and fear among children in the area, while one fifth reported increases in child aggression, impulsivity, and sadness.

Just one year later, in 2018, California saw several of the largest and most destructive wildfires in state history. The long-term effects of these fires on families is still unknown, but if Sonoma County's experience is a telling example, we can expect the impact of these—and future fires—to be profound.

Long-Term Trends: California vs. United States

Over the last 25 years, across the U.S., the rate of child maltreatment substantiations has decreased significantly. From 1992 to 2016, the sexual abuse rate declined 65 percent, physical abuse declined 53 percent, and neglect declined 12 percent nationwide. California saw greater decreases in maltreatment compared to the national statistics, with an 88 percent decline in the rate of sexual and physical abuse, and a 17 percent decline in neglect over the same time period. Despite these clearly positive trends, California still has significant child maltreatment throughout the state.



The Financial Impact

The lifelong physical and emotional harm endured by child maltreatment survivors ripples throughout communities. Child maltreatment degrades the health of our society and the moral fabric of our communities. Additionally, it has substantial financial implications for governments, institutions, businesses, and community members.

The Calculation^A

\$268,544

Individual lifetime cost of child maltreatment surviviors in 2017

× 71,156

Substantiated survivors of child maltreatment in California in 2017

+ \$207,024,000

The estimated economic burden for the 133 children who died as a result of maltreatment

= \$19,315,559,000

This study's estimated economic burden that is incurred by the California community for the lifetime costs associated with the victims of child maltreatment in 2017

A. Some numbers in the calculation have been rounded.

Methodology

Children who have been maltreated suffer in numerous ways throughout their lives. This financially impacts not only the child and their family but our entire state. We looked at studies with clear data showing negative impact and outcomes as a result of child maltreatment. Then, we identified studies that monetarily quantified the negative outcome.

This analysis relied on the significant body of research on economic impacts of child maltreatment, as well as statewide data sources for maltreatment statistics. Key inputs into our financial impact calculation are summarized in Table 1, and studies used as the basis for cost calculations are summarized in Table 2 on the following page.

Table 1: Key Financial Impact Model Inputs

Input	Data Source
# of children with substantiations and reports of maltreatment	The California Child Welfare Indicators Project
Average Age of Abuse Onset	Administration for Children and Families
GDP Deflator (to adjust for inflation)	St. Louis Fed
Federal and State Child Welfare Expenditures	Administration for Children and Families and Child Trends
Special Education Costs	California Legislative Analyst's Office
Mean Medicaid claims nationally and in California	2014 CMS Statistics
Relative healthcare cost compared to national averages	Best Places Cost of Living Database
Per capita personal income nationally and in California	Bureau of Economic Analysis
# of fatalities due to abuse	California Department of Social Services

Breakdown of \$19.31B

Lifetime Productivity \$13B

- Diminished earning potential
- Unemployment because of everything below

Criminal Justice \$545M

- As a child / juvenile, victims are 59% more likely to be arrested
- As an adult, victims are 28% more likely to be arrested

Healthcare \$3.8B

- Higher incidence of chronic health problems
- Mental health issues
- Substance abuse
- Risky sexual behavior

Education \$919M

- Learning disabilities
- Higher absenteeism
- Poorer academic performance

Child Welfare \$787M

- Intervention services
- Foster care
- Counseling services

Fatalities \$207M

- In 2017, 133 children died as a result of maltreatment

Total Loss \$19.31B

Table 2: Financial impact studies used to identify the cost for each category

Cost Category	Study
Child Welfare	DeVooght et al., 2014
Education	Johnson-Reid, 2004
Healthcare (childhood)	Florence, 2012
Healthcare (adult)	Bonomi, 2008
Criminal Justice (childhood arrests)	Reynolds, 2002 (CDC)
Criminal Justice (incremental likelihood)	Widom, 2001 (CDC)
Productivity	Currie and Widom, 2010
Productivity (annual growth rate)	Grosse, 2003

Our analysis is modeled after that used by Centers for Disease Control and Prevention researchers Fang, Brown, Florence, and Mercy in their 2012 paper, "The economic burden of child abuse in the U.S. and implications for prevention."59 The study employs an incidence-based approach A which identified five categories—child welfare, education, healthcare, criminal justice, lifetime productivity, and child fatalities—for which research quantifies the economic cost of maltreatment and, for each category, calculates cost-per-victim estimates from secondary data for children maltreated in the U.S. in 2008. Their analysis then aggregates the lifetime cost of child maltreatment by multiplying the per-victim lifetime cost estimates by the number of new victims in a single year. B

Similarly, we estimate the total economic burden of child maltreatment for victims in California in 2017 by:

1. Identifying research that quantifies the cost of adverse impacts of child maltreatment across these categories:

a. Child Welfare	d. Criminal Justice
b. Education	e. Lifetime Productivity
c. Healthcare	f. Child Fatalities

2. Calculating the present value of the economic burden resulting from each broad category of adverse outcomes for each victim of child maltreatment. In this step, we adjust for differences in costs for the state of California compared to the nation as a whole.

- 3. Adding the costs per victim listed above to arrive at a total lifetime impact per victim.
- 4. Multiplying the lifetime impact per victim by the number of substantiated victims of maltreatment and the number of deaths from maltreatment in 2017.

We relied on the California Child Welfare Indicators Project, a collaboration between the University of California at Berkeley and the California Department of Social Services (CDSS), for the number of children who experienced child maltreatment in 2017—for both reports and substantiations. Similarly, we obtained the number of children who died as a result of maltreatment from the CDSS. To ensure that we were not double-counting children who died as a result of maltreatment, we subtracted the number of deaths from the number of children who had substantiations of maltreatment before calculating the costs for each category. We used the same approach for all estimates of the total costs of maltreatment presented in this report.

Primary cost categories

Child maltreatment results in economic costs that continue throughout a survivor's childhood and adulthood. The following section provides a summary of each cost included for living and deceased victims of child maltreatment. Please refer to the Technical Appendix for a more detailed look at how each cost category was calculated, and the Economics of Child Abuse model to see the calculations.

Child Welfare

We estimate that child welfare services provided to these 71,156 survivors of maltreatment will total more than \$787 million over their lifetime. ^c Child welfare costs are calculated by dividing California's total expenditure on child maltreatment in a year by the number of reports investigated in that year. This number includes intervention services, foster care, and counseling services provided by child welfare agencies to survivors of maltreatment.

It is important to note that this estimate is based on California's budget allocations prior to significant child welfare reform in the state, including the California Fostering Connections to Success Act (AB12), with initial implementation in 2012, and Continuum of Care Reform (AB 403) enacted in 2015. As such, the child welfare estimate is significantly lower than it would be with improved standards for child health, safety, and wellbeing. Given this significant limitation, Safe & Sound is currently partnering with researchers from

Chapin Hall at the University of Chicago to conduct a more detailed, updated analysis of the child welfare costs across the state. We anticipate using those estimates in future updates of this report.

Education

We estimate the additional lifetime costs for special education for survivors of maltreatment in 2017 add up to more than \$919 million over the survivors' lifetime. One study found that, as a result of poor behavioral outcomes and / or learning disabilities stemming from the trauma of maltreatment, maltreated children are 77 percent more likely to require special education than non-maltreated children, and that special education typically begins at age 8.60

Children who have been maltreated also exhibit higher rates of school absenteeism and poorer academic performance. The economic cost of these impacts is manifested in survivor's future employment and earnings (see lifetime productivity).

Special education costs are estimated by multiplying the annual cost of special education in California by the increased chance of a child receiving special education, multiplied by the average number of a survivor's remaining years in the education system.⁶²

Healthcare

We estimate the total lifetime healthcare costs for survivors of maltreatment to be \$890 million during childhood and \$2.9 billion during adulthood. Research shows that, in the short term, survivors of child maltreatment may require inpatient hospital care, mental health services, prescription drugs, or chronic disease care. Survivors also suffer negative health impacts throughout their lives, including a higher incidence of chronic health problems, mental health issues, substance abuse, and risky sexual behavior.⁶³

To estimate increased healthcare costs during childhood, we relied on research that calculates the difference between Medicaid claims for children who were maltreated and those for comparable children

who were not maltreated.⁶⁴ For adult healthcare costs, we relied on research that found that long-term healthcare costs for survivors of physical and sexual abuse were **21 percent higher than for non-victims.**⁶⁵ Both childhood and adulthood figures were adjusted to account for higher healthcare costs in the state of California when compared to the nation as a whole.

Criminal Justice

We estimate the total additional lifetime costs to the criminal justice system incurred by survivors of maltreatment will be more than \$545 million. Survivors of child maltreatment are more likely to be involved in the juvenile justice system, more likely to be involved in criminal behavior, and more likely to be arrested or incarcerated as adults. Research has found that

maltreated children are 59 percent more likely to be arrested as juveniles than their non-maltreated peers. 66 To estimate the cost of increased juvenile criminality, we used the average cost of a juvenile arrest to the criminal justice system. 67

Similarly, **child maltreatment survivors are 28 percent more likely to have an adult criminal record than non-victims.** ⁶⁸ We used the average social cost of an adult crime—including the costs of arrest, judicial processing, and treatment—to estimate the cost for increased adult criminality. ⁶⁹

Note that because the underlying study aggregates costs across the law enforcement, judicial, prison, and juvenile detention systems, we were not able to adjust adult or juvenile criminal justice costs to reflect any differences between California and the nation as a whole.

Lifetime Productivity

By the time survivors enter the workforce as adults, the confluence of the negative impacts discussed in this report can significantly hinder their employment opportunities and lifetime productivity. Survivors of child maltreatment are more likely to be absent from school and more likely to perform poorly in school as adolescents;70 chronic health problems

- A. There are generally two methods used for economic burden estimates: a prevalence-based approach or an incidence-based approach. A prevalence-based method provides an estimate of the direct and indirect costs incurred in a given period resulting from all current and prior victims of child maltreatment, regardless of the onset of child maltreatment. In contrast, an incidence-based method estimates the total lifetime costs resulting from new victims of child maltreatment that occur within a given time period. While both methods are relevant, an incidence-based approach may be more useful for the economic evaluation of prevention and intervention activities, because it quantifies the total cost of one case of child maltreatment. In addition, the incidence-based approach was the most commonly used approach applied in the other cost estimation reports we reviewed.
- B. An alternative approach to calculating the economic burden of child maltreatment was proposed by a Centers for Disease Control research team in an article published in the December 2018 volume of Child Abuse and Neglect. This approach leverages the Quality Adjusted Life Years and Value per Statistical Life methodologies in lieu of calculating wages lost over a victims lifetime. This results in a significantly higher estimate. We've opted to continue using Fang et al.'s methodology this year as it results in a more conservative estimate, but will explore this new approach in future years. See: Cora Peterson, Curtis Florence, and Joanne Klevens, "The economic burden of child maltreatment in the United States, 2015," Child Abuse and Neglect, 2018, 86: 178-183. https://doi.org/10.1016/j. chiabu.2018.09.018.65. DeVooght, K., Fletcher, M., Cooper, H. "Federal, State, and Local Spending to Address Child Abuse and Neglect in SFY 2012," Casey Family Programs, 2014. http://www.childtrends.org/wpcontent/uploads/2014/09/SFY-2012-Report-for-Posting-July2015.pdf.
- C. Full citations for all studies can be found in the Technical Appendix.

can make it more difficult to remain employed; and, having a criminal record can limit their employability. Previous research has found that adolescent survivors of child maltreatment were **twice as likely to be unemployed** as adults than their non-maltreated peers and are more likely to receive public assistance. We estimate that, over their lifetime, California children who experienced maltreatment in 2017 will earn \$13 billion less in wages than those who did not. This equates to a lifetime loss of productivity per survivor of \$183,301.

Loss of productivity not only indicates worse economic outcomes for survivors and their families, but it also reflects value lost to businesses and harm to the economic vitality of the state.

Using lifetime wages as a proxy for productivity (a common approach in labor economic theory⁷²), we relied on existing research to estimate the annual loss of earnings for survivors of child maltreatment compared to non-victims.⁷³ This annual loss is estimated at \$7,241 per survivor per year across California in today's dollars. We then multiplied this annual loss by an adult's expected number of years in the workforce and adjusted this figure to account for higher expected earnings in California compared to the nation as a whole. This is estimated by calculating lost wages from age 18 to age 64, assuming a one percent annual productivity growth rate.

Child Fatalities

Each year children die as a result of child maltreatment. For the 133 children who died as a result of child maltreatment in California in 2017, we estimate a one-time economic impact to the healthcare system of \$2,171,644.74

In addition, we estimate the earnings over those victims' lifetimes would total \$204.8 million. The underlying per-child estimate for productivity losses is greater for deaths than surviving victims (\$1,540,000 vs \$183,301 per victim), as children who die from maltreatment earn no lifetime income. Tragically, across the country, 80 percent of fatalities from child maltreatment involve children under 4 years old. The strength of the service of the servi

In total, we estimate the economic impact of each child fatality as a result of maltreatment at \$1,556,672.

The methodology set forth results in a conservative estimate of the total economic burden, primarily because even when maltreatment has occurred, allegations may not meet the evidentiary threshold to be substantiated and child maltreatment is widely underreported.⁷⁷ The full list of limitations which contribute to this conservative estimate are discussed in the "Limitations" section that follows.

If we use maltreatment reports and prevalence estimates, rather than substantiations, to estimate the economic burden of maltreatment in our state, our estimate would be much higher.

Using the number of children with reports of maltreatment raises the total economic burden to an estimated **\$134 billion**.

And, by one well-respected prevalence estimate, 11.5 percent of all children experience child maltreatment in any given year,⁷⁸ which implies that the total economic burden in California could be as high as **\$284 billion**.



California	\$19.31B
Bay Area	\$2.00B (19% of CA population)
San Francisco	\$0.20B (11% of Bay Area population)

In 2017, Safe & Sound published a report titled The Economics of Child Abuse: A Study of San Francisco, finding the cost to be \$0.2B in San Francisco alone. Later that year we expanded our work to assess the greater Bay Area, finding the impact to be \$2B. Now, we have undertaken this report to look at the entire state of California, finding the financial impact to be \$19.31B.



Young adults who could receive a four-year college education—equivalent to 43% of our state's graduating seniors in 2017.⁸

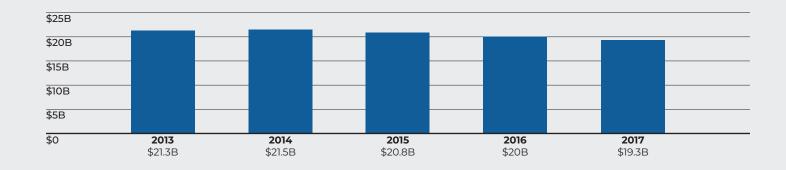
<u>2</u>,000,000+

Providing a year of preschool for more than 2 million young children—500,000 more than the total number of preschool age children in the state.



How much of the state's operating budget would be fully funded with the same amount of money. D

For comparison, these are lifetime costs for child maltreatment victims from 2013-2017



- A. Per the California Department of Social Services, there were 133 fatalities as a result of child maltreatment in 2017, compared to 140 fatalities in 2012, representing an 11% decrease. See: http://www.cdss.ca.gov/inforesources/Child-Fatality-and-Near-Fatality/Data-and-Reports.
- B. Nationally, the average cost for four-year tuition when studied in 2015 was \$101,656, (\$104,278 in today's dollars). See "Tuition costs of colleges and universities." National Center for Education Statistics, July 2016, http://nces.ed.gov/fastfacts/display.asp?id=76. Additionally, per the California Department of Education, 429,560 students graduated from high school in California in the 2016/2017 school year. Dividing 185,775 students who could get a degree by 429,560 graduates gives us 43%. See: "Fingertip facts on Education in California," California Department of Education, accessed on August 3, 2018. https://www.cde.ca.gov/ds/sd/cb/ceffingertipfacts.asp.
- C. In 2014, the average cost for one year of preschool in California was \$9,106 (\$9,452 in today's dollars). See: "Annual Cost of Child Care, by Age Group and Type of Facility," KidsData, accessed on August 3, 2018, http://www.kidsdata.org/topic/1849/child-carecost-age-facility/table. Additionally, according to KidsData, there were 1,504,367 children aged 3-5 in the state in 2016. See: "Child Population by Age and Gender: 2016," KidsData, accessed on August 3, 2018. https://www.kidsdata.org/demographic/2/early-childhood/results#grp=10,8,9,11,124,146,14.
- D. The state of California's 2017-18 operating budget was \$125 trillion. See "2017-18 California State Budget Summary," Page 8, Accessed on August 3, 2018. http://www.ebudget.ca.gov/2017-18/pdf/Enacted/BudgetSummary/FullBudgetSummary.pdf.

Limitations

In drafting this report, our objective was to arrive at a conservative estimate of the economic impact of child maltreatment for the state of California that is supported by rigorous, peer-reviewed research. While we feel the analysis presented in this report accomplishes our objective, we acknowledge there are several limitations to the accuracy of our estimate.

Under-Substantiation

A certain number of reports of child maltreatment cannot be fully investigated by child welfare agencies, do not have the necessary evidence, or do not meet the threshold of severity to warrant official action, but can still cause significant trauma to the child involved and can result in many of the social costs described previously.

Underreporting

Maltreatment can go unreported for a number of reasons. Victims may be too young to speak up or to recognize certain actions as abusive, or they may remain silent out of fear, guilt, or shame. Adults may be reluctant to report suspicions of maltreatment for fear of retaliation or because they are not able to recognize less obvious signs of maltreatment. Many adults in the state may also opt to not report suspected maltreatment because of their immigration status or for fear of losing subsidized housing or other benefits.

Dated Estimates

In preparing this analysis we relied on the latest research available. In some cases, this research was conducted in the early 2000's. We recognize that since that time there may have been structural changes in our economy that render estimates based on dated research inaccurate. For example, the research that quantified healthcare costs was published in 2003. We know that healthcare costs have grown faster than inflation during the last 15 years⁷⁹, but this growth is not reflected in our model.

Unquantified Costs

Research suggests that child maltreatment may be associated with a host of additional consequences for survivors throughout their lives, such as reduced life expectancy, decreased quality of life, negative parenting behaviors, and an increased likelihood of homelessness, divorce, and domestic abuse.80 While there is currently insufficient research to quantify the resulting costs, these factors are likely to significantly increase the actual cost of maltreatment. In particular, research suggests that about one-third of all individuals who were maltreated as children will subject their own children to maltreatment,81 which has important intergenerational consequences. This implies that the social cost of child maltreatment continues across generations, and that preventing even a single case of child maltreatment in the present can save future children from enduring a similar fate.

Additionally, this study focuses on the costs associated with the victim and does not take into account costs, such as law enforcement, incarceration, and mental health services, that our community expends on the offender.

Some of these unquantifiable costs may be addressed by using different economic valuation methods. A
We will explore these methods in more depth in future versions of this report.

Maltreatment Type & Severity

We recognize that there is no "typical" case of child maltreatment, and that per-case economic impacts vary based on many factors, including the frequency and severity of maltreatment, type of maltreatment, the risk and protective factors in a child's life, and other aspects of the context in which maltreatment occurs. At this time, research is not available that would allow us to factor in the ratio of different types of maltreatment, case severity, or other per-case factors in our estimate.

A. An alternative approach to calculating the economic burden of child maltreatment was proposed by a Centers for Disease Control research team in an article published in the December 2018 volume of Child Abuse and Neglect. This approach leverages the Quality Adjusted Life Years and Value per Statistical Life methodologies in

lieu of calculating wages lost over a victim's lifetime. See: Peterson, Cora, Curtis Florence, and Joanne Klevens, "The economic burden of child maltreatment in the United States, 2015," Child Abuse and Neglect, 2018, 86: 178-183. https://doi.org/10.1016/j.chiabu.2018.09.018.

Implications

Research

While this report lays the groundwork for understanding the financial impact of child maltreatment in our state, further research could paint a more complete picture. In particular, the following research would improve the understanding of the full extent and nature of the economic burden:

- More up-to-date assessments of child welfare costs that reflect the range of costs associated with different outcomes (such as children who are screened out of the system, those who are placed in foster care, those who are reunified, and others). As noted above, University of Chicago's Chapin Hall, in partnership with Safe & Sound, is currently conducting a more detailed, updated analysis of child welfare costs in the state.
- More recent estimates of the economic impact for each of the other cost categories, in particular healthcare.
- More geographically specific estimates, based on spending by local institutions and agencies.
- Estimates of costs that have not yet been quantified, such as reduced life expectancy, decreased quality of life, increased risk of homelessness, divorce, domestic abuse, and negative parenting behaviors, and the intergenerational effects of maltreatment. One recent study suggests that including these harder-to-quantify costs could quadruple the estimate of economic impact of child maltreatment on communities.⁸²
- And, most important in terms of the goal to end child maltreatment, the extent to which prevention and intervention programs can mitigate or avoid economic costs resulting from child maltreatment.

In San Francisco, the rate of verified child maltreatment has gone down 67% over the past 15 years.

While the demographics of San Francisco have surely changed over this time period, this reduction is, in no small part, the result of proven prevention practices that have been implemented at every level of the community.

Policy

We call for a public-private collaboration to create policies and practices that:

Bolster individual, family, and community protective factors, particularly for high-risk groups, by:

- Investing in pediatric partnerships, home visiting programs, and family resource centers;
- Promoting positive parenting in public spaces (for example, safe public open spaces in every neighborhood);
- Establishing community-based family and youth activities (for example, thriving libraries with free and high-quality educational programming that is geared towards all sectors of the community, cultures, and languages); and
- Creating school-based parent education.

Address local risk factors and root causes of child maltreatment through solutions such as:

- Family friendly workforce policies (for example, paid family leave);
- High quality and cost-effective childcare for all;
- Community and domestic violence mitigation programming; and
- Poverty reduction measures and pathways to upward mobility and living-wage jobs.

Ensure an educated and active population, by:

- Teaching safety lessons in all elementary schools about what is appropriate behavior and what is not; and
- Ensuring high-quality and robust programming on how to identify and report child maltreatment for mandated reporters and other key community members.

Raise awareness of all of the above through:

• Public education and engagement campaigns.

Next Steps:

- We will develop an interactive cost calculator allowing community members to understand the economic burden of child maltreatment in their geography. This cost calculator will include the financial impact for each of California's 58 counties.
- We will publish this report with updates for child welfare data.
- We will develop tools for communities to take action and stand together to strengthen families and prevent child abuse.



References

- 1. "Understanding the effects of maltreatment on brain development," U.S. Department of Health and Human Services Child Welfare Information Gateway, 2015. https://www.childwelfare.gov/pubs/issue-briefs/brain-development.
- 2. "About the CDC-Kaiser ACE study: Major findings," Centers for Disease Control and Prevention, 2016. https://www.cdc.gov/violenceprevention/acestudy/about.html.
- 3. "Fatalities and Near Fatalities Reported to CDSS," California Department of Social Services website, retrieved October 10, 2018. http://www.cdss.ca.gov/inforesources/Child-Fatality-and-Near-Fatality/Data-and-Reports.
- 4. Webster, D., et al. "CCWIP Reports, California Child Population (0-17) and Children with Child Maltreatment Allegations, Substantiations, and Entries," University of California at Berkeley California Child Welfare Indicators Project website, retrieved October 2, 2018. http://cssr.berkeley.edu/ucb_childwelfare/RefRates.aspx.
- 5. Glaser, D. "Emotional abuse and neglect (psychological maltreatment): a conceptual framework," Child Abuse and Neglect, 2006, 26(6). https://www.sciencedirect.com/science/article/abs/pii/S0145213402003423.
- 6. Schreier, Alayna, Jessica K. Pogue, and David J. Hansen. "Impact of child sexual abuse on non-abused siblings: A review with implications for research and practice," Aggression and Violent Behavior, 2017, 34: 254-262. http://www.sciencedirect.com/science/article/pii/S135917891630221X.
- 7. Goldman, Jill, Marsha K. Salus, Deborah Wolcott, and Kristie Y. Kennedy. "What Factors Contribute to Child Abuse and Neglect?" in "A Coordinated Response to Child Abuse and Neglect: The Foundation for Practice," U.S. Department of Health and Human Services, 2003, available at https://www.childwelfare.gov/pubs/usermanuals/foundation.
- 8. "The Strengthening Families Protective Factors," Center for the Study of Social Policy, available at https://cssp.org/our-work/ project/strengthening-families.
- 9. "Child Abuse and Neglect: Risk and Protective Factors," Centers for Disease Control and Prevention, 2018. https://www.cdc.gov/violenceprevention/childabuseandneglect/riskprotectivefactors.html.
- 10. Smart, Jessica. "Risk and protective factors for child abuse and neglect," Australian Institute of Family Studies, 2017. https://aifs.gov.au/cfca/publications/risk-and-protective-factors-child-abuse-and-neglect.
- 11. Eckenrode, John, Elliott G. Smith, Margaret E. McCarthy, and Michael Dineen. "Income Inequality and Child Maltreatment in the United States," Pediatrics, March 2014, 133(3). http://pediatrics.aappublications.org/content/133/3/454.
- 12. Bohn, Sarah and Caroline Danielson. "Income Inequality and the Safety Net in California," Public Policy Institute of California, 2016. http://www.ppic.org/content/pubs/report/R_516SBR.pdf.

- 13. Rodney, Jon. "Resilience in An Age of Inequality: Immigrant Contributions Report," California Immigrant Policy Center, 2017. https://www.scribd.com/document/337336889/Resilience-In-An-Age-of-Inequality-Immigrant-Contributions-Report-2017-edition.
- 14. See: Brett Drake and Melissa Jonson-Reid. "Poverty and Child Maltreatment," In: Handbook of Child Maltreatment. Child Maltreatment (Contemporary Issues in Research and Policy), Vol 2, 2014. https://doi.org/10.1007/978-94-007-7208-3_7. Also, Kristen Shook Slack, et. al. "Understanding the Risks of Child Neglect: An Exploration of Poverty and Parenting Characteristics," Child Maltreatment, 2004, 9(4), 395 408. https://doi.org/10.1177/1077559504269193. And, Bruce A. Boyer and Amy E. Halbrook. "Advocating for Children in Care in a Climate of Economic Recession: The Relationship Between Poverty and Child Maltreatement," Northwestern Journal of Law and Social Policy, 2011, Vol 6. https://scholarlycommons.law.northwestern.edu/cgi/viewcontent.cgi?article=1073&context=njlsp.
- 15. Sedlak, Andrea J., et al. "Fourth National Incidence Study of Child Abuse and Neglect (NIS-4): Report to Congress," 2010.
- 16. Eckenrode, Income Inequality and Child Maltreatment in the United States. Pediatrics (2005); Children's Defense Fund, Child Welfare, Poverty and Families in Crisis (2013); Hutson, The Intersection of Abuse and Neglect and Poverty (2010).
- 17. Vekelerov, Kimberly. "Housing prices are resegregating the Bay Area, UC Berkeley study finds," San Francisco Chronicle, Sept 19 2018. https://www.sfchronicle.com/bayarea/article/Housing-prices-are-re-segregating-the-Bay-Area-13239870.php.
- 18. Vakelerov, Kimberly. "Housing Prices," 2018.
- 19. Johnson, Hans and Marisol Cuellar Mejia. "Housing California's Future," Public Policy Institute of California, 2018. http://www.ppic.org/wp-content/uploads/r-118hjr.pdf.
- 20. Johnson, Hans and Marisol Cuellar Mejia. "Housing California's Future."
- 21. "Housing Vacancies and Homeownership Annual Statistics: 2017," United States Census Bureau, 2017, Table 15: Homeownership Rates by State. https://www.census.gov/housing/hvs/files/annual17/ann17t_15.xlsx.
- 22. Berger, Lawrence M., et al. "Home Foreclosure and Protective Services Involvement," Pediatrics, August 2015, 136(2). http://pediatrics.aappublications.org/content/pediatrics/early/2015/07/15/peds.2014-2832.full.pdf.
- 23. Baldassare, Bonner, Kordus, and Lopes. "Californians and Housing Affordability," Public Policy Institute of California, 2017. http://www.ppic.org/wp-content/uploads/JTF_HousingAffordabiltyJTF.pdf.
- 24. Gillham, Tanner, Cheyne, Freeman, Rooney, and Lambie. "Unemployment rates, single parent density, and indices of child poverty: Their relationship to different categories of child abuse and neglect," Child Abuse and Neglect, 1998, 22(2). https://www.sciencedirect.com/science/article/abs/pii/S0145213497001348.

- 25. Sedlak, A.J., Mettenburg, J., Basena, M., Petta, I., McPherson, K., Greene, A., and Li, S. "Fourth National Incidence Study of Child Abuse and Neglect (NIS-4): Report to Congress," U.S. Department of Health and Human Services, Administration for Children and Families, 2010. https://www.acf.hhs.gov/sites/default/files/opre/nis4_report_congress_full_pdf_jan2010.pdf.
- 26. "Local Area Unemployment Statistics Map," Bureau of Labor Statistics, accessed August 5, 2018. https://data.bls.gov/map/Map-ToolServlet.
- 27. Bohn, Sarah and Marisol Culler Mejia. "The California Economy: Unemployment Update," Public Policy Institute of California, 2017. http://www.ppic.org/publication/the-california-economy-unemployment-update.
- 28. Shinn, Gibbons-Benton, and Brown. "Poverty, Homelessness, and Family Break-Up," Child Welfare 2015: 94(1): 105-122. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5760188.
- 29. "Domestic Violence and Homelessness: Statistics (2016)," U.S. Department of Health and Human Services Family & Youth Services Bureau, 2016. https://www.acf.hhs.gov/fysb/resource/dv-homelessness-stats-2016.
- 30. "San Francisco Point-In-Time Homeless Count & Survey," Applied Research Survey, 2015. http://hsh.sfgov.org/wp-content/up-loads/2016/06/2015-San-Francisco-Homeless-Count-Report_0-1.pdf.
- 31. Henry, Watt, Rosenthal, Shivji. "The 2017 Annual Homeless Assessment Report (AHAR) to Congress," The U.S. Department of Housing and Urban Development, 2017. https://www.hudexchange.info/resources/documents/2017-AHAR-Part-1.pdf.
- 32. Lofstrom, Magnus and Brandon Martin. "Crime Trends in California," Public Policy Institute of California, 2017. http://www.ppic.org/publication/crime-trends-in-california.
- 33. Cicchetti, Dante and Michael Lynch. "Towards an Ecological/ Transactional Model of Community Violence and Child Maltreatment: Consequences for Children's Development," Psychiatry (1993).56: 96-118. https://www.tandfonline.com/doi/abs/10.1080/00 332747.1993.11024624.
- 34. "2014, 2015, and 2016 National Surveys on Drug Use and Health: Substate Estimates, Percentages," Substance Abuse and Mental Health Services Administration, 2017. https://www.samhsa.gov/data/report/2014-2016-nsduh-substate-region-estimates-%E2%80%93-excel-tables-and-csv-files.
- 35. "2014, 2015, and 2016 National Surveys on Drug Use and Health," 2017.
- 36. Weiss, Audrey J., et al. "Statistical Brief #219," Healthcare Cost and Utilization Project (HCUP), 2017. Agency for Healthcare Research and Quality, Rockville, MD. www.hcup-us.ahrq.gov/reports/statbriefs/sb219-Opioid-Hospital-Stays-ED-Visits-by-State.jsp.
- 37. "Child Maltreatment and Alcohol," World Health Organization, 2006. http://www.who.int/violence_injury_prevention/violence/world_report/factsheets/fs_child.pdf.

- 38. Dong, Anda, Felitti, et al. "The interrelatedness of multiple forms of childhood abuse, neglect, and household dysfunction," Child Abuse & Neglect 28 (2004) 771-785. https://pdfs.semantic-scholar.org/1945/b40739d55af5a495aabc2f807c10deb3759d.pdf.
- 39. Freisthler, Bridget, Paul J. Gruenewald, and Jennifer Price Wolf. "Examining the Relationship between Marijuana Use, Medical Marijuana Dispensaries, and Abusive and Neglectful Parenting," Child abuse & neglect 48 (2015): 170–178. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4593739.
- 40. Uhler, Brian and Justin Garosi. "California Losing Residents via Domestic Migration," California Legislative Analyst's Office, 2018. https://lao.ca.gov/LAOEconTax/article/Detail/265.
- 41. Johnson, Hans and Sergio Sanchez. "Immigrants in California," Public Policy Institute of California, 2018. http://www.ppic.org/wp-content/uploads/jtf-immigrants-in-california.pdf.
- 42. Johnson, Hans and Sergio Sanchez. "Immigrants in California," 2018.
- 43. Dettlaff, Alan and Michelle A. Johnson. "Child maltreatment dynamics among immigrant and U.S. born Latino children: Findings from the National Survey of Child and Adolescent Well-Being (NSCAW)," Children and Youth Services Review 33 (2011): 936-944. https://doi.org/10.1016/j.childyouth.2010.12.017.
- 44. Fontes, Lisa Aronson. "Child Discipline and Physical Abuse in Immigrant Latino Communities: Reducing Violence and Misunderstanding," Journal of Counseling and Development, 2002, 80.
- 45. Uhler, Brian and Justin Garosi. "California Losing Residents via Domestic Migration," 2018.
- 46. Baldassare, Mark, Dean Bonner, David Kordus, and Lunna Lopes. "Californians and Housing Affordability," Public Policy Institute of California, 2017. http://www.ppic.org/wp-content/up-loads/JTF_HousingAffordabiltyJTF.pdf.
- 47. Coulton, Claudia, Jill E. Korbin, Barilyn Su, and Julian Chow. "Community Level Factors and Child Maltreatment Rates," Child Development 66(5), 1995, 1262-1276. https://doi.org/10.1111/j.1467-8624.1995.tb00934.x.
- 48. Coulton, Claudia and Julian Chow. "Community Level Factors and Child Maltreatment Rates."
- 49. Webster, D., et al. "CCWIP reports," accessed October 2, 2018.
- 50. Robert B. Hill, "Institutional racism in child welfare," Race and Society 7(1), 17-33, 2004. https://doi.org/10.1016/j.rac-soc.2004.11.004.
- 51. Drake, B., Lee, S. M., & Jonson-Reid, M. "Race and child maltreatment reporting: Are Blacks overrepresented?" Children and Youth Services Review, 37(3), 309–316, 2009. http://doi.org/10.1016/j.childyouth.2008.08.004.
- 52. Webster, D., et al. "CCWIP reports," accessed October 2, 2018.
- 53. James, Marianne. "Child Abuse and Neglect: Incidence and Prevention," Australian Institute of Family Studies, 1994. https://aifs.gov.au/cfca/publications/child-abuse-and-neglect-incidence-and-prevention.

- 54. "Top 20 Most Destructive California Fires," Cal Fire (2018). http://www.fire.ca.gov/communications/downloads/fact_sheets/Top20_Destruction.pdf.
- 55. "Sonoma Strong: Promoting Child & Family Resilience in Challenging Times," First 5 Sonoma County, September 24, 2018, Presentation.
- 56. "Sonoma Strong," 2018.
- 57. Dolce, Chris. "Six of California's Most Destructive Wildfires Have Struck in the Past 10 Months," Weather.com, August 4 2018. https://weather.com/news/news/2018-07-30-california-20-most-destructive-wildfires-carr-fire.
- 58. Finkelhor, Saito, and Jones. "Updated Trends in Child Maltreatment, 2016," Crimes Against Children Research Center, the University of New Hampshire, accessed on August 13, 2018. http://unh.edu/ccrc/pdf/Updated%20trends%202016.pdf.
- 59. Fang, Xiangming, Derek S. Brown, Curtis S. Florence, and James A. Mercy. "The Economic Burden of Child Maltreatment in the United States and Implications for Prevention," Child Abuse and Neglect, 2012, 36: 156-165.
- 60. Jonson-Reid, M., Drake, B., Kim, J., Porterfield, S., and Han, L. "A prospective analysis of the relationship between reported child maltreatment and special education eligibility among poor children," Child Maltreatment, 2004, 9(4): 382–394.
- 61. Slade, Eric P., and Lawrence Wissow. "The Influence on Childhood Maltreatment on Adolescents' Academic Performance," Economics of Education Review, October 2007, 26(5): 604–614.
- 62. Reynolds, A. J., Temple, J. A., Robertson, D. L., and Mann, E. A. "Age 21 cost-benefit analysis of the Title I Chicago Child-Parent Centers," Educational Evaluation and Policy Analysis, 2002, 24(4): 267–303. See also: "Overview of Special Education in California," Legislative Analyst's Office, January 3, 2013. http://www.lao.ca.gov/reports/2013/edu/special-ed-primer/special-ed-primer-010313.aspx#6.
- 63. Bonomi, A. E., Anderson, M. L., Rivara, F. P., Cannon, E. A., Fishman, P. A., Carrell, D., Reid, R. J., and Thompson, R. S. "Health care utilization and costs associated with childhood abuse," Journal of General Internal Medicine, 2008, 23(3): 294–299.
- 64. Florence, C. S., Brown, D. S., Fang, X., and Thompson, H. F. "The health care costs associated with child maltreatment: Implications for Medicaid," Pediatrics, August 2013, 132(2): 312-318.
- 65. Bonomi, A. E., et al. "Health care utilization."
- 66. Widom, C. S., and Maxfield, M. G. "An update on the 'cycle of violence' research in brief," Washington, D.C.: National Institute of Justice, NCJ 184894, 2001. http://www.ncjrs.gov/pdffiles1/nij/184894.pdf.
- 67. Reynolds, A. J., Temple, J. A., Robertson, D. L., and Mann, E. A. "Age 21 cost-benefit analysis of the Title I Chicago Child-Parent Centers," Educational Evaluation and Policy Analysis, 2002, 24(4): 267–303.
- 68. Widom, C. S., and Maxfield, M. G. "An update on the 'cycle of violence' research in brief," Washington, D.C.: National Institute of Justice, NCJ 184894, 2001. http://www.ncjrs.gov/pdffiles1/nij/184894.pdf.
- 69. Reynolds, A. J., et al. "Age 21 cost-benefit analysis."
- 70. Slade, Eric P. and Lawrence Wissow. "The Influence of Childhood Maltreatment on Adolescents' Academic Performance," Economics of Education Review, October 2007, 26(5): 604–614.

- 71. Macmillan, Ross and John Hagan. "Violence in the Transition to Adulthood: Adolescent Victimization, Education, and Socioeconomic Attainment in Later Life," Journal of Research on Adolescence, June 2004, 14(2): 127-158. See, also, Zielinski, David S. "Child maltreatment and adult socioeconomic well-being," Child Abuse and Neglect, October 2009, 133(10): 666-678.
- 72. Becker, Gary. "Investment in Human Capital: A Theoretical Analysis," Journal of Political Economy, October 1962, 70(5): 9-49.
- 73. Currie, J., and C.S. Widom. "Long-term consequences of child abuse and neglect on adult economic well-being," Child Maltreatment, 2010, 15(2): 111–120.
- 74. Corso, P.S., Mercy, J.A., Simon, T.R., Finkelstein, E.A., Miller, T.R. "Medical costs and productivity losses due to interpersonal and self-directed violence in the United States," American Journal of Preventive Medicine, 2007, 32(6): 474–482.
- 75. Corso, P.S., et al. "Medical costs and productivity losses."
- 76. "Child Abuse and Neglect Fatalities 2013: Statistics and Interventions," Child Welfare Information Gateway, April 2015. https://www.childwelfare.gov/pubPDFs/fatality.pdf.
- 77. Finkelhor, David, Heather A. Turner, Anne Shattuck, and Sherry L. Hamby. "Violence, Crime, and Abuse Exposure in a National Sample of Children and Youth An Update," JAMA Pediatrics, published online May 13, 2013. http://www.unh.edu/ccrc/pdf/cv283.pdf.
- 78. Finkelhor, David, et al. "Violence, Crime, and Abuse Exposure in a National Sample of Children and Youth An Update," JAMA Pediatrics, published online May 13, 2013, http://www.unh.edu/ccrc/pdf/cv283.pdf.
- 79. Smith, Sheila, Joseph P. Newhouse, and Mark S. Freeland. "Income, Insurance, And Technology: Why Does Health Spending Outpace Economic Growth?" Health Affairs 2009, 28(5). https://www.healthaffairs.org/doi/10.1377/hlthaff.28.5.1276.
- 80. Fang, Xiangming, Derek S. Brown, Curtis S. Florence, and James A. Mercy. "The Economic Burden of Child Maltreatment in the United States and Implications for Prevention," Child Abuse and Neglect, 2012, 36: 156-165. See also, Corso, Phaedra S., and Angela R. Fertig. "The economic impact of child maltreatment in the United States: Are the estimates credible?" Child Abuse and Neglect, 2010; Herman, D., Susser, E., Struening, E., and Link, B. "Adverse childhood experiences: Are they risk factors for adult homelessness?" American Journal of Public Health, 1997, 87(2): 249-255; and Fleming, J., Mullen, P.E., Sibthorpe, B., and Bammer, G. "The long-term impact of childhood sexual abuse in Australian women," Child Abuse and Neglect, 1999, 23: 145-159.
- 81. "Cycle of Abuse," Child Welfare Information Gateway, accessed October 2, 2018. https://www.childwelfare.gov/topics/can/impact/long-term-consequences-of-child-abuse-and-neglect/abuse.
- 82. Peterson, Cora, Curtis Florence, and Joanne Klevens. "The economic burden of child maltreatment in the United States, 2015," Child Abuse and Neglect, 2018, 86: 178-183. https://doi.org/10.1016/j.chiabu.2018.09.018.

